

Kore Potash

12th May 2021

Tier 1 potash play in the Congo looks clearly set to become the lowest cost potash supplier to the giant Brazilian market

Kore Potash is a large fertiliser play that has been developing the Sintoukola potash basin in the Republic of the Congo (RoC) since 2010. Kore has a district scale development with 6 billion tonnes of potash, just 15km from the coast and US\$230m has been spent on it thus far. The flagship 2.2Mtpa Kola project came through the DFS with flying colours but will need US\$1.65bn of capex, not easy for Kore to raise for a greenfield project in such a jurisdiction. Just as the team began rapidly advancing the smaller DX project, potential investors came knocking with the promise of fully financing Kola.

■ Very sizeable growth opportunity in developing the large Kola project

Early April 2021 saw Kore announce a no-binding MOU with Summit to arrange the total financing for the Kola project with the company retaining its 90% stake. The MoU sets out a roadmap to optimise, fully finance and construct Kola via a mix of debt and royalty financing. Waiting in the wings is the smaller DX project which is also being progressed in parallel as it provides a good backstop if anything should go wrong with the negotiations at Kola.

■ Positioned to replace potash supply from the northern hemisphere

Not only are the company's production costs enviably low, but Kore is also blessed with having the shortest shipping route to the giant Brazilian market and the fast-growing African market. All the pieces are now almost in place to allow Kore to commence a dramatic growth trajectory.

■ Potash demand rising as the world needs to grow 50% more food by 2050

Arable land per person is sharply declining and farmers are increasingly using more fertiliser to feed an anticipated population of 9 billion people by 2050. Kore will produce MOP which is the cheapest and most important source of potassium for agriculture, so there is no risk of substitution.

■ Risked NPV suggests potential upside of over 900%

Our conservative valuation shows that Kore is highly undervalued. We initiate coverage with a conservative target price of 11.22p and **Conviction Buy** stance.

Table: Financial overview

Year to end Dec	2019A	2020A	2021E	2022E
Revenue (US\$'000)	-	-	-	-
PTP (US\$'000)	(4,178)	(3,152)	(3,565)	(4,300)
EPS (c)	(0.36)	(0.17)	(0.12)	(0.13)

This investment may not be suitable for your personal circumstances. If you are in any doubt as to its suitability you should seek professional advice. This note does not constitute advice and your capital is at risk. This is a marketing communication and cannot be considered independent research.

CONVICTION BUY

Price target – 11.22p



Key data

EPIC	KP2
Share price	1.12p
52 week high/low	1.95p/0.45p
Listing	AIM, ASX, JSE
Shares in issue	2,817m
Market Cap	£31.55m
Sector	Mining

12 month share price chart



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IMPORTANT: Kore Potash (KP2) is a research client of Align Research. Align Research own shares in KP2. For full disclaimer & risk warning information please refer to the last page of this document.

Business overview

Kore Potash Operations

Kore Potash Plc is an advanced stage mineral exploration and development company listed on AIM, the Australian Securities Exchange (ASX) and the Johannesburg Stock Exchange (JSE) in South Africa. Kore's Sintoukola potash basin in the Republic of the Congo could see the development of three projects based on a total of some 6 billion tonnes of potash.

- **Kola Potash Project** – Kola has a Measured and Indicated sylvinitic Mineral Resource of 508Mt grading at 35.4% KCl, which is comparable to the grades of some of the world's leading potash deposits. A Definite Feasibility Study (DFS) was completed in December 2018 and, at an estimated US\$102/t CFR granular potash, it would represent one of the lowest cost MOP global producers.
- **DX Sylvinitic Project** – One of the world's highest-grade potash projects at 57-60% KCl. The Pre-Feasibility Study (PFS) was completed in May 2020 and an updated PFS for a longer life project released in November 2020 and the company has now moved into a DFS.
- **Dougou Potash Project** – The Dougou Deposit is a large, thick carnallite deposit with a Measured and Indicated Mineral Resource of 1.1 billion tonnes at a grade of 20.6% KCl. A Scoping Study was completed in 2015 demonstrated that a scalable solution mine with a short construction period could be established with low capital expenditure and low operating costs.

Potash

NPK fertilisers contain the three macronutrients that all crops need - nitrogen, phosphorus and potassium. Nitrogen (N) is necessary in the formation of protein which accounts for much of a plant's tissues and so it is essential for plants to remain healthy and become nutritious. Phosphorus (P) is required for photosynthesis, the process by which plants use and store energy, allowing them to grow and develop normally.

It has been estimated that the world will need to grow 50% more food by 2050 to feed a world population of more than 9 billion people which the United Nations (UN) is forecasting. That forecast implies a 34% increase in the world's current population from current levels but already millions of people are starving. At the same time, the fast-expanding middle classes are seeking high calorie diets which is thus further increasing yield demand from soils.



Increasing use of fertiliser to boost yields

Source: World Bank, UN, Food and Agricultural Organization (FAO) via the company



Demand growth for potash for arable use

Whilst all this is going on, the amount of arable land per capita is shrinking. All this means that major productivity gains in agriculture are becoming increasingly essential to boost yields. This all boils down to the increased use of NPK. The word potassium is derived from potash as before the industrial era potassium was created by soaking plant ashes in water in a pot. Today, the name potash is the name for a group of minerals that help provide potassium for plant growth, with 90-95% of potash used in agriculture as fertiliser.

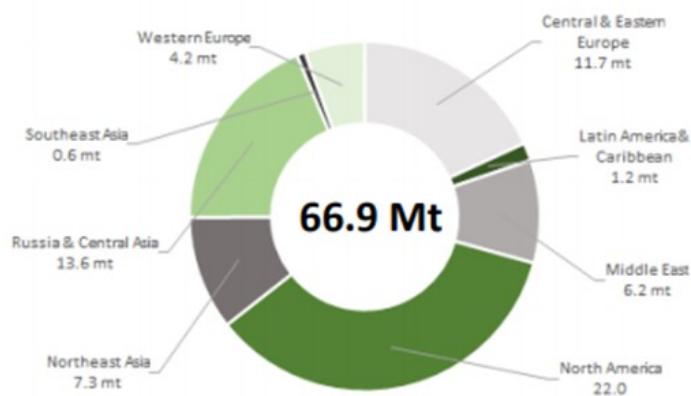
Potassium products	Market Volume	Comments
Main products		
Muriate of Potash (MOP)	93.2%	Potassium chloride (KCl) which is 52% potassium by weight. Used on a large proportion of commercial crops such as cereals, maize, rice and soya beans.
Sulphate of Potash (SOP)	4.6%	Used on crops where chlorine tolerance is limited primarily fruits and vegetables as well as several non-food products like rubber and cotton.
Minor speciality products		
Nitrate of Potash (NOP)	1.4%	Used for chlorine-sensitive crops such as certain fruits and vegetables like potato, tomato and berries
Polyhalite	<1%	Also suitable for chlorine sensitive plants as well as delivering sulphur, calcium and magnesium as secondary nutrients.
Sulphate of Potash Magnesia (SOPM)	0.7%	Includes magnesium, one of the secondary nutrients where chlorine tolerance is limited.

Given these powerful drivers, it is little surprise that the major mining companies have been recently investing large sums into potash assets. BHP, at its Jansen Project in Saskatchewan, Canada, has spent US\$2.7 billion so far. Another US\$3 billion has been earmarked to invest in Stage 1 of its 1,000m deep mine where the potash will need to travel 1,600km by rail to the Port of Vancouver before being shipped to target markets. In 2020, Anglo American acquired Sirius Minerals for £405 million and is developing the Woodsmith Mine in North Yorkshire to mine polyhalite at a depth of 1,500m. The total project cost is in the region of US\$4 billion which includes a 37km underground conveyor to bring the material to surface.

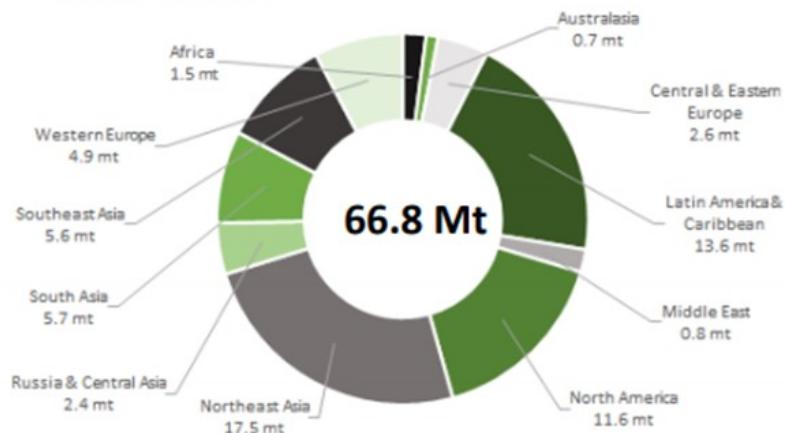
Potassium (K) acts to improve colour size and sugar formation. In addition, potassium aids water transfer, makes crops drought resistant, as well as improving frost resistance. So, potash acts to strengthen plant's abilities to resist disease as well as regulating photosynthesis and CO₂ intake. In addition, it is necessary for enzyme production, helps water retention and plays an important role in increasing crop yields and overall quality. At the same time, potassium protects the plants when the weather is cold or dry, strengthening its root system and preventing wilt. In the industry, potash is known as the quality nutrient because of the crucial role the macronutrient plays in determining the as size, shape, colour, taste and shelf life of the crop.

The two primary sources of potassium are MOP and SOP, with MOP being the most commonly used potash fertiliser. The minimum saleable grade for standard MOP for agricultural use is 60% K₂O, which is called K60. Historically MOP prices in Kore's target markets have been between US\$350 – 430/t, whilst Sulphate of Potash (SOP) fetches a US\$120 – 200/t premium. MOP is the cheapest and most important source of potassium for agriculture, so there is no risk of substitution.

2020 Supply



2020 Demand



Potash supply and demand 2020. Source: Argus via the company

Demand for MOP has now reached record levels as farmers realise the benefits of using this potash fertiliser to improve yield and only represents just a small amount of the overall cost of farming. Current global demand for potash looks to be around the 65Mt mark. At present this supply is largely met by existing major suppliers including Urakali (10Mtpa), Nutrien (12Mtpa), Belaruskali (12Mtpa) and Mosaic (7Mtpa).

Republic of the Congo

The Republic of the Congo (RoC) was established in 1958 and was formerly part of the French colony of Equatorial Africa before gaining independence from France in 1960. Between 1969 and 1992, the country was a Marxist-Leninist state called the People's Republic of the Congo. Multi-party elections were held in 1992, but the democratically elected government was ousted in the 1997 Republic of the Congo Civil War. President Denis Sassou Nguesso has been the country's ruler for 35 out of the last 40 years and first came to power back in 1979.



Map of the Republic of the Congo. Source: Company

The country is located on the western coast of Central Africa and covers an area of 342,000km², which is roughly 2.5 times of England, with a population of just 5.2 million people. RoC has become the fourth largest oil producer in the Gulf of Guinea and the economy has become heavily dependent on oil revenues. In 2018 the country joined OPEC. Other exports include natural gas and diamonds, although RoC also has large untapped base of metal, gold, iron and phosphate deposits. There are reported to be a number of Chinese groups involved in mining copper and gold. In addition, there are multiple groups involved in iron ore projects, but these projects are located hundreds of kilometres inland from the port and progress seems to have been limited.

Background

Elemental Minerals commenced exploration in the Sintoukola district with drilling and seismic surveys in 2010 and which resulted in the announcement of a maiden Mineral Resource Estimate (MRE) for the Kola Sylvinitite deposit the following year. In 2012 a MRE of 573Mt at 33.1% KCl was announced. Subsequently, in 2015 an MRE was completed for the Dougou Carnallite Deposit of 1.068 billion tonnes at 20.6 KCl followed by a Scoping Study.

In 2016, Elemental Minerals changed its name to Kore Potash and raised US\$40 million from the State General Reserve Fund (SGRF); a Sovereign Wealth Fund in Oman and Sociedad Química y Minera (SQM) - a New York listed Chilean lithium and potash company in order to further progress these projects. 2017 saw the Kore Potash Group re-domiciled to the United Kingdom and Kore Potash plc became the new parent company of the group.

Following this move, in March 2018, the company listed on AIM and the Johannesburg Stock Exchange in addition to the company's existing listing on the ASX. At that stage, the company's flagship asset was the Sintoukola Potash Project in the Republic of Congo. At that time, Kore had a gross JORC compliant combined Measured, Indicated and Inferred potash Mineral Resource of 5,953Mt at an average grade of 22.0% KCl, hosted by two potash deposits, the Kola Deposit and the Dougou Deposit; and a Definitive Feasibility Study on the Kola Project was at an advanced stage.

Details of the Kola DFS were released to shareholders in January 2019. This showed a post-tax NPV10 (real) of US\$1,452 million and a real ungeared IRR of 17% on an attributable basis at life-of-mine average MOP prices for granular of US\$360/t CFR Brazil and standard of US\$350/t CFR Brazil. At that time, there was a pre-production capital cost of US\$2.1 billion on an Engineering, Procurement and Construction Management (EPCM) basis which included US\$110 million contingency, US\$106 million of escalation and US\$89 million EPCM margin. Capital intensity of US\$956/t MOP placed the project comfortably in the lowest second quartile relative to MOP industry peers. Subsequently, the company has identified a number of significant capital savings.

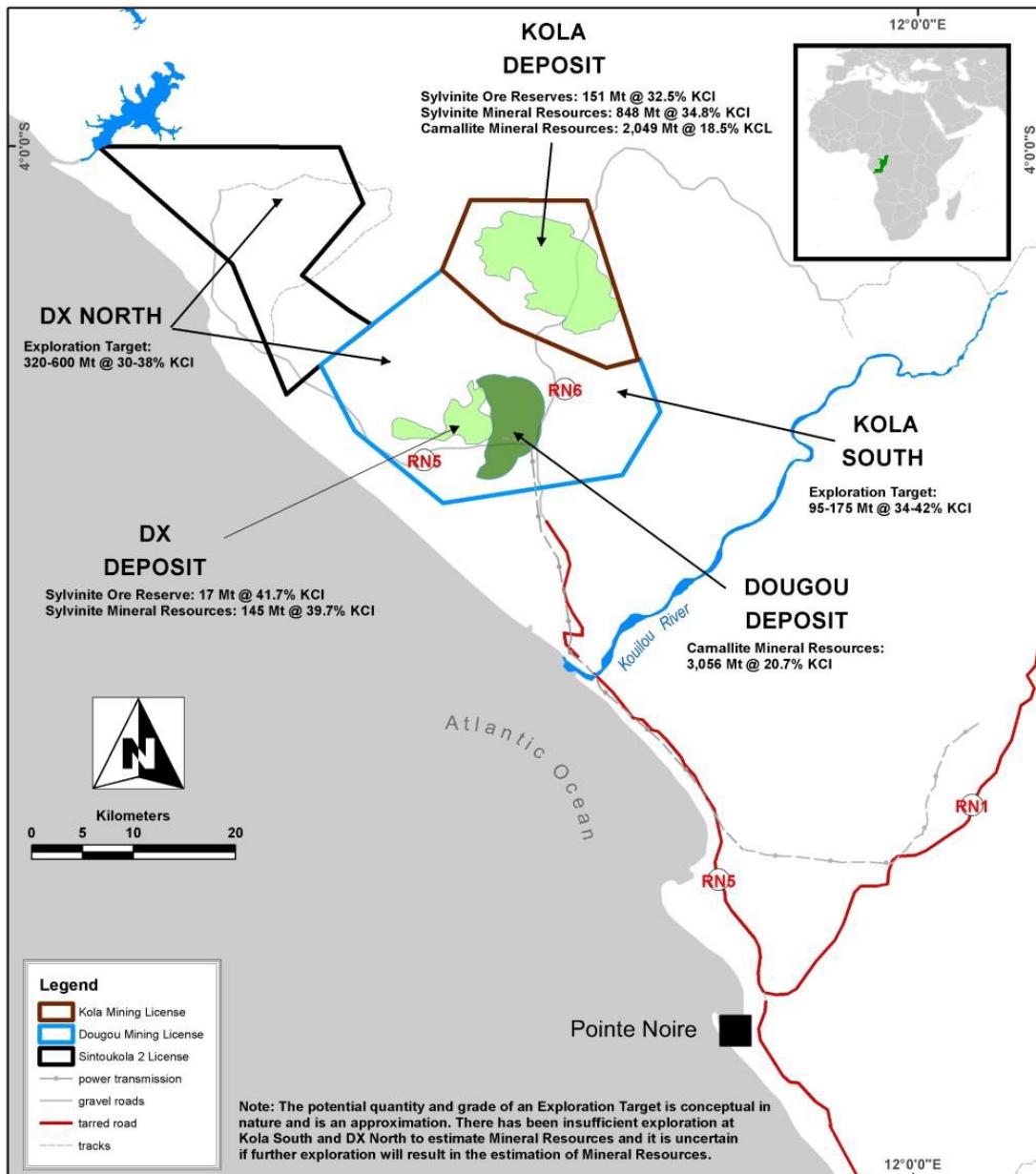
Since then, Kore has looked beyond Kola, focusing its immediate attention on a smaller, less capital-intensive project in the wider Sintoukola basin. This was planned to allow the company to get to production faster while still preserving the optionality of the other deposits. April 2019 saw the results of a Scoping Study reported which assessed the viability of producing 400,000tpa of MOP from a portion of the sylvinitite in the Dougou Extension (DX) Deposit by a solution mining method. This Scoping Study supported a low opex and strong cash generative operation with estimated base case up-front capital costs of US\$327 million. Management visualised the prospect of accelerating the company into production and cashflow generation via the DX project while the team continued to optimise the flagship Tier-1 Kola sylvinitite project.

The PFS for the DX Project was announced in May 2020 when the board was able to confirm the planned move into a DFS which would pave the way for the DX mine to be put into production and which would serve to unlock the value in this district wide potash play. November 2020 saw the announcement of a further updated DX PFS production target.

However, it was all changed six months later when in April 2020, there was news that Kore had signed a non-binding MOU to arrange the full financing required for the construction of the Kola Potash Project. This MOU was signed with Summit Africa Limited (Summit), on behalf of a consortium of investors and engineering firms, to arrange the total financing required for the construction of the Kola Potash Project. This move was followed by a US\$12.5 million placing at 1.1p to fund allow the company to deliver its element of the optimisation study to reduce Kola's capital cost following the signing of the non-binding MoU which outlined a roadmap to optimise, fully finance and construct Kola via a mix of debt and royalty financing.

Operations

Kore is developing globally significant potash deposits in the RoC which are located in a new large potash basin in the Sintoukola Potash District. The area offers district style development potential which lies just 15km from the coast and is well positioned to supply the fast-growing African market and the far larger South American market.



Sintoukola Potash District. Source: Company

Across this new large potash basin there are actually three projects focused on the Kola sylvomite and carnallite deposits, Dougou Extension (DX) sylvomite deposit as well as the Dougou carnallite deposit. Kore is at quite an advanced stage as the Kola Project has a DFS in place and is development ready and all these three deposits lie within the Kola and Dougou Mining Licences.

Background

There has been a history of potash mining in the surrounding area. Sintoukola was explored in the 1960s with the drilling of 31 holes where five apparently indicated significant potash reserves. During that time, until the 1970s, a French group mined the Holle Potash deposit and exported potash at a rate of up to 480,000tpa on a licence area to the south of Kore. Production there however ceased when its mine became flooded. During the 1970s the whole area down from the RoC to South Africa became destabilised by communists and the French left. Since those times there has been relatively little mining in the RoC. Kore has a 90% interest in the Sintoukola Potash Project, which includes the DX and Kola projects.

Reserves and Resources

Under the old guise as Elemental Minerals, the company commenced exploration in the Sintoukola Potash District in 2010. Since that time c.US\$230 million has been spent on understanding the potential of this potash district, with a vast amount of data collected by work on the ground, as well as on multiple scoping and feasibility studies which have been based on a series of Mineral Resource Estimates for the various deposits.

Classification	Ore Reserves Mt	KCl grade %	Mg %	Insolubles %
Probable	17.7	41.7	0.06	0.19
Total Ore Reserves	17.7	41.7	0.06	0.19

DX Sylvinitic Ore Reserves (gross 100% basis) announced 13 May 2020. Source: Company

Classification	Ore Reserves Mt	KCl grade %	Mg %	Insolubles %
Proved	61.8	32.1	0.11	0.15
Probable	90.6	32.8	0.10	0.15
Total Ore Reserves	152.4	32.5	0.10	0.15

Kola Sylvinitic Ore Reserves (gross 100% basis) announced 29 January 2019. Source: Company

Mineral Resource category	Mt	Grade KCl %	Contained KCl Mt
Kola Sylvinitic			
Measured	216	34.9	75
Indicated	292	35.7	104
Measured + Indicated	508	35.4	180
Inferred	340	34.0	116
TOTAL	848	34.8	295
Dougou Extension Sylvinitic			
Measured	-	-	-
Indicated	79	39.1	31
Measured + Indicated	79	39.1	31
Inferred	66	40.4	47
TOTAL	145	39.4	57
Total Sylvinitic (Kola and Dougou Extension)			
Measured + Indicated + Inferred	993	35.4	352

Mineral resource – Sylvinitic (gross 100% basis). Source: Company

Mineral Resource category	Mt	Grade KCl %	Contained KCl Mt
Dougou Carnallite			
Measured	148	20.1	30
Indicated	920	20.7	190
Measured + Indicated	1,068	20.6	220
Inferred	1,988	20.8	414
TOTAL	3,056	20.7	634
Kola Carnallite			
Measured	341	17.4	59
Indicated	441	18.7	83
Measured + Indicated	783	18.1	142
Inferred	1,266	18.7	236
TOTAL	2,049	18.5	378
Total Sylvinitite (Dougou and Kola)			
Measured + Indicated + Inferred	5,105	19.8	1,012

Mineral resource – Carnallite (gross 100% basis). Source: Company

Geology

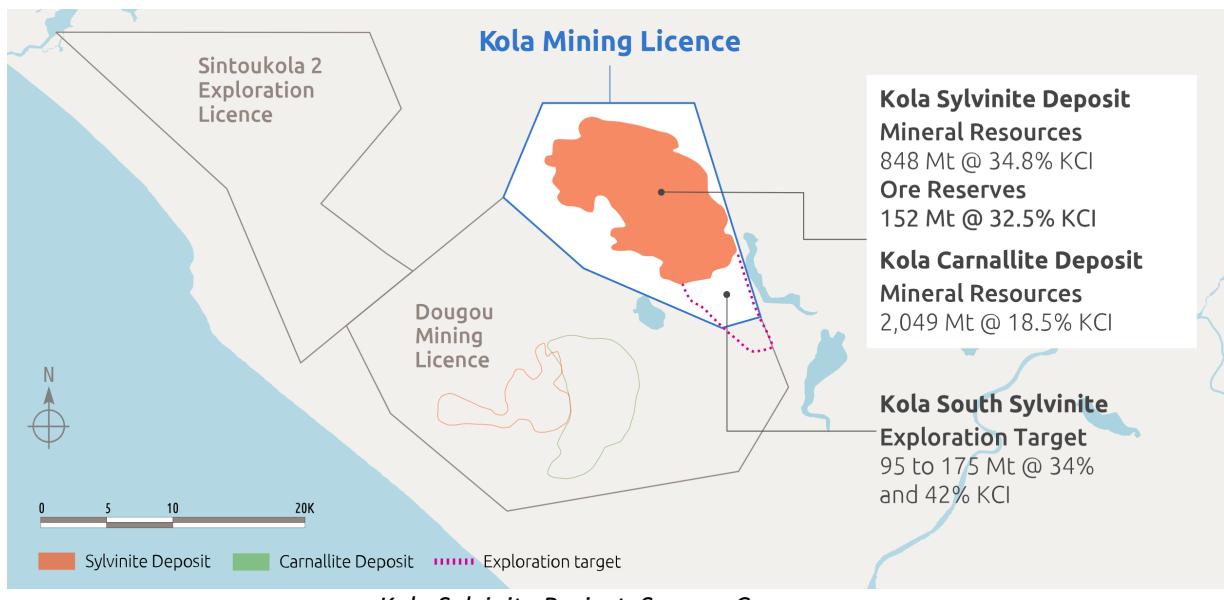
Sintoukola contains evaporate sections of rock salt, sylvinitite, carnallite, bischofite and tachyhydrite. The entire evaporate structure is 600m thick with the potash found in the Cretaceous Loeme Evaporite formation. Sylvinitite and carnallite are the potash minerals where sylvinitite is a mixture of the minerals sylvite (potassium chloride KCl in natural mineral form) and halite (rock salt – the natural mineral form of sodium chloride NaCl), which are mined as a source of potash. Sylvinitite is the most important source for the production of potash in North America and Russia.

Carnallite is a soft, white halide mineral which is hydrated potassium and magnesium chloride ($\text{KMgCl}_3 \cdot 6(\text{H}_2\text{O})$), that is also source of potassium for fertilizers. Bischofite is a hydrous magnesium chloride mineral which belongs to halides and is a sea salt concentrate. Tachyhydrite is a hydrous chloride of calcium/magnesium which is seen to be a rare component of marine evaporite salt deposits which is quite unstable as it rapidly dissolves on exposure to moist air.

Kola Sylvinitite Project

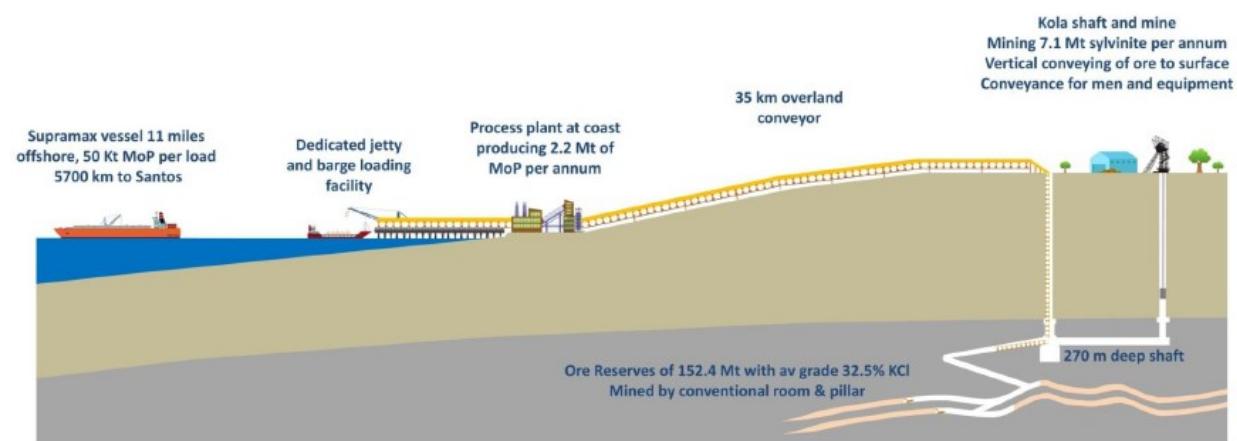
The Kola Sylvinitite Project is a Tier 1 asset with long life production potential of 2.2Mtpa MOP over a 33-year life from 508Mt Measured and Indicated Mineral Resource grading at 35.4% KCl. Kola has all the makings of being one of the lowest cost global MOP producers. It is a development ready project which was granted mining convention in 2018 with an amendment to Environmental Impact Statement Assessment (EISA) which has also been approved.

The Kola Sylvinitite Deposit covers an area of roughly 12km by 8km and is hosted by flat or gently dipping seams which lie some 180m to 300m beneath the surface. The Upper and Lower Seams are the most important at Kola and have an average grade of 36% and 31% KCl respectively. These seams average around 4m in thickness and are separated by some 3-4m of rock salt. The Hangingwall Seam is also seen to be important as it is one of the highest-grade potash seams ever discovered worldwide averaging 59% KCl, although it is not so extensive as the other key seams. The deposit is open laterally and the latest round of drilling in the area has highlighted the potential for further expansion several kilometres to the southeast.



Definitive Feasibility Study

Kola is a high-quality deposit as it is not only shallow, but also high grade with a low level of insolubles as well as lying close to the coast with access to infrastructure. The DFS (which was completed in Q1 2019) determined the lower operating costs in the industry of US\$102/t MoP cost and freight (CFR) delivered to Brazil. Low mining costs result from an attractive combination of the seams lying at a fairly shallow depth and high grade (35% KCl) which is also helped by only limited roof support being required. At the same time, the low insoluble content (at just 0.3%) of the ore body reduces processing costs. The ore body lies at a comparatively shallow depth requiring the sinking of two 270m shafts, whilst many of the peer companies are mining at a depth of 1,000m plus.



Pre-production capex was determined to be US\$2,103 million on an EPCM basis where Kore selects a contractor which will provide the management services for the whole project and would have a 4-year construction period. Currently, the team is working on the optimisation of capital costs and a construction schedule. Early work has already resulted in US\$400 million of capex savings being identified.

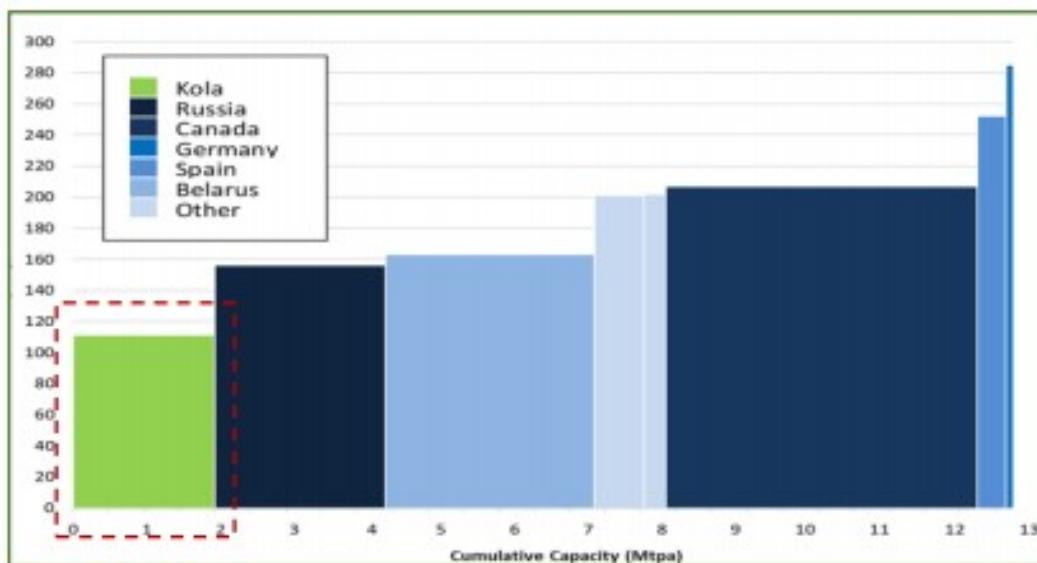
DFS economics	
Average annual free cash flow	US\$500m
Average cash operating margins	75%
Post-tax attributable IRR (ungeared)	17.2%
Post-tax attributable NPV (10% real)	US\$1,452m
Pre-production capital cost (EPCM basis)	US\$2,103m
Life of Mine free cash flow	US\$14,545m
Payback period	4.3 years

Feasibility study results for Kola Sylvinite Project. Source: Company

The project scores highly on many points. Shipping costs from the export facility to Brazil are low due to the directness of the shipping route, which results in the lowest cost viable source of potash supply to Brazil. The ore body lies just 35km from the planned export facility on the coast, with a proposed overland conveyor and dedicated jetty for export to Brazil and West Africa. The potash will be processed with brine disposed into the ocean, which means that there is no need for any surface tailings storage facility. The project will also benefit from an abundant water supply available at a low cost along with competitive gas and power costs available locally. Imported equipment for the construction of the mine will only need to be transported 90km by road from the Port of Pointe Noire.

Very low-cost supply into target markets

Kore has the potential to become highly disruptive in the MOP market due to the company having the ability, once Kola is operational, to compete on price against all existing suppliers in its selected growing markets. **Kola is positioned to become not only the second lowest cost operation on an export cost basis at US\$87.63/t free on board (FOB - real 2018) but perhaps even more importantly the company could actually become the lowest cost supplier globally of potash to Brazil at US\$102.47/t CFR (real 2018).**



Brazil MoP delivered cost curve (CFR Brazil) US\$/t Mop (2022). Source: Argus

¹Kore's FOB and CFR cost used in the cost curve are on a real 2019 basis escalated to 2022

Looking ahead, Kola could become more and more competitive in scenarios where there is ever increasing land transport and shipping costs. On top of this, Kola is destined to provide big environmental benefits compared to its peers and which is due to the appealing combination of lower operational input costs coupled with the obvious shorter transport distances to end users.

Financing MOU

In April 2021, Kore Potash was able to announce the signing a non-binding MOU to arrange the full financing required for the construction of the Kola Potash Project. Kore and Summit (on behalf of a consortium of investors and engineering firms) signed a non-binding MoU to arrange the total financing required for the construction of the Kola Potash Project.

This MOU sets out a roadmap to optimise, fully finance and construct Kola via a mix of debt and royalty financing. Summit and its technical partners SEPCO Electric Power Construction Corporation (SEPCO) and China ENFI Engineering Corporation (ENFI -who has been subcontracted by SEPCO), will work with Kore to undertake an optimisation study to reduce the capital cost and construction schedule of Kola with targets of US\$1.65 billion and 40 months.

The plan is that Summit will work with potential financing partner BRP Global Limited to complete due diligence and get to this target capex through an optimisation study, present a financing proposal on behalf of the Summit Consortium based on debt and royalty funding for 100% of the Kola construction capital costs.

The approach by the Summit to the financing of Kola would eliminate the requirement for further equity contributions by the Company's shareholders to the capital cost of the construction of the Project. Summit and their partners are well known to Kore management. The company first met with SEPCO and ENFI in the second half of 2019 and they have been working in the background since then on this proposed financing with Summit. Importantly, under the proposed financing structure, the company would not have to contribute any capital needed to build the project and would retain a 90% equity interest in Kola.

Target markets

Kore intends to produce granular K60 MOP which is planned to be mainly sold into the African and South American markets. Sintoukola is uniquely well situated to supply these key export markets, it being much closer to the African market than its global peers and so has much lower shipping costs. Brazil is one of the three largest global importers of MOP and needs to import more than 10Mtpa to meet around 90% of the country's demand.

Region	Consumption ktpa MOP
South Africa	371
Nigeria	126
Other West Africa	180
Total Brazilian market	11,950

Kore's target markets. Source: Company

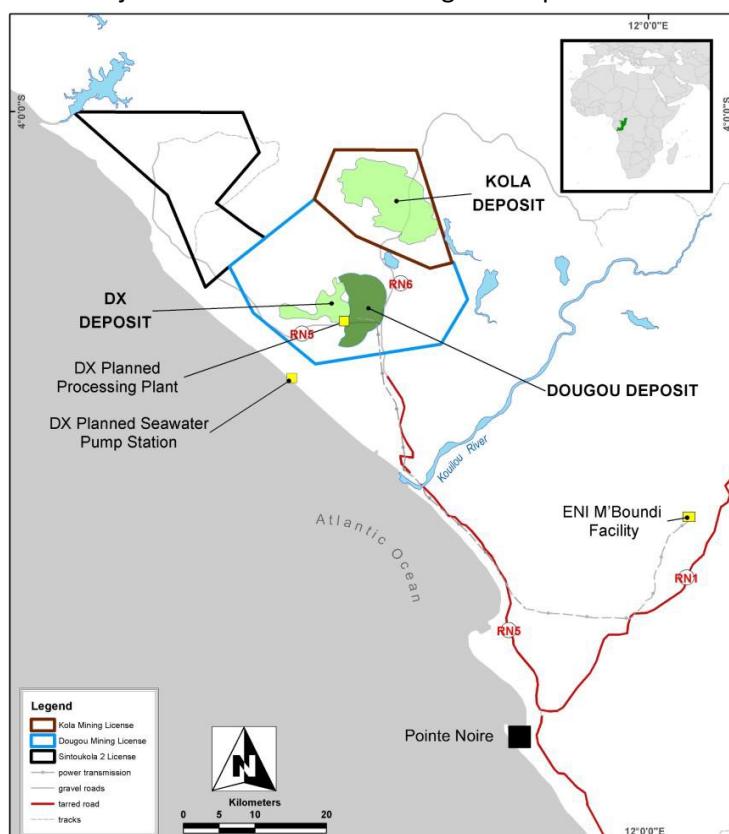
Planned production at Kola is 2.2Mtpa MoP equating to around 5 – 6% of global demand. This is not a large amount of new potash to enter the market and therefore is unlikely to disrupt pricing in the markets that Kore are targeting. Currently, on a worldwide scale, the African market might not be that large, but it is growing rapidly in line with the continent's population and demand for food. **There is a huge unrealised market for fertiliser in Africa which remains the most under-fertilised continent on the planet and farmers there are increasingly looking to boost crop yields through improved farming methods and using more fertiliser.**

Africa uses less than 25kg of fertiliser per hectare (kg/ha) which is way below the level of usage in the US, Europe, China and India at more than 100kg/ha. In all, there are 600 million arable hectares in Africa plus the continent also has 60% of the world's uncultivated arable land. All of which points to a potentially vast market on the doorstep of an African MOP producer.

The company is positioned to have a very low cost of supply into these target markets for a couple of reasons. Firstly, the Sintoukola Potash District has a higher grade and shallower deposit than many of the existing potash producers where shafts need to be sunk to a depth of often more than 1,000m to access potash. So, Kore's projects come with much lower capex and opex. Secondly, being located close to the deep-water port at Pointe Noire means that there is not only a short distance in RoC, but also the shipping routes from port to customers are much shorter than its competitors. It is this competitive cost structure that will allow Kore to really compete on price against all existing suppliers in its key target markets.

Dougou Extension (DX) Sylvinitite Project

The DX Prospect lies immediately to the west of Dougou Deposit and is located within Kore's Dougou Mining Licence, covering an area of some 10km by 15km. DX also lies southwest of the company's flagship Kola Sylvinitite Deposit, which will be a separate development. The board was seeking to design a project that could be brought rapidly on stream with capital costs of under US\$300 million which made it financial possible for a greenfield operation in RoC. The DX Sylvinitite Project was conceived with these twin objectives in mind and is being developed as a scalable solution mine.



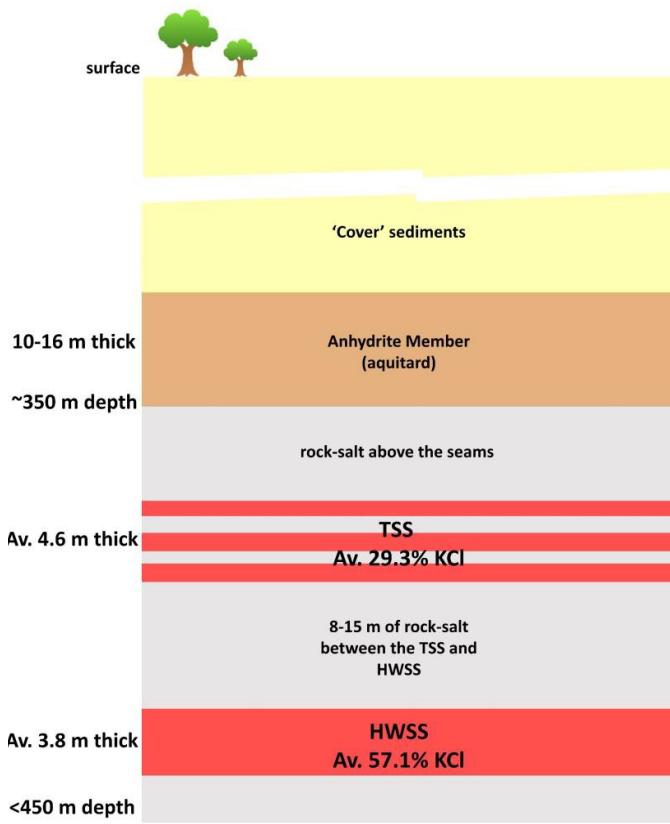
DX Project – deposit and infrastructure. Source: Company

In 2019, Kore completed a Scoping Study on a 400,000tpa of MOP solution mining operation at DX which confirmed the district scale development potential of this world-class potash basin. Following this success, the company swiftly moved into a PFS on the project which involved a 2D seismic programme, drilling programme, technical studies and dissolution testing using core samples from the DX deposit. The PFS revealed that DX is highly competitive in terms of mine gate costs.

Pre-Feasibility Study

The PFS showed a strong investment case IRR of 22.9% (real ungeared post tax), a 4.3-year payback period and an 18.4-year mine life. The project modelled was a 400,000tpa operation producing MOP granular product with a grade of 98.5% KCl. The pre-production capital cost was low at an estimated at US\$285.9 million which equated to capital intensity of US\$715/tpa at nameplate capacity with a 18.4 year life of mine. This low capex and short construction period will surely help to increase the number of financing options. The attributable post tax, un-geared NPV (10% real) came out at US\$319 million with an attributable post tax, un-geared IRR of 22.9%.

Compared to the Scoping Study, the PFS transports product through the existing port at Pointe Noire and uses a single well selective dissolution model which has lower risk. Operating costs were highly attractive at US\$62.5/t MOP mine gate, US\$86.6/t MOP FOB Pointe Noire and US\$114.61/t FOB. DX is a high-quality asset with sylvinitic ore reserves of 17.7Mt at 41.7% KCl, a grade which in the top quartile of all operating potash mines and potash development projects globally. Sylvinitic Mineral Resources of 145Mt at 39.7% KCl provides the potential to extend life of project as only 22% of Mineral Resources were scheduled for the PFS. In addition, there is a secondary mining opportunity post the completion of the initial cavern.



*Average thickness and grade data is for the Indicated MRE

Geology of the DX Sylvinitic Project. Source: Company

Updated Pre-Feasibility Study

Following the completion of a review of the production target by independent consultants Agapito, the company worked on an Updated PFS where the results were announced in November 2020. The Updated PFS materially enhances the results of the PFS. The PFS mine schedule involved the declared Sylvinite Ore Reserves of 17.7Mt at a grade of 41.7% KCl. Basically, the Ore Reserve estimate for the DX Project remains unchanged and all key assumptions and modifying factors are still valid, however with an improving understanding it is now deemed likely that the production schedule for this Updated PFS includes 2.43Mt of Muriate of Potash (MoP) from Indicated Mineral Resources and 2.31Mt MoP from Inferred Mineral Resources.

	PFS May 2020	Updated PFS November 2020
Life of project	18.4 years	30 years
MoP produced over life	7.4Mt	12.1Mt
NPV10	US\$319 million	US\$421 million
IRR	22.9%	23.4%

Summary of changed outcomes between PFS and the Updated PFS. Source: Company

Project physicals	
Total MoP production	372kt
MoP granular product grade	98.5% KCL
Average MoP production	393ktpa
Capital cost	
Pre-production capital cost	US\$285.9m
Capital intensity (at nameplate 400,000tpa MoP)	US\$715/tpa
Operating costs	
Mine gate cost ¹	US\$65.26/t
FOB cost ¹	US\$86.61/t
CFR cost ¹	US\$114.61/t

Project financials	
Total revenue	US\$5,358m
Average annual revenue	US\$181m
Average annual EBITDA	US\$129m
EBITDA margin	71.0%
Average post-construction, post tax annual free annual cash flow	US\$94m
Free cashflow margin	51.8%
Total post tax free cash flow ²	US\$2,722m
Attributable ³ post tax, un/geared NPV (10% real)	US\$412m
Attributable ³ post tax, un/geared IRR	23.4%
Payback period from date of first production	4.28 years
Scheduled LOM	30 years
Average forecast MoP granular price	US\$422/t

¹ excludes royalty and sustaining capital ² free cash flow defined as EBITDA minus tax, minus capex ³ attributable to Kore's 90% interest

DX Sylvinitic Project updated PFS data. Source: Company

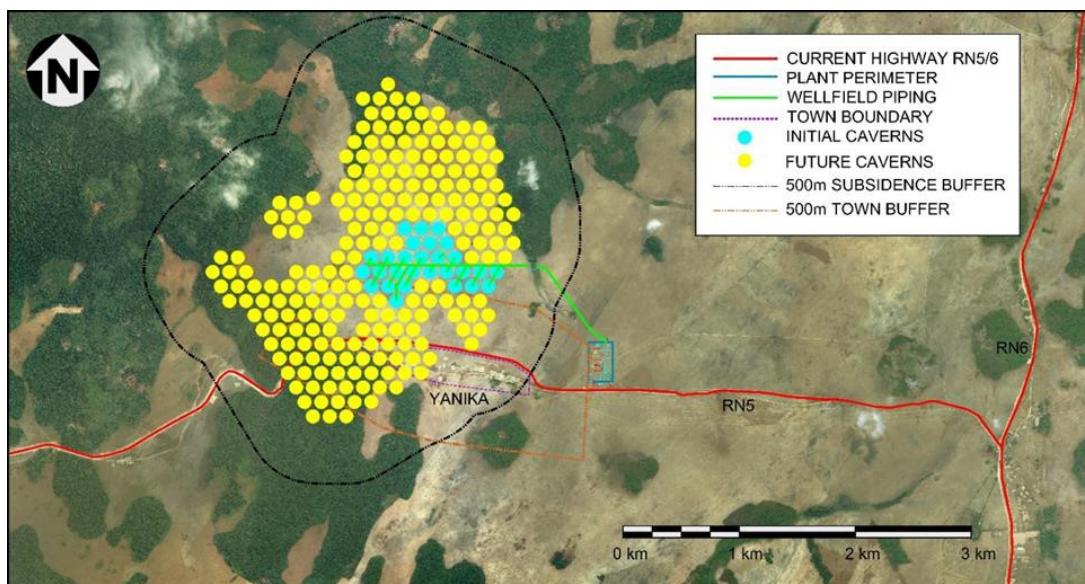
The end result is a far longer mine life and a 29% higher NPV. With more resources added to the mining plan, the updated Production Target extends the project life from 18.4 years to 30 years. This is based on an annual production rate of 400,000 ktpa MOP.

This upgraded mining schedule includes 34.5% of the Inferred Mineral Resources which provides 20% of the life of project MoP production, which seems to open the door to future upward revisions as the understanding of the mineral resource further improves.

The updated PFS determined an attributed NPV₁₀ of US\$412 million and 23.4% IRR on a real post tax basis at life of project average granular MoP price of US\$422/t (which is the Argus Media's price forecast CFR for DX Project's target markets). This is 29% higher than the real ungeared post tax and NPV₁₀ (real) of approximately US\$319 million (where the IRR was approximately 22.9%) on an attributable basis using exactly the same MoP price. Whilst the post-tax payback period from first production remains unchanged at 4.3 years.

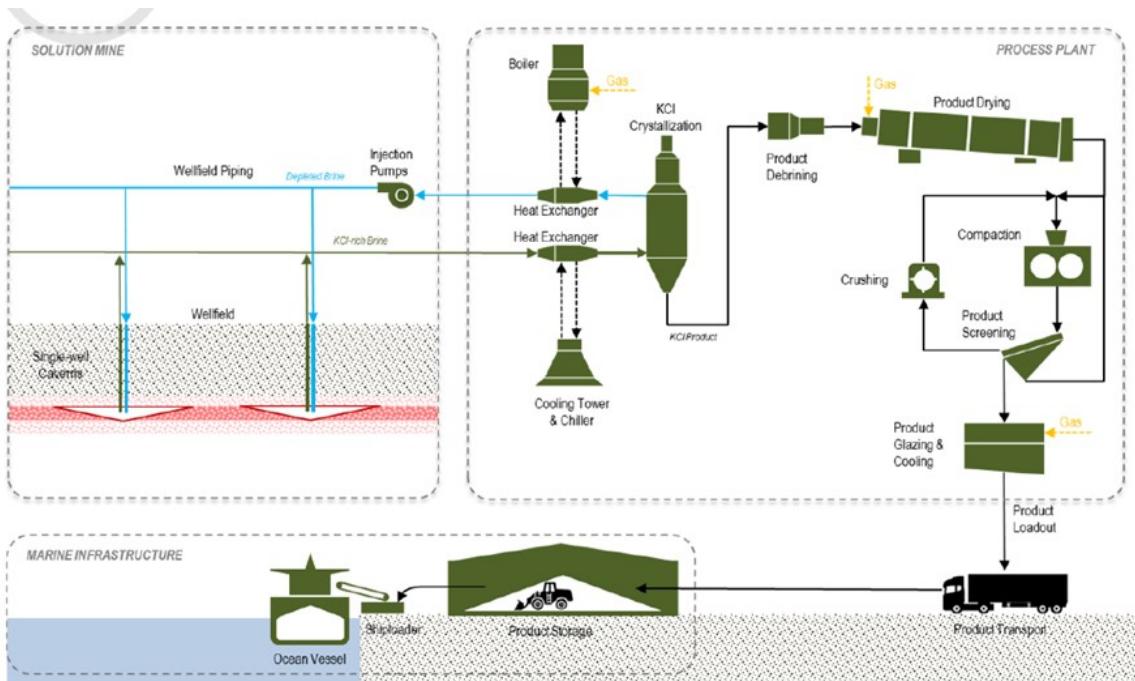
Solution Mining

Selective solution mining provides a low cost, efficient and safe way to extract the resource, with the operation only having a small footprint and no tailings. It is also a low-risk process as there is plenty of operational experience as this is a proven mining method globally. Constructing and starting up a solution mine typically takes a lot less time and investment than for a conventional mine. The process requires lower capex, less manpower (Kore is planning to have a workforce of just 87), less infrastructure and the structures that can be built a lot more rapidly than those used in conventional mining operations.



Wellfield and process plant location planned for DX. Source: Company

The plan is to initially mine the HWSS through the drilling of 28 wells. Hot NaCl rich brine will be pumped down to dissolve KCl which is then returned to the surface. After the extraction of HWSS, the holes are plugged below the TSS and the process repeated. The process for each well is expected to take six years and the cavern (void) that is left is planned to be left filled with solution to minimise subsidence.

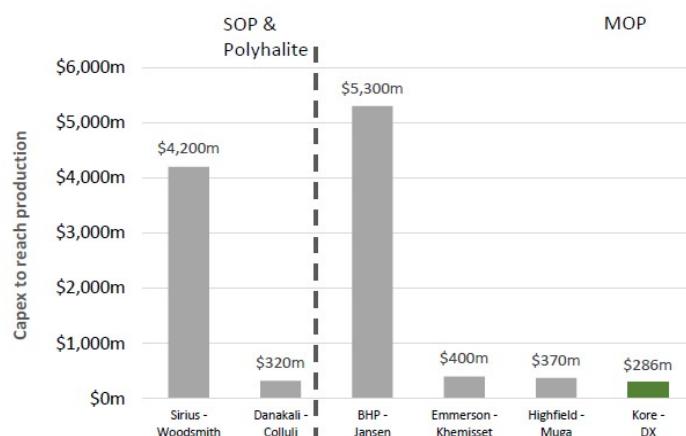


Solution mining flowsheet. Source: Company

On the surface, the process is relatively straight forward with the KCl in solution being cooled to crystallise the KCl, then dried and compacted. The final product will be trucked by a local contractor the 65km to the Port of Pointe Noire where a 30,000t storage shed is to be erected (enough for one month's production) right on the dock. This will allow for easy loading on to ships for its onward journey to the target markets.

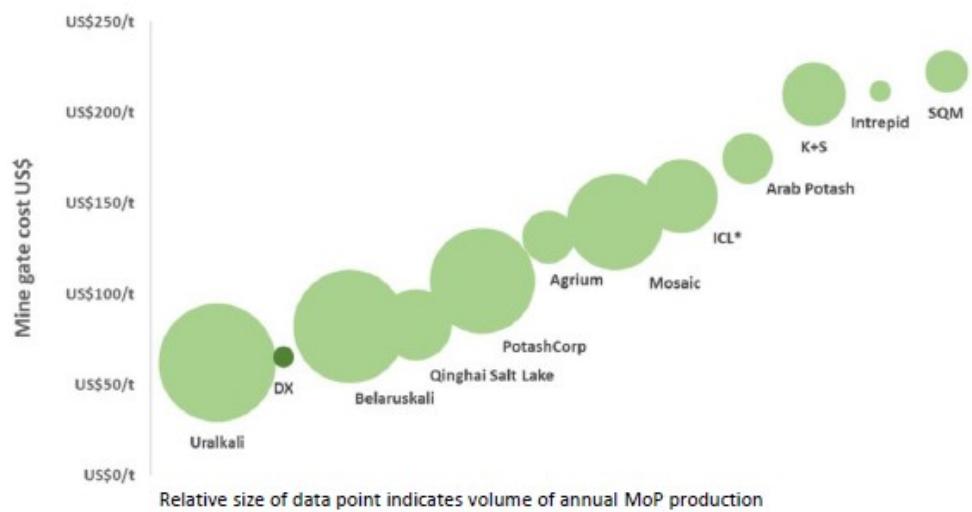
Benchmarking DX

Analysis has shown that DX represents the highest-grade undeveloped potash mine in the world, which is reflected in its low production costs. In terms of grade, DX's nearest current and future competitors are Rocanville (Potash Corp), Cory (Potash Corp), Vanguard (Gensource) and Encanto (Muskowekwan) with grades ranging from 30-37% KCl with the closest two projects representing projects which are well over 1,000m deep.



Pre-production capex and operating costs for the peer group. Source: Company

The PFS provided the data for some compelling benchmarking. Firstly, DX has the lowest **capex of any comparable pre-production potash deposit**. Secondly, DX has lower operating costs than any comparable project that is currently in development. Thirdly, DX is amongst some of the lowest operating cost peers even when compared to the large-scale producers.

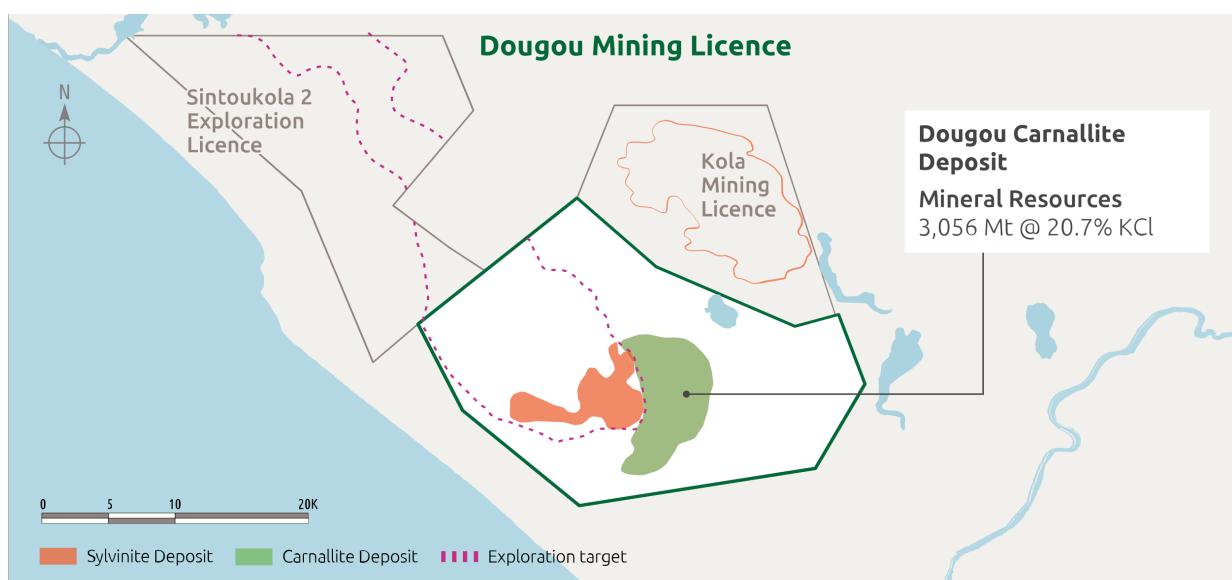


Mine gate costs of the DX compared to that of existing producers. Source: Company

Not only will DX have low mine gate costs, but the project will additionally benefit by having some of the shortest transport distances to the target export market of any potash project.

Dougou Carnallite Deposit

The Dougou Deposit is a large, thick carnallite deposit which is located some 15km southwest of Kola. Hosted in the Leome Evaporite Formation are four carnallite seams that lie roughly horizontal and are each 7m – 12m thick making a combined thickness of 30m – 40m. These seams sit 400m to 600m below the surface and are reported to be continuous across the deposit. There is little variation in the thickness of the seams and lateral grade variation within each seam is less than 10%. The hanging wall seam (HWS) represents an unusually high grade (90% - 91%) carnallite which is 10m thick on average with a grade of 24% - 25% KCl.



Dougou Carnallite Deposit. Source: Company

The carnallite consists of the interlayering of carnallite rich layers (70% - 91% carnallite) with lesser halite (NaCl) and minor amounts of anhydrite and insoluble material. The Dougou Carnallite Deposit has a Measured and Indicated Mineral Resource of 1.1 billion tonnes grading 20.6% KCl which was estimated in February 2015. Of this total, the very rich HWS carnallite seam contributes 311Mt grading 24.7% KCl to this figure. The deposit is reported to be open laterally to the north, south and east.

Scoping Study produced excellent results	
Phase 1 MOP production	400ktpa
Phase 1 capital expenditure (including 20% contingency)	US\$430 million
Average life of mine operating costs (including 3% contingency)	US\$68/t MOP
Phase 1 free cash flow	US\$100 million pa
Life of mine based on Measured and indicated resources	47 years
Internal Rate of Return (IRR)	21.67%
NPV (10) post tax	US\$880 million

Key results from the Scoping Study (2015) for Dougou. Source: Company

A Scoping Study was completed in February 2015 which indicated that a low capital, low operating cost, quick-to-production and scalable solution mine could be established. This painstaking work identified that Dougou was ideally suited to the solution mining method for a number of reasons that included the abrupt geological contacts, low angle of dip (horizontal to 5°), thickness, continuity, high carnallite content and low insoluble content. At the time, Phase 1 free cashflows of US\$100 million per annum were seen as potentially allowing the self-financing of both Phase 2 and Phase 3 capital expenditures.

Exploration targets

In addition to the resources that have already been determined, the company has exploration targets at Kola South and DX North where there is the potential for further resources. The table below outlines the expected range of tonnes and grade, although at the moment there is insufficient data to estimate Mineral Resources.

Seam	Area km ³	Average thickness m	Average density g/cm ³	Tonnage Mt			Grade KCl%		
				Minimum	Mid-point	Maximum	Minimum	Mid-point	Maximum
KOLA SOUTH									
TSS	-	-	-	-	-	-	-	-	-
HWSS	23	2.74	2.02	19	29	39	50	56	60
US	23	3.40	2.10	58	79	100	30	34	38
LS	23	2.50	2.11	18	28	37	28	31	34
All seams				95	135	175	34	38	42
DX NORTH									
TSS	185	5.30	2.11	155	233	310	24	29	34
HWSS	185	2.60	2.02	49	64	78	55	59	60
US	185	3.40	2.10	66	99	132	30	34	38
LS	185	2.50	2.11	49	64	78	28	31	34
All seams				320	460	600	30	35	38

Exploration targets. Source: Company

Strategy for growth

To feed the world's ever-growing population requires the use of an increasing amount of fertilizer. So, it's little surprise that recently globally operating mining majors have been making some substantial investments in potash. At the Jansen Project in Saskatchewan, BHP has so far spent US\$2.7 billion and US\$3 billion more Stage I investment is expected. Whilst, Anglo American is developing the Woodsmith Mine in North Yorkshire which producing polyhalite which is a small market where the total project cost is US\$4 billion.

It is hard to believe that potash still gets put on a train to travel 1,600km to the Port of Vancouver then loaded on to ships to be transported all the way to Africa when the fertilizer can in fact be produced a lot cheaper more locally. **Kore is ideally positioned with advanced projects, low-cost production and an enormous resource to really cause a stir in world potash markets.**

Kore Potash is a large fertiliser play that has been developing the Sintoukola potash basin in the RoC since 2010. RoC is a lesser-known destination for mining, but it seems to be an attractive place to operate. The country has a small population and as such there is not the pressure for social change that exists in neighbouring DRC. As the country is so heavily dependent on oil, the government is highly incentivised to find other sources of foreign earnings and is supportive of Kore and its plans. The government does get a 10% free carried interest but there are tax holidays and both taxation rates and royalties look attractively low by international standards.

Kore has a district scale development with approximately 6 billion tonnes of potash, just 15km from the coast and more than US\$230m has been spent on it thus far. Big projects need big budgets. The flagship 2.2Mtpa Kola project came through the DFS with flying colours but needs US\$2.1bn of capex, which was not easy for a small cap player with a new project in such a jurisdiction to raise. So, the team devised the smaller DX project which was seen to be able to rapidly come on stream with capex under US\$300 million, making it financially possible for a greenfield operation in RoC. Whilst in the midst of progressing DX, the board has received support for financing the far larger Kola project.

The Kola DFS included the forecasted generation of US\$500million post tax free cash per annum. This project has a Measured and Indicated sylvinitic Mineral Resource of 508Mt grading at 35.4% KCl, which is comparable to the grades of some of the world's leading potash deposits. This DFS was completed in December 2018 and, at an estimated US\$102/t CFR granular potash, it would represent one of the lowest cost MOP global producers.

The project scores highly on many points. Shipping costs from the export facility to Brazil are low due to the directness of the shipping route, which results in the lowest cost viable source of potash supply to Brazil. The ore body lies just 35km from the planned export facility on the coast, with a proposed overland conveyor and dedicated jetty for export to Brazil and West Africa. The potash will be processed with brine disposed into the ocean, which means that there is no need for any surface tailings storage facility, plus an abundant water supply at a low cost along with competitive gas and power costs available locally. Imported equipment for the construction of the mine will only need to be transported 90km by road from the Port of Pointe Noire.

Potential funder Summit and its partners are well known to Kore management. The company first met with SEPCO and ENFI in the second half of 2019 and they have been working in the background since then on this proposed financing with Summit. However, the fall in the oil price caused the Middle East financing partners to want to pause discussions and then there were COVID-19 related delays which meant that discussions were only recommenced in the later part of 2020.

These partners will be working with Kore on an optimisation study to reduce Kola's capital cost with a target of getting it under US\$1.65 billion and with a construction period of less than 40 months. This should not be a herculean task as Kore's consultants have already identified some US\$400 million worth of savings from the US\$2.103 million capex outlined in the DFS.

The first activity of the MoU is to complete the optimisation study of the capital designs which is expected to take 10 months. That is to be followed by a 2-month period (taking us to April 2022) in which Summit will put together the financing package. Review of the finance proposals and final documentation is expected to take 6 months. At the end of that period, Kore will be ready to hit the start button. As soon as the financial close has been achieved the construction period should begin. If a sub-40-month construction period is achievable (previously Kore had been looking at more than 4 years) all suggests the real prospect of first production could be achieved in early 2027.

Ahead of the recent US\$12.5 million placing, the company had US\$3 million of cash and are still waiting to hear the decision from its two largest shareholders on whether to participate in this latest funding round. Funds are sufficient to provide the working capital to get through the optimisation study and the receipt of financing proposals from Summit. Getting a binding financing and reduced capital cost is likely to lead to a significant rerating, which might be the appropriate time to raise further working capital to take the company through to production. However, if the major shareholders put in sufficient additional funds at the current time, who knows but this could be the final raise.

Most recently, Kore had been rapidly moving its smaller starter DX project going through feasibility studies. Certainly, DX remains important as Kore does not have a binding financing agreement for Kola. If the Summit process falls over, it would take some time to get back to track, so DX is a useful backstop. At the moment, the company is in the midst of the DFS on DX and will preserve optionality by inching forward DX in parallel with Kola. With limited resources, it will not be full steam ahead for DX; and when they get to the point of building Kola, DX would be put on hold.

Moving ahead, it looks as though Kore will be generating a healthy news flow on Kola. Firstly, there is the formalised contract for the optimisation study (although work has already begun). There will be an interim report on the optimisation study ahead of the final report. During this period, there will also be other key milestones which includes the company receiving the draft EPC contract based on a target price which will allow the team to be able to so fast track everything. Other key milestones to watch out for is the formal meeting with Middle East partners which will be providing the royalty financings and the selection of the short list of lenders to provide the debt financing.

All these financing negotiations is likely to be played out against a backdrop of increasing potash prices. There is no doubt that demand for potash remains strong despite challenging times in the global economy and already potash prices are back to pre-COVID levels in Kore's main target markets of Brazil and Africa. Kore's potash projects are quality assets where mining permits are already in place. This is a sizeable growth opportunity which is currently only being awarded a minuscule valuation. Ok, potash projects take longer than copper and gold projects to get going as the market is more opaque and investors are a bit more wary. But it all looks to becoming together very neatly now with the obvious potential for opportunistic investors looking for to make a decent return.

Financials & current trading

Results over recent years reflect administration costs as well as the costs of redomiciling the business to the UK.

US\$'000 Year end 31 December	2016	2017	2018	2019	2020
Revenue	-	-	-	-	-
Pre-tax profit (loss)	-4,260	-4,344	-6,252	-4,178	-3,152
Net profit/(loss)	-7,619	9,247	-13,374	-7,307	8,178

Kore Potash's five-year trading history. Source: Company accounts

2020 results

The 12-month period ending 31st December 2020 was a busy period for the company which saw the completion of the PFS on the 400Ktpa DX solution mining project in May 2020 which was followed in November 2020 by a further updated DX PFS production target.

The company made a loss before income tax expense for the year of US\$3.144 million after the principal costs which were US\$0.835 million of director fees, US\$1.151 million of salaries and consultancy fees, US\$0.985 million of administrative expenses. With no tax payable, the loss for the year also came out at US\$3.144 million. The total comprehensive income for the year was US\$8.178 million after US\$11.321 million of exchange differences on translating foreign operations.

Recent news

In early April 2020, the company announced the signing of a non-binding MOU to arrange the full financing required for the construction of the Kola Potash Project. This MOU was signed with Summit, on behalf of a consortium of investors and engineering firms, to arrange the total financing required for the construction of the Kola Potash Project. The plan is that Summit will work with potential financing partner BRP Global Limited to complete due diligence and get to this target capex through an optimisation study, present a financing proposal on behalf of the Summit Consortium based on debt and royalty funding for 100% of the Kola construction capital costs. Importantly, under the proposed financing structure, the company would not have to contribute any capital needed to build the project and would retain a 90% equity interest in Kola.

Some days later, the company announced the successful completion of the oversubscribed proposed fundraise. A total of 823,475,618 new Ordinary Shares were reported to be issued at the placing price of 1.1p (2.0 Australian cents) for a total value of approximately US\$12.50 million. These funds were raised to allow Kore to deliver its element of the optimisation study to reduce Kola's capital cost following the signing of the non-binding MoU with the Summit Consortium which outlines a roadmap to optimise, fully finance and construct Kola via a mix of debt and royalty financing.

Risks

Geological risks

There are a series of risk factors concerning the amount of understanding of the geology of the project areas, the mineralisation being targeted and its distribution.

Political risk

There are political risks involved in companies operating in RoC. The mining industry is arguably the most susceptible sector of the market to political risk largely due to its importance to the host county's economy.

MOP pricing risks

MOP prices look to be highly cyclical and follow the metals and mining market. Changes in the MOP price could have a negative or positive impact on the valuation of the company's projects and revenue from the sales of metals. Over the past ten years or so, the price of MOP has been volatile, trading in the range of US\$1,000 (2008/09 peak) to US\$220 (2016 low FOB Vancouver) per tonne and prices are back at around the US\$360 CFR Brazil following market disruption linked to the spread of the COVID-19 infection.

Exchange rate risks

Movements in the value of currencies will have an effect on the company's accounts from the translation of sales of MOP internationally in US dollars with local costs in Central Africa francs. Fluctuations in the value of the dollar and the Central African franc against the pound may have an effect on the valuation that Kore is awarded by the UK stock market.

Future funds

The market for raising funds for small cap companies look to have had improved from the worse conditions a couple of years ago. However, the global spread of the COVID-19 pandemic may act to constraint and delay the provision of finance. Even before the arrival of this pandemic, some recent fund raisings in the resources sector saw share prices being undermined by incoming investors demanding substantial discounts to provide the necessary capital.

Board of Directors

David Hathorn – Chairman

David is the ex-CEO of the Mondi Group (30 April 2017). The Mondi Group is a FTSE 100 global packaging and paper listed group on both the London and Johannesburg stock exchanges, with operations in 30 countries and employing 25,000 people. The Mondi Group performed exceptionally well under David's leadership.

Before Mondi, David was at Anglo American, where he was a member of the Group Executive Committee from 2003 and an Executive Director of Anglo American PLC from 2005, serving on several of the Boards of the Group's major mining operations. He is an internationally experienced financial and commercial executive with thirty years' experience in the financing and development of mining projects.

Brad Sampson – CEO

Brad has more than 25 years resources industry experience building and operating large scale mining projects internationally including in West and Southern Africa. A qualified mining engineer, he has held leadership and board roles in several public listed companies.

Brad has led the successful turnaround of mining businesses in Cote d'Ivoire and the DRC and has previously been the CEO of Discovery Metals and held General Manager roles at Gold Fields operations in South Africa and Australia.

Jonathan Trollip - Non-Executive Director

Jonathan is a globally experienced Director (Executive and Non-Executive) with over 30 years of commercial, corporate, transactional, governance and legal experience. He is currently the Non-Executive Chairman of Global Value Fund Ltd (ASX listed), Plato Income Maximiser Limited (ASX listed), Spheria Emerging Companies Limited (ASX listed) and Future Generation Investment Company Ltd and Antipodes Global Investment Company Ltd and holds various private company Directorships in non-profitable organisations.

Jonathan is also a Principal and Director of Meridian International Capital Limited, which is a Sydney (Australia) based structured finance group where he has been engaged for the past 22 years. During this time, Jonathan has been involved in financing numerous resource transactions in various global locations.

Prior to this, he was a Partner with Herbert Smith Freehills law firm. He holds postgraduate degrees in economics and law, Jonathan is an admitted attorney in both England and Australia and is a Fellow of the Australian Institute of Company Directors.

David Netherway - Non-Executive Director

David is a mining engineer with over 40 years of experience in the mining industry. He was involved in the construction and development of the New Liberty, Iduapriem, Siguiri, Samira Hill and Kiniero gold mines in West Africa and has mining experience in Africa, Australia, China, Canada, India and the Former Soviet Union. He served as the CEO of Shield Mining until its takeover by Gryphon Minerals.

Prior to that, David was the CEO of Toronto listed Afcan Mining Corporation, a China focused gold mining company that was sold to Eldorado Gold in 2005. He was also the Chairman of Afferro Mining which was acquired by IMIC in 2013. David has held senior management positions in a number of mining companies including Golden Shamrock Mines, Ashanti Goldfields and Semafo Inc. He is currently the Chairman of AIM & TSXV-listed Altus Strategies plc and ASX-listed Canyon Resources Ltd. David also holds various private company directorships.

Sameer Oundhakar - Non-Executive Director

Sameer joined OIA in 2018 and currently holds the position of Senior Manager – Diversified Private Equity Investments. He has extensive private equity experience across diverse industry sectors / geographies and represents OIA on investee company boards in Europe, Latin America and the Middle East. He has lived and worked in the Middle East (OIA, Seera), UK (Boston Consulting Group, Columbia Threadneedle, American Express), France and India (HSBC, Larsen & Toubro). Sameer has a Bachelor's degree with distinction in Mechanical Engineering from VJTI Mumbai, a Post Graduate Diploma in Management from IIM Lucknow and an MBA from INSEAD.

Trinidad Maria Reyes Perez - Non-Executive Director

Trinidad Reyes joined SQM as a graduate in 2012 and is currently M&A Director, prior to which she worked in a variety of roles across SQM. Trinidad is a qualified Civil Engineer having graduated from Pontificia Universidad Católica de Chile.

Management

Andrey Maruta – CFO

Andrey is a fellow member of the Association of Chartered and Certified Accountants (UK), with over 16 years' experience in the mining industry including as CFO at Petropavlovsk Plc, which has a Premium Listing on the LSE. Andrey also has worked in the audit function at accountancy firm Moore Stephens International in both the UK and the Russian Federation.

Gavin Chamberlain – COO

Gavin graduated from the University of the Natal (Durban) in 1987 (BSc. (Eng) Civil). Having had an Eskom bursary, he did his formative years in engineering in both the structural and the waste and ash dump departments at Eskom, Megawatt Park. Whilst there he completed a GDE from Wits University in Geotechnical Investigation and Tailings and Waste design and registered as a Professional Civil Engineer with ECSA.

Having gathered an understanding of design Gavin then moved on to join Fraser Alexander Construction to further his practical understanding and application of engineering. In his role with Fraser Alexander, he was engaged with construction of two tailings dams, three water diversion systems, two toxic waste dumps and a domestic waste dump along with various smaller projects. His first exposure to company management was also gained there where he served on the management team executive committee.

His next step was a natural progression in the mining project field when he joined TWP as a civil projects engineer looking after the civil aspects of an EPCM mining project for Anglo Platinum. Gavin spent 16 years with TWP and held various roles from engineering manager, head of the civil department, project manager and head of project delivery accountable for project management, controls and construction. He was also on both the Exco and served as a director of TWP after the listing. At Amec he was employed as Director of Projects for Africa and spent a large part of his time there as the dedicated Project Director on the \$1.8 billion uranium project in Namibia. Gavin completed his time at Amec Foster Wheeler as the Global Project Delivery lead and the Operations Director for Mining in AMEE (Africa, Middle East and Europe). His current role at Kore Potash is a culmination of experiences gained across the full gambit of mining operations and is one that he sees as challenging and rewarding as many aspects of experience gained over the years are now being used.

Forecasts

We update coverage of Kore with forecasts for the financial years ending 31st December 2021 and 2022. In 2021, the company is working on the optimisation study for the Kola Potash Project and has already raised the funds to pay for its share of expenses on this exercise. For the period we estimate a pre-tax loss of US\$3.565 million which would equate to a loss of 0.12p.

In 2022, it is expected that with further progress concerning financing and an offtake agreement will pave the way towards the Kola Potash Project heading more rapidly towards production. The pre-tax loss for this period is forecast to be US\$4.300 million which would result in a 0.13p loss per share.

Year End 31 December (US\$'000s)	FY2019a	FY 2020a	FY 2021e	FY 2022e
Directors remuneration	(828)	(835)	(875)	(900)
Equity compensation benefits	(907)	(176)	(500)	(800)
Salaries, employee benefits and consultancy expenses	(1,687)	(1,151)	(1,250)	(1,500)
London listing and re-domicile expenses	(50)	(68)	-	-
Administration expenses	(1,245)	(985)	(1,000)	(1,100)
Fair value change in derivative financial liability	505	1	-	-
Interest income	53	30	60	-
Interest and finance expense	(16)	(10)	-	-
Net realized and unrealized foreign exchange gains	(1)	43	-	-
Loss before income tax expense	(4,178)	(3,152)	(3,565)	(4,300)
Income tax	(24)	8	-	-
Loss for the year	(4,203)	(3,144)	(3,565)	(4,300)
Other comprehensive income/(loss)				
<i>Items that may be subsequently reclassified as profit or loss</i>				
Exchange (loss)/gain on translating foreign operations	(3,105)	11,322	-	-
Other comprehensive income/(loss) for the year	(3,105)	11,322	-	-
Total comprehensive (loss)/income for the year	(7,307)	8,178	(3,565)	(4,300)
Loss attributable to:				
Owners of the Company	(4,204)	(3,141)	(3,561)	(4,296)
Non-controlling interest	1	(3)	(4)	(4)
	(4,203)	(3,144)	(3,565)	(4,300)
Total comprehensive (loss)/income attributable to:				
Owners of the Company	(7,308)	8,181	(3,566)	(4,301)
Non-controlling interest	1	(3)	1	1
	(7,307)	8,178	(3,565)	(4,300)
Basic and diluted loss per share (cents)	(0.36)	(0.17)	(0.12)	(0.13)
Weighted average number of shares	1,163,030,183	1,796,239,418	3,015,882,659	3,285,846,999
Total shares plus options, warrants and performing rights	1,613,481,331	2,527,790,539	3,399,391,252	3,413,310,886

Source: Company/Align Research

Valuation

In order to place a valuation on the company and a target price which makes sense in the current market, we have developed financial models of both Kola and DX. These models were largely based on the information contained in the Kola DFS and DX updated PFS, as well as presentations and discussions with management.

Kola Sylvinitite Project

Previously we had assumed that excitement ahead of the commencement of production of DX would allow for the start of proper financing discussions for the larger Kola project. However, from the discussions concerning the financing of the Kola project have already begun as was evidenced by the recent signing of an MoU with Summit.

We have assumed a four-year construction period that begins in 2023 with initial production in 2027. The ongoing optimisation study is targeting a construction period of less than 40 months, but for the moment we will continue to use a 4-year period until we gain an understanding of how this might be achieved.

A flat price for MOP of US\$375/t CFR has been used in this analysis. The outlook for MOP is good and so we believe our flat price is likely to be on the cautious side, although it is significantly higher than used in the DFS (January 2019) which has based on a life-of-mine average MoP prices for granular of US\$360/t CFR Brazil and standard of US\$350/t CFR Brazil. However, our chosen price is lower than the US\$422/t figure used both in the DX PFS (May 2020) and DX Updated PFS (November 2020). Where the US\$442/t LOM average is the Argus Media price forecast for DX's target markets and consists of a US\$344/t average for the first six years followed by US\$422/t average for the remaining years.

Key statistics			
Sylvinitite ore reserves	152.4Mt at 32.5% KCI		
Pre-production capital cost (EPCM basis)	US\$2,103m		
Scheduled life of mine	33 years		
	Years 1-5 average	Life of Mine average	Total Life of Mine
MOP Production	1,829kt	2,155kt	71,129kt
Granular MOP price (real, CFR Brazil)	US\$360/t	US\$360/t	US\$360/t
CFR cost (landed in Brazil)	US\$102/t	US\$102/t	US\$102/t

Kola Sylvinitite Project DFS key statistics. Source: Company

The DFS determined a pre-production capital cost of US\$2,103 million, and previously we had mentioned that consultants had identified some US\$400 million of savings. Summit and its technical partners SEPCO and ENFI working with Kore to undertake an optimisation study to reduce Kola's capital cost with a target of getting it under US\$1.65 billion. To this end our revised financial model employs a capex figure within this targeted range.

The MoU basically sets out a roadmap to optimise, fully finance and construct Kola via a mix of debt and royalty financing. Under the arrangements being discussed the board of Kore has suggested that the company would retain a 90% interest in the Kola Project and be carried free. That would mean that there would be no equity component required to fund the capex.

We have continued to assume that the project could support debt of US\$1,400 million and to remain conservative, a loan rate of 12% was once again used. The remainder of the capex (US\$250 million) is assumed to funded by royalty financing at 2%. On RoC royalties and taxes, we have assumed royalty rates of 3% and a tax rate of 15%, as well as assuming a tax holiday for the first five years followed by a tax rate of 7.5% for the successive five-year period.

Discount factor	10%	12%
US\$ million	1,589.43	1,143.18

Net present values determined for the Kola Project (gross 100% basis). Source: Align Research

The Net Present Value for the Kola project was determined at discount rates of 10% and 12%. In order to continue to be conservative, we selected again to use the NPV(12) figure of US\$1,143.18 million where the company's 90% stake would equate to US\$1,028.86 million which is used in our further analysis. **The Kola Project is at the DFS stage and so have we risked this number by a further 45%-55%, which results in a figure of US\$514.43million being carried into our SOTP table.**

DX Sylvinitite Project

DX is being inched along in parallel with Kola, just in case the Summit financing falls over. In such a circumstance, the company's attention would be focused on the DX potash solution mining project which we believe could be put into production in 2025 and have employed a similar flat price for MOP of US\$375/t CFR as used in our analysis of Kola. It was assumed that the project could support debt of US\$150 million and that the remainder would need to be funded by equity. To remain conservative, a loan rate of 12% was used. Given the style of mining, we allowed for sustaining capital expenditure of US\$14 million per annum.

Key statistics	
Sylvinitite ore reserves	17.7Mt at 41.7% KCl
Total MOP production	372kt
MOP granular product grade	98.5% KCl
Average MOP production	393ktpa
Scheduled life of mine	30 years
Capital cost	
Pre-production capital cost	US\$285.9m
Capital intensity (at nameplate 400,000tpa MoP)	US\$715/tpa
Operating costs	
Mine gate cost	US\$65.26/t
FOB cost ¹	US\$86.61/t
CFR cost ¹	US\$114.61

¹ excludes royalty and sustaining capex

Details of the DX Sylvinitite Project outlined in the updated PFS. Source: Company

It is further assumed that the 21-month construction period commences in 2024. Our treatment of RoC royalties and taxes for DX was in line with those set out for Kola.

Discount factor	10%	12%
US\$ million	355.81	272.31

Net present values determined for the DX Project (gross 100% basis). Source: Align Research

Our financial model is aimed at being conservative. Based on our assumptions a Net Present Value for the DX project was determined at discount rates of 10% and 12%. In order to maintain our conservative stance, we have selected to use the NPV(12) figure of US\$272.31 million where the company's 90% stake would equate to US\$245.08 million. **With the DX Project at the PFS stage and about to embark on the DFS, we thought it was justified to risk the NPV(12) figure attributable to Kore by 65% which would give the project a current valuation of US\$85.78 million.**

Total valuation

As matters stand at the moment, either Kola gets fully finance by Summit or DX will be accelerated towards production. We have chosen to determine a target price based on the first scenario.

Asset	US\$ million
Kola – interest attributable to Kore risked by 50% NPV(12)	514.43
Cash	15.50
Debt	-
Total US\$m	529.93
Total £m (using current FX rate of 1.39)	£381.24m
Valuation per share based on the issued share capital following admission of the second tranche of placing shares (3,277,597,087)	11.63p
Valuation per share based on the current number of shares on a fully diluted basis (3,399,391,252)	11.22p

Sum-of-the-parts table. Source: Align Research

The total valuation came to US\$529.93 million with a per share valuation of 11.63p based on the current number of shares in issue following the admission of the second tranche of placing shares (3,277,597,087). This equates to 11.22p per share based on a fully diluted basis (3,399,391,252) which is the figure we have elected to use as our new target price.

It has to be pointed out that once the finance has been successfully raised for getting Kola into production, then our valuation for the company is likely to change substantially as the project will have become significantly de-risked. At every stage as Kola moves from gaining a binding financing agreement through start of construction, end of construction, commissioning and steady state production the risk will be reduced, and we look forward to being able to provide revised valuations and target prices as progress is clearly made through these stages.

Conclusion

Kore has a very sizeable growth opportunity based on its globally significant potash deposits in the RoC. Indeed the company looks well-placed to become the lowest cost supplier in the world of potash to the African and South American markets with its potential for district scale developments with over 6 billion tonnes of potash Mineral Resources very close to the coast. . CEO Brad Sampson joined the company to work on Kola as it is a Tier 1 asset which need to be low-cost, large and with a long life and as such are relatively rare.

The company seems very lowly priced compared to its potential and even its competitors would probably grudgingly admit that the Kore has the best undeveloped potash project in the world. Financing Kola into production would significantly de-risked as the company already has the necessary mining licence in place. Today this enormous potential appears to be completely ignored by the stock market at present given the derisory price at which the shares currently trade being completely disconnected from the project fundamentals and true scale.

There is an impressive news flow developing which looks all to be heading towards financial close on Kola. Our target price is highly conservative and moving forward we look forward to being able to revise it. Successful close of this financing on the terms proposed will allow Kore to retain 90% ownership of this world class asset without Kore shareholders having to inject the equity up front to help fund mine construction.

The size of the ultimate prize that could be within Kore's grasp is very large. If the company ends up getting 90% of the US\$500 million annual cash flow from Kola suggested by the DFS then even after making some quite savage deductions for loan repayments, interest and royalty finance costs; combined with a modest multipliers would suggest that Kore could be destined to have a market capitalisation well in excess of US\$2Billion in the fullness of time. The triggers to get to that kind of valuation are investors becoming more confident, seeing work on the optimisation study and getting a binding financing deal from Summit on acceptable terms, mine construction, commissioning and steady state production. This revaluation process would really be kicked off by the full financing which should be seen as really big news – and this is on the cards to happen over the next 18 months.

Kore will either be allowed to grow or be acquired in our view. Kola puts Kore on a real journey with its 6 billion tonnes of potash. Not only are the company's production costs very cheap but also Kore has the shortest shipping route to the African markets and Brazil. Moving ahead, the development of the Sintoukola Potash District will be a game changer in the supply of potash from the Southern Hemisphere. All the pieces are now almost in place to allow Kore to commence a dramatic growth trajectory, but it remains to be seen whether the majors will be prepared to concede market share to them or buy them up. Either way there looks to be substantial value to be created at Kore for the benefit of all shareholders over the coming years.

We initiate coverage of Kore Potash with a Conviction Buy recommendation and a target price of 11.22p.

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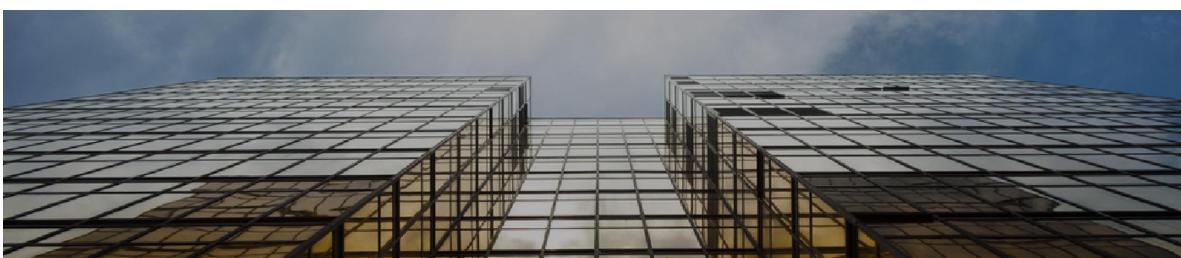
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