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### **ISSUED CAPITAL**

(As at 13 May 2020) 1,550,273,503 Ordinary Shares AIM Code: KP2 ASX Code: KP2 JSE Code: KP2

# Dougou Extension (DX) Project Pre-Feasibility Study

**London, England – 13 May 2020 – Kore Potash plc** (ASX, AIM, JSE: KP2) (**"Kore Potash", "Kore"** or the **"Company"**), is pleased to announce outcomes of the Dougou Extension ("**DX**") Potash Solution Mining Project Pre-Feasibility Study ("**PFS**"). A summary of the results is presented herein.

## Highlights:

# **Strong Financial Outcomes**

- Nameplate production target of 400,000 tpa MoP over an initial 18-year life based on Probable Ore Reserves.
- Free on Board ("FOB") Pointe Noire costs of US\$86.61/t MoP.
- Average annual EBITDA of US\$118 million.
- Average annual post construction, post-tax, free cash flow of approximately US\$95 million
- Approximately 4.3 years post-tax payback period from first production.
- Real ungeared post tax IRR of approximately 22.9% and NPV10 (real) of approximately US\$319 million on an attributable basis at life-of-mine average MoP price for granular product of US\$422/t MoP (Argus Media's price forecast for DX Project's target markets).
- PFS confirms low technical risk utilising selective solution mining, an efficient potash extraction method in use at multiple potash operations globally.
- PFS outcomes reinforce Kore's broader development strategy for its deposits in the Sintoukola Potash Basin containing 6.1 Bt of potash Mineral Resources.

## Low capital cost and short construction period improve financing options

- Initial pre-production capital cost of approximately US\$286 million (real 2019), including contingency.
- Low pre-production capital intensity of US\$715/t MoP produced.
- Short construction period of 21 months.
- Combination of modest initial capital cost and short construction period improve attractiveness of DX Project to potential financiers.

### Competitive costs to supply MoP to target markets

- Low average mine gate operating costs of US\$65.26/t MoP.
- Free on board (FOB Pointe Noire) costs of US\$86.61/t MoP
- Average cost of MoP delivered to target markets of approximately US\$114.61/t MoP.
- Close proximity to deep water port at Pointe Noire creates competitive advantage of reduced shipping distance compared to northern hemisphere producers, which tend to be well inland.
- Higher grade and shallower deposits than majority of existing potash producers contributes to competitive cost structure
- Significant competitive advantage via low FOB costs and short shipping distance to target markets in Africa and South America.

# High quality Ore Reserves and Mineral Resources

- Sylvinite Ore Reserves of 17.7 Mt at a grade of 41.7% KCl.
- Grade of the Ore Reserves is in the top quartile of all operating potash mines and potash development projects globally.
- Total sylvinite Mineral Resources of 145 Mt at a grade of 39.7% KCl.

## Further upside potential

- Ore Reserves tonnage represent 22% of the Indicated Mineral Resources tonnage.
- Inferred Mineral Resources of 66 Mt at a grade of 40.4% KCl not included in the study.
- Additional exploration drilling and/ or seismic surveys in the future may support classification of portions of the additional Mineral Resources of 127.3 tonnes at 39.4% KCl as Ore Reserves.

# **Next steps and Definitive Feasibility Study**

- Planning for the Definitive Feasibility Study (DFS) is progressing well and will be communicated to shareholders once the detailed scope and costing is completed.
- The DFS planning stage includes consultation with potential debt financiers for the construction of the DX Project.

# **Cautionary Statement**

- The PFS referred to in this announcement has been undertaken to investigate the potential for a new potash development in the Republic of Congo.
- The PFS is a preliminary technical and economic study of the potential viability of the DX project and is based on low level technical and economic assessments (AACE Class IV estimate).
- The PFS Production plan is based on Probable Ore Reserves 17.7 Mt of sylvinite at an average grade of 41.7% KCI.
- The PFS is based on the material assumptions outlined in this announcement and Appendix B. These include assumptions
  on availability of funding. While the Company considers all the material assumptions to be based on reasonable grounds,
  there is no certainty that they will prove to be correct or that the range of outcomes indicated by the PFS will be achieved.
- To achieve the range of outcomes indicated in the PFS, base case funding in the order of US\$286 million will likely be
  required. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when
  needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the
  value of the Company's existing shares.
- It is also possible that the Company could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce the Company's proportionate ownership of the project.
- Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS.
- The Mineral Resources and Ore Reserves underpinning the production targets and forecast financial information in this
  combined AIM/JSE/ASX Release were prepared by Competent Persons in accordance with the requirements of the JORC
  Code 2012 edition (JORC).

**Brad Sampson, CEO of Kore, commented**, "The completion of the DX PFS confirms the district scale development potential of this world-class potash basin and the standalone commercial viability of the DX Project.

"The estimated US\$286 million capital cost to construct the DX Project in just 21 months makes it attractive from a capital and near-term cashflow perspective, and low operating costs will allow Kore to profitably deliver MoP to our target markets.

"Building on the PFS and previously published positive Scoping Study for the DX Project, we can rapidly progress to conducting a definitive feasibility study, which will continue to improve Kore's understanding of the asset and de-risk the DX Project even further.

"Accelerating the Company into production and early cashflow generation via the DX Project will provide a strong platform to continue to optimise the Tier-1 Kola project and the wider potash basin, and a significantly improved commercial position to undertake its development. In addition, construction of the DX Project will give advantages in terms of overlapping infrastructure, thereby reducing the future capital cost at Kola.

"Developing the DX Project first is the best way forward for all of the Company's stakeholders: our local communities; the Government of the Republic of Congo; and our shareholders. We look forward to working with all these parties as we progress the DX Project into production and look to unlock the significant value within Kore's portfolio."

**SGRF commented**, "We are pleased with the completion of the DX PFS on time and underbudget and with the quality of the PFS outcomes. The results of the DX PFS indicate attractive economics and simplicity in project design which lends itself to comparatively lower risk in the subsequent construction and operating phases. We are supportive of Kore progressing to a Definitive Feasibility Study on DX."

Table 1: Key Project Metrics (100% basis unless otherwise stated)

Project physicals	Units	
Total MoP production	kt	7 372
MoP granular product grade	%KCI	98.5%
Average MoP production	ktpa	393
Capital cost		
Pre-production capital cost	\$M	285.9
Capital intensity (at nameplate 400,000 tpa MoP)	US\$/tpa	715
Operating costs		
Mine Gate Cost	\$/t	65.26
FOB (Pointe Noire) Cost <sup>1</sup>	\$/t	86.61
CFR (Africa) Cost <sup>1</sup>	\$/t	114.61

Project financials	Units	
Total revenue	US\$M	3,113
Average annual revenue	US\$M	169
Average annual EBITDA	US\$M	118
EBITDA margin	%	69.8%
Average post-construction, post tax annual free cash flow	US\$M	95
Free cashflow margin	%	56.4%
Total post tax free cash flow <sup>2</sup>	US\$M	1,469
Attributable <sup>3</sup> post tax, un-geared NPV (10% real)	US\$M	319
Attributable <sup>3</sup> post tax, un-geared IRR	%	22.9%
Payback period from date of first production	years	4.3
Scheduled LOM	years	18.4
Average forecast MoP granular price	US\$/t MoP	422

#### Notes:

- 1: Excludes Royalty and Sustaining Capex
- 2: Free cash flow defined as EBITDA minus tax, minus capex
- 3: Attributable to Kore's interest (i.e. 90% basis)

Table 2: Summary of changes between Scoping and PFS Studies

Financial Drivers	Scoping	PFS
Capital Cost Estimate	US\$327 million	US\$285.9 million
Operating Cost: Mine Gate	US\$ 78.85/t MoP	US\$ 65.26/t MoP
Operating Cost: FOB (Pointe Noire)	US\$ 82.74/t MoP	US\$ 86.61/t MoP
Operating Cost: CFR (Africa)	US\$107.74/t MoP	US\$114.61/t MoP
Life of Project	17 years	18.4 years
Potash Price	US\$360/t flat	US\$ 344 /t Ave for first 6 years
		US\$ 456 /t Ave for remaining years
		US\$422/t LOM average
MoP Produced over life	7,074 Mt	7,372 Mt
Mineral Resource	232Mt @ 38.1% KCI	145 Mt @ 39.7% KCI
Ore Reserve	Nil	17.7 Mt sylvinite @ 41.7% KCl
NPV <sub>10</sub>	US\$221 million	US\$319 million
IRR	19.3%	22.9%
Average annual free cash flow	US\$ 74 million	US\$95 million
Mining Method	Dual well selective dissolution	Single well selective dissolution
Ship loading	Purpose built Kore facility	BOO at existing Pointe Noire Port

Notes to Table 2: A key point to note with regards to pricing is the forecast potash price remains beneath the scoping study assumption of US\$360/t MoP for the first 6 years of production, at an average price of \$US 344/t MoP, until 2029. The average potash price for the remaining life of mine is US\$ 456/t MoP. The overall impact of this pricing assumption adds 1% to the IRR of the DX Project when compared to the scoping study pricing assumption

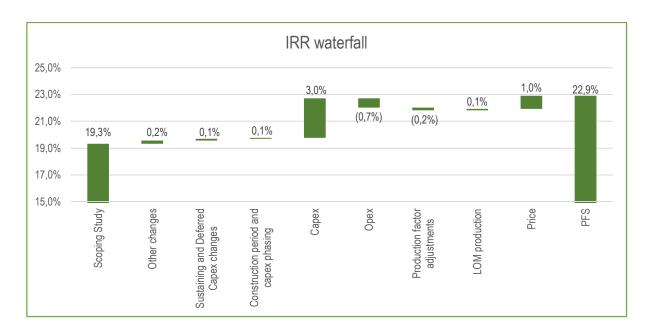


Figure 1 : Contributions to Change in IRR from Scoping Study to PFS

### Ore Reserves and Mineral Resources:

Ore Reserves (Table 3) were determined from a portion of the Indicated Mineral Resource Estimate which was updated for the PFS. The Sylvinite is hosted by two layers ('seams') referred to as the HWSS and the TSS, separated by 8 to 15 m of rock-salt. Table 4 provides the Mineral Resource Estimate.

Further detail on the Ore Reserves Estimates and Mineral Resource Estimate is provided in Appendix B: (Summary of Information required according to ASX listing Rule 5.9.1) and Appendix C (JORC Code Table 1, Sections 1-4).

Table 3: DX Sylvinite Ore Reserves.

Classification	Ore Reserves (Mt)	KCI grade (% KCI)	Mg (% Mg)	Insolubles (% Insol.)
Probable	17.7	41.7	0.06	0.19
Total Ore Reserves	17.7	41.7	0.06	0.19

Notes to Table 3: The Ore Reserves in Table 3 are gross numbers and the attributable numbers are presented in Appendix D: Kore Potash Mineral Resources and Ore Reserves as of 13 May 2020.

Table 4: DX Sylvinite Mineral Resources (inclusive of Ore Reserves)

Classification	Mineral Resources (Mt)	KCI Grade (% KCI)	Mg (% Mg)	Insolubles (% Insol.)
Indicated	79	39.1	0.06	0.20
Inferred	66	40.4	0.05	0.22
Total Mineral Resources	145	39.7	0.05	0.21

Notes to Table 4: The Sylvinite Mineral Resources in Table 4 are gross numbers and the attributable numbers are presented in Appendix D: Kore Potash Mineral Resources and Ore Reserves as of 13 May 2020.

# Reasonable Basis for Forward-Looking Statements (including production target and forecast financial information) and Ore Reserves:

This release, inclusive of *Appendix A: Summary results of DX Project PFS*, contains a series of forward-looking statements. The Company has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this release. This includes a reasonable basis to expect that it will be able to fund the development of the DX Project when required.

The detailed reasons for these conclusions are outlined throughout this release, including in Section 19 of Appendix A. All material assumptions, including the modifying factors, upon which the production target and forecast financial information is based are disclosed in this release (including the summary information in Appendix B and Appendix C). This announcement has been prepared in accordance with the requirements of the JORC and the ASX and AIM Rules.

The estimated Ore Reserves and Indicated Mineral Resources underpinning the production target have been prepared by a Competent Person in accordance with the requirements of JORC. Details of those Ore Reserves and Mineral Resources are set out in this release (including, in relation to the Ore Reserves, the details in Appendix B and C).

The 400,000 tonnes per annum MoP production over an 18.4-year life is underpinned by scheduling of Probable Ore Reserves. No Inferred Mineral Resources, exploration targets or qualifying foreign estimates underpin the production target.

- ENDS -

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## **Competent Persons Statement:**

The estimated Ore Reserves and Mineral Resources underpinning the production target have been prepared by a Competent Person in accordance with the requirements of the JORC Code.

All information in this report that relates to Mineral Resources is based on information compiled by Ms. Vanessa Santos, P.Geo. of Agapito Associates Inc. Ms. Santos is a licensed professional geologist in South Carolina (Member 2403) and Georgia (Member 1664), USA, and is a registered member (RM) of the Society of Mining, Metallurgy and Exploration, Inc. (SME, Member 04058318), a Recognized Professional Organization' (RPO) included in a list that is posted on the ASX website from time to time.

Ms. Santos has sufficient experience that is relevant to the style of mineralisation and type of Deposit under consideration and to the activity she is undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Mrs. Santos consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

All information in this report that relates to Ore Reserves is based on information compiled or reviewed by, Dr. Michael Hardy, a Competent Person who is a registered member in good standing (Member #01328850) of Society for Mining, Metallurgy and Exploration (SME) which is an RPO included in a list that is posted on the ASX website from time to time.

Dr. Michael Hardy has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Michael Hardy has verified that this report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to preparation of the Ore Reserves.

Dr. Michael Hardy president of Agapito Associates Inc is not associated or affiliated with Kore Potash or any of its affiliates. Ms. Santos is full time employee of Agapito Associates Inc. and is not associated or affiliated with Kore Potash or any of its affiliates. Agapito Associates Inc will receive a fee for the preparation of the Report in accordance with normal professional consulting practices. This fee is not contingent on the conclusions of the Report and Agapito Associates Inc. Michael Hardy will receive no other benefit for the preparation of the Report. Michael Hardy does not have any pecuniary or other interests that could reasonably be regarded as capable of affecting their ability to provide an unbiased opinion in relation to the Dougou Extension Potash Project. Agapito Associates Inc does not have, at the date of the Report, and has not had within the previous years, any shareholding in or other relationship with Kore Potash or the Dougou Extension Potash Project and consequently considers itself to be independent of Kore Potash.

## Forward-Looking Statements

This release contains certain statements that are "forward-looking" with respect to the financial condition, results of operations, projects and business of the Company and certain plans and objectives of the management of the Company. Forward-looking statements include those containing words such as: "anticipate", "believe", "expect," "forecast", "potential", "intends," "estimate," "will", "plan", "could", "may", "project", "target", "likely" and similar expressions identify forward-looking statements. By their very nature forward-looking statements are subject to known and unknown risks and uncertainties and other factors which are subject to change without notice and may involve significant elements of subjective judgement and assumptions as to future events which may or may not be correct, which may cause the Company's actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance.

Neither the Company, nor any other person, gives any representation, warranty, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statement will occur. Except as required by law, and only to the extent so required, none of the Company, its subsidiaries or its or their directors, officers, employees, advisors or agents or any other person shall in any way be liable to any person or body for any loss, claim, demand, damages, costs or expenses of whatever nature arising in any way out of, or in connection with, the information contained in this document.

In particular, statements in this release regarding the Company's business or proposed business, which are not historical facts, are "forward-looking" statements that involve risks and uncertainties, such as Mineral Resource estimates market prices of potash, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, and statements that describe the Company's future plans, objectives or goals, including words to the effect that the Company or management expects a stated condition or result to occur. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Shareholders are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made. The forward-looking statements are based on information available to the Company as at the date of this release. Except as required by law or regulation (including the ASX Listing Rules), the Company is under no obligation to provide any additional or updated information whether as a result of new information, future events or results or otherwise.

# **Summary information**

This announcement has been prepared by Kore Potash plc. This document contains general background information about Kore Potash plc current at the date of this announcement and does not constitute or form part of any offer or invitation to purchase, otherwise acquire, issue, subscribe for, sell or otherwise dispose of any securities, nor any solicitation of any offer to purchase, otherwise acquire, issue, subscribe for, sell, or otherwise dispose of any securities. The announcement is in summary form and does not purport to be all-inclusive or complete. It should be read in conjunction with the Company's other periodic and continuous disclosure announcements which are available to view on the Company's website <a href="https://www.korepotash.com">www.korepotash.com</a>.

The release, publication or distribution of this announcement in certain jurisdictions may be restricted by law and therefore persons in such jurisdictions into which this announcement is released, published or distributed should inform themselves about and observe such restrictions.

### Not financial advice

This document is for information purposes only and is not financial product or investment advice, nor a recommendation to acquire securities in Kore Potash plc. It has been prepared without considering the objectives, financial situation or needs of individuals. Before making any investment decision, prospective investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs and seek legal and taxation advice appropriate to their jurisdiction.

### **Market Abuse Regulation**

This announcement is released by the Company and contains inside information for the purposes of the Market Abuse Regulation (EU) 596/2014 ("MAR") and is disclosed in accordance with the Company's obligations under Article 17 of MAR. The person who arranged for the release of this announcement on behalf of the Company was Brad Sampson, CEO. This announcement has been authorised for release by the Board of Directors

KORE POTASH PLC

DX Project Pre-Feasibility Study

Appendix A: Summary results of DX Project PFS



# **APPENDIX A**

**Summary results of DX Project PFS** 



# 1. Project Introduction:

Kore Potash Plc ("Kore", the "Company" or "KP2") is a mineral exploration and development company that is incorporated in the United Kingdom and listed on the AIM (as KP2), the Australian Securities Exchange (ASX, as KP2) and the Johannesburg Stock Exchange (JSE, as KP2).

The primary asset of Kore is the Sintoukola Potash Project which includes the Dougou Extension Sylvinite Deposit ("DX") and the Kola Sylvinite deposit ("Kola") in the Republic of Congo (RoC), held by the 97%-owned Sintoukola Potash SA (SPSA). SPSA has 100% ownership of the Dougou Mining Lease, on which the DX Project is located. All outcomes detailed within this PFS are expressed on a 100% basis with exception of Project Net Cashflow, NPV and IRR, which are expressed on a 90% attributable basis.

Following a review of the strategic options within the Sintoukola District, the Company formed the view that a reduced-scale potash development at the DX Project has strong potential to expedite the Company's path to cash flow generation and consequently, accelerate the subsequent development of the Kola Project.

The DX Solution Mining Project (the "**DX Project**") provides a more rapid path to production with a significantly smaller capital cost than required for the Kola project. Development of this project will establish Kore Potash as the first potash producer in the Republic of Congo in over 40 years. The smaller scale of the Project comes with relatively low operational and financial risks.

Development of the DX Project is expected to create a low-cost potash operation producing approximately 400,000 tons per annum (tpa) of K60 Muriate of Potash (MoP) annually. The mining target is the DX Sylvinite Mineral Resource, a sylvinite deposit with exceptionally high KCl grade. Selective solution mining and processing technology will be employed, resulting in minimal waste brine which will be disposed of to the sea. Solution mining is the most effective means of exploiting an underground potash resource at a reduced scale, and the method is proven across other operations globally.

The DX Project is located approximately 65 km North of Pointe Noire and 13 km from the coast (Figure 1).

The DX PFS considers the mining of the DX Sylvinite, and the production of circa 400,000 tpa of K60 MoP and its export and considers all associated infrastructure. It delivers an economic model with a scheduled life of project of 18.4 years based on Ore Reserves of 17.7 Mt at 41.7% KCI.

Kore commissioned a range of subject matter expert consultants to conduct a PFS for the DX Project. The team of consultants comprises Innovare Technologies Ltd. as solution mining, process and drilling consultants, Agapito Associates Inc. as mine designers and Competent Persons for the Mineral Resource and Ore Reserve estimation, Engcomp Engineering and Computing Professionals as engineering services consultant, Change Energy Services as natural gas virtual pipeline consultant and PRDW, port and coastal consulting engineers.

In accordance with JORC, the Competent Persons (CP) for the DX Project are:

Ms. Vanessa Santos, P.Geo. of Agapito Associates Inc., for the Exploration Results and Mineral Resources. Ms. Santos is a licensed professional geologist in South Carolina (Member 2403) and Georgia (Member 1664), USA, and is a registered member (RM) of the Society of Mining, Metallurgy and Exploration, Inc. (SME, Member 04058318), an RPO included in a list that is posted on the ASX website from time to time.

Dr. Michael Hardy of Agapito Associates Inc, for the Reserve Review (RR). Dr. Hardy is a registered member in good standing (Member #01328850) of Society for Mining, Metallurgy and Exploration (SME), an RPO included in a list that is posted on the ASX website from time to time.



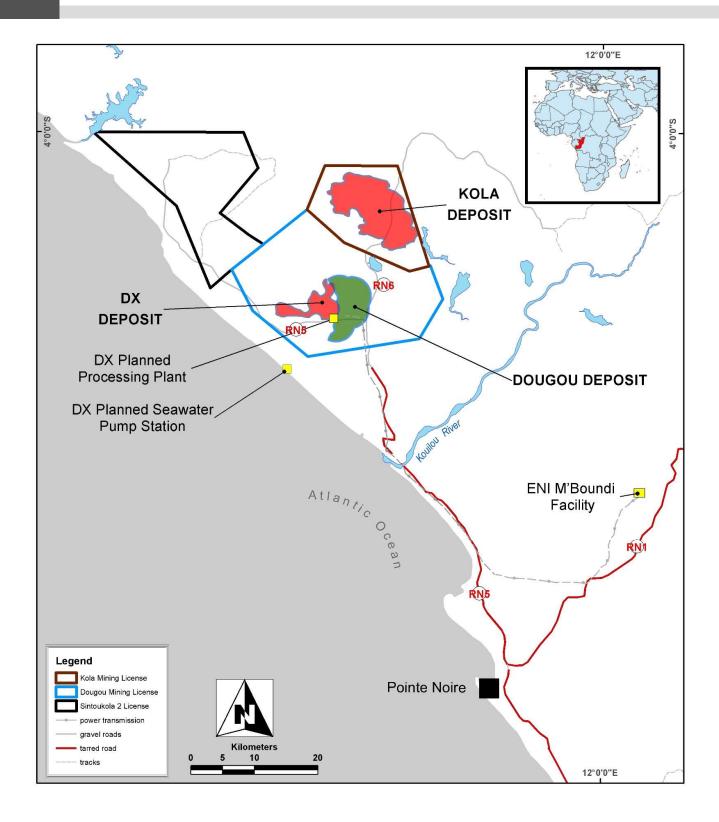


Figure 1 : Location Map showing DX Project



# 2. Sylvinite Mineral Resource:

Appendix C provides the JORC Table 1 Sections 1 to 4.

At DX the potash is hosted by two flat-lying or gently dipping (mostly <10°) layers (referred to as 'seams') at a depth of approximately 300-450 metres below surface. These seams are separated by 8 to 15 metres of rock-salt. The uppermost seam is the Top Seam (**TS**) and the lowermost is the Hanging Wall Seam (**HWS**). These seams may be composed of sylvinite or carnallite. Carnallite may occur immediately below the sylvinite but these rock types are never mixed. The Mineral Resources Estimate ("MRE") is for the sylvinite only and the sylvinite seams are referred to as the **HWSS** and the **TSS** and average 3.5 and 7.4 m thick respectively. The TSS is comprised of 3 sub-seams between which there are layers of rock-salt.

In September 2019 the Company commissioned DMT GmbH&Co KG of Germany (DMT) to carry out a 60-line km 2D seismic survey over an area coinciding with the Indicated Mineral Resource (Figure 2) to provide higher resolution data for important geological contacts and to guide the improved interpretation of the position and dip of the potash layers. Processing of this data was carried out by DMT Petrologic GmbH & Co. KG of Germany (Petrologic). Between November 2019 and January 2020 Kore completed 2 new drill-holes; DX\_07 and DX\_09B. A third drill-hole DX\_08 was stopped above the evaporite due to drilling difficulties. The positions of all drill-holes within the DX MRE are provided in Table 1. The sylvinite intersections in these new holes are provided in Table 2 along with the intersections of all previous drill-holes. The MRE was completed by creating a 3D wireframe for the sylvinite seams using drilling and seismic data, then by creating a 50 x 50 m block model with variable thickness into which grade was estimated using Inverse Distance Squared (IDW²). Only blocks with a thickness of 1 metre or more were considered for the MRE. Table 3 provides the MRE for the HWSS and TSS 6-8. Figures 3 and 4 are maps showing the distribution and thickness of the HWSS and the TSS. Figure 5 provides a typical cross-section through the deposit.

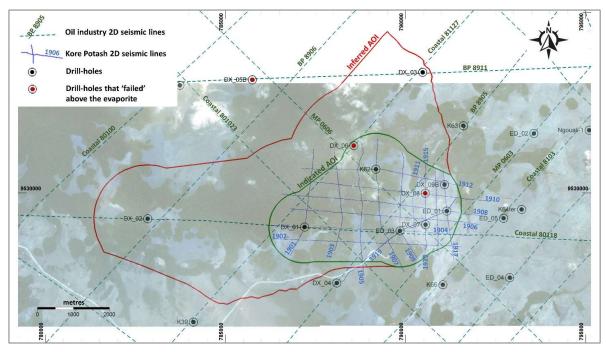


Figure 2: Map showing the Exploration data supporting the DX MRE



Table 1: Collar positions of all holes within the DX deposit. All holes were drilled vertically.

BHID	Х	Y	Z	Depth (m)	Collar Survey type	Notes
DX_01	787201.22	9529045.8	54.64	551.7	DGPS	Kore hole
DX_02	782845.02	9529278.3	34.73	484.4	DGPS	Kore hole
DX_03	790475.49	9533343.7	39.54	421.9	DGPS	Kore hole
DX_06	788565	9531306	51.90	343.0	GPS/DTM	failed hole
DX_07	790559.2	9529112.8	61.40	486.0	DGPS	Kore hole
DX_08	790550.6	9529982.8	52.40	323.0	DGPS	failed hole
DX_09B	791082.6	9530224	50.50	480.0	DGPS	Kore hole
ED_01	791144.84	9529490.7	55.29	525.2	DGPS	Kore hole
ED_03	789848.75	9528941.2	62.9	492.2	DGPS	Kore hole
K52	791162.76	9529488.7	56.57	1050.0	Historic survey	Historic
K62	789179.19	9530654.4	59.79	531.0	DGPS	Historic

Table 2: All drill hole intersections within the DX deposit including those of carnallite and halite.

Drill-hole	Seam	Mineralog y	Depth From (m)	Depth To (m)	True Thickness (m)	KCI %
ED 01	TSS	sylvinite	403.98	409.14	5.16	31.8
בט_טו	HWSS	sylvinite	421.93	426.4	4.47	57.7
ED 02	TS	halite	-	-	-	-
ED_03	HWSS	sylvinite	398.95	403.16	4.21	59.5
DV 04	TSS	sylvinite	430.76	437.59	6.83	27.8
DX_01	HWS	carnallite	449.4	462.35	12.95	24.6
DV 00	TS	truncated	-	-	-	-
DX_02	HWSS	sylvinite	429.4	430.43	1.03	61.6
	TSS	sylvinite	309.43	310.58	1.15	59.1
DX_03	HWSS	sylvinite	323.9	324.51	0.61	62.9
	HWS	carnallite	324.51	336.9	12.39	25.1
DV 07	TSS	sylvinite	388.48	391.2	2.72	25.6
DX_07	HWSS	sylvinite	401.1	405.32	4.22	56.4
	TSS	sylvinite	361.9	366.75	4.85	32
DX_09B	HWSS	sylvinite	379.3	381.01	1.71	53.8
	HWS	carnallite	381.01	386.25	5.24	No data
NEO.	TSS	sylvinite	406.15	411.02	4.87	31.9
K52	HWSS	sylvinite	423.55	427.16	3.61	57.5
K62	TS	carnallite	440.41	445.73	5.32	19.1
Historic potash hole	HWS	carnallite	455.42	461.98	6.56	24.3

Note: TS or HWS refers to intersections where the seam is not sylvinite



Table 3: Dougou Extension for the HWSS and the TSS (Mineral Resources are reported inclusive of Ore Reserves)

Mineral Resource Category	Seam	Sylvinite (Mt)	Average grade (% KCl)	Contained KCI (Mt)	Average thickness (m)	Insol content (%)	Mg (%)
Measured	-	-	-	-	-	-	-
Indicated	HWSS	28	57.1	15.9	3.8	0.12	0.02
Inferred	HWSS	17	60.4	10.2	3.0	0.17	0.02
Total	HWSS	45	58.3	26.1	3.5	0.14	0.02
Measured	-	-	-	-	-		
Indicated	TSS 6-8	51	29.3	14.9	4.6	0.25	0.08
Inferred	TSS 6-8	49	33.5	16.5	4.2	0.24	0.07
Total	TSS 6-8	100	31.4	31.4	4.4	0.24	0.07
Measured	-	-	-	-			<del>-</del>
Indicated	both seams	79	39.1	30.8	4.3	0.20	0.06
Inferred	both seams	66	40.4	26.7	3.8	0.22	0.05
Total	both seams	145	39.7	57.5	4.1	0.21	0.05

## Notes to Table 3

- The effective date of this MRE is 13 May 2020.
- Mineral Resources are reported using a 15% KCl cut-off grade.
- The MRE is for sylvinite only and includes areas that are modelled as being underlain by carnallitite.
- The density was calculated for each model block based on the KCl content using the formula DENSITY= (KCl-742.53)/ (-337.53), based on a regression line of density data (by pycnometer) versus KCl %.

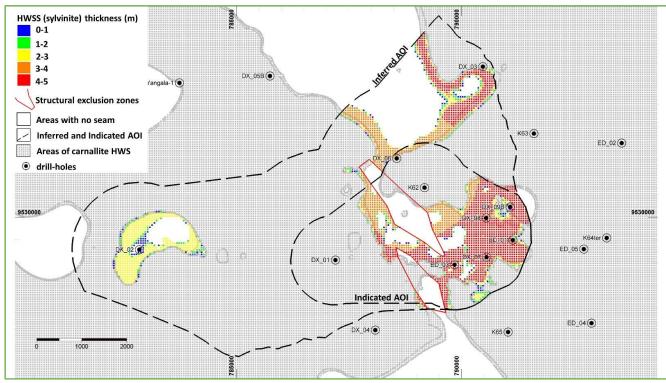


Figure 3 : HWSS thickness map

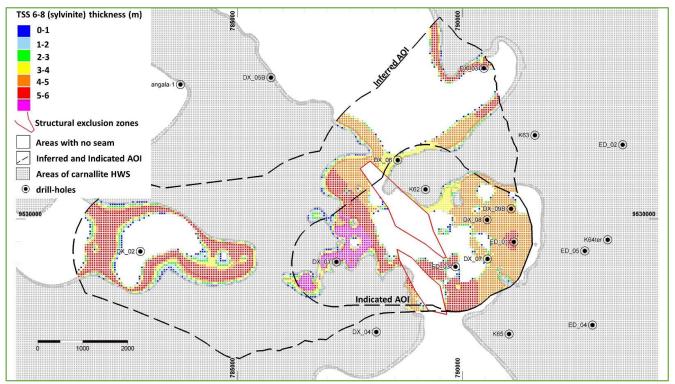


Figure 4: TSS thickness map



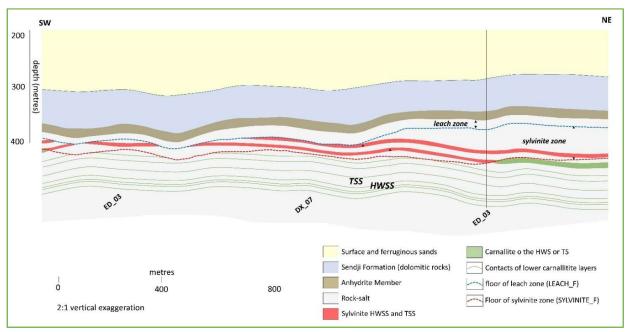


Figure 5: Typical cross-section through the DX deposit. Annotations referred to in the JORC Table in Appendix C

### 3. Ore Reserves:

The DX Sylvinite Ore Reserves are 17.7 Mt at 41.7% KCl, with an equivalent contained MoP of 7.37 Mt with a KCl grade of 98.5%. The estimate of Ore Reserves was completed by Agapito Associates Inc and was prepared in accordance with the JORC Code.

Appendix B contains a summary of information required according to ASX Listing Rule 5.9.1 and Appendix C contains section 4 of the JORC Code Table 1 Checklist of Assessment and Reporting Criteria.

Details of the Ore Reserve Estimate are shown in Table 4 below.

Table 4: DX Sylvinite Ore Reserves.

Seam	Classification	Ore Reserves Tonnage (Mt)	KCI (%KCI)	Mg (%Mg)	Insolubles (%Insol.)
	Proved	0	0	0	0
TSS	Probable	9.9	29.8	0.08	0.23
	Total	9.9	29.8	0.08	0.23
1,114,000	Proved				
HWSS	Probable	7.7	57.1	0.02	0.12
	Total	7.7	57.1	0.02	0.12
	Proved	0	0	0	0
Total both seams	Probable	17.7	41.7	0.06	0.19
Total both scalls	Total Ore Reserves	17.7	41.7	0.06	0.19



# 4. Geotechnical and Hydrogeology:

The design for the single-well solution mining caverns is based on a radius of 60 m, with cavern centers spaced 144 m apart. This layout results in an aerial extraction ratio of 62.9% with a volumetric extraction of 46.2%.

During the PFS, no specific hydrogeological investigations were carried out. For the small quantity of well water required for the process plant utilities and camps, the hydrogeological test work for the nearby Kola Definitive Feasibility Study was referenced. The DX area was covered in the general Kola hydrogeologic model, and the conditions at DX were assumed to be similar to Kola, where 15 m3/h was easily sustainable from a single well. Specific Hydrogeological investigations in the DX area are planned to be conducted during a Definitive Feasibility Study ("DFS") phase for DX, including a test well to verify availability and quality of well water.

For some mining methods, disturbance to aquifers overlying the deposit may present risk. In the case of solution mining of potash, disturbance of overlying water bearing strata does not present a material risk to the operation. Production caverns and closed caverns contain brine of higher density and pressure than that of the overlying groundwater. There may be a possibility of brine leaking into overlying ground water. Local communities draw water from upper aquifers which are not expected to be impacted by operations at DX.

Zones of subsidence and structures have been avoided in the mine planning to further mitigate risk. If connection is made to the overlying aquifer(s) during operations, leakage can be detected. If the leakage is significant, a submersible pump can be used to lower the pressure in the cavern to control the leakage.

## 5. Mining:

The Dougou Extension solution mining method utilises one well per cavern, drilled to a vertical depth of approximately 460 m for areas where HWSS will be mined and approximately 440 m in areas where only mining of TSS is planned. Surface casing will be installed to the top of the salt at about 400 m, then an intermediate casing will be installed to the base of the HWSS and an open hole extended to the total depth of 460 m or 440 m for TSS only caverns.

In the scoping study, dual-well caverns were planned. Single well caverns have been selected for the PFS as this presents a lower initial capital cost approach and the smaller circular caverns are better suited to the varying dip of the DX deposit.

This change also resulted in the following advantages

- well completion and equipping are easier due to fewer valves and in-connection pipes not being required
- reduced Mineral Resource loss due to the dip of the potash beds
- improved extraction ratio, as more circular caverns can be placed tightly along the irregular Mineral Resource boundary
- improved extraction ratio because of the higher density of caverns (packing factor)
- operational advantage because the single-well cavern development is 3 months less than for the dual-well caverns

For the single-well caverns, a radius of 60 m was selected. Additional numerical modelling of single-well cavern deformations is planned to be undertaken as part of the Definitive Feasibility Study ("DFS"). Geotechnical studies competed to date indicate that the caverns are expected to be stable, and some yielding of pillars may occur, with no adverse consequences expected as a result.

The solution mining method is divided into four phases: (1) sump development, (2) roof development, (3) continuous mining and (4) cavern closure. Figures 6 and 7 show schematically the HWSS and the TSS in solution mining mode respectively.

TS 8

TS 6

TS 5

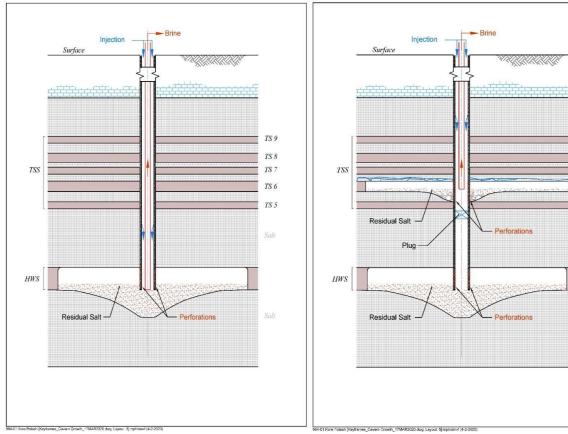


Figure 6: HWSS solution mining

Figure 7: TSS solution mining

Successful application of the selective dissolution method requires maintenance of adequate permeability through the potash zone during operation. Our experts have advised that a rule of thumb is that a minimum grade of 30% KCl is sufficient to create adequate permeability for the economic selective solution mining process to be sustained. The percentage of KCl in the HWSS is 57.1% which should facilitate selective mining. However, mining of the TSS which also has very high grade KCl, may be more challenging because the halite interbeds will not be dissolved by the NaCl-rich solvent, requiring other techniques to access the overlying high-grade potash beds. The mining method proposed for the TSS is to selectively mine the high-grade beds and induce the low-grade beds to fall to the bottom of the cavern. This technique has been used successfully in similar application in other potash solution mines.

In the determination of Ore Reserves, the TSS tonnage was modified downwards by 15% to provide for potential risk associated with the extraction of the TSS. Production scheduling prioritises HWSS extraction first to further mitigate potential risks associated with TSS extraction. In the first 7 years of operation, 78.1% of KCI production will be from the HWSS and 21.9% will come from the TSS. Prior to mining the TSS, pilot testing and evaluation of alternate ways to maximise recovery in the TSS are planned to be undertaken.

The estimated MoP production from each seam is shown in Table 5 Some production boreholes are planned to intersect both the HWSS and TSS where caverns are planned in both seams and other production boreholes are planned to only intersect one of the sylvinite seams and in those holes, caverns are only planned in the relevant seam.

Table 5: Breakdown of MoP produced from each source

Source	Number of Caverns	Average MoP produced per Cavern (tonnes)	MoP produced (tonnes)
HWSS + TSS	97	45,197	4,384,151
HWSS (only)	51	27,702	1,412,821
TSS (only)	90	17,505	1,575,491
All Caverns	238	30,977	7,372,463

The mine scheduling and processing of the Probable Ore Reserves for the Dougou Extension results in an equivalent contained MoP of 7.37 Mt with a KCl grade of 98.5%.

The cavern production estimate includes the following steps:

- gridding potash grade, bed thickness and bed elevation over the Indicated Mineral Resource areas based on known drill hole data and
- estimating recoverable KCl tonnages for each planned cavern.

Drill hole data was used to calculate recoverable tonnes for each planned cavern.

KCI tonnage within the cavern boundary depends on the cavern dimension, potash bed thickness and grade distribution within the cavern footprint. Potash beds within the Indicated Mineral Resource areas are generally flat lying, but local dips exist which can result in either dilution or loss of resource as the solution mining method leaches and recovers soluble material in horizontal slices.

A model has been developed by AAI and employed to calculate the production and brine history for each cavern. The program is based on the mass balance and simulates the entire cavern life from sump development to the end of selective mining using a time-differential method. The program output includes KCI, NaCl and magnesium chloride (MgCl<sub>2</sub>) production rates and concentrations. KCl production is the total dissolved KCl minus the KCl left in the cavern.

The cavern layout within the mine plan boundary is shown in Figure 8.



The mine layout shown in Fig 8 below is the basis for the DX production plan given in Table 5

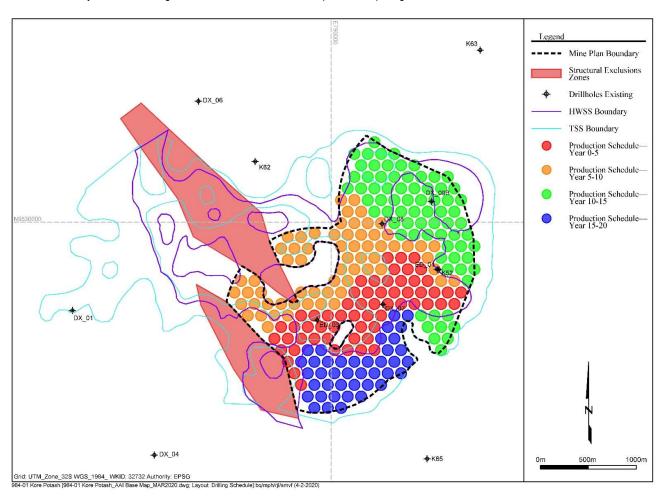


Figure 8 : Cavern layout for the DX Life of Mine



## 6. Life of Mine Production Schedule:

The life of mine based on the Ore Reserves for the DX Project is 18 years, and full-scale production of 400,000 tpa of MoP occurs approximately 2 years post commissioning. The life of mine production schedule is shown in Figure 9. No Inferred Mineral Resources are scheduled.

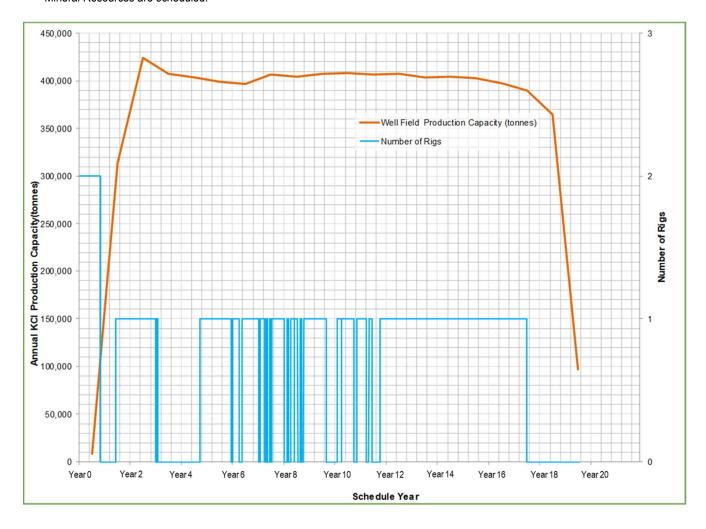


Figure 9 : Life-of-Mine Production Summary of the DX Mine



# 7. Metallurgy and Process

**Plant and Flowsheet:** The process plant will be located east of the Dougou Extension mine plan area, (Figure 10) with a buffer distance of 500m away from the Mineral Resources boundary. The process plant building is 30m wide x 145m long, and 32m high and can be seen in Figure 11. The process plant building will house all processing equipment, along with associated electrical and instrumentation. The building will have no exterior walls, and a simple roof will be installed to keep rain off the personnel and equipment.

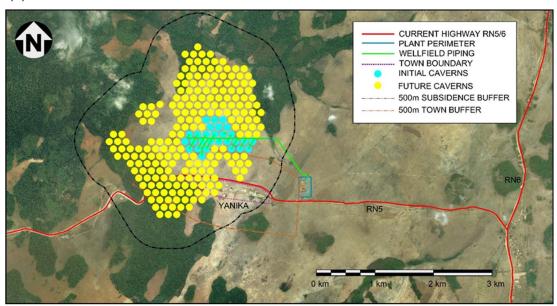


Figure 10 : Process Plant Location



Figure 11 : Process plant 3D schematic



# Other site buildings include:

- 52m x 45m Utilities Building
- 18m x 10m Operation Center
- 44m x 40m Warehouse (fabric building)
- 44m x 40m covered Maintenance area
- 30m x 20m Administration Building

The long, narrow plant design makes it possible to position the mechanical equipment more densely than usual plant designs. Maintenance access is convenient from both sides of the building, so no service aisles will be included in the building interior. All removal of equipment will be through the open walls of the building. Elevated grated floors will be constructed for personnel access to all equipment, and several maintenance access lanes will be created for removal of some large components.

The potash production process shown in Figure 12 below consists of the following industry standard process steps and the expected plant recovery is 98.5% for this process:

- Injection and solution recovery: Return brine from processing will be heated to 100°C and pumped to the wellfield for reinjection into the mine caverns for dissolution and recovery of potassium chloride (KCI) from the underground Sylvinite deposit
  containing both potassium chloride (KCI) and sodium chloride (NaCI) minerals. The KCI mineral will be selectively dissolved from
  the ore due to the almost saturated NaCI and under saturated KCI in the return brine.
- Cooling and crystallisation: From the crystalliser feed tank, the brine will be pumped to the vacuum crystalliser for pre-cooling to approximately 28°C and then pumped to the surface crystallisers. In the four-stage surface cooled crystallisers, the mother liquor will be cooled to an end point of 2°C resulting in KCl solids precipitation. Spent brine from the 4th stage crystalliser will be pumped to the concentrate tank for return to the wellfield.
- KCl de-brining: Slurry containing KCl solids from the surface crystallisers will be pumped to the centrifuge, where brine will be removed. KCl product exiting the centrifuges will contain less than 5% moisture (by weight).
- KCI drying: A rotary drum dryer will be used to further reduce the residual moisture in the potash product to 0.2% (by weight) or less. Combustion air will be heated to 800°C and mixed with incoming feed material. Heat will be provided by burning natural gas. The exit temperature for dried solids is expected to be 146°C.
- Compaction: Two compaction circuits will operate in parallel to properly size the product. Each circuit will be comprised of a compactor, flake breaker, hammer mill, sizing screen and associated conveyance system. The sizing screen oversize streams will jointly feed another hammer mill and the crushed product will be returned to the main elevator feeding the compactors. The sizing screens fine fraction will be re-introduced back to the compactor. The screen middling fraction will constitute the final product, which will have a PSD typical for granular potash product.
- Product Glazing: The glazing process will harden the particle surfaces and smoothen sharp particle edges to avoid product degradation during transportation. The glazing process will consist of spraying a small volume of water over the compaction circuit hot product allowing the KCl crystal surface to slightly dissolve in a conditioning drum. The moist material will enter a fluidized bed dryer/cooler where hot air will be used to evaporate excess water in the first section of the unit. In the second section, ambient air will be blown to cool the product prior to shipping.
- Product Load Out: Granular MoP product from the Glazing circuit will be treated with anti-caking and de-dusting reagents and discharged into a 150t storage bin. 40 tonne multi-axle trailers will continuously transport finished MoP product from the Processing Plant to the Marine Facility located at Pointe Noire. One trailer will be loaded approximately every 45 minutes.



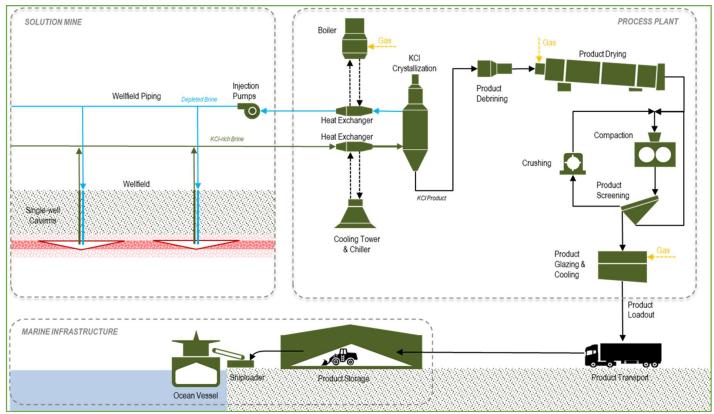


Figure 12: Potash production schematic

Although no specific crystallisation testing has been carried out to verify the expected process plant production capacity for the Dougou Extension resource, Kore believes it has a reasonable basis for a production target of 400,000 tpa to be achieved with this method for the following reasons:

- During the PFS, a potash process technology specialist, Whiting Equipment Canada, provided the Swenson process design, equipment list and estimated equipment costs relating to the crystallisation process. The same Swenson process technology is successfully used at other global potash operations over a large range of plant capacities.
- The proposed methods are commonly used in potash solution mining operations, including large scale production facilities. Although these methods can be more energy-intensive than the conventional flotation methods commonly used in conjunction with conventional underground mining, they are known to typically yield higher KCl process recovery and higher product KCl grade.
- Kore conducted dissolution tests on samples of the DX core and the resulting data was used to inform the estimation of brine grades and chemistry feeding into the processing plant

It is possible that pockets of carnallite may be encountered during mining that could introduce magnesium chloride (MgCl2) into the brine. The risk of this occurring, including its effect on KCl recovery, has been considered in the PFS. Magnesium (Mg) content in brine can be controlled operationally by bleeding out brine from the process stream without material impact on plant performance.



## 8. Marine Facilities

Trade-off studies into the marine loading options were undertaken during the PFS considering initial capital cost, operating cost, road hauling costs and risk.

The PFS design is for export of MoP from an existing marine berth within the Pointe Noire port, already accessible by ship, where only the construction of a storage building and movable conveyor/ship loading equipment would be required. The MoP produced at DX will be trucked to the planned storage facility at the Pointe Noire port.

Preliminary negotiations around this option have resulted in a proposal from the owner of the site, an established logistical company based in Pointe Noire. Under the potential agreement, they will construct a suitably designed and sized product storage building for the MoP and will provide all ship loading activities. In this arrangement, Kore will not be required to contribute capital and will pay fees for use of the space, the use of facilities, and activities required for ship loading.

# 9. Land based transport

Trade-off studies into road haulage of DX MoP to port were undertaken during the PFS considering initial capital cost, operating cost and risk.

The PFS assumed contracting land transport of MoP to a local transport provider. Quotations from various third-party sources were obtained to transport the MoP from the process plant site to the planned marine facility at the Pointe Noire port. The PFS assumes the use of trucks with 40 tonne trailers.

The DX Project will require the regular use of existing highway RN5 for transport during construction and operations. RN5 includes 25 km of unpaved sand road between Madingo-Kayes and the process plant. Although the sand portion of the road is currently used for logging transport, some upgrades are expected to be required to support the construction and operating traffic for DX.

The PFS capital cost includes an allowance for road upgrades on the unpaved portion of highway RN5, shown in Figure 13. Recent quotations for similar road upgrades in Congo were used to support the cost allowance for this work.

The current load limit for RN5 is 30 tonnes per load, and Kore Potash and the Minister of Mines are in discussions toward a concession to allow 40 tonne loads (or higher if required) for both construction and operations.



Figure 13: Proposed RN5 Upgrades



# 10. Water Supply and Brine Disposal

The DX scoping study assumed multiple water bores into local aquifers would supply water for the process operation and mine development. The scoping study also assumed that disposal of waste brine would be by deep well disposal into a deep-seated aquifer.

Further evaluation of peak water requirement during sump and cavern development during the PFS determined that water bores would be suitable only for supplying the utility water requirements in the process plant, and that a source of sea water would be required to meet the peak water demand during cavern development.

The PFS includes provision for a permanent sea water intake, pumping station, and water supply pipeline to the production wellfield. Waste brine is planned to be placed in the sea via a pipeline.

Dedicated pipelines will be used to transport raw water to the process plant area and return waste brine to the sea. The proposed route of the pipelines is shown below. Potential impacts of brine discharge to the ocean was assessed and approved in the Kola Project ESIA. This assessment demonstrated that the impact of the planned discharge will meet or exceed internationally accepted standards for brine disposal at sea.

The proposed location of the ocean water pumping station location is approximately 13.8 km from the DX processing plant, and approximately 500 m from the coastline. The pipeline is designed to be buried below surface however trestles may be required to support the pipe in areas of rough terrain. Figure 14 shows the selected pipeline route.



Figure 14: Proposed route for brine discharge and sea water supply pipelines

#### 11. Bulk Infrastructure

# a. Natural Gas Supply

The overall natural gas requirement for the PFS dropped to 1.30M GJ/year from the scoping study requirement of 1.95M GJ/year. This reduction was due to an increase in the expected brine KCl concentration from the mine, resulting in a significant reduction in required brine flow through the process plant. The PFS is based on the supply of compressed natural gas via transport trucks, requiring a compression station near the supply point, and a decompression station at the process plant. This method is known as a Natural Gas Virtual Pipeline (NGVP), and there are numerous examples of this system in operation in areas without natural gas pipeline infrastructure.

This solution was investigated in detail by Change Energy Services, a specialist consultant with design and operation experience with NGVP facilities. The report from Change Energy Services made a recommendation on design, as well as an estimate of capital and operational costs for the compressor station, the decompression station, the purchase of the compressed gas transport trailers and the operations and maintenance. The PFS assumes that Kore Potash will contract out the NGVP trucking operations. Figure 15 below shows the proposed route for natural gas transport, a distance of 115 km.

The RoC has not developed regulations covering the transport of compressed natural gas yet. Kore plans to work proactively with the Regulator to develop a set of regulations, in line with international best practices, to facilitate Kore's planned use of compressed natural gas.



Figure 15: Proposed Natural Gas Transport Route

## b. Power Supply

The PFS assumes construction of power lines and purchase of electrical power from local generators and distributor of electrical energy. Sufficient surplus gas turbine generated electrical energy is already available close to Pointe Noire, and the power station operator, CEC, is in the process of installing additional generating capacity.

The overall power requirement for the DX Project has reduced to 12.7 MW from the scoping study assumption of 13.5 MW. This reduction was due to an increase in the expected brine KCl concentration from the mine, resulting in a significant reduction in required brine flow through the mine and process plant.



The scoping study assumed a similar route to that used for the Kola DFS where power was supplied from the MKII sub-station. During the PFS, Kore Potash was advised by CEC that a better location to tie in power would be at the electrical sub-station at M'Boundi.

The PFS includes construction of an overhead high-voltage power transmission line from M'Boundi to the DX process plant site, a distance of 85 km. The capital cost for the overhead power line was estimated for the proposed route as shown below in Figure 16. The cost structure for electricity was obtained from CEC, the local operator of the gas turbine power station and additional operating costs for transmission of electrical power were obtained from E<sup>2</sup>C the local electrical transmission company.



Figure 16: Overhead power line route

## 12. Environmental and Social Impact Assessment (ESIA)

The existing ESIA for Dougou Licence area was approved in 2017 and a Certificate of environmental compliance was granted in July 2018 by the Ministry of Tourism and Environment for a 1year period, which was recently extended to 25 year validity. The Company believes that a revised ESIA incorporating the DX Project requirements for the sylvinite process plant and solution mine wellfield will be required. The ESIA revision is planned to be undertaken concurrently with a DFS for DX.

The revised ESIA will utilise existing baseline information from both the Dougou ESIA and the Kola ESIA completed in 2018. The existing baseline information on the DX area is believed to be adequate for the revised ESIA to be prepared and submitted for approval within 12 months.

A Decree D'Utilité Publique (DUP) and a Resettlement Action Plan (RAP) will be required to be developed for Longo-Bondi and possibly Youngou villages and surrounding land affected by project land-take. The DUP is the Government-mandated and led process that identifies affected parties, establishes their access and ownership rights and values their properties. The DUP then establishes the quantum to be paid in compensation for loss of access to the affected land parcels. On completion of the DUP process, the government issues a decree transferring the affected land to the company. The RAP is a re-settlement plan based on the International Finance Corporation Performance Standards that ensures that disruption to the livelihoods of affected communities is minimised and that affected parties are assisted to be in an equivalent state of productivity to what they were prior to the land acquisition. While the DUP compensates for loss of crops and structures, the RAP provides additional support as required by good international industry practice (such as transport, access to markets, agricultural extension services). Both procedures were followed on the Kola Project and are well known to the Kore team. It is unlikely that physical resettlement of any people from these villages will be required.



The Dougou mining exploitation Licence for potash on a surface area of 451 km2 in the Kouilou district was approved on 9th May 2017 and is valid for 25 years, with an option to extend it by 15 years at that point. The DX Project lies within the Dougou mining exploitation license.

# 13. Potash Marketing

MoP produced from the DX Project is planned to be marketed predominantly into select African markets. Any excess product will be sold into the large Brazilian market or other South American markets. The key targeted destination countries and their current demand for MoP are set out below. Based on discussions with Argus Media and WABCO, the granular MoP demand in each of these markets is approximately 60% of total MoP demand. Table 6 shows the current consumption for Africa.

**Table 6: African MoP Consumption** 

Region	Total 2019 Consumption (tMoP)	Estimated Granular <sup>1</sup> (tMoP)
Morocco	347,000	242,900
South Africa	350,000	245,000
Nigeria <sup>2</sup>	116,000	81,200
Other West Africa <sup>3</sup>	171,000	119,700
Other North Africa	201,000	140,700
East Africa	116,000	81,200
Other Africa	8,000	5,600
Total Africa	1,309,000	916,300

Source: Argus Media (Jan 2020)

Notes:

1 Based on an assumed 70% (granular) / 30% (standard) split per discussions with Argus Media

2 Following Nigeria's regulation banning import of blended product, WABCO estimates that the granular consumption is expected to be approximately 400,000 tpa

Additional market information obtained from WABCO indicates that Other West African markets could be as high as 310,000 tpa based on Ghana, Burkina Faso, Mali and Ivory Coast

The PFS price forecast is based on the weighted average of leading potash market consultant Argus Media's granular MoP CFR price forecast (in real 2019 terms) for South Africa, Nigeria and Morocco from 2020 to 2033 The weightings applied are based on total imported MoP volumes for each of these markets. The price assumption is based on a real price profile which steadily declines from 2022 to a low in 2027 and then steadily rises to a maximum of \$474/t MoP in 2033 with a flat real profile from 2033 until the end of mine life. The price forecast graph used is shown in Figure 17 below.



Note: Argus Media Ltd is the source of the confidential proprietary data which Kore Potash has aggregated and republished above. Kore Potash obtains data from Argus under licence. Argus makes no warranties, express or implied, as to the accuracy, adequacy, timeliness, or completeness of its data or Kore Potash's presentation of that data, or its fitness for any particular purpose. Argus shall not be liable for any loss or damage arising from any party's reliance on Argus' data, and disclaims any and all liability related to or arising out of use of the data to the full extent permissible by law.

Figure 17 : African Price forecast

A key point to note with regards to pricing is the forecast potash price remains beneath the scoping study assumption of US\$360/t MoP for the first 6 years of production, at an average price of \$US 344/t MoP, until 2029. With the remaining life of mine for the project price, at average of US\$ 456/t MoP, only rising above the scoping study assumption of a flat US\$ 360/t MoP. The overall impact of this pricing assumption adds 1% to the IRR of the DX Project when compared to the scoping study pricing assumption.

# 14. Capital and Operating Costs

The PFS Capital Cost estimate qualifies as an AACE Class IV capital cost estimate, having an approximate accuracy of +/- 25%. The estimate captures all project costs from various contributors as follows:

Design and estimation of direct costs for Solution Mining & Drilling was performed by Innovare Technologies (Innovare), based on Turnkey quotations from drilling suppliers. Engcomp provided the design and Estimate for the electrical infrastructure in the wellfield.

Design and estimation of direct costs for the Process Plant was completed by Engcomp with support from Innovare. Equipment vendors were issued procurement packages and budgetary quotations were obtained.

Design and estimation of direct costs for off-site infrastructure was performed by Kore and its third-party service providers.

Indirect and contingency costs were estimated by Engcomp, with Kore providing inputs related to construction execution strategies. Engcomp consolidated the overall estimate, and the summary of the capital cost estimate (CAPEX) is shown in Table 7.

Table 7: Capital Cost estimate (real Q4 2019)

Description	Initial Capex (kUSD)
Solution mining and wellfield	33,645
Process Plant	93,657
Offsite infrastructure	12,719
Sub-total Direct Costs	140,021
Field Construction Indirect	24,987
Other Indirect Costs	28,141
Owner's Costs	15,827
Engineering and project management	22,656
Sub-total Direct + Indirect Costs	231,632
Contingency	50,060
Escalation	4,210
Total Capital Costs	285,902

The pre-production capital cost of US\$286 million equates to a pre-production capital intensity of US\$715/t MoP annual capacity. This is very competitive in relation to MoP industry peers.

Sustaining capital costs total US\$247 million over the 18 years life of mine and mostly relate to ongoing drilling, piping relocation and cavern development. Deferred capital costs total US\$0.3 million in the first year of operation. Reclamation costs total US\$21 million after operations are complete.

The sustaining capital, deferred capital and reclamation costs are summarized in Table 8.

Table 8: Summary of Sustaining, Deferred and Reclamation costs

Description	Category	kUSD LOM	US\$/t MoP
Sustaining Capital	Debottlenecking	2.0	0.27
Sustaining Capital	Mining	212.8	28.86
Sustaining Capital	Buildings	4.1	0.56
Sustaining Capital	Electrical	28.4	3.85
Deferred Capital	Process Plant	0.3	0.04
Reclamation Costs	All	21.1	2.87
Total Costs		268.7	36.44

# **Operating Cost**

The PFS confirms that the Operating Cost of the DX Project is highly competitive for supply into the African and South American markets. The mine gate operating cost is estimated at US\$65.26/t MoP and the export (FOB) cost is estimated at US\$86.61/t MoP, excluding royalty and sustaining capital.



The Operating Costs are expressed in US dollars on a real Q4 2019 basis and are based on average annual production of 400,000 tpa of MoP over the life of mine. All costs have been prepared on an owner operated basis and are shown in Table 9.

Electricity represents 64% of annual utility costs, while natural gas represents 36%.

**Table 9: Summary of Operating Costs** 

Cost Category (real Q4 2019)	Total unit Cost (US\$/t)
Labour	9.02
Utilities	27.74
Operations & Consumables	5.59
Maintenance	6.10
General and Admin	2.87
Offsite	13.94
Mine Gate Cost	65.26
Ground MoP Transport	13.57
Export Facility	7.78
FOB	86.61
Marine Transport	28.00
Total Operating cost (CFR Africa) <sup>1</sup>	114.61

Note 1: Excludes Royalty and Sustaining Capex

# 15. Economic Evaluation

## a. Summary Economics

All financials are presented on a 100% consolidated basis; the 10% government free carried equity interest is deducted from Post Tax Free Cash Flow to derive the Net Project Cash Flow (on a 90% attributable basis), which is used to calculate the attributable NPV and IRR of the DX Project. The PFS economic evaluation delivers a real post-tax, ungeared IRR of 22.9% and  $NPV_{10(real)}$  of US\$319M on attributable basis. The evaluation is based on Argus International's forecast granular MoP price for DX's target markets which results in an average life-of-mine granular MoP price of US\$422/t MoP CFR Africa (real 2019).

Table 10 summarises the financial outcomes.



**Table 10: Summary of Financials** 

Financials	Units	
1 mancials	Onto	
Total revenue	US\$M	3,113
Average annual revenue	US\$M	169
Average annual EBITDA	US\$M	118
EBITDA margin	%	69.8%
Average post-construction, post tax annual free cash flow	US\$M	95
Free cashflow margin	%	56.4%
Total post tax free cash flow <sup>1</sup>	US\$M	1,469
Attributable <sup>2</sup> post tax, un-geared NPV (10% real)	US\$M	319
Attributable <sup>2</sup> post tax, un-geared IRR	%	22.9%
Payback period from date of first production	years	4.3
Scheduled LOM	years	18.4
Average forecast MOP granular price	US\$/t MoP	422

#### Notes:

- 1 Free cash flow defined as EBITDA minus tax, minus capex
- 2 Attributable to Kore's interest (i.e. 90% basis)

The key assumptions underpinning the base case economic evaluation are as follows:

- 18-year initial project life from first production;
- Approximately 400,000 tpa average production of MoP;
- Granular MoP represents 100% of total MoP production and sales;
- All cashflows are on a real Q4 2019 basis;
- NPVs are ungeared and calculated after-tax applying a real discount rate of 10% (based on a review of 7 recent potash projects, 4 of which were in Africa).

Fiscal regime assumptions aligned with the recently finalised Mining Convention:

- Corporate tax of 15% of taxable profit with concessions for the first 10 years of production (0% for the first 5 years and 7.5% for years 6 10);
- Mining royalty of 3% of the Ex-Mine Market Value (defined as the value of the Product (determined by the export
  market price obtained for the Product when sold) less the cost of all Mining and Processing Operations including
  depreciation, all costs of Transport (including any demurrage), and all insurance costs);
- Exemption from withholding taxes during the term of the Mining Convention;
- Exemption from VAT and import duty during construction; and
- Government receives a 10% free carried equity interest in the DX Project company until the initial construction phase is completed.



250 000 200 000 150 000 100 000 50 000 US\$'000 Y6 Y7 Y8 Y9 Y10 Y11 Y12 Y13 (50000)(100 000) (150 000)  $(200\ 000)$ (250 000) Revenue Opex ■ Project Capex Sustaining and Reclamation Capex Royalty Taxes Government Free Carry Duties and Levies Net Project Cash Flow (90%basis)

The forecast net attributable project cash flow for 18.4 years of production is illustrated in Figure 18.

Figure 18: DX Project Cash Flow Forecast (real Q4 2019)

## b. Sensitivity Analysis

The PFS economic evaluation demonstrates that the DX Project economics are most sensitive to potash price and to project capital costs.

Sensitivity of the NPV to key input assumptions, on a -20%/+20% range is illustrated in Figure 19.

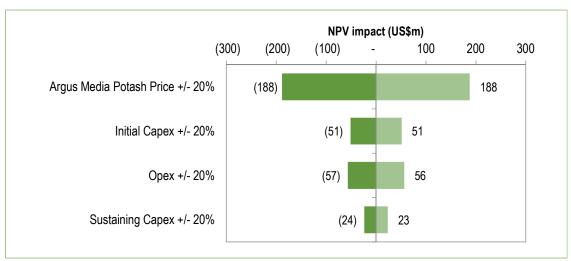


Figure 19: NPV10 Sensitivity to key inputs



# c. Price Sensitivity

Table 11 below shows the sensitivity of the Dx Project NPV to Potash Price.

Table 11: Sensitivity to potash price

Granular MoP (US\$/t CFR Brazil)	NPV (US\$ million)
260 (flat real) <sup>2</sup>	1
310 (flat real)	122
360 (flat real)	243
Argus Media Price Forecast1	319
400 (flat real)	339
450 (flat real)	459

#### NOTE:

## 16. Differences between Scoping study and Pre-Feasibility study

The key differences between the DX scoping study published 29 April 2019 and the PFS details included in this announcement are highlighted in Table 12.

Table 12: Summary of changes between Scoping and PFS Studies

Financial Drivers	Scoping	PFS
Capital Cost Estimate	US\$327 million	US\$285.9 million
Operating Cost: Mine Gate	US\$ 78.85/t MoP	US\$ 65.26/t MoP
Operating Cost: FOB (Pointe Noire)	US\$ 82.74/t MoP	US\$ 86.61/t MoP
Operating Cost: CFR (Africa)	US\$107.74/t MoP	US\$114.61/t MoP
Life of Project	17 years	18.4 years
Potash Price	US\$360/t flat	US\$422/t average
MoP Produced over life	7,074 Mt	7,372 Mt
Mineral Resource	232Mt @ 38.1% KCI	145 Mt @ 39.7% KCI
Ore Reserve	nil	17.7 Mt sylvinite @ 41.7% KCl
NPV <sub>10</sub>	US\$221 million	US\$319 million
IRR	19.3%	22.9%
Average annual free cash flow	US\$ 74 million	US\$95 million
Mining Method	Dual well selective dissolution	Single cell selective dissolution
Ship loading	Purpose built Kore facility	BOO at existing Pointe Noire Port

# 17. Project Ownership and transfer of 10% to the RoC Government

The DX Project lies within the Dougou mining licence area. The Dougou Mining Licence will be held by Dougou Potash Mining SA, a 100% owned subsidiary of SPSA. In turn, SPSA is owned by the Kore Group (97%) and a RoC entity (Les Etablissements Congolais MGM) (3%). An existing Share Purchase Agreement enables Kore to purchase the remaining 3% of the shares in SPSA, with Kore shares to form the consideration.

The Argus Media price assumption is based on a real price profile which steadily declines from 2022 to a low in 2027 and then steadily rises to a maximum of \$474/t MoP in 2033 with a flat real profile from 2033 until the end of mine life.

<sup>2.</sup> Flat real pricing assuming a fixed price from start to end of production has been applied in other sensitivity calculations.



In accordance with the Mining Convention, the RoC Government will be transferred 10% of the shares in Dougou Potash Mining SA.

An existing contract with the current 3% shareholder of SPSA, provides for Kore to become the 100% owner of SPSA in advance of transferring the 10% interest in DX Potash Mining S.A. to the RoC Government.

# 18. Risks and Opportunities

Key risks identified for the DX Project are:

- TSS brine grade variability: If lower brine grade concentrations are achieved than determined in the PFS, higher flow rates
  may be required to achieve production targets, or there may be reduced MoP production. This risk has been mitigated in
  the PFS via commencement of mining in the TSS being delayed until Year 4. Moreover, only 21% of the initial 7 years of
  scheduled MoP production is drawn from the TSS.
- Unplanned carnallite intersections: Unplanned carnallite intersection, by either a drill hole or a cavern, could result in an
  operational need to abandon the drill hole or cavern. Should this happen this could increase drill hole costs and potentially
  reduce Ore Reserves in that cavern area. Cost risk (for initial caverns) is addressed through an allowance for 3 additional
  caverns, and through project contingency.
- Operating cost variability: The PFS has been based on the use of 3rd party in-country supplies for off-site infrastructure
  such as gas, power, transport and marine services. All of these activities have been costed on the basis of proposals
  received from in-country service providers. However, there is a risk that these prices are not achieved in final contract
  negotiations. These risks are mitigated in the PFS through receipt of proposals from multiple service providers in each area
  possible.
- Potash market and price variability: Kore is in advanced discussions with potential offtake partners for the planned DX Project production. The Company has not yet formed sales contracts for the planned production and anticipates forming offtake agreement/s prior to completion of a DFS. There is currently no forward selling of potash or market to hedge potash prices. The DX Project will be exposed to potash price variability. The DX Project's low operating cost allows it to competitively deliver high quality MoP to its target markets cheaper than other suppliers and the net cash back to Kore is expected to be larger than for other suppliers to the target markets. The PFS assumption is that the inherent value in the higher grade of MoP that DX will produce will offset potash marketing costs (DX is designed to produce K62 MoP v industry standard K60).

Key opportunities identified for the DX Project are:

- Product Quality: The PFS indicates that the DX product (MoP) will contain 98.5% KCI (meeting the requirements for K62 fertilizer product) which is significantly higher than the common industry specification of 95% KCI (corresponding to K60 product). This could present the opportunity to either market the DX product as K62, or to correct the product to a purity consistent with K60. At a production rate of 400,000 tpa, the 3.7% excess KCI in the DX product represents the equivalent of 14,800 additional tonnes of K60 MoP per annum.
- Project Life: Multiple potential opportunities exist to extend the DX Project life:
  - The PFS only schedules 22% of Indicated Mineral Resources for extraction in the scheduled life of 18 years.
  - The Inferred Mineral Resources at DX are 66 Mt at 40.4% KCl. No Inferred Mineral Resources are scheduled within the PFS.
  - No secondary potash recovery modes have been scheduled following initial cavern operation and prior to ultimate cavern closure. These secondary recovery modes are a normal approach within the potash solution mining industry.



# 19. Permit progress

The majority of permits and agreements required to facilitate commencement of construction and operations of the DX Project are in place. An amendment to the ESIA for the Dougou mining exploitation licence is required and will be applied for during the execution of the DFS.

- The Dougou Mining Licence was granted on 9th May 2017 for a period of 25 years.
- The ESIA for the Dougou Mining Licence was approved for 25 years on 31 March 2020
- The Mining Convention was gazetted into law on 7 December 2018 and is renewable after for 25 years

# 20. Project Funding

## Reasonable Basis for Funding Assumption

The Directors of Kore have formed the view that there is a reasonable basis to believe that requisite financing for development of the DX Project will be available when required. Kore shareholders should be aware of the risk that future financing for development of the DX Project may dilute their ownership of the Company or Kore's economic interest in DX (or the DX Project).

There are several grounds on which this reasonable basis is held:

- Kore Potash has two large strategic shareholders:
  - SQM (c.19%): a large Chilean public company listed on NYSE (USA) that is an integrated producer and distributor of specialty plant nutrients, including having an established business in the global potash market; and
  - SGRF (c.19%): the sovereign wealth fund of Oman, which holds a range of natural resource investments, including on the African continent.

These two groups initially invested a total of c.US\$40 million into Kore Potash in late 2016. They have subsequently invested further in the Company to continue developing its pipeline of projects, including the DX. They collectively bring a considerable and highly relevant combination of substantial financial capacity, specific potash experience, Latin American, Middle Eastern and African operating experience, and financing expertise.

- Kore has ongoing dialogue with a number of interested financial institutions including commercial banks, Development Finance Institutions (DFI) and private equity funds:
- The Company's modelling indicates the DX Project has a debt carrying capacity in excess of 50% of the capital cost. Kore's
  management team have identified a pool of interested commercial banks with capability and indicated interest to provide
  debt financing for the DX Project.
- Kore's structure facilitates financing options for DX via the parent Company Kore plc, or through joint venture at the DX Project level.
- Kore's management continue advanced discussions with multiple international trading groups with expressed interest in procuring the DX MoP production.
- DX PFS has been completed by a team of world-class solution mining experts in Innovare Technologies and Agapito. The study meets the expected level of detail required for a PFS.
- The technical and financial parameters detailed in the DX Project PFS are robust and economically attractive. Further
  opportunities to de-risk and improve the investment case are planned in the DFS phase of the DX Project.
- Financing for the construction of the DX Project would be required in the future after completion of the DFS.
- The Kore Board and management team is highly experienced in the broader resources industry. They have played leading
  roles previously in the exploration and development of several large and diverse mining projects in Africa and around the
  world. In this regard, key Kore personnel have a demonstrated track record of success in identifying, acquiring, defining,
  funding, developing and operating quality mineral assets of significant scale.



### 21. Execution Strategy

Kore Potash currently foresees debt forming part of the financing mix. It expects lenders will require execution of the DX Project via EPC contracts and is planning on this basis.

Preliminary discussions with potential EPC partners indicate significant interest for construction of all project components. Drilling of production holes forms material part of the initial capital spend on the DX Project. Opportunity may exist to complete drilling of these holes via non-EPC models and Kore will investigate these options further in consultation with potential lenders during the DFS phase.

The storage facilities and the ship loading conveyor facilities are planned to be constructed as part of a Build-Own-Operate (BOO) contract financed by the BOO service provider.

Kore will have control over BOO infrastructure designs to ensure they will meet operational requirements.

Table 13 shows a list of the anticipated major construction contracts.

**Contract Title** Type C1 Drilling **EPC/Target Price** C2 Pipelines (Wellfield, Water, Disposal) **EPC** C3 **Process Plant EPC** C4 Power Supply EPC C5 **Product Transport & Storage** Build-Own-Operate

**Table 13: Major Construction Contracts** 

During construction, Kore will have a Project Management team operating from the DX Project construction site, with support from the Kore office in Pointe Noire.

Camp accommodation will be provided for up to 250 people during construction, with any excess temporary requirements handled in the surrounding communities. Camp capacity will be reduced to approximately 100 during operations.

The DX Project construction effort is expected to create significant employment opportunities for people in the surrounding communities, including Pointe Noire. EPC contractors will draw from the local labour force where available and will also subcontract to local contractors. Kore expects most construction skills to be available in-country.

#### **Project Execution Schedule**

The DX Project execution schedule is summarised in Figure 20.

After a final investment decision is made, year 1 of construction will be focused on drilling and construction of the wellheads, wellfield piping, instrumentation and controls and wellfield pump station. In tandem, water supply and disposal pipelines will be constructed to the coastal pump station. Brine outfall and water intake structures will be installed in the ocean. Permanent power will be established with an overhead power line from a connection point near M'Boundi. Temporary electrical power generators will be installed for construction activities and replaced with permanent power as early as possible in the construction schedule.

During year 2 of construction, the process plant construction, natural gas infrastructure, site buildings and all other aspects of construction will be completed. Development of caverns will be performed during year 2 of construction and caverns are scheduled to be ready for mining at the end of construction.

The process plant is expected to start up after a 21-month construction period. Figure 20 shows an indicative schedule.



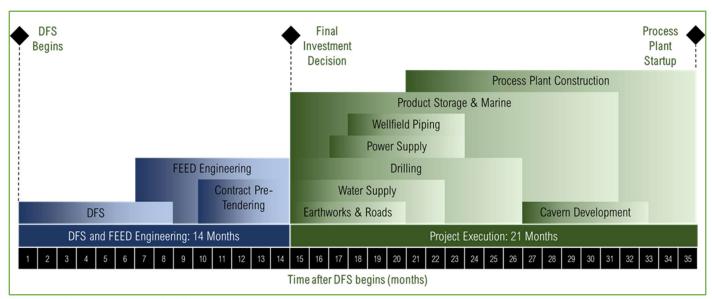


Figure 20: Indicative Execution Schedule

#### **Commissioning and Handover**

As the final phase of construction, project commissioning will be executed over a three-month period before startup. A standard five-phase project commissioning process will be followed, including:

- Phase 1 Construction and mechanical completion;
- Phase 2 Cold commissioning or pre-operational testing;
- Phase 3 Wet commissioning or operational testing;
- Phase 4 Product commissioning and
- Phase 5 Completion certificate (Handover from project to operations).

#### **Operations**

During commissioning and first potash production the operational workforce will be onsite working in parallel with the commissioning team. The project capital cost includes provision for commissioning through to process plant handover.

The operational headcount totals 85. A summary of headcount by organisational area is shown in Table 14.

**Table 14: Summary of Operational Headcount** 

Function	Headcount
Operations	34
Maintenance	17
Health, Safety and Environment	10
General & Administration	24
Total	85

Employees will be located in both Pointe Noire and at the DX Project site. Some site employees will be on continuous shift work and will work an average of 56 hours/week. All other employees will be on dayshift at 40 hours/week.



# **APPENDIX B**

**Summary of Information required for ASX** 

Appendix B: Summary of Information required under ASX Listing Rule 5.9.1(in relation to Ore Reserves), Listing Rule 5.16.1 (production target) and Listing Rule 15.7.1 (forecast financial information).

#### DX Project Ore Reserves and related production target and forecast financial information

Pursuant to Listing Rules 5.9.1, 5.16.1 and 15.7.1, and in addition to the information contained in the body of this release and in Appendix C below, the Company provides the following summary information. The assessment of the modifying factors to prepare the Ore Reserves Statement occurred as the PFS was being finalised, with the production target and forecast financial information based on the information contained in the finalised PFS described in this report. Differences between the material assumptions for the Ore Reserve Statement and the production target and financial forecast (referred to below) are attributable to improvements in the material assumptions while finalising the PFS.

#### Summary of Material Assumptions – Ore Reserves

The material assumptions relating to the Ore Reserve Statement, for the DX Project are summarised below:

- Production life (Appendix A p12-13 Appendix C, p22)- LoM of the Ore Reserves 18.4 years at nominal 400,000 tpa MoP production, this was determined during the execution of the PFS and from an aligned production schedule for both mining and processing.
- Product Type (Appendix A, p15, Appendix C p2) process design was based on one MoP product type
   white granular.
   The marketed MoP will comprise at least 95% KCl, with a maximum of 0.2% Mg and 0.3% Insolubles.
- Product pricing (Appendix A p22, Appendix C, p22) MoP prices were based on forecasts from Argus Media specifically
  for select African markets. The Base Case sales price is forecast to decrease to a low in 2027 and then increase to a
  maximum of \$474/t MoP in 2033. Post 2033 the price has been assumed to remain flat at \$474/t MoP. The average CFR
  sales price over the LoM is forecast at US\$422/t MoP.
- Operating cost (Appendix A, p24 and Appendix C, p22) ex-mine LoM average operating cost of US\$65.26/t MoP, real
  and FOB LoM average operating cost of US\$86.61/t MoP was calculated from first principles in the PFS
- Shipping costs (Appendix C, p22) LoM Shipping costs of US\$28/t MoP were based on information and estimates from 3<sup>rd</sup> party expert and reflects ocean going vessels with capacity in the range of the 10000-15000t DWT.
- Project durations A project capital period 21 months was estimated in the PFS and the deferred capital period defined 6
  months, with sustaining capital estimated in the PFS as 216 months
- Project Capital (Appendix A p22, Appendix C, p21) A total nominal Project Capital of US\$ 286 million was estimated in the PFS
- Fiscal parameters (Appendix a, p25, Appendix C, p23) The signed mining convention determined the relevant fiscal parameters as summarised below:
  - Company tax rate (15%),
  - Tax holidays (5 years at 0% + 5 years at 7.5%)
  - Royalties (3%) (Mining Convention)
  - Government free carry (10%) (Mining Convention)
  - Other minor duties and taxes (Mining Convention)

#### Summary of Material Assumptions – production target and forecast financial information

The material assumptions relating to the production target and forecast financial information for the DX Project which vary from the assumptions relating to the Ore Reserve Statement described above are summarised below:

- Production life (Appendix A p12-13 Appendix C, p22) LoM of 18 years at nominal 400,000 tpa MoP production, this was
  determined following the receipt of the PFS.
- Product pricing (Appendix A p22, Appendix C, p22) Average MoP price of US\$422/t MoP CFR Africa (real 2019) for granular product (based on recent potash price movements, current market prices, a review of recent releases by Potash producers and potash development companies and potash market research from Argus Media).
- Operating cost (Appendix A, p24 and Appendix C, p22) mine gate operating cost is estimated at US\$65.27/t and the
  export (FOB) cost is estimated at US\$86.61/t, excluding royalty and sustaining capital.



#### The Mineral Resource Estimation

The Mineral Resource Estimate was reported in accordance with the JORC Code, pursuant to Listing Rules 5.6, 5.22 and 5.24. A full description of the methodology is provided in Appendix C.

The Mineral Resource Estimate used an interpretation based on drill-hole data and 2D seismic data to create 3D 'wireframes' for the sylvinite seams. The wireframes were then 'filled' with a block model, with individual block dimensions of 50 by 50 metres and variable height. The drill-hole intersection data for KCl (%), magnesium (%) and insoluble content (%) was estimated into the block model using Inverse Distance Weighting squared. The ddensity of each block was calculated using a formula for the correlation between KCl content and density (by pycnometer) and has an average of 2.03 t/m³ and 2.11 t/m³ for the HWSS and TSS.

The block-model and thus the estimate was then reduced by the removal of two 'structural exclusion zones' and by cutting it on the east and southeast by a boundary reflecting the 'maximum extent of sylvinite' interpreted from seismic and drill-hole data.in the tabulation (not in the block model). All blocks with a thickness of less than 1-metre were excluded from the estimate and a 15% KCl cut-off-grade was applied. A final step was the reduction of the resultant tonnages by 15% to account for unmodelled geological losses, to obtain the final estimated sylvinite tonnages. Two estimates were made; one for the HWSS and the full TSS and one for the HWSS and TSS-6-8, the latter being a higher-grade lower tonnage option and the base case for the Ore Reserve Estimate.

The classification of the Mineral Resource Estimate by the Competent Person was based on Area of Influence (AOI) around the drill-holes. No Measured Mineral Resources were estimated. Indicated Mineral Resources are limited to (sylvinite) blocks within an area guided by an AOI with a radius of 1.0 km around the drill-holes DX\_01, K62, ED\_03, ED\_01. Inferred Mineral Resource are limited to sylvinite (blocks) within an area guided by an AOI with a radius of 2.5 km around inner holes, and a 1.5 km radius beyond 'outer' holes (DX 03 and DX 02) and exclude the Indicated Mineral Resource area.

#### The Ore Reserve Estimation

The Ore Reserve estimate was carried out by Agapito and reported in accordance with the JORC Code, pursuant to Listing Rules 5.9.1, 5.16.1 and 15.7.1.

#### **Classification of Ore Reserve**

The Ore Reserve is that portion of the Indicated Mineral Resource within the Preliminary Feasibility Study mine plan boundary. The mine plan boundary includes the Indicated Mineral Resource area within 1 kilometre from the four exploration cored boreholes ED-01, ED-03, DX-07 and DX-09. These 4 cored holes are within 2,000 meters of each other so that their Area of Influence (AOI) are interconnected. Mineral Resources were assigned to DX-01 which is not contiguous to the four interconnected core holes so was not considered to be included in the Ore Reserves.

#### Mining Method and assumptions

For the PFS solution mining plan, single-well caverns were adopted. The decision to use single-well caverns was based on the need to locate caverns as close to each other as possible to maximize resource recovery and the Reserves for the Dougou Extension (DX). The 2D seismic and new drill holes completed as part of the PFS resulted in better definition of the extent, thickness and dip of the floor of the resource. Solution mining of large dual-well caverns, as proposed in the Scoping Study, resulted in reduced resource recovery in comparison to the single, smaller caverns.

This configuration resulted in additional wells, but higher resource recovery and mine life. The plant is designed to produce 400,000 tonnes per year of Muriate of Potash (MOP) with a purity of 98.5% KCl. Recovery of resource is planned in the HWSS and TSS where they exist. To meet this production goal, 25 caverns will need to be developed and put into operation at start-up and replaced over the 18-year mine life. The adopted method of solution mining will inject a hot brine with near saturation of NaCl and KCl content of approximately 90 to 100 g/l. The brine will selectively dissolve the KCl to produce a brine feed to the plant of up to 165 g/l KCl with the NaCl remaining in the cavern. Laboratory-scale dissolution rate testing has verified selective dissolution of KCl at a KCl concentration of 165 g/l.



The steps in solution mining is to first develop a sump in the salt below the lowest potash bed available, then to expand the top of the sump with both steps utilizing an oil or nitrogen cap to inhibit vertical cavern growth. When the roof is developed, the oil/gas cap will be removed and solution mining of the lowest beds (HWSS or the TSS) can be achieved. If the HWSS and TSS are present, sump development in the TSS will follow completion of mining in the HWSS.

Other mining techniques were evaluated during the Scoping Study and these included dual-well caverns as practiced in Saskatchewan and horizontal wells as practiced by Intrepid, Natural Soda, and in Turkey (Eti Soda and Kazan). The dip of the beds and the variability of the dip favoured the single-well plan.

Cavern stability and size of the caverns was based on modelling of the larger dual-well caverns and geomechanical parameters from the Definitive Feasibility Study (DFS) of the nearby Kola Project that is owned by KORE Potash.

The selected areal extraction ratio is 63%, with the caverns approximately circular with a radius of 60 meters and pillars between caverns of 24 meters. The volumetric extraction ratio is 46.2%. This configuration is likely to be stable during operations when the pressure in the caverns will support the roof. Pillar degradation is possible, and subsidence or interconnection of caverns is not of concern.

The mining recovery factors used include losses due to geologic anomalies and the brine remaining in the cavern after completion of active mining. The geologic loss factor for the HWSS and TSS is 15%. There is greater uncertainty for resource recovery because of the banded nature of the TSS therefore a 15% factor related to TSS mining has been allowed. The HWSS is of uniform high-grade KCI, whereas the TSS has high-grade KCI seams interspersed with low-grade seams. The overall grade of the TSS seam is 29.3% KCI, whereas the grade of the HWSS is 57%. Hence, selective mining of the TSS is expected to be less reliable than for the HWS. The loss of resource to the remaining brine in the cavern is estimated to be 16–18%. Some of this can be recovered with the use of submersible pumps. No credit has been taken for the recovery of the residual brine in the cavern because for some caverns, deformation above the cavern may restrict the placement of the submersible pump and the suction pipe to the bottom of the cavern.

Mining dilution factors are not applicable to solution mining. Modelling completed for the PFS incorporates the transition from sump development with the production of brine of high NaCl content and no KCl to a high KCl concentration brine once solution mining is advanced to mine the HWSS or the TSS. During this transition from sump mining to potash mining, brine grades less than 90 g/l will be discarded or recirculated. Dilution factors generally associated with conventional mining involve reduction (dilution) of the ore grade delivered to the plant because of mining low-grade material, either above or below the economically viable ore zone.

The mining recovery factors include the areal extraction ratio of 63% (volumetric extraction of 46%) and the losses due to the geologic anomalies and the loss of brine remaining in the cavern. Plant losses are estimated to be 1.5%. The final product will be 98.5% pure KCl with 1.5% NaCl.

Inferred resources have not been quantified into the mining plan.

The infrastructure requirements for solution mining include piping for delivery of the solute and recovery of the pregnant brine, wellfield pumps, electrical, instrumentation and roads. Instrumentation at the well head includes flow, temperature and brine density. Sampling of brine at the well head will be done manually. Production piping will be insulated to minimize temperature losses in the solvent and product brine. Cavern development pipelines will not be insulated.

#### **Processing Method and Assumptions**

The selective solution mining process for DX is expected to deliver brine to the process plant containing (by weight) 66.8% water, 18.6% NaCl, 13.4% KCl, 1.1% MgCl<sub>2</sub>, and 0.1% CaSO<sub>4</sub> at a temperature of 60°C. All the above elements will be fully dissolved within the brine. Brine of this nature is well understood globally and can be readily processed.

Crystallisation is the processing method selected for the DX Project and is well established in the potash industry. KCl crystallisation involves the gradual cooling of KCl-rich brine and relies on a strong relationship

between KCl solubility and brine temperature. As the brine is cooled, the amount of KCl that can remain in solution decreases. Therefore, KCl crystallises as brine is cooled, while most NaCl remains in solution. KCl crystallisation is known to yield higher KCl recovery than conventional recovery methods used for separation of KCl solids from NaCl solids, such as flotation.

#### The estimated KCI losses are due to:

- Purge stream (0.50%): A purge stream is required to control the level of MgCl<sub>2</sub> in the process brine. MgCl<sub>2</sub> is preferentially soluble to KCl and will gradually displace KCl if it is not controlled. A small portion of brine is bled off and disposed to manage the level of MgCl<sub>2</sub> in the brine, and this also results in a loss of KCl. The DX design includes a purge stream.
- Boilout (0.15%): Crystallisation vessels are descaled with water using a process called 'boilout', which results in some loss
  of KCl from the walls of the vessels, directed to brine discharge.
- Dust (0.29%): Dust losses to the atmosphere occur in the process of drying, and also after KCl is dried.
- Spills and washdowns (0.20%): The plant will occasionally have process upsets and cleaning procedures which may result
  in a loss of KCl to brine discharge.
- Offsite transportation losses (0.35%): Some allowance is made for transportation losses during transport of MoP and during ship loading at the marine location.

The total losses are expected to be 1.49%, and therefore, the total process KCl recovery is expected to be 98.5%.

Some impurities are expected to accompany the final MoP product. The minimum KCl content for K60 MoP is 95% KCl, however the DX process is expected to yield a product grade of 98.5% KCl.

The primary basis for the above assumptions was a detailed mass balance, produced by subject matter experts in the field of potash crystallisation and potash dry processing, with supplementary input from a world-renowned supplier of potash crystallisation equipment.

Furthermore, dissolution test work was performed on DX core samples from both the HWSS and TSS at Agapito Associates Inc. laboratory in Grand Junction, Colorado, USA. The testing provided a basis for the predicted dissolution characteristics within the caverns, and the resulting brine KCl concentration and flow to the process plant. These parameters were used in the design of the process plant and became the basis for the prediction of LOM production for the DX project.

#### **Cut-off Grades**

For the MRE a 15% KCl cut-off-grade was applied though no blocks have a grade less than this. The deleterious components Mg and insolubles are so low and consistent at DX that these were not considered in the selection/exclusion of blocks from the model.

The cut-off grades and quality parameters applied in selecting the mine plan include presence of carnallite, thickness and insitu KCl content. The high KCl grade for the HWSS is exceptional compared to other mined potash beds. The TSS is comprised of several narrow high-grade sylvinite layers separated by narrow layers of 'barren' rock-salt. TSS lower most layer 5 and the uppermost layer 9 were excluded from the Ore Reserve estimate and from the mine plan because they are separated from the 'inner' layers 6-8 by thick layers of rock-salt. The Reserve considers the TSS 6-8 only. A potash grade of 30% KCl is considered necessary for successful selective solution mining of potash. The mine plan involves selective dissolution of the KCl by injecting near-saturated NaCl brine and selectively dissolving the KCl.

#### **Estimation Methodology**

#### Capital Cost:

Capital Cost Estimate has been developed for each scope area, expressed in United States dollars (USD) and based on 4th Quarter 2019 prices.

Capital Cost Estimate is a full AACEI Class IV Estimate (-15 to 30%, +20 to 50%)), based on an equipment factored methodology where budget prices were obtained for all equipment with an expected value higher than \$50,000 all other equipment was factored as a percentage of the total of the budget quotes received.

Indirect costs were estimated by Kore Potash and included owner's costs and offsite infrastructure costs based on quotes received

Escalation of 1.5% per annum has been considered, and a total Contingency of approximately 22.0% (of total direct and indirect costs) has been added.

Three capital periods have been defined: Initial (Construction and up to first barge loading, Month +21); Deferred (up to ramp-up completion, Month +27); Sustaining (after Month +27).

#### Operating Cost:

Operating costs were estimated from first principles using quoted rates, estimated consumption, forecast labour complements and remuneration estimates.

Operating Cost covering the Life of Mine (18 years) has been estimated in Q4 2019 US\$ terms. They include costs for Electric power, Fuel, Gas, Labour, Maintenance parts, Operating Consumables, General and Administration costs and Contract for Employee Facilities.

Ocean freight transportation estimate was based on shipping costs for 10-12 kt ships specifically for the African market.

Mine Closure cost estimated in accordance with a Conceptual Rehabilitation and Closure Plan developed during the PFS State mineral royalties of 3% of Gross Revenue applies.

Indicated Mineral Resources were used for the estimation of Probable Ore Reserves.

The conversion of Indicated Mineral Resource to Probable Ore Reserve reflects the Competent Person's view of the deposit.

#### **Material Modifying Factors**

#### Status of Environmental Approvals

The Dougou Extension project area falls within the Dougou mining licence which has a 25-year ESIA approval in place. The DX scope will require an amendment to the Dougou ESIA and this application would be prepared simultaneously with the execution of the DFS phase of the project. The base line studies for the Dougou ESIA and the Kola infrastructure corridors (power, gas and overland access) will provide required information for the amendment application.

Additional baseline studies required to complete the application will be centred around new areas that would be affected by the DX project.

There are no waste rock dumps or process residue storage facilities required for the scope of the DX project. Waste salt brine is planned to be disposed of back into the ocean. The disposal of waste brine into the ocean was investigated and included in the Kola ESIA which was approved by the regulator when the Kola ESIA was granted a 25-year approval in March 2020.

The Company shall carry out their construction operations in compliance with the environmental and social management plan as part of the approved ESIA and will be subject to Regulator's environmental management compliance audits.



#### • Status of Mining Tenements and Approvals

Kore Potash Limited (which is 100% owned by Kore Potash Plc.) and formerly known as Elemental Minerals Limited (ELM), has a 97%-holding in Sintoukola Potash SA (SPSA), a company registered in the ROC. The remaining 3% in SPSA is held by "Les Establissements Congolais MGM" (Republic of Congo). SPSA in turn has a 100% interest in its two ROC subsidiaries, Sintoukola Potash Mining SA and Dougou Potash Mining SA. The DX Deposit is within the Dougou Mining Licence which is 100% held by Dougou Potash Mining SA and was issued on the 9 May 2017 for a period of 25 years, under decree No. 2017-139.

#### Other Governmental Factors

A mining convention entered into between the RoC government and the Companies on 8 June 2017 and gazetted into law on 7 December 2018 concludes the framework envisaged in the 25-year renewable Dougou Mining Licence granted in August 2013. The Mining Convention provides certainty and enforceability of the key fiscal arrangements for the development and operation of Dougou Mining Licences, which amongst other items include import duty and VAT exemptions and agreed tax rates during mine operations. The Mining Convention provides strengthened legal protection of the Company's investments in the Republic of Congo through the settlement of disputes by international arbitration. The Mining Convention also provides for 10% of the shares in the subsidiary companies holding the Dougou and Kola Mining licences to be transferred to the Government of the Congo. This transfer of 10% to the Government has not yet occurred.

#### Infrastructure Requirements for Selected Mining, Processing and Product Transportation to Market

The project infrastructure is comprised of a mine site (well field), a processing plant, a 13.8 km buried water line to the coast, an accommodation camp, an overhead powerline from Mboundi and overland truck transport on the national road system of both product and gas.

Land acquisition rights for the DX project area will have to be applied for during the DFS phase and a project specific area will need to be through a ministerial order. To achieve this a governmental process is followed that culminates in a "Declaration d'Utilite Publique" (DUP) being granted. This process was followed successfully on the Kola project and will only be required for new areas that are impacted by the DX project area.

The Process Plant Site is located approximately 65 km north west of Pointe Noire and 18 km inland from the coast. The Mine Site is located next to the Project Process Plant.

The DX Project will require the regular use of existing highway RN5 for transport during construction and operations. RN5 includes 25 km of unpaved sand road between Madingo-Kayes and the process plant. Although the sand portion of the road is currently used for logging transport, some upgrades may be required to support the construction and operating traffic for DX.

A High Voltage (HV) Overhead Transmission Line (OHL) will be run from a CEC tie-in point at M'Boundi. The OHL will supply electrical power to the DX mine and process plant

Water supply will be seawater and brine will be disposed to the ocean via two 14 km long pipes between the process plant and the coast. A water pumping station will be required near the coastline.

A Natural Gas Virtual Pipeline (NGVP) will be used for the DX Project, involving the delivery of compressed natural gas on trucks. A compression (mother) station is installed adjacent to the existing natural gas pipeline. Natural gas is compressed at high pressure onto tube trailers. Tube trailers are transported to a decanting (daughter) station at the DX process plant. The tube trailer is connected to apparatus at the decanting station where the pressure is reduced to the correct pressure for use by the end use customer.



# **APPENDIX C**

JORC CODE Table 1 Checklist of Assessment and Reporting Criteria - sections 1-4



## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

	Section 1 - Sampling Techniques and Data		
JORC Criteria	JORC Explanation	Commentary	
1.1 SAMPLING TECHNIQUES	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Sampling of Kore's holes was carried out according to an industry standard operating procedure (SOP) beginning at the drill rig.</li> <li>Core drilling was used to provide core samples. Sample intervals were between 0.1 and 2.0 metres and sampled to lithological boundaries where present. Minor lithological intervals (~20cm or less) were generally included within a larger sample.</li> <li>In all cases, core was cut along a 'center-line' marked such that both halves are as close to identical as possible.</li> <li>All were sampled as half-core and cut using an Almonte© core cutter without water, and blade and core holder cleaned between samples. Samples were individually bagged and sealed in boxes.</li> <li>At the laboratory, samples were crushed to nominal 2 mm then riffle split to derive a 100 g sample for analysis.</li> <li>Historical holes (starting with 'K') were drilled by Mines de Potasse d' Alsace S.A (MDPA) during the late 1960's and early 1970's. There is no description of the sampling methodology for these holes. Only K52 was used in the estimate of grade for the Dougou Extension (DX) MRE and was twinned by Kore's hole ED_01 (20 m away) to validate the historic grade and geology data.</li> <li>Further discussion on sampling representivity is provided in section 1.5.</li> <li>Downhole geophysical data including gamma-ray data were collected for all holes. Gamma-ray data provides a useful check on the depth and thickness of the potash intervals.</li> </ul>	
1.2. DRILLING TECHNIQUES	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	<ul> <li>Holes were drilled in two phases by rotary percussion through the 'cover sequence' (Phase 1 between 9- and 12-inch diameter, Phase 2 between 5- and 8-inch diameter) stopping 3-5 m into in the Anhydrite Member and cased and grouted to this depth. Holes were then advanced using diamond coring with the use of tri-salt (K, Na, Mg) mud to avoid dissolution and ensure acceptable recovery. ED_01 and ED_03 core was drilled PQ (85 mm diameter) then subsequent holes HQ (64.5 mm core diameter) as standard. All holes were drilled as close to vertically as possible.</li> </ul>	
1.3. DRILL SAMPLE RECOVERY	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core recovery was recorded for all cored sections of Kore's holes by recording the drilling advance against the length of core recovered. Recovery is between 95 and 100% for the evaporite and all potash intervals. A full-time mud engineer was recruited to maintain drilling mud chemistry and physical properties.</li> <li>Core is wrapped in cellophane sheet soon after it is removed from the core barrel, to avoid dissolution in the atmosphere, and is then transported at the end of each shift to a de-humidified core storage room where it is stored permanently.</li> </ul>	



Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4

1.4. LOGGING	Whether core and chip samples have been geologically and geotechnically logged to a	<ul> <li>Recovery data is not available for all historic boreholes. Only K52 was used in the grade estimate.</li> <li>There are no concerns relating to bias due to recovery or due to preferential loss of certain size fractions; the sylvinite and halite are of similar grainsize and hardness.</li> <li>The entire length of Kore's holes was logged geologically, from rotary chips in the 'cover'</li> </ul>
1.4. Eddding	level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.  • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.  • The total length and percentage of the relevant intersections logged.	sequence' and core in the evaporite. Logging is qualitative and supported by quantitative downhole geophysical data including gamma and acoustic televiewer images, which provide a useful check on the conventional core logging.  • Due to the conformable nature of the evaporite stratigraphy and the observed continuity and abrupt nature of contacts, recognition of the potash seams is straightforward and made with confidence.  • Core was photographed to provide an additional reference and record.  • High quality geological logs were available for historic holes used in the model, based on cored holes. For oil well Yangala-1, the logging was based on rotary cuttings and is therefore less detailed. The position of the seams in these holes was interpreted by Kore. Only K52 and K62 are within the area of MRE.
1.5 SUB-SAMPLING TECHNIQUES AND SAMPLE PREPARATION	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Kore's samples were sawn as described above, into two halves. One half was retained at site as a record, and one half sent in a batch of samples to the laboratory, intertek of Perth.</li> <li>Care was taken to orient the core before cutting so that the retained and submitted halves were as similar as possible.</li> <li>For at least 1 in 20 samples both halves were submitted, as two separate samples – an original and (field) duplicate sample. The results of the duplicate analyses indicate no problematic bias, supporting the adequacy of the sample size and the sub-sampling procedures. This partially a reflection of the massive layered nature of the mineralisation, with layering that is generally close to perpendicular to the core axis.</li> </ul>
1.6 QUALITY OF ASSAY DATA AND LABORATORY TESTS	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Analyses for holes ED_01, ED_03 and DX_01 to DX_04 were carried out at Intertek in Perth. Analyses for holes DX_07 and DX_09B were carried out at SGS Lakefield in Canada. At the laboratory, samples were crushed to &gt;75% passing 2 mm then split to derive a subsample (100 g for Intertek and 250 g for SGS) for analysis. Total K, Na, Ca, Mg and S were determined by ICP-OES. Cl was determined volumetrically. Insolubles were determined by filtration of the residual solution and slurry on a 0.45 micron membrane filter, washing to remove residual salts, drying and weighing. Loss on drying by Gravimetric Determination was also completed as a check on the mass balance.</li> <li>A full quality control and assurance (QAQC) programme was implemented, to assess repeatability of the sampling procedure and the precision of the laboratory sample preparation and the accuracy of analyses.</li> </ul>

# KORE POTASH PLC DX Project Pre-Feasibility Study Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4



		<ul> <li>This comprised the insertion of blanks, duplicates, certified reference materials and internal (non-certified) reference material. QAQC samples make up 17% of the total number of samples submitted, which is in line with industry best-practices.</li> <li>The results of the QAQC data were assessed graphically and is acceptable supporting the use of the laboratory analyses for sylvinite for the MRE. A QAQC report was produced.</li> </ul>
1.7. VERIFICATION OF SAMPLING AND ASSAYING	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Sampling and other drilling data was captured into MS Excel, then imported along with assay data into an MS Access database. On import, checks on data are made for errors.</li> <li>All mineralised intervals used for the MRE were checked and re-checked an compared against lithology and gamma data, which provide a further check of grade and thickness.</li> <li>As stated, K52 was the only historic hole for which assay data was used in the MRE. To validate the historic hole, it was twinned by ED_01, which supported the accuracy of the K52 data.</li> </ul>
1.8. LOCATION OF DATA POINTS	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill-hole collars were surveyed by a professional surveyor using a DGPS, expected to be accurate to within ~200 mm. DX_07 and DX_09B were drilled at seismic survey stations which had been surveyed prior to drilling by a professional surveyor using a DGPS.</li> <li>The drill-hole positions are given in UTM zone 32 S using WGS 84 datum (Table in the announcement).</li> <li>Topographic elevation is from SRTM 90 satellite data, though of relatively low resolution, it is sufficient for the MRE.</li> </ul>
1.9. DATA SPACING AND DISTRIBUTION	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The figure in the announcement shows the location of the drill-holes. Those within the deposit extent are spaced between 0.7 and 4 km apart.</li> <li>Between drill-holes, 2D seismic data was important in modelling the geometry (elevation and dip) of key surfaces between holes. Kore Potash collected 60 km of high frequency 2D data in 2019 using DMT GmbH&amp;Co KG of Essen, Germany (DMT). Lines were on an approximate grid (figure in the announcement) and spaced between 240 and 800 m. The receiver interval and the source interval were 10m.</li> <li>Beyond the area of the 2019 survey, historic oil industry seismic data was used. These lines are between 1.5 and 2.4 km apart and extend across all parts of the deposit in various orientations, as shown on the figure in the announcement.</li> <li>Owing to the continuity of the depositional setting of the seams, their contacts and other surfaces and 'markers' can be easily identified and correlated between drill-holes. The change from sylvinite to carnallitite is obvious in drill-holes based on visual observation, gamma-ray data and laboratory analyses. Between drill-holes, on the seismic data, the contacts/changes between sylvinite and carnallitite are not visible. As described in Section 3.5, a method of modelling these contacts/changes based was developed to interpret the distribution of sylvinite between drill-holes.</li> </ul>

# KORE POTASH PLC DX Project Pre-Feasibility Study Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4



		<ul> <li>The Competent Person (CP) has sufficient confidence that the data spacing and the methods used for modelling are sufficient to support grade and geological continuity relative to the applied classification categories described in section 3.12.</li> <li>For the reporting of sylvinite intersections (as used in the MRE), samples within the sylvinite interval were composited to a single grade and thickness, using the standard length-weighted average method.</li> </ul>
1.10. ORIENTATION OF DATA IN RELATION TO GEOLOGICAL STRUCTURE	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	The sylvinite grade is controlled by the original horizontally layered sedimentary deposition. Intersections have a sufficiently low angle of dip and drill-holes were drilled vertically; a correction of thickness for apparent thickness was not deemed necessary. Drill-hole inclination was surveyed to check verticality, it ranged -85° to -90°, the hole dip through most intersections being between 88° and 90°.
1.11. SAMPLE SECURITY	The measures taken to ensure sample security.	<ul> <li>The chain of custody of samples was secure. At the rig, the core was under full supervision of a Company geologist. At the end of each drilling shift, the core was transported by Kore Potash staff to a secure site where it is stored within a locked room.</li> <li>Sampling was carried out under the observation of Company staff; packed samples were transported directly from the site by Company staff to DHL couriers in Pointe Noire 3 hours away. From there DHL airfreighted all samples to the laboratory, either in Australia or Canada. Samples were weighed before sending and on receipt of the results weights were compared with those reported by the lab.</li> </ul>
1.12. AUDITS OR REVIEWS	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Kore's sampling procedure has been reviewed on several occasions by external parties, for the MRE for the Kola, Dougou and DX Deposits.</li> <li>The supporting data has been checked by the external CP, with inspection of logging sheets and laboratory analysis certificates.</li> </ul>

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

	Section 2 - Reporting of Exploration Results		
JORC Criteria	JORC Explanation	Commentary	
2.1 MINERAL TENEMENT AND LAND TENURE STATUS	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The DX Deposit is entirely within the Dougou Mining Licence which is held 100% under the local company Dougou Mining SARL which is in turn held 100% by Sintoukola Potash SA RoC, of which Kore Potash holds a 97% share. The Permit is valid for 25 years from 9th May 2017.</li> <li>There are no impediments on the security of tenure.</li> </ul>	
2.2 EXPLORATION DONE BY OTHER PARTIES	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Potash exploration was carried out in the area in the 1960's by Mines domaniales de Potasse d' Alsace S.A. Holes K52 and K62 are within the Deposit area. High quality geological logs are available for these holes. Hole K52 intersected HWSS and was the initial reason for Kore's interest in the area, beginning with the twin-hole drilling of K52 in 2012 by ED_01.</li> <li>Seismic data was acquired by oil exploration companies British Petroleum Congo and Chevron during the 1980's and by Morel et Prom in 2006. The Company acquired SEG-Y files for these surveys and this data has guided the exploration and deposit modelling at DX.</li> </ul>	
2.3. GEOLOGY	Deposit type, geological setting and style of mineralisation.	<ul> <li>The potash seams are hosted by the 400-500 m thick Loeme Evaporite formation of sedimentary evaporite rocks. These are within the Congo Basin which extends from the Cabinda enclave of Angola to southern Gabon from approximately 50 km inland, extending some 200-300 km offshore. The evaporites were deposited during the Aptian epoch of the Lower Cretaceous, between 125 and 112 million years ago. Importantly, the sedimentation was in a post-rift setting leading to the development of evaporite layers with significant continuity.</li> <li>The evaporites formed by cyclic evaporation of marine-sourced brines which were fed by seepage into an extensive subsiding basin, each cycle generally following the expected brine evolution and resultant mineral precipitation model: dolomite then gypsum then halite then the bitterns of Mg and K as chlorides. To precipitate the thick potash beds the system experienced prolonged periods within a range of high salinity of brine concentration.</li> <li>Reflecting the CI-Mg-K dominated brine composition, halite (NaCl), carnallite (KMgCl<sub>3</sub>·6H<sub>2</sub>O) and bischofite (MgCl<sub>2</sub>·6H<sub>2</sub>O) account for over 90% of the evaporite rocks.</li> </ul>	

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<ul> <li>Carnallite is a rock comprised predominantly of carnallite and halite. Sylvinite is a rock comprised predominantly of sylvite and halite. The term 'rock-salf' is used to refer to a rock comprising of halite without appreciable potash. Both potash types are easily identified. Sylvinite is typically reddish or pinkish in colour. Carnallite is coarser grained, greasy and orange in colour.</li> <li>Importantly, bischofite does not occur in the floor or roof of the HWS and TS; the nearest bischofite is over 130 m vertically below these seams.</li> <li>At DX the evaporite stratigraphy is slightly elevated and thinned relating to the presence of an underlying horst block forming a paleo-topographic high in the pre- and syn-rift rocks below the evaporite. This feature is referred to as the 'Yangala High' and was an important 'large-scale' control on the development of sylvinite in the DX area.</li> <li>11 evaporite cycles have been recognised, of which most are preserved at DX, the important 'Top Seam' (TS) and 'Hangingwall Seam' (HWS) potash seams are within the mid to upper part of cycle 9. Where sylvinite these are referred to as the TSS and HWSS, where referred as TS and HWS they could be sylvinite or carnallite</li> <li>The TSS is made up of several narrow high grade sylvinite layers with barren rock-salt layers between them. The individual layers within the TSS are numbered 5 to 9 from lowest to uppermost. A model and MRE was completed for 6-8 only (i.e. excluding seams 5 and 9). simply referred to as the TSS hereon.</li> <li>The TSS and HWSS seams have an average thickness of 4.4 and 3.5 metres respectively within the MRE. The HWSS is very high grade, being comprised of a single massive bed comprising 53 to 63% sylvite.</li> <li>Capping the salt dominated part of the evaporite (Salt Member or 'Salt') is a low permeability layer of anhydrite, gypsum and clay (referred to as the 'Anhydrite Member') between 10 and 16 m thick in drill-holes to date. It is at a depth of between 290 and approximately 520 m at</li></ul>



2.4 DDILL HOLE INCODMATION	A suppose of all information motorial to the understanding of the surface time as all to	Member. The process advanced on a laterally extensive 'front' and was efficient; when converted to sylvinite, almost no residual carnallite remains within the sylvinite.  The zone within which carnallite seams have been converted to sylvinite is termed the SYLVINITE zone. This laterally extensive zone starts a short distance below the SALT_R and extends down to typically 40-50 m below this contact, but rarely as much as 80 m (as in drill-hole ED_01). If the base of the SYLVINITE zone is part-way through the potash seam, unreplaced carnallite occurs immediately below the sylvinite part. In these situations, the contact between the sylvinite and carnallite is abrupt and easily identified in core.  In the upper 5-30 m of the Salt Member, the sylvinite may be further 'leached', leaving pale reddish coloured halite with little to no KCl, referred to as 'ghost' seam and generally still identifiable for lateral correlation purposes. The zone within which the sylvinite is leached is termed the LEACH zone.  With reference to the above features, the main control on the distribution of sylvinite is the position of the seams (in vertical sense) relative to the SYLVINITE zone; if the seam is above or below this zone they are 'ghost' (halite) or carnallite respectively. This is shown in the cross-section in the announcement.
2.4. DRILL HOLE INFORMATION	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  easting and northing of the drill hole collar  elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  dip and azimuth of the hole  down hole length and interception depth  hole length.  If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	<ul> <li>The borehole collar positions of the holes are provided in the announcement, along with the final depth.</li> <li>Holes were drilled vertically, the hole dip ranged from -85° to -90°, the hole dip through most intersections being between 88° and 90°. For the MRE, a dip of -90° was assigned to all drillholes.</li> <li>Positions of the holes in relation to other holes are shown in the map in the announcement. All potash intersections (or absence of) for all holes within the deposit area, including historic and 'failed' holes, are provided in the announcement. No information is excluded.</li> </ul>
2.5 DATA AGGREGATION METHODS	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	For the calculation of the grade over the full thickness of the seams, the standard length-weighted average method of compositing was used to combine results of each sample.     No selective cutting of high or low-grade material was carried out.     No metal equivalents were calculated.
2.6 RELATIONSHIP BETWEEN MINERALISATION WIDTHS AND INTERCEPT LENGTHS	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul> <li>Core and acoustic televiewer (ATV) images provide a reliable measurement of hole dip. The ATV images provide azimuth. ATV data was not collected for DX_07 and DX_09B.</li> <li>Seams have sufficiently low degree of dip, and drill-holes are close enough to vertical that a correction of intersected thickness was not deemed necessary.</li> </ul>

# KORE POTASH PLC DX Project Pre-Feasibility Study Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4



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	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
2.7 DIAGRAMS	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	A relevant map, tables and a cross-section are provided in the announcement.
2.8 BALANCED REPORTING	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	All relevant exploration data is reported. All intersections including carnallitite and 'ghost' seams within the deposit area are provided in the table in the announcement. The reporting is balanced and not misleading.
2.9 OTHER SUBSTANTIVE EXPLORATION DATA	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Holes DX_05B, DX_06, DX_08 were stopped above the evaporite due to drilling difficulties. DX_09B is named such as the first attempt to drill this hole failed. DX_09B was drilled successfully at the same location.</li> <li>As stated in section 1.9, 60 km of high frequency 2D seismic data was acquired in 2019. This data was used for the MRE, for the modelling of the seams between drill-holes and for the identification of structures.</li> </ul>
2.10 FURTHER WORK	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Infill drilling is recommended initially for the area planned for early years of mining. Additional holes would provide new data points for the model, for the depths of the seams and importantly for the depth of the base of the SYLVINITE and LEACH zones.</li> <li>In support of the depth conversion of seismic data, additional downhole density and full waveform sonic (FWS) data and possibly vertical seismic profiling (VSP) or check-shot data would be helpful.</li> <li>It would be beneficial to carry out infill 2D seismic surveying along lines between the existing lines to achieve a 100-200 m line spacing over the Indicated MRE or a portion of it. This should allow more confident correlation of structural features between seismic lines.</li> <li>In advance of mining, 3D seismic surveying should be carried out to provide a detailed 'image' of the Salt Member and overlying rocks, to quide mine planning.</li> </ul>



## **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

	Section 3 – Estimation and Reporting of Mine	ral Resources
JORC Criteria	JORC Explanation	Commentary
3.1. DATABASE INTEGRITY	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Geological data is recorded in hardcopy then captured digitally. During import into Micromine© software, an error file is generated identifying any overlapping intervals, gaps and other forms of error. The data is then compared visually in the form of strip logs against geophysical data.</li> <li>Assay data was imported from laboratory certificates into an Access database. The importing process checks for errors. Original laboratory certificates (pdf files) are kept as a secure record.</li> <li>The grade and depth data for all mineralised intervals used in the MRE were thoroughly checked to ensure no errors were present.</li> </ul>
3.2. SITE VISITS	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The CP visited the site from 9 <sup>th</sup> to 12 <sup>th</sup> January 2020 to observe the drill-core, drilling of the evaporite and review sampling and logging procedures. The CP found all to be of acceptable standard.
3.3. GEOLOGICAL INTERPRETATION	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Recognition and correlation of potash and other important layers or contacts between drillholes is straightforward and did not require assumptions to be made; each being distinct when thickness, grade distribution, and stratigraphic position relative to other layers is considered. Correlation is further aided using downhole geophysical data.</li> <li>Between drill-holes there is reliance on seismic data to guide the geometry (elevation and dip) of the seams, which in turn influences the extent of sylvinite.</li> <li>Sylvinite cannot be 'seen' directly in the seismic data. As described above, the extent of sylvinite is controlled largely by the thickness of the SYLVINITE and to a lesser extent the LEACH zones. These are determined from the drill logs. If future drilling leads to changes of the thickness of these zones between the drill-holes, then the MRE would change accordingly.</li> <li>Some uncertainty is inherent in seismic interpretation, especially further away from control points (drill-holes); this is reflected in the classification of the Indicated or Inferred categories.</li> <li>The geological model for the formation of sylvinite at DX is summarised in section 2.3. It is well understood. This model was used in the construction of the model for the MRE, as described in 3.5.</li> <li>The factors affecting continuity are as follows.</li> <li>Where the seams are truncated at the unconformity at the top of the Salt Member, the seams are absent.</li> <li>Below the SYLVINITE zone, there is no sylvinite and only carnallite is present. This is an abrupt change affecting the continuity.</li> </ul>

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		<ul> <li>Close to the SALT_R, within the LEACH zone the sylvinite may be 'leached' and is barren.</li> <li>Structures were observed within the MRE area in the 2D seismic data. Two structural 'exclusion areas' were delineated and excluded from the MRE (see map in the announcement). Other structures were identified but were not correlated between seismic lines.</li> <li>The above factors were a consideration in the application of the 15% geological loss applied to the MRE.</li> </ul>
3.4 DIMENSIONS	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The DX deposit extent covers an area of approximately 4 by 10 km. The sylvinite is found at a depth of approximately 310 to 490 m below surface. Dip of the seams is low, up to 20° but mostly less than 5-10°.  Within this area, the sylvinite is not continuous; there are internal areas where the seams are carnallite, generally in areas where, due to gentle undulation, the seams are a greater distance from the SALT_R surface and therefore below the SYLVINITE zone.  The TSS and HWSS seams have an average thickness of 4.4 and 3.5 metres respectively within the MRE.
3.5 ESTIMATION AND MODELLING TECHNIQUES	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. Sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>Drill-holes within and surrounding the deposit were used to construct the model (map in the announcement). Even if not sylvinite, the holes around the deposit contain the same seams and other key contacts such as the SALT_R and are therefore helpful in guiding the model close to and beyond the deposit extents.</li> <li>The seismic data was imported in SEG-Y format into Micromine™ 2013 software and viewed in section and in 3D. The data has been converted to depth by DMT Petrologic (Petrologic) application of a velocity model and then 'tied' to the drill-hole data using the main reflectors. Drill-holes DX_07 and DX_09B postdated well-tying of the seismic data. Predicted DX_09B intersections were several metres 'out' in terms of the depth of the surfaces based on the seismic data and so the HWS_R and SALT_R surfaces had to be adjusted accordingly to fit the new drill-hole data.</li> <li>For the historic seismic data, a uniform velocity of between 3900 and 4200 m/s was used for a simple depth conversion of the seismic data, 'hanging' it from the top of the Salt Member (an obvious reflector that can be 'tied' to the same contact in drill-hole data).</li> <li>For the 2019 seismic data, Petrologic provided an interpretation of key surfaces; notably the SALT_R and the 'base of cycle 8' (BoC8), a reflector within the upper part of the Salt Member. The SALT_R and the 'roof of HWS' (HWS_R) surfaces were modelled as 'strings' (in Micromine 2013) by Mr. A Pedley, a Consultant to Kore Potash. Between drill-holes the seismic data was used to model the elevation of these surfaces.</li> <li>CSA Global (South Africa) then imported these strings into Leapfrog Geo to create 'meshes' for the SALT_R and the HWS_R, using Leapfrog's 'radial basis' function. These surfaces were then imported into Datamine Studio 3 and 'resampled' on a 50x50 m grid.</li> <li>The HWS_R was then used as a 'reference horizon' to guide the models for the other key potash seam surfaces; the floor of the HWS, and the floor and roof of the TS. This w</li></ul>



	achieved by 'gridding' (using Inverse Distance Cubed – IDW3) the thickness (as intersected
	in the drill-holes) of the interval between these surfaces from the HWS_R, across the deposit.
	By this method, 'seam models' for the HWSS and TSS (irrespective of whether they are
	carnallite or sylvinite) were created.
	To determine the extent and thickness of the sylvinite areas, the base of the SYLVINITE zone
	was determined from the drill-hole data. This is visible if this contact is within a potash layer. If
	occurring between the potash layers, the mid-point them was used. The thickness of this
	interval was 'gridded' in Datamine using IDW3 into the 50x50 m grid, then subtracted from the
	elevation of the SALT_R to create the SYLVINITE zone floor surface. Similarly, the floor of
	the LEACH zone was created.
	The seam models were then cut by these surfaces, to give surfaces for the top and base of
	the sylvinite portion of the seams.
	<ul> <li>Minor manual edits were made to the SYLVINITE surface to remove pockets/slivers of</li> </ul>
	carnallite in the models that were considered unlikely.
	The maximum thickness of the seam models was 'capped' by the maximum thickness
	observed in the drill-hole data i.e. so that there are no parts of the model where the seams
	are thicker than the maximum intersected thickness.
	The products of the above steps were final 'sylvinite-only' wireframes (closed solids) for  I MOS and TSSE 0. The appearance in the appearance illustrates these.
	<ul> <li>HWSS and TSS5-9. The cross-section in the announcement illustrates these.</li> <li>The wireframes were checked against all borehole intersections on screen in Micromine.</li> </ul>
	A surface was also created for the extent of carnallite Hangingwall Seam (HWSC) to help the
	understanding of the distribution of this material in the floor of the seam, being an important
	consideration for solution mining.
	Block models of 50 by 50 metres with variable height were created for the HWSS. TSS 5-9
	and TSS wireframes. KCI, Mg and insoluble content were estimated into the block model
	using Inverse Distance Weighting Squared (IDW2), using the composited drill-hole assay
	data.
	Both Mg and insoluble material are considered deleterious elements but are only present in
	extremely small quantities, less than in most potash deposits globally. They were estimated
	for completeness.
	Density was calculated for each block, based on the grade, as discussed in section 3.11. All
	blocks with a height of less than 1.0 m were excluded from the MRE.
	In the CPs view, the resulting model reflects the geological controls well, more so than would
	have been achieved using the potash industry standard polygonal method extrapolating the
	grade and thickness of intersections to areas around drill-holes. The CP is satisfied that the
	grade modelling and estimation method used is appropriate to the assigned classification.
	No top or bottom cutting based on grade was carried out. The TSS intersection in drill-hole  DX 03 is a partial (this) intersection and as a result is higher grade then intersections in other.
	DX_03 is a partial (thin) intersection and as a result is higher grade than intersections in other drill-holes but was not excluded from the MRE. Elsewhere the lateral grade variation is
	relatively low.
	The estimated grade values in the block model were checked in section in Micromine,
	comparing against the supporting assay data, for all drill-holes.
	Companing against the supporting assay tata, for all trill-holes.



3.6 MOISTURE		<ul> <li>The eastern and southern limits of the block-models were cut by the 'maximum extent of sylvinite' a boundary interpreted from seismic data. Beyond this the seams are considered unlikely to be sylvinite, reflecting the limit of influence of the Yangala High, as described in section 2.3.</li> <li>The block model was also cut to exclude all material within the two structural exclusion zones (refer to map in the announcement).</li> <li>Extrapolation beyond data points is limited a distance deemed appropriate in terms of the confidence of the classification into Inferred and Indicated, as described in section 3.13.</li> <li>A further 15 % of the tonnage for both seams was deducted from the totals as a provision for unmodelled geological losses due to faults, internal carnallitite zones or leaching of the sylvinite. This was not applied to the block model itself but to the tabulation of the MRE only.</li> <li>The CP is confident in the grade estimation method used, aided by the fact that the grade variation between holes is relatively low and that there appears to be no discernible directional control on sylvinite or grade. More complex methods such as kriging were not deemed appropriate.</li> <li>A check estimate of the Indicated MRE was conducted using a simple 2D method using polygons around the drill-holes. If the check estimate AOIs are also cut by the structural exclusions and the 'maximum extent of sylvinite' (described in section 3.5) as per the MRE. The check estimate tonnages are slightly lower than those of the MRE (25.6 Mt vs 27.9 Mt for the HWSS, 45.9 Mt vs 50.9 Mt for the TSS). The check estimate KCI grades are within 3% of those of the MRE.</li> <li>The sylvinite seams are dry and the estimate is on a dry basis. Moisture content was checked</li> </ul>
3.7 CUT-OFF PARAMETERS	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>by weighing before and after drying.</li> <li>For the MRE a 15% KCl cut-off-grade was applied though no blocks have a grade less than this.</li> <li>The deleterious components Mg and insolubles are so low and consistent at DX that these</li> </ul>
3.8 MINING FACTORS OR ASSUMPTIONS	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>The DX PFS and Ore Reserve estimation is based on selective solution mining of KCl using NaCl-saturated brine injected into the sylvinite layers to develop caverns. The solution mining method utilises one well per cavern, drilled to a vertical depth of approximately 460 m.</li> <li>The solution mining method is divided into four phases: (1) sump development, (2) roof development, (3) continuous mining and (4) cavern closure.</li> <li>The design for the single-well caverns is based on a radius of 60 m, with cavern centers spaced 144 m apart. This layout results in an aerial extraction ratio of 62.9% with a volumetric extraction of 46.2%.</li> <li>In the early stages of the PFS, dual-well caverns were numerically modelled for stability. This modelling was done with 70 m cavern radius and spacing between wells of 80 m. The results of the numerical modelling for cavern stability indicated that in all cases, the roof and pillars were stable and no leakage between caverns was indicated.</li> </ul>



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		For the single-well caverns, the radius was reduced from 70 m, for the dual-well configuration, to 60 m so cavern roof stability is improved. On this basis, the high-extraction single-well caverns were adopted for the PFS. Additional numerical modelling of single-well cavern deformations will be undertaken as part of the Definitive Feasibility Study (DFS). The caverns are expected to be stable, but some yielding of pillars may occur, however no adverse consequences are expected as a result.
3.9 METALLURGICAL FACTORS OR ASSUMPTIONS	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>The Dougou Extension Sylvinite ore represents a simple mineralogy, containing only sylvite, halite and traces of other soluble elements. Solution mining brine is expected to contain negligible amounts of insoluble materials. Brine of this nature is well understood globally and can be readily processed.</li> <li>Dissolution test work was performed on DX core samples from both the HWSS and TSS at Agapito Associates Inc. laboratory in Grand Junction, Colorado, USA. The testing provided a basis for the predicted dissolution characteristics within the caverns, and the resulting brine KCl concentration and flow to the process plant. These parameters were used in the design of the process plant.</li> </ul>
3.10 ENVIRONMENTAL FACTORS OR ASSUMPTIONS	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a Greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	<ul> <li>The deposit area is outside of the 'Integral' zone Conkuati Douali National Park. It is within the 'buffer' and 'economic development' zones of the park.</li> <li>A comprehensive Environmental Social Impact Assessment (ESIA) was prepared and approved for the Dougou Mining Permit and will be amended for DX.</li> <li>Discharge brine from the process plant will be disposed to the ocean via a buried pipe from the process plant to the coast. A brine disposal diffuser will be located about 250 m from the shoreline. The diffuser will be designed to ensure proper disposal flow characteristics.</li> <li>Based on preliminary reviews, subsidence is not expected to result in significant surface impacts. Subsidence will be examined more closely in the DFS.</li> <li>A Reclamation (Closure) cost allowance is included to rehabilitate areas used for the process plant, wellfield and other offsite infrastructure.</li> </ul>
3.11 BULK DENSITY	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>At DX (and at Kola), it has been shown that density of sylvinite is directly correlated to the relative proportion of <i>sylvite</i> and <i>halite</i> (which have known densities of 1.99 and 2.16 t/m³ respectively). These can be determined from the laboratory analytical data. This method of density determination is used in some operating potash mines. At DX the method is made simpler due to the small amounts (&lt;2.5%) of other minerals i.e. that effectively all K is within sylvite and that the balance of the mass can be assumed to be halite.</li> <li>A regression line of KCl against density (measured by gas pycnometry) for samples was plotted. The formula for the regression line is DENSITY = (KCl-742.53)/(-337.53) where KCl is % and density is tonnes per cubic metre. Using is formula and the KCl % for each block the density was assigned to each block for the HWSS, and TSS models. The average density for the seams is 2.03 and 2.11 t/m³ respectively. These densities are similar to the sylvinite density determined for deposits elsewhere, typically between 2.00 and 2.15 t/m³.</li> </ul>

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3.12 CLASSIFICATION	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>A portion of the deposit has sufficient drill-hole control seismic data to assume continuity of grade and geology sufficient for it to be classified as Indicated Mineral Resources.</li> <li>A portion of the DX deposit is classified as Inferred, being supported by relatively widely spaced drill-hole and seismic data. Within this area grade and geological continuity is implied but will require additional data-points to verify.</li> <li>For the extent of the Mineral Resources within the Inferred and Indicated categories, and Area of Influence (AOI) around drill-holes was determined, based on an understanding of the controls on the sylvinite, and confidence in the model in relation to data points, and with comparison of AOI's used for potash deposits elsewhere. It is important to note that within the AOI only a portion is sylvinite unlike at other sylvinite deposits where the AOI is the extent of the sylvinite.</li> <li>Indicated Mineral Resources are limited to sylvinite within an area guided by an AOI with a radius of 1.0 km around the drill-holes DX_01, K62, ED_03, ED_01.</li> <li>Inferred Mineral Resource are limited to sylvinite within an area guided by an AOI with a radius of 2.5 km around inner holes, and a 1.5 km radius beyond 'outer' holes (DX_03 and DX_02) and exclude the Indicated Mineral Resource area.</li> <li>As explained in section 3.5, the block-model and thus the MREs were 'cut' on the east and southeast side of the deposit by the interpreted 'maximum extent of sylvinite' and the structural exclusion zones.</li> <li>The Mineral Resource Estimate for the different categories for each seam within the DX Deposit are shown in table form in the announcement, after the application of the 15% geological loss.</li> <li>The CP considers the classification of the Mineral Resources to be appropriate.</li> </ul>
3.13 AUDITS OR REVIEWS	The results of any audits or reviews of Mineral Resource estimates.	The CP has reviewed all exploration data that have been used in the MRE reviewed the model and estimation methodology and checked assay data and composites used for the MRE. In using CSA Global to assist with the work, there has been additional review of the drill-hole data, the resource model, and estimation procedure.
3.14 DISCUSSION OF RELATIVE ACCURACY/ CONFIDENCE	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic</li> </ul>	<ul> <li>The accuracy of the estimate reflects the confidence assigned as per the resource classification.</li> <li>It is likely that additional data points in the form of drill-hole and seismic data would lead to an adjustment of the seam model for the Inferred MRE, with a similar chance of a global increase or decrease in tonnage.</li> <li>Additional data is less likely to lead to a global change to the Indicated MRE. Local changes to the Indicated MRE are possible.</li> <li>The main impact would be changes to the modelled position of the seams relative to the LEACH and SYLVINITE zones, as described in section 3.3.</li> </ul>



evaluation. Documentation should include assumptions made and the procedures	•	As stated in section 3.3 it is also possible that structures impact on the continuity of the
used.		sylvinite.
<ul> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	•	The above factors were a consideration in the classification and in the allocation of the 15% geological loss factor.  The check-estimate described in section 3.5 provides support for the MRE.
	•	It is unlikely that further data will impact significantly on the grade of the seams as the grade variation is relatively low. If the proportion of TSS to HWSS changed significantly (within the Inferred MRE), the average 'total' grade of the deposit would change accordingly, the HWSS being significantly higher grade than the TSS.

### Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.  Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resource described in Section 2 of the PFS identifies 79 million tonnes of Indicated Resource, including the HWSS and TSS for beds 6 through 8. The Resource is identified in an area defined by interpretation of the 2D seismic data and supported by eight cored and assayed drill holes with three core holes within the mine plan area. There is no Measured Mineral Resource. The mine plan is exclusively within the identified Indicated Resource for the Hanging Wall Seam (HWS) and Top Seam (TS) for beds 6 through 8. The large difference in the Indicated Resource and the Probable Reserves is because the mine plan did not include all the Indicated Resource areas. The reported Mineral Resource is inclusive of the Ore Reserves and this is specified in each tabulation of Mineral Resources.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The CP for the Ore Reserves, Dr Michael Hardy of Agapito Associates Inc. (AAI), has not visited the site. A site visit was not considered necessary as other geotechnical representatives of AAI have been to the site and AAI's role was limited to developing the mine plan based on the resource definition provided by other Kore Potash personnel and respected professionals.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.  The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material modifying factors have been considered.	The Ore Reserve estimate is based on a Pre-Feasibility Study (PFS) that includes a mine plan which is technically achievable and economically viable. Modifying factors include loss of resource because of dip of the beds, pregnant brine remaining in the caverns, unforeseen geologic factors and plant losses.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	The Ore Reserve includes mining of both HWSS and TSS beds 6 to 8. The KCl grade for the HWSS is exceptional compared to other mined potash beds. The TSS has high-grade sylvinite seams which are separated by halite interbeds. A potash grade of 30% KCl is considered necessary for selective solution mining of potash. Within the Reserve, all KCL grades in blocks to be selectively solution mined are higher than 30%



Criteria	JORC Code explanation	Commontoni
Criteria	JORG Code explanation	Commentary
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design).  The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.  The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.  The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate).  The mining dilution factors used.  The mining recovery factors used.  Any minimum mining widths used.  The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.  The infrastructure requirements of the selected mining methods.	For the PFS solution mining plan, single-well caverns were adopted. The decision to use single-well caverns was based on the need to locate caverns as close to each other as possible to maximize resource recovery and the Reserves for the Dougou Extension (DX). The 2D seismic and new drill holes completed as part of the PFS resulted in better definition of the extent, thickness and tip of the floor of the resource. Solution mining of large dual-well caverns, as proposed in the Scoping Study, resulted in reduced resource recovery in comparison to the smaller single well caverns. This configuration resulted in additional wells, but higher resource recovery and mine life.  The plant is designed to produce 400,000 tpa of Muriate of Potash (MoP) with a purity of 98.5% KCl. Recovery of resource is planned in the HWSS and TSS where they exist. To meet this production goal, 25 caverns at a minimum and 3 additional to allow flexibility in operations will be developed. and put into operation at start-up and replaced over the 19-year mine life.  The adopted method of solution mining will inject a hot brine with near saturation of NaCl and KCl content of approximately 90 to 100 g/l. The brine will selectively dissolve the KCl to produce a brine feed to the plant of up to 165 g/l KCl. Laboratory-scale dissolution testing was conducted to predict dissolution characteristics, and modelling of brine concentrations has verified the expected KCl concentration of 165 g/l in the HWSS. Brine concentration is expected to be lower in the TSS.  The steps in solution mining is to first develop a sump in the salt below the lowest potash bed available, then to expand the top of the sump with both steps utilizing an oil or nitrogen cap to inhibit vertical cavern growth. When the roof is developed, the oil/gas cap will be removed and solution mining of the lowest beds (HWSS or the TSS) can be achieved. If the HWSS and TSS are present, sump development in the TSS will follow completion of mining in the HWSS.  Other mining techniques were eva

FROM THE GROUND UP

13 May 2020

Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4

Criteria	JORC Code explanation	Commentary
		<ul> <li>TSS Seams 5 and 9: The interlaying salt layer between Seams 5 and 6 and Seams 8 and 9 were considered too large to allow economical extraction and were excluded from Ore Reserve classification.</li> <li>Mine Plan Boundary: The mine plan boundary is defined in Figure 8, and all Mineral Resource outside this boundary have been excluded from the mine plan.</li> <li>Pillars: The pillar losses between caverns were calculated and used as a modifying factor.</li> <li>Dip: The layout of the caverns results in a loss of tonnage due to the dip of the floors of the caverns. The modifying factor was based on the calculated loss per cavern.</li> <li>Brine Entrapment: Approximately 18% of KCI remains in the cavern at the end of cavern life for an average cavern recovery ratio of 82% (assuming the brine concentration within a cavern was fully saturated).</li> <li>Geological anomalies: An allowance of 15% for the HWSS and TSS for unknown geological anomalies was applied.</li> <li>TSS Mining Loss: An allowance of 15% for mining uncertainty in the TSS bed was applied.</li> </ul>
		Mining dilution factors are not applicable to solution mining. Modelling completed for the PFS incorporates the transition from sump development with the production of brine of high NaCl content and no KCl to a high KCl concentration brine once solution mining is advanced to mine the HWSS or the TSS. During this transition from sump mining to potash mining, brine grades less than 90 g/l will be discarded or recirculated. Dilution factors generally associated with conventional mining involve reduction (dilution) of the ore grade delivered to the plant because of mining low-grade material, either above or below the economically viable ore zone.
		The mining recovery factors include the areal extraction ratio of 63% (volumetric extraction of 46%) and the losses due to the geologic uncertainty and the loss of brine remaining in the cavern. Plant losses are estimated to be 1.5%. The final product will be 98.5% pure KCl with 1.5% NaCl. Inferred Mineral Resources have not been quantified into the mining plan.
		The infrastructure requirements for solution mining include piping for delivery of the solute and recovery of the pregnant brine, wellfield pumps, electrical, instrumentation and roads. Instrumentation at the well head includes flow, temperature and brine density. Sampling of brine at the well head will be done manually. Production piping will be insulated to minimize temperature losses in the solvent and product brine. Cavern development pipelines will not be insulated.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralization.  Whether the metallurgical process is well-tested technology or novel in nature.  The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	The selective solution mining process for DX is expected to deliver brine to the process plant containing (by weight) 66.8% water, 18.6% NaCl, 13.4% KCl, 1.1% MgCl <sub>2</sub> , and 0.1% CaSO <sub>4</sub> at a temperature of 60°C. All the above elements will be fully dissolved within the brine. Brine of this nature is well understood globally and can be readily processed.  Crystallisation is the processing method selected for the DX Project and is well established in the potash
	metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	industry. KCl crystallisation involves the gradual cooling of KCl-rich brine and relies on a strong relationship

Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4



Criteria	JORC Code explanation	Commentary
Criteria	Any assumptions or allowances made for deleterious elements.  The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.  For minerals that are defined by a specification, has the Ore Reserve estimation been based on the appropriate mineralogy to meet the specifications?	between KCl solubility and brine temperature. As the brine is cooled, the amount of KCl that can remain in solution decreases. Therefore, KCl crystallises as brine is cooled, while most NaCl remains in solution. KCl crystallisation is known to yield higher KCl recovery than conventional recovery methods used for separation of KCl solids from NaCl solids, such as flotation.  The estimated KCl losses are due to:  • Purge stream (0.50%): A purge stream is required to control the level of MgCl₂ in the process brine. MgCl₂ is preferentially soluble to KCl and will gradually displace KCl if it is not controlled. A small portion of brine is bled off and disposed to manage the level of MgCl₂ in the brine, and this also results in a loss of KCl. The DX design includes a purge stream.  • Boilout (0.15%): Crystallisation vessels are descaled with water using a process called 'boilout', which results in some loss of KCl from the walls of the vessels, directed to brine discharge.  • Dust (0.29%): Dust losses to the atmosphere occur in the process of drying, and also after KCl is dried.  • Spills and washdowns (0.20%): The plant will occasionally have process upsets and cleaning procedures which may result in a loss of KCl to brine discharge.  • Offsite transportation losses (0.35%): Some allowance is made for transportation losses during transport of MoP and during ship loading at the marine location.  The total losses are expected to be 1.49%, and therefore, the total process KCl recovery is expected to be 98.5%.  Some impurities are expected to accompany the final MoP product. The minimum KCl content for K60 MoP is 95% KCl, however the DX process is expected to yield a product grade of 98.5% KCl.  The primary basis for the above assumptions was a detailed mass balance, produced by subject matter experts in the field of potash crystallisation and potash dry processing, with supplementary input from a world-renowned supplier of potash crystallisation equipment.  Furthermore, dissolution test work was performed on DX core s
Environmental	The status of studies of potential environmental impacts of the mining and processing operation.  Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	The Dougou Extension project area falls within the Dougou mining Licence which has a 25 year ESIA approval in place. The DX scope will require an amendment to the ESIA and this application would be prepared simultaneously with the execution of the DFS phase of the project. The base line studies for the Dougou ESIA and the base line studies for the Kola infrastructure corridors (power, gas and overland access) will provide required information for the amendment application.  Additional baseline studies required to complete the application will be centered around new areas that



Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4

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Criteria	JORC Code explanation	Commentary would be affected by the DX project.
		There are no waste rock dumps or process residue storage facilities required for the scope of the DX project. Waste salt brine is planned to be disposed of back into the ocean. The disposal of waste brine into the ocean was investigated and included in the Kola ESIA which was approved by the regulator when the Kola ESIA was granted a 25-year approval in March 2020.
	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	The project infrastructure is comprised of a mine site (well field), a processing plant, a 14 km buried water line to the coast, an accommodation camp, an overhead powerline from Mboundi and overland truck transport on the national road system of both product and gas.
		Land acquisition rights for the DX project area will have to be applied for during the DFS phase and a project specific area will need to be through a ministerial order. To achieve this a governmental process is followed that culminates in a "Declaration d'Utilite Publique" (DUP) being granted. This process was followed successfully on the Kola project and will only be required for new areas that are impacted by the DX project area.
		The Process Plant Site is located approximately 65 km north west of Pointe Noire and 18km inland from the coast. The Mine Site is located next to the Project Process Plant.
Infrastructure		The DX Project will require the regular use of existing highway RN5 for transport during construction and operations. RN5 includes 25 km of unpaved sand road between Madingo-Kayes and the process plant. Although the sand portion of the road is currently used for logging transport, some upgrades may be required to support the construction and operating traffic for DX.
		A High Voltage (HV) Overhead Transmission Line (OHL) will be run from a CEC tie-in point at M'Boundi. The OHL will supply electrical power to the DX mine and process plant
		Water supply will be seawater and brine will be disposed to the ocean via two 14 km long pipes between the process plant and the coast. A water pumping station will be required near the coastline.
		Natural Gas Virtual Pipeline (NGVP) will be used for the DX Project, involving the delivery of compressed natural gas on trucks. A compression (mother) station is installed adjacent to the existing natural gas pipeline. Natural gas is compressed at high pressure onto tube trailers. Tube trailers are transported to a decanting (daughter) station at the DX process plant. The tube trailer is connected to apparatus at the decanting station where the pressure is reduced to the correct pressure for use by the end use customer.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.  The methodology used to estimate operating costs.	Capital Cost: The Capital Cost Estimate is a full AACEI Class IV Estimate (-15 to 30%, +20 to 50%)), based on an
Costs	Allowances made for the content of deleterious elements.	equipment factored methodology where budget prices were obtained for all equipment with an expe

Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4



Criteria	JORC Code explanation	Commentary
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	value higher than \$50,000 all other equipment was factored as a percentage of the total of the budget quotes received.
	The source of exchange rates used in the study.  Derivation of transportation charges.  The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	The estimate includes the total direct field costs, direct field support costs, indirect costs and contingency of approximately 22% of the direct + indirect costs. All costs are reported in 4th quarter 2019 US dollars with an allowance of one year's escalation at 1.5% per annum. No management reserve is included.
	The allowances made for royalties payable, both Government and private.	Design and estimating of direct costs for solution mining and drilling area was performed by Innovare Technologies (Innovare). Engcomp provided the design and estimate for the electrical infrastructure for these areas. Design and estimating of direct costs for the process plant was completed by Engcomp with support from Innovare. Equipment vendors were issued procurement packages and budgetary quote pricing used for the project was obtained. Design and estimating of direct costs for off-site infrastructure was performed by Kore Potash and their third-party service providers. Contingency was estimated by Engcomp. Indirect costs were estimated by Engcomp and Kore Potash.  Engcomp consolidated the overall estimate.  Operating Cost:
		Operating costs were estimated from first principles using quoted rates, estimated consumption, forecast labour complements and remuneration estimates.  Operating Cost covering the Life of Mine (18 years) has been estimated in US\$. They include costs for
		Electric power, Fuel, Gas, Labour, Maintenance parts, Operating Consumables, General and Administration costs and Contract for Employee Facilities.
		Ocean freight transportation estimate was based on shipping costs for 10-12 kt ships specifically for the African market
		Mine Closure cost estimated in accordance with a Conceptual Rehabilitation and Closure Plan developed during the PFS
		State mineral royalties of 3% of Gross Revenue applies
		Other criteria
		The marketed K60 MoP will comprise at least 95% KCl, with a maximum of 0.2% Mg and 0.3% Insolubles.
	The derivation of, or assumptions made regarding revenue factors including head grade, metal or	Head grade, recovery and product grade forecasts were based on the PFS results.
Revenue factors	commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Commodity prices were informed by Argus Media who provided an African specific forecast of selling prices until 2033 in real 2019 terms.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and	Based on Argus Media estimates, global potash demand is forecast to grow from 71 Mt in 2022 to 87 Mt by 2033 and global nameplate potash capacity to increase from 107 Mt by the end of 2022, reaching 135

Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4



Criteria	JORC Code explanation	Commenter
Criteria	factors likely to affect supply and demand into the future.	Commentary Mt by 2033.
	A customer and competitor analysis along with the identification of likely market windows for the	The Argus Media forecast for African consumption is an increase from 1.4Mt in 2022 to 1.9Mt in 2033.
	product.	The Company's current market strategy therefore is focused on servicing the African market with any
	Price and volume forecasts and the basis for these forecasts.	excess being sold into Brazil.
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	MoP prices were based on forecasts from Argus Media.
	Supply Contract.	For DX PFS, a price profile has been developed using the information provided by Argus, specifically for the African potash market. The following assumptions were used to develop the pricing profile for DX PFS:
		Weighted average Argus forecast MoPG CFR price for South Africa, Nigeria and Morocco from 2020 to 2033;
		Weightings based on total imported MoP volumes for each of these markets;
		After 2033, prices are assumed to stay flat at 2033 levels until the end of mine life;
		Customer specifications are based on K60 product, which means the MoP product has a minimum K2O content of 60%, corresponding to a KCl content of 95%. Product will be sampled regularly on site and tested in a site-based laboratory to ensure product grade is consistently met. Product that does not satisfy grade will be removed from the product stream and reprocessed
	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source	Key valuation assumptions and (sources)
and confidence of these economic inputs including estimated inflation, discount rate, etc.	Production - LoM of 18 years at nominal 400,000 tpa MoP production.	
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Single MoP product types – White Granular MoP
		Average LoM CFR price of US\$422/t MoP (Argus)
		Ex-mine LoM average operating cost of US\$65.26/t MoP, Real (PFS estimate)
		FOB LoM average operating cost of US\$86.61/t MoP, Real (PFS estimate)
		LoM Shipping of US\$28/t MoP Real (PFS estimate)
Economic		Project capital period 21 months, deferred capital period 6 months, sustaining capital 216 months (PFS outcome)
		Total Nominal: Project Capital US\$ 286 million (PFS estimate)
		Deferred Capital US\$270,000 (PFS estimate)
		Sustaining Capital US\$33.54/MoP t, Real (PFS estimate)
		Fiscal parameters: Company tax rate (15%), tax holidays (5 years at 0% + 5 years at 7.5%) (Mining Convention)
		Royalties 3% (Mining Convention)
		Government free carry (10%) (Mining Convention)



Criteria	JORC Code explanation	Commonton
Criteria	JORG Gode explanation	Commentary  Other minor duties and taxes (Mining Convention)
		The PFS Real NPV at real discount rate of 10% is US\$319 million (as at the date just prior to commencement of construction of 31 August 2021 in Q4 2019 money terms), and Real IRR is 22.9%
		Payback period: approximately 6.0 years from first capital and 4.3 years from first production Pre-tax margin: 70%.  Highest sensitivities to Price and Capital. Each percentage movement in Price has an approximate US\$9 M movement in NPV <sub>10</sub> , and each percentage movement in Project Capital has an approximate US\$3 M impact on NPV <sub>10</sub> .
	The status of agreements with key stakeholders and matters leading to social license to operate.	Approval of an ESIA is a prerequisite for beginning construction of a mining project in the Republic of Congo. The Dougou ESIA, initially approved on 9 May 2017, will require to be amended to reflect the design changes made to the DX Project as part of the Pre-Feasibility Study ("PFS"). This process is planned to take place concurrently with the execution of the DFS. The Company shall carry out their construction operations in compliance with the environmental and social management plan as part of the approved ESIA and will be subject to Regulator's environmental management compliance audits. Upon construction completion, the DX project will be subject to the Minister of Tourism and Environment's final approval of the construction activities environmental and social management compliance allowing the Company to effectively commission and start the mining and processing operations for the export of 400,000 tpa from the DX Mining Licence.
		The DX Mining Licence is held within subsidiary which will be owned 10% by the ROC government.
Social		Socio-economic, cultural heritage, archeological and livelihood baseline reports have been prepared and approved as part of the ESIA baseline process.
		Kore Potash has implemented a Stakeholder Engagement Process and is actively engaging with a wide range of project stakeholders, including conservation NGO's, adjacent National Parks, the regulator and communities.
		Three separate land take corridors have been identified, the Service Corridor Process Plant and wellfield, the HV line and the Gas Pipeline:
		For each corridor a declaration d'utilite publique (DUP) will be required to be declared by the Ministry of Land Affairs
		Physical displacement is minimal with most actions requiring livelihood restoration
		There are believed to be no social related issues that do not have a reasonable likelihood of being resolved.
Other	To the extent relevant, the impact of the following on the project and / or on the estimation and classification of the Ore Reserves:  Any identified material naturally occurring risks.	DX is currently compliant with all legal and regulatory requirements subject to final submission for approval of the DX Environmental and Social Impact Assessment Amendments (which was required following the project design changes implemented during the PFS) which will be done concurrently with the envisaged DFS for DX project.

Appendix C: JORC CODE Table 1 Checklist of Assessment and Reporting Criteria – sections 1-4



Criteria	JORC Code explanation	Commentary
	The status of material legal agreements and marketing arrangements.  The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	A mining convention entered into between the RoC government and the Companies on 8 June 2017 and gazetted into law on 29 November 2018 concludes the framework envisaged in the 25-year renewable Dougou Mining Licence granted in 9 May 2017 covers the DX Project which is part of the Dougou Mining Licence. The Mining Convention provides certainty and enforceability of the key fiscal arrangements for the development and operation of DX Mining Licences, which amongst other items include import duty and VAT exemptions and agreed tax rates during mine operations. The Mining Convention provides strengthened legal protection of the Company's investments in the Republic of Congo through the settlement of disputes by international arbitration.
		To the best of the Competent Person's knowledge, there is no reason to assume any government permits and licences or statutory approvals will not be granted. There are no unresolved matters upon which extraction is contingent.
	The basis for the classification of the Ore Reserves into varying confidence categories.	The Indicated Mineral Resources were used for the estimation of Probable Ore Reserves.
Classification	Whether the result appropriately reflects the Competent Person's view of the deposit.	The conversion of Indicated Mineral Resource to Probable Ore Reserve reflects the Competent Person's
Classification	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	view of the deposit.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve has been peer reviewed and is in line with the current industry standards.
	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a	In the Competent Person's view, the DX PFS achieves the required level of confidence in the modifying factors to justify the estimation of an Ore Reserve. All relevant modifying factors were considered in the Ore Reserve Estimation and deemed to be modelled at a level of accuracy appropriate to the classification. A global change of greater than 10% is considered unlikely.
	qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	The PFS determined a mine plan and production schedule that is technically achievable and economically viable.
	The statement should specify whether it relates to global or local estimates, and, if local, state the	The capital and operating costs are based on the outcome of a prefeasibility study.
Discussion of relative	relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	Factors that could affect the Ore Reserves locally include; greater dip of the seam in some areas, unexpected geological anomalies, areas of unexpected carnallite, unexpected challenges with mining the
accuracy/ confidence	Accuracy and confidence discussions should extend to specific discussions of any applied modifying factors that may have a material impact on Ore Reserve viability, or for which there are remaining	TSS. The geological model attempted to model these features to a high level of detail and are 'passed-on' into the Ore Reserve and mine plan.
	areas of uncertainty at the current study stage.  It is recognized that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	While local variation from the mine plan in the above are expected, is considered unlikely that these would lead to significant negative change in the Ore Reserves, and that positive changes are equally likely.
	available.	For the PFS, data from existing potash mining operations was used to guide and check the design and cost estimates. The input data and design are likely to be realistic and achievable in the Competent Persons view.



## **APPENDIX D**

Kore Potash Mineral Resources and Ore Reserves as of 13 May 2020

### Kore's Potash Mineral Resource and Ore Reserves - Gross and according to future 90% interest (10% by the RoC government)

KOLA SYLVINITE DEPOSIT						
		Gross		Net Attributable (90% interest)		
Mineral Resource Category	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes
Measured	216	34.9	75.4	194	34.9	67.8
Indicated	292	35.7	104.3	263	35.7	93.9
Sub-Total Measured + Indicated	508	35.4	179.7	457	35.4	161.7
Inferred	340	34.0	115.7	306	34.0	104.1
TOTAL	848	34.8	295.4	763	34.8	265.8

	Gross			Net Attributable (90% interest)		
Ore Reserve Category	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes
Proved	62	32.1	19.8	56	32.1	17.9
Probable	91	32.8	29.7	82	32.8	26.7
TOTAL	152	32.5	49.5	137	32.5	44.6

Ore Reserves are not in addition to Mineral Resources but are derived from them by the application of modifying factors

DOUGOU EXTENSION SYLVINITE DEPOSIT (HWSS and TSS)						
		Gross		Net Attributable (90% interest)		
Mineral Resource Category	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes
Measured	-	ı	-	-	-	ı
Indicated	79	39.1	30.8	71	39.1	27.7
Sub-Total Measured + Indicated	79	39.1	30.8	71	39.1	27.7
Inferred	66	40.4	26.7	59	40.4	24.0
TOTAL	145	39.7	57.5	130	39.7	51.8

		Gross		Net A	ttributable (90%	interest)
Ore Reserve Category	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes	Sylvinite Million Tonnes	Average Grade KCI %	Contained KCI million tonnes
Proved	-	-	-	-	-	
Probable	17.7	41.7	7.4	16	41.7	6.6
TOTAL	17.7	41.7	7.4	16	41.7	6.6

Ore Reserves are not in addition to Mineral Resources but are derived from them by the application of modifying factors



DOUGOU CARNALLITE DEPOSIT						
		Gross		Net Attributable (90% interest)		
Mineral Resource Category	Million Tonnes carnallite	Average Grade KCI %	Contained KCI million tonnes	Million Tonnes carnallite	Average Grade KCI %	Contained KCI million tonnes
Measured	148	20.1	29.7	133	20.1	26.8
Indicated	920	20.7	190.4	828	20.7	171.4
Sub-Total Measured + Indicated	1,068	20.6	220.2	961	20.6	198.2
Inferred	1,988	20.8	413.5	1789	20.8	372.2
TOTAL	3,056	20.7	633.7	2750	20.7	570.3

KOLA CARNALLITE DEPOSIT							
		Gross			Net Attributable (90% interest)		
Mineral Resource Category	Million Tonnes carnallite	Average Grade KCI %	Contained KCI million tonnes	Million Tonnes carnallite	Average Grade KCI %	Contained KCI million tonnes	
Measured	341	17.4	59.4	307	17.4	53.5	
Indicated	441	18.7	82.6	397	18.7	74.4	
Sub-Total Measured + Indicated	783	18.1	142.0	705	18.1	127.8	
Inferred	1,266	18.7	236.4	1140	18.7	212.8	
TOTAL	2,049	18.5	378.5	1844	18.5	340.6	

Notes: All Mineral Resource and Ore Reserves are reported in accordance with the JORC Code (2012 edition). Numbers are rounded to the appropriate decimal place. Rounding 'errors' may be reflected in the "totals". The Kola Mineral Resource Estimate was reported 6 July 2017 in an announcement titled 'Updated Mineral Resource for the High -Grade Kola Deposit'. It was prepared by Competent Person Mr. Garth Kirkham, P.Geo., of Met-Chem division of DRA Americas Inc., a subsidiary of the DRA Group, and a member of the Association of Professional Engineers and Geoscientists of British Columbia. The Dougou carnallite Mineral Resource estimate was reported on 9 February 2015 in an announcement titled 'Elemental Minerals Announces Large Mineral Resource Expansion and Upgrade for the Dougou Potash Deposit'. It was prepared by Competent Persons Dr. Sebastiaan van der Klauw and Ms. Jana Neubert, senior geologists and employees of ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH and members of good standing of the European Federation of Geologists. The Dougou Extension sylvinite Mineral Resource Estimate is reported herein. Ms. Vanessa Santos, P.Geo. of Agapito Associates Inc., for the Exploration Results and Mineral Resources. Ms. Santos is a licensed professional geologist in South Carolina (Member 2403) and Georgia (Member 1664), USA, and is a registered member (RM) of the Society of Mining, Metallurgy and Exploration, Inc. (SME, Member 04058318). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



# **APPENDIX E**

**Glossary of Terms & Abbreviations** 

Term	Explanation
AACE	American Association of Cost Engineers
acoustic televiewer	a tool which is lowered down the drill-hole to provide a continuous high-resolution oriented ultrasound image of the side-wall
Albian	The uppermost subdivision of the Early/Lower Cretaceous epoch/series. Its approximate time range is 113.0 ± 1.0 Ma to 100.5 ± 0.9 Ma (million years ago)
Analysis	in this case the determination of the content (by weight%) of K, Mg and other chemical elements
Anhydrite	Anhydrous calcium sulphate, CaSO <sub>4</sub> .
Anhydrite	A hard-white mineral consisting of anhydrous calcium sulphate (CaSO <sub>4</sub> ) typical in evaporite deposits
Anhydrite member	A unit comprised mostly of anhydrite and clay
Aptian	a subdivision of the Early or Lower Cretaceous epoch or series and encompasses the time from 125.0 ± 1.0 Ma to 113.0 ± 1.0 Ma
Aquifer	An underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials
Assay	in this case refers to the analysis of the chemical composition of samples in the laboratory
Basal Carnallitite	Carnallitite that may be present in the immediate footwall of the base (bottom) of any of the targeted sylvinite seams
Bischofite	Hydrous magnesium chloride minerals with formula, MgCl <sub>2</sub> ·6H <sub>2</sub> O and CaMgCl <sub>2</sub> ·12H <sub>2</sub> O
block model	a 3D model created in mining software to 'fill' a geological domain with blocks of given dimensions, into which the attributes of the deposit are estimated
Brine	Brine is a high-concentration solution of salt in water
Carnallite	an evaporite mineral, a hydrated potassium magnesium chloride with formula KMgCl. 3· 6(H <sub>2</sub> O)
Carnallitite	a rock comprised predominantly of the minerals carnallite and halite
Cavern	An underground void created by the dissolution and removal of water-soluble underground salts
classification (of Resources and Reserves)	The determination of the level of confidence of the estimations, in this case using the categories of the JORC Code
Clastic	Clastic rocks are composed of fragments, or clasts, of pre-existing minerals and rock.
Clay	A fine-grained sedimentary rock.
collars (drill-hole)	the top of the drill-hole
Competent Person	A 'Competent Person' is a minerals industry professional who is a Member or Fellow of The Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a 'Recognised Professional Organisation' (RPO), as included in a list available on the JORC and ASX websites.

composited (sample)	method by which drill-hole intersection attributes such as grade are combined to a different length by averaging and/or cutting
Conformable	refers to layers of rock between which there is no loss of the geological record
core (drill)	the cylindrical length of rock extracted by the process of diamond drill coring
Cost and Freight (CFR)	Cost and freight are a legal term in international trade. In a contract specifying that a sale is made CFR, the seller is required to arrange for the carriage of goods by sea to a port of destination and provide the buyer with the documents necessary to obtain the goods from the carrier
Cretaceous	the last of the three periods of the Mesozoic Era. The Cretaceous began 145.0 million years ago and ended 66 million years ago
cross-section	an image showing a slice (normally vertical) through the sub-surface
Cut-off-grade (CoG)	The lowest grade, or quality, of mineralised material that qualifies as economically mineable and available in a given deposit. May be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification.
cutting (of grade)	a method by which samples above or below a certain grade are assigned a lower or higher grade to remove the influence of anomalous values
(Definitive) Feasibility Study	A (Definitive) Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.
diamond coring	the method of extracting cores of rock by using a circular diamond-tipped bit (though may be tungsten carbide)
dip	in this case refers to the angle of inclination of a layer of rock, measured in degrees or % from horizontal
Dolomite	anhydrous carbonate mineral composed of calcium magnesium carbonate, ideally CaMg(CO <sub>3</sub> ) <sub>2</sub> . The term is also used for a sedimentary carbonate rock composed mostly of the mineral dolomite.mineral form is indicated by italic font
domaining (mineral)	process by which a spatial zone is identified by within which material is modelled/expected to be of a type or types that can be treated in the same way, in this case in terms of resource estimation
drill-hole	a hole drilled to obtain samples of the mineralization and host rocks, also known as boreholes or just holes
Engineering, Procurement, Construction (EPC) and Engineering, Procurement, Construction and Management (EPCM)	Forms of engineering contract where EPC is generally in the form of a fixed price with risk of delivery sitting with the contractor while EPCM the contractor acts for and behalf of the owner on a re-imbursible basis and the risk of project cost and time overruns sits more with the owner.
Evaporite	Sediments chemically precipitated due to the evaporation of an aqueous solution or brine
extraction ratio	refers to the amount if mineralized material mined as a ratio of the amount that is left in place
Fault	A planar fracture or discontinuity in a volume of rock, across which there has been significant displacement as a result of rock mass movement.
Footwall	The floor of the seam or mine opening (room)

gamma-ray	A gamma ray or gamma radiation is penetrating electromagnetic radiation arising from the radioactive decay of atomic nuclei.
Geological Anomalies	Features that affect the integrity of the evaporite and overlying rocks found in many potash deposits and depending on the severity of the type and severity of the anomaly, may represent a zone of hydrogeological risk due to connection between the evaporite (hosting the potash) and water bearing cover rocks above.
Geotechnical	Refers to the physical behaviour of rocks, particularly relevant for the Mine design requiring geotechnical engineering
Graben	A graben is a basin bound by normal faults either side, formed by the subsidence of the basin due to extension
Grade	in this case the amount of potassium, expressed as potassium chloride (KCI)
Gridding	a term used to refer to estimation of data into a grid of cells from data values spaced more widely than the cells
Gypsum	soft sulfate mineral composed of calcium sulfate dehydrate, with the chemical formula CaSO. 4·2H <sub>2</sub> O.
Halite	The mineral form of sodium chloride (NaCl), salt.
Horst	a horst is a raised fault block bounded by normal faults. A horst is a raised block of the Earth's crust that has lifted, or has remained stationary, while the land on either side (grabens) have subsided
Hydrogeology	The branch of geology concerned with the distribution and movement of groundwater in the subsurface
Indicated Mineral Resource	An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.
Inferred Mineral Resource	An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
insoluble material	in this report, refers to material that cannot be dissolved by water such as organic material, clay, quartz, anhydrite
JORC Code	(Australasian) Joint Ore Reserves Committee requirements for the reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 edition)
Life-of-Mine (LoM)	The duration in years and months from commencement of mining to the end of mining

Lithological	refers to the observed characteristics if a rock type (or lithology)
Measured Mineral Resource	A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.  Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.
Metallurgical recoveries	The % of the contained KCl that can be extracted from the ore by the processing
Mine Gate Cost	Cost of getting product to mine gate, generally ex-works plus any additional storage and transport costs to mine gate
Mineral Deposit	A mineral deposit is a natural concentration of minerals in the earth's crust.
Mineral Reserve	the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified
Mineral Resource	A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
mineralised/mineralisation	a natural concentration of an economic commodity within the earth's crust, in this case potassium
Mining royalty	Cost payable to the government of RoC as documented din the mining convention
modelling (resource)	modelling refers to the creation of outlines in 2D or 3D for geological domains or structures
Muriate of Potash (MoP)	The saleable form of potassium chloride, comprising a minimum of 95% KCl
Ore and orebody	Ore is the economically and technically mineable material. The orebody is the mineable part of the deposit comprising the Ore Reserves
Ore Reserve	The economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified
paleo-topography	topography of an ancient land surface
pillars (in mining)	the columns of rock left in place in mining to support the mine opening, either within the mined out areas (rooms) or adjacent to them
Potash	refers to any of various mined and manufactured salts that contain potassium in water-soluble form. In this report generally refers to the potassium bearing rock types
Pre-Feasibility Study	A Preliminary Feasibility Study (Pre-Feasibility Study) is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resources may be converted to an Ore Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.

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Pycnometer	A laboratory device used for measuring the density of solids.
recovery (of drill core)	refers to the amount of core recovered as a % of the amount that should have been recovered if no loss was incurred.
riffle (splitter)	a device used for the separation of crushed or pulverised material into equal portions
Rift	refers to the splitting apart of the earth's crust due to extension, typically resulting in crustal thinning and normal faulting
Rock Salt	A rock comprising predominantly of the mineral halite
rock-salt	rock comprising predominantly of the mineral halite
rotary (drilling)	a method of drilling using a rotating destructive bit to penetrate the rocks and using water with various additives referred to as the drilling fluid or 'mud'
Salt-back	Rock salt between the cavern and the top of the salt member
sample (core)	a length of drill-core that may be tested, for grade or other attributes
Sediment	A naturally occurring material that is broken down by processes of weathering and erosion, and is subsequently transported by the action of wind, water, or ice, and/or by the force of gravity acting on the particles.
Seismic	in this case seismic reflection, a method of exploration geophysics that uses the principles of seismology to estimate the properties of the Earth's subsurface from reflected seismic waves. The method requires a controlled seismic source of energy, such as dynamite or Tovex blast, a specialized air gun or a seismic vibrator
Stratigraphy	Stratigraphy is a branch of geology concerned with the study of rock layers and layering. It is primarily used in the study of sedimentary and layered volcanic rocks
Strike	refers to the direction of preferred control of the mineralization be it structural or depositional. In this direction it is expected that there be greater correlation of attributes
strip logs	also known as graphic logs, are the graphical display of drill-hole data such a lithology, typically plotted against depth
Structure	here refers to faults, fractures of zones of subsidence that affect the stratigraphy
Sylvinite	a rock type comprised predominately of the mineral sylvite and halite
Sylvite	an evaporite mineral, potassium chloride (KCI)
Unconformity	An unconformity is a buried erosional or non-depositional surface separating two rock masses or strata of different ages, indicating that sediment deposition was not continuous
Wireframe	a 3D surface created in mining software to enclose a geological domain

Abbreviations	
CFR	Cost and Freight
CoG	Cut-off Grade
CP	Competent Person
DFS	Definitive Feasibility Study
DUP	Decree D'Utilite Publique
EBITDA	Earnings before interest, tax, depreciation and amortization
EPC	Engineering, Procurement and Construction
EPCM	Engineering, Procurement and Construction Management
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FOB	Free on board
HWS	Hangingwall Seam
IRR	Internal rate of Return
JORC	(Australasian) Joint Ore Reserves Committee
K60	MoP product has a minimum K2O content of 60%, corresponding to a KCI content of 95%.
KCI	Potassium Chloride
LoM	Life-of-Mine
MoP	Muriate of Potash
MoPG	Muriate of Potash - Granular
MoPS	Muriate of Potash - Standard
MRE	Mineral Resource Estimate
Mtpa	Million tons per annum
NaCl	Sodium Chloride
NPV10 (real)	Net Present Value
PFS	Pre-Feasibility Study

RAP	Resettlement Action Plan
RoC	Republic of Congo
ROM	Run of Mine
RPO	Recognized Professional Organization
SME	Society for Mining, Metallurgy and Exploration
SPSA	Sintoukola Potash SA
SWI	Seawater Intake
SWO	Seawater Outfall