ASX Release

Wednesday 18 August 2021

Feasibility Study Complete for new Base Case Production Increase to 120ktpa at Beyondie SOP Project

- **Kalium Lakes announced on 24 March 2021 a "debottlenecking" review of the SOP purification plant revising steady state SOP production estimates upwards by 10ktpa to at least 100ktpa.**

- **Feasibility Study now complete for a production increase to 120ktpa as new base case (33% increase over the original 90ktpa production target). Key highlights include:**
  - Incremental capital expenditure of $45m, lower capital cost intensity of A$1,513/t for the incremental 30ktpa production
  - 120ktpa production achieved by October quarter 2022
  - Unlevered project pre-tax NPV (8%, nominal) of $484m

- **Improved economies of scale from expansion to offset sector wide and macro-economic cost pressures (Kalium Lakes remains a global first quartile low-cost producer).**

- **K+S offtake agreement extended to cover increased production at 120ktpa level and improved payment terms for the first three years to reduce working capital needs.**

- **First SOP production and ramp-up remains targeted for September/October 2021.**

- **Commissioning risk regarded as low with:**
  - The support of experienced German engineer and manufacturer (Ebtec GbR)
  - Start-up salts and brine equivalent to 113,000 tonnes of SOP already in production (as at end July 2021), including plant feed salts equivalent to 9,000 tonnes of SOP "harvested" and on the ROM pad ready for SOP production.

- **Favourable timing with first production and start-up into a rising SOP price environment (2022 forecast average price for standard grade SOP (CFR Aust) up to US$617/t based on forecasts provided to the Company by CRU/Argus in July 2021).**

- **Significant opportunity for further expansion beyond 120ktpa with further studies in progress.**

"With the ongoing support of world class stakeholders (including Ebtec GbR (plant design engineers and manufacturers), K+S (off-taker), KfW and NAIF (senior lenders) and its shareholders), Kalium Lakes is on the cusp of becoming one of Australia's first Sulphate of Potash (SOP) producers. We are firmly committed to being a key, long term supplier to the Australian agricultural sector, enabling our farmers to provide nutrition for the world. SOP is likely to play an increasing role in a greener world, with fertilizer usage increasing yields and hopefully leading to reduced global deforestation.

"As we approach our inaugural production target of September/October 2021, we are acutely aware of the recent surge in fertiliser prices globally, paralleling price highs not seen for the past decade. At the same time, we have seen the inflationary headwinds increase due to Covid-19, driving forecast operating cost increases across the Australian mining industry. The rationale for the 120ktpa SOP expansion is to accelerate low capital intensity increase in SOP production into a rising SOP price market, whilst delivering economies of scale which offset various other negative macro-economic factors and operating cost pressures, including the COVID-19 impacts.

"As a result, the proposed expansion will put Kalium Lakes on a stronger platform as well as maximising the benefit from the recent higher SOP prices that we have seen recently.

"As always, I am incredibly proud of the Kalium Lakes team, that has not only delivered our current project on capital budget and on schedule, but also managed to complete a bankable expansion study at the same time. These are exciting times for those employees and stakeholders that have supported us on this journey."

Rudolph van Niekerk - Chief Executive Officer

Cautionary Statement

The Company advises that, while the 120 kilo tonnes per annum (**ktpa**) of Sulphate of Potash (**SOP**) expanded base case production target is predominantly based on Ore Reserves (53% of the production target is underpinned by the Probable category of Ore Reserve and 24% is underpinned by the Proved category) and Measured and Indicated Mineral Resources which fall outside of the Ore Reserves (13% of the production target), it is also partly based on Inferred Mineral Resources (10% of the production target) over the 50 year Mine Life [1]. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised or that the Inferred Mineral Resources will add to the economics of the Beyondie SOP Project. However, in preparation of the production target and associated financial forecasts (including the NPV estimate below) derived from the production target, each of the modifying factors were considered. The Inferred Mineral Resource is not a determining factor in project viability and does not feature as a significant proportion early in the mine plan. None of the production target in years 0 to 11 of proposed production at the Beyondie SOP Project is from the Inferred Mineral Resource category. The Company has concluded that it has reasonable grounds for disclosing a production target which includes an amount of Inferred Mineral Resource material. The estimated Ore Reserves and Mineral Resources underpinning the production target have been prepared by a Competent Person in accordance with the requirements in the 2012 edition of the JORC Code. No Exploration Target material has been included in the production target or financial forecasts of the Beyondie SOP Project.

The 120ktpa production target and the Feasibility Study for the Expansion to 120ktpa (**120ktpa Feasibility Study**) detailed in this announcement for the Beyondie SOP Project are based on the material assumptions outlined in this announcement, including immediately below, in the Financial Model - Key Assumptions and Results section, in the 120ktpa Mine Plan section, in Appendix 3 and in other parts of this announcement and in Kalium Lakes' ASX announcements of 18 September 2018 *Bankable Feasibility Study Completed* related to the Ore Reserve Estimate.

The financial forecasts detailed in this announcement are based on the 120ktpa production target and the 120ktpa Feasibility Study detailed in this announcement and the material assumptions set out in Appendix 3 to this announcement. The financial forecasts and assumptions in this announcement are not recognised under International Financial Reporting Standards (IFRS). Kalium Lakes does not guarantee that these forecasts or assumptions will be accurate or will be realised and notes that they should not be considered in isolation or as a substitute for measures of performance or cash flow prepared in accordance with IFRS. As these non-IFRS financial forecasts are not based on IFRS, they do not have standardised definitions and the way Kalium Lakes calculates these measures may not be comparable to similarly titled measures used by other companies. Investors should therefore not place undue reliance on these non-IFRS financial forecasts and assumptions.

The 120ktpa production target, the 120ktpa Feasibility Study and the financial forecast detailed in this announcement are subject to various risk factors, such as those (non-exhaustively) outlined in Appendix 3 and in the announcements referred to above. These include assumptions and risk factors about the availability of funding. While Kalium Lakes 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 production targets or estimated financial forecasts and outcomes indicated by the Feasibility Study will be achieved.

This announcement contains “forward-looking statements” and “forward-looking information”, including statements and forecasts which include (without limitation) expectations regarding the financial position and performance of Kalium Lakes, production targets, life of mine, costs, revenues, economic factors, offtake, JORC Code modifying factors, industry growth and other trend projections, statements about the feasibility of the Beyondie SOP Project and its financial outcomes, future strategies, results and outlook of Kalium Lakes and the opportunities available to Kalium Lakes. Often, but not always, forward-looking information can be identified by the use of words such as “plans”, “expects”, “is expected”, “is expecting”, “budget”, ‘outlook”, “scheduled”, "target", “estimates”, “forecasts”, “intends”, “anticipates”, or “believes”, or variations (including negative variations) of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might”, or “will” be taken, occur or be achieved. Such information is based on assumptions and judgments of Kalium Lakes regarding future events and results. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, targets, performance or achievements of Kalium Lakes to be materially different from any future results, targets, performance or achievements expressed or implied by the forward-looking information. Refer also to the other disclaimers in this announcement.

[1] 50 years from 2019 when first brine extraction commenced

120ktpa Feasibility Study Update

The **Beyondie SOP Project** (**Project**), which is nearing completion, will become one of Australia's first Sulphate of Potash (**SOP**) producers. During the past 14 months all major construction milestones have been met and commercial production of SOP is targeted for the end of September this year. In consultation with its advisors and lenders, Kalium Lakes Limited (**Kalium Lakes** or **Company**) (ASX:KLL) has identified a number of low capital expansion opportunities which will enable it to take advantage of a rising SOP price environment. The Company has determined that it is prudent to expand the production case to 120ktpa as the new base case and maximise the benefit gained by retaining key technical experts currently working on the Project.

The demands of undertaking construction of the Company's first project during a global pandemic has proved challenging. In addition, while SOP prices are increasing, there are also macro-economic headwinds and operational pressures, including the strengthening of the Australian dollar and inflationary pressures increasing the forecast operating costs.

The **BSOPP** has a very large Mineral Resource (combined Measured and Indicated Resources of 19.71Mt of SOP equivalent) and the intention has always been to explore its expansion potential, leverage economies of scale and increase Kalium Lakes' profitability potential.

The Company is pleased to announce the completion of its Feasibility Study for the Expansion to 120ktpa (**120ktpa Feasibility Study**) at its Beyondie SOP Project. The 120ktpa Feasibility Study (which is inclusive of the 90ktpa and 100ktpa production targets previously announced by Kalium Lakes) is based on expanding existing infrastructure where required (i.e. brine extraction and evaporation ponds), combined with a process plant debottlenecking and optimisation using German SOP process design experts, Ebtec GbR.

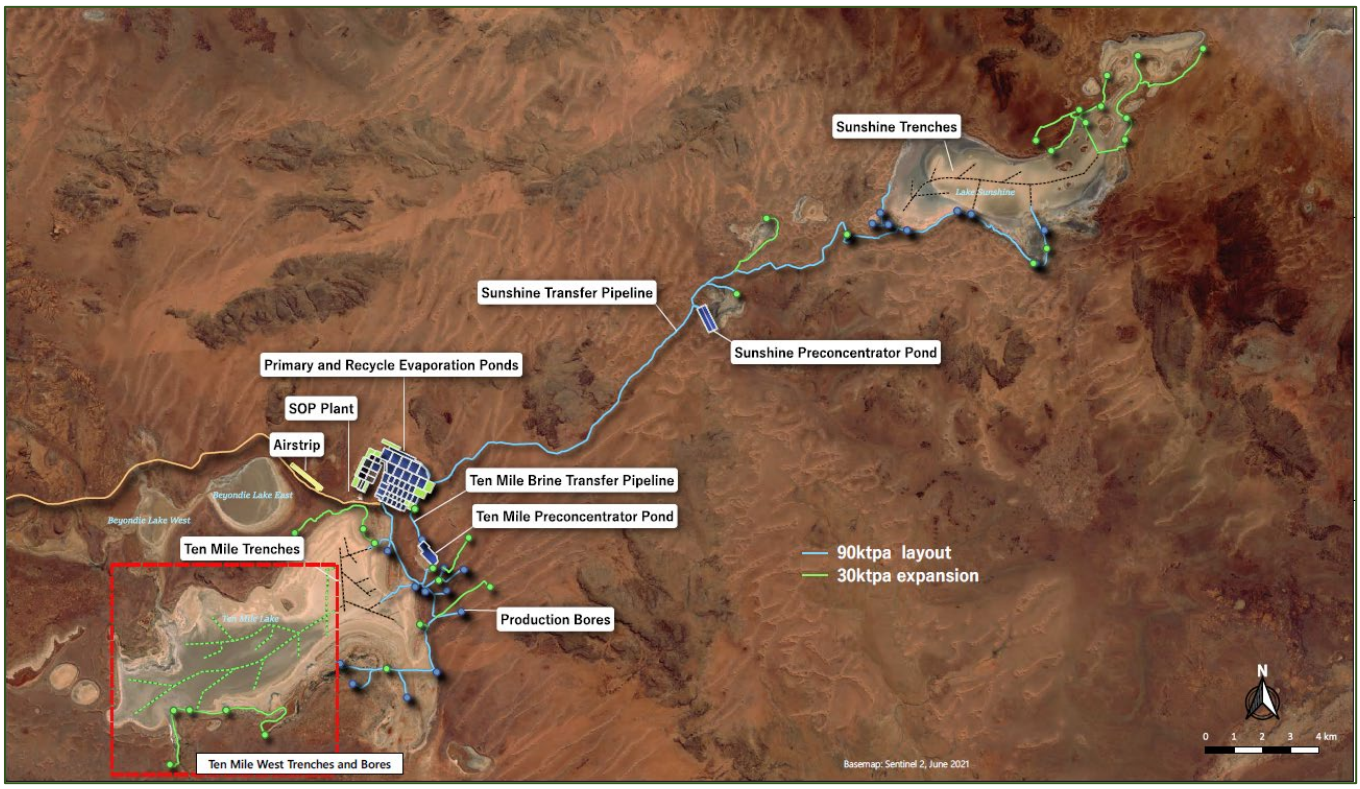

Figure 1: Project Footprint

Expansion areas to target the increase in SOP production to 120kpa are relatively small compared to the footprint of the Project for the existing 90ktpa nameplate production as shown in . In addition, expansion of the Ten Mile West area is not required for at least the first two years at the 120ktpa SOP production rate.

Key Study Works and Outcomes

The 120ktpa Feasibility Study was reviewed by SRK as independent technical advisor for the senior lenders and the key study works and outcomes include:

- **Brine Extraction:** Expansion of the Ten Mile and Sunshine bore fields in the short term by adding additional bores and pump stations and brine supply from Ten Mile West (trenches and bores) in the longer term.

- **Evaporation Ponds:** Increasing total evaporation area by 68ha (446ha in total) by adding an additional train for each of the primary and recycle evaporation pond areas.

- **SOP Purification Plant:** Key terms for a service agreement agreed with Ebtec Gbr to provide process management support (including evaporation ponds) and plant upgrade services, working consequentially through several debottlenecking, optimisation and upgrading steps to increase SOP production capacity from the nameplate of 90ktpa, up to 120ktpa.

- **Power Station and other Utilities:** One additional generator required to power supply and other utilities to support the increased production capacity.

- **Non-Process Infrastructure:** Utilise existing, fully owned non-process infrastructure, including gas supply infrastructure with no upgrades required other than an upgrade to the raw water supply pipeline to support the 120ktpa production target.

- **Capital Cost Estimate:** Capital cost estimate of $45m based on actual costs from the current project, delivering a capital intensity of $1,513/t for the additional targeted 30ktpa of SOP production in excess of the nameplate 90ktpa production.

- **Operating Cost Estimate:** Kalium Lakes remains a global lowest quartile cost SOP producer with updated operating costs based on actual data (where available) adjusted to accommodate impact of Covid-19 related and other inflationary pressures (refer Figure 2)

- **SOP Market and Price forecasts:** SOP price forecasts increased substantially in recent weeks on the back of rapid increases in MOP prices. Long term average net SOP price forecast increased to U$585/t CFR Australia on a life-of-mine basis. Figure 3 below from Argus Potash illustrates the increasing SOP price range over the past year.

- **Financial Model:** Updated financial model to incorporate changes in macro-economic factors (i.e. AUD:USD foreign exchange rates, shipping costs, land based haulage costs, changes in applicable mineral royalty rates and updated SOP prices).

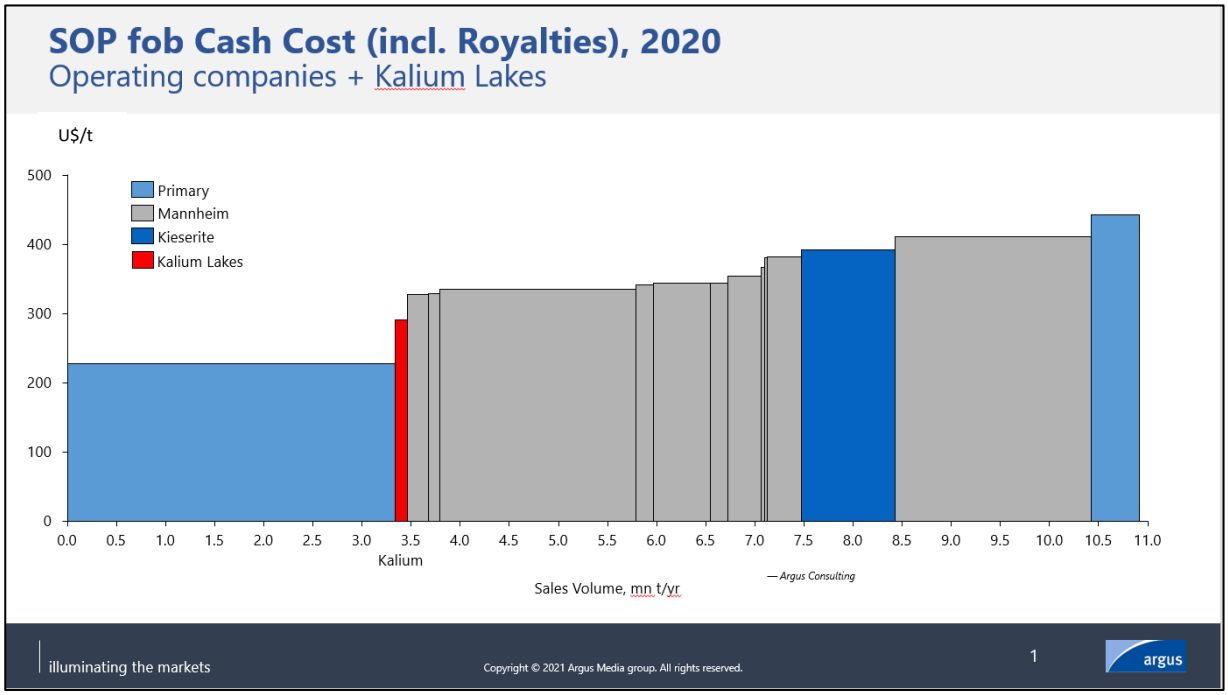

Figure 2: SOP FOB Cash Cost – Comparison of Kalium Lakes to Market

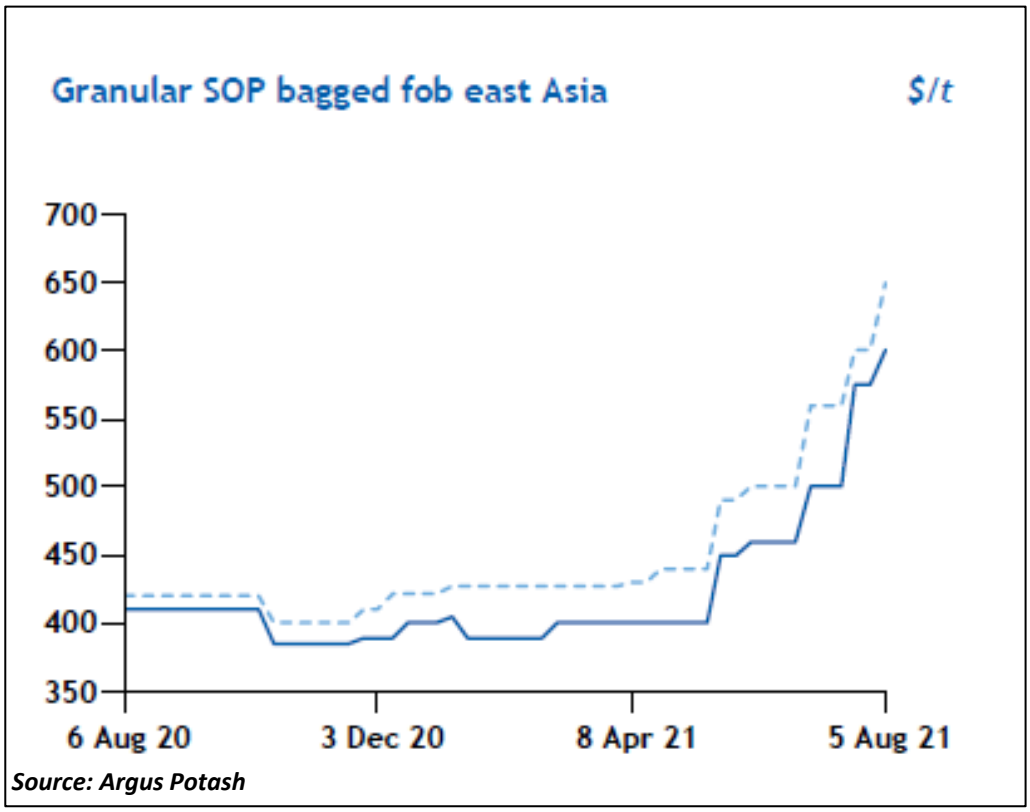

Figure 3: Granular SOP range - bagged FOB East Asia

Financial Model - Key Assumptions and Results

Description	120ktpa Feasibility Study Assumptions and Results[2]
Production Target	Accelerated ramp-up to 120ktpa by Q4 2022
Brine Extraction • Stage 1 Extraction Bores • Stage 1 Extraction Trenches • Average Annual Brine Volume	 32 – 55 (incl. contingency) 21 - 45 km 7.5 – 8.5 Glpa
Evaporation Ponds Area	446 ha
Primary Evaporation Pond Recovery	94%
Purification Plant and Recycle Ponds Recovery	96%
Total Recovery	91%
Life of Mine (LOM)	50 years (from 2019) [3]
Incremental Capital Cost for the expansion from 90ktpa to 120ktpa	A$45.3m [4]
LOM Operating Cost FOB (real) [5] *(All-in Sustaining Cost)*	A$375/t FOB (US270/t FOB @ AUD:USD 0.72)
LOM Average Net SOP Price (real) [6]	US$585/t
AUD:USD foreign exchange rate	0.75 to June 2025, 0.72 thereafter
LOM Royalties (nom) [7]	A$1,053m
LOM EBITDA (nom)	A$3,465m
LOM Average EBITDA p.a. (nom)	A$70.7m
LOM EBITDA Margin (nom)	41%
Project unlevered pre-tax NPV (8%, nom) [8] (*Valuation date: 30 June 2021*)	A$484m

Refer to the Appendix in this announcement for all assumptions in respect to the table above.

[2] Except for the incremental capital cost presented in the table which relates to the cost of expansion from 90ktpa to 120ktpa all the figures in the table are for the project in relation to the 120ktpa production target.
[3] Refer to Cautionary Statement - The 120ktpa mine plan comprises Ore Reserves (77%) and Indicated Mineral Resources (13%), it is partly based on Inferred Mineral Resources (10%). No Exploration Target brine has been included in the assumed life of mine or economic evaluation of the project. Refer to the cautionary statement in page 3 of this announcement.
[4] Capital cost estimate is based on actual data from current project and updated where required to Q2 2021 prices. The majority of the deliverables constituting the basis for the capital cost estimate at an AACE Class 3 level. The capital cost includes a contingency of A$4.2m.
[5] Life of Mine Operating Cost FOB includes all mining, processing, site administration, product haulage to port, port costs, head office corporate costs, sustaining costs, but excludes royalties and taxes.
[6] SOP market studies by CRU and Argus have been used as the basis for the commodity price. Long term SOP price forecasts were obtained in July 2021 for the period to 2040 which the Company has adopted in its forecasts. The Company has assumed that SOP prices remain stable for the period after 2040 for the reminder of the life of mine. The average net SOP price is calculated as the average CFR price less agent fee and CPT costs but before marketing fees.
[7] WA Royalty Rate = 5% of "royalty value" (gross revenue less shipping costs); Native Title Royalty Rate = 0.75% of Mine Gate; Founders' Royalty = 1.9% of gross revenue.
[8] NPV based on nominal cashflows assuming a 2.4% inflation factor used; WACC calculation = 8% discount rate.

Sensitivity Analysis

Sensitivity Analysis has been performed on NPV, EBITDA Margin and Average EBITDA by flexing certain model inputs between a range of -20% to +20% in 10% intervals. The results are presented in Table 1, Table 2 and Table 3 below. Out of the items sensitised, the tables indicate that the financial forecasts are most sensitive to the SOP Price and AUD:USD foreign currency fluctuations.

Table 1: Sensitivity Analysis – Project, unlevered, pre-tax NPV (8%, nominal) $Am

Sensitivity	-20%	-10%	BASE	+10%	+20%
Capital Costs (incremental)	496	490	484	477	471
Operating Costs	618	551	484	416	349
SOP Price	212	347	484	618	751
AUD:USD [9]	793	621	484	371	277

Table 2: Sensitivity Analysis – LOM EBITDA Margin (nominal)

Sensitivity	-20%	-10%	BASE	+10%	+20%
Capital Costs (incremental)	41%	41%	41%	41%	41%
Operating Costs	50%	46%	41%	37%	32%
SOP Price	28%	35%	41%	46%	50%
AUD:USD	50%	46%	41%	37%	32%

Table 3: Sensitivity Analysis – LOM Average EBITDA (nominal) $Am

Sensitivity	-20%	-10%	BASE	+10%	+20%
Capital Costs (incremental)	71	71	71	71	71
Operating Costs	86	78	71	63	55
SOP Price	37	54	71	87	104
AUD:USD	108	87	71	57	46

[9] For the AUD:USD foreign exchange rate, a negative sensitivity means a weakening of the AUD versus the USD.

Next Steps

With first SOP production from the current project imminent, Kalium Lakes is accelerating expansion plans to ramp-up production to 120ktpa by Q4 2022, subject to the approval of its senior lenders and securing funding for the expansion which the Company is in the process of finalising. The upcoming major milestones and indicative timeline are set out below.

Key Milestones	Indicative Timeline
K+S Offtake Agreement amendment for additional 30ktpa and improved payment terms for first 3 years of production	Signed
Approval by Senior Lenders (KfW and NAIF) of the debt restructuring and a new $20m liquidity facility subject to: • negotiation and execution of formal documentation and Ministerial non veto of the NAIF component; and • consent by KfW board as well as Euler Hermes and the German ministerial bodies	Q3 2021
Receipt of operating licence for 100ktpa[10]	Q3 2021
Expansion funding	Q3/Q4 2021
Additional brine supply	Q4 2021
Additional evaporation ponds	Q1 2022
SOP plant ramp-up to 100ktpa production rate	Q2 2022
Receipt of Section 45C approval for 120ktpa SOP production	Q2 2022
Receipt of operating licence for 120ktpa (excluding Ten Mile West)	Q4 2022
SOP plant ramp-up to 120ktpa production rate	Q4 2022
Ministerial approval / receipt of operating licence for 120ktpa (including Ten Mile West)	Q1 2024

There is a risk that this timeline will not be achieved or that some or all of the events in it will not occur. Refer to Appendix 3 for further information.

Funding

To achieve the above timeline and estimated financial forecasts and outcomes indicated in the 120ktpa Feasibility Study, the Company will (in addition to needing to achieve the other prerequisite milestones disclosed in this announcement (see Appendix 3 in particular)) require additional funding for the capital expenditure needed to expand production from 90ktpa to 120ktpa at the Beyondie SOP Project. Kalium Lakes is in the process of exploring equity and debt funding options.

The Company is working with its senior lenders to restructure its existing debt arrangements and is in the process of negotiating the provision of an additional liquidity facility of A$20m (A$10m to be provided by both NAIF and KfW respectively). The debt restructuring includes a deferral of principal repayments

[10] The 100ktpa Operating licence will also include approval to construct the additional bores and ponds that will support the increased SOP production target at 120ktpa

for the first two years of production and a two-year extension to the maturity of the KLP[11] loans and, combined with the expansion to the 120ktpa SOP production rate, will enable the Company to meet its debt service obligations.

The liquidity facility will be used as short-term working capital, allowing the Project to commence production at 90ktpa in the event that the additional funding for the capital expenditure to expand production to 120ktpa is delayed.[12]

Upon finalisation, the liquidity facility (combined with the improved payment terms under the K+S offtake agreement as outlined below) will replace the existing Westpac working capital facility and will be available for six months (with the potential to extend for another six months at the discretion of the Company's senior lenders). The restructure and new liquidity facility remain subject to a number of conditions precedent and the finalisation of formal documentation.

In addition to the above, the Company has signed an amendment to its offtake agreement with K+S for the entire 120ktpa production target, which includes improved payment terms which provide working capital support for the first three years of production.

Kalium Lakes considers it has reasonable grounds for expecting that the requisite additional funding can be secured based on the Ore Reserves and Mineral Resources defined at the Beyondie SOP Project and the various inputs to those estimates (disclosed throughout this announcement and the 120ktpa Feasibility Study results). The financial forecasts set out above are based on the assumptions adopted in the financial model.

Investors should note that there is no certainty that Kalium Lakes will be able to secure funding when needed (nor any certainty as to the form such capital funding may take, such as equity, debt, hybrid or other capital raising). It is also possible that such funding may only be available on terms that dilute or otherwise affect the value of Kalium Lakes' shares.

Longer term a focus will remain on evaluating sensible expansion opportunities that maximise stakeholder returns, including further increases to production rates and/or the production of magnesium products, although any expansions or by-product production is subject to final confirmation of technical and economic viability, availability of funding and overall feasibility.

Refer to Appendix 3 in this announcement for all assumptions in respect to the table above.

120ktpa Mine Plan

The Mine Plan for 120ktpa has been developed following geological updates and recalibration of the groundwater solute transport models to the 18 months of operational data obtained since 2019. The models have been re-run to simulate 120ktpa at 91% recovery to target production of an estimated 120ktpa for up to 50 years [13]. The additional brine will initially come from expansion of the Sunshine and Ten Mile bore-fields and subsequently the Ten Mile West trenches and borefield incrementally during the next 15 years. The final borefield and trench layout for the 120ktpa Mine Plan is presented in , and the Mine Plan (Figure 4) and predicted brine grade variation for 120ktpa (Figure 5) are presented below.

The Mine Plan is made up of 77% Ore Reserves, 13% Measured and Indicated Resources (which are not part of the Ore Reserve) and 10% Inferred Resources. The Inferred Resources are brought into production from proposed production bores at Ten Mile West from year 11 onwards and do not form a significant portion of the mine plan. The Production Target is not dependent on Inferred Resources as these may be substituted by unutilised Measured and Indicated Resources at Sunshine.

[11] KLP is a wholly owned subsidiary of Kalium Lakes Limited and holds the two KfW debt facilities, as well as the $26m NAIF debt facility
[12] At a 90ktpa production rate the All In Sustaining Cost as shown in the Financial Model – Key Assumptions and Results table is forecast to be A$437/t.
[13] 50 years from 2019 when first brine extraction commenced

The 120ktpa SOP expansion is estimated to utilise approximately 49% of the Measured Resources, 23% of the Indicated Resources and 5% of the Inferred Resources of the BSOPP JORC Mineral Resource over a 50-year Life of Mine [14]. Inclusive of the above (in relation to Measured Resources) are Proved Ore Reserves which are fully depleted in year 20 and (in relation to Measured and Indicated Resources) Probable Ore Reserves, which are fully depleted by year 44.

The 120ktpa Mine Plan does not warrant a new Ore Reserve Estimate as the production footprint and total volume abstracted is less than the Bankable Feasibility Study (**BFS**) expansion Mine Plan of 164 ktpa (refer to Kalium Lakes' ASX Announcement of 18 September 2018 *Bankable Feasibility Study Completed)*, which is the basis of the Ore Reserve (however the 164ktpa Mine Plan is not considered in this 120ktpa Feasibility Study). The Ore Reserve Estimate will be updated during the studies in relation to further expansion opportunities.

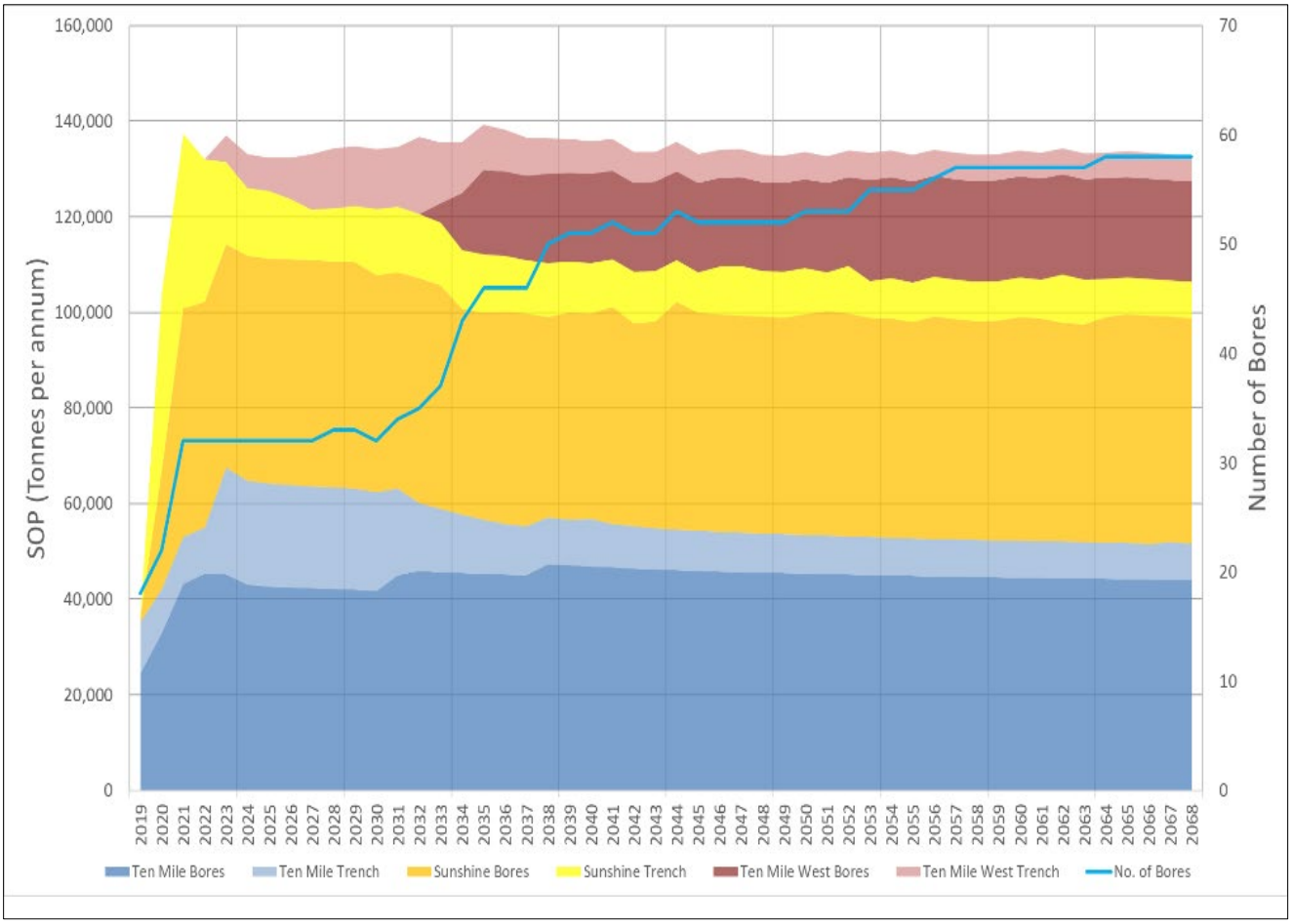

Figure 4: 120ktpa Mine Plan

[14] 50 years from 2019 when first brine extraction commenced

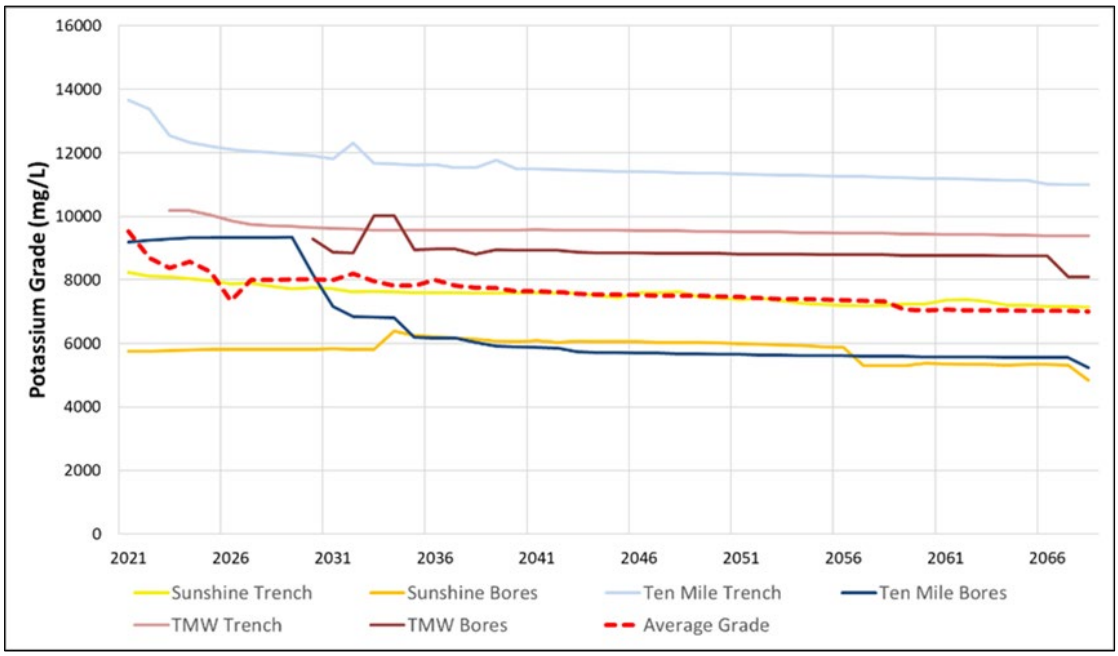

Figure 5: Predicted Brine Grade Variation for 120ktpa Mine Plan

Brine Abstraction, Mineral Resources and Ore Reserves Summary

Brine Abstraction: Approximately 5.3 GL of brine has been abstracted at a grade of 20.42 kg/m^3 (9,155 mg/L K) at the end of June 2021, which corresponds to approximately 108,000 tonnes of SOP after processing through the evaporation ponds and the process plant, excluding recovery losses.

Mineral Resources update: The Mineral Resources of the BSOPP have been updated following completion of the installed borefield and review of the resource model. The summary of the Mineral Resource Estimate is presented in the JORC (2012) Annual Brine Abstraction, Resources and Reserves Report Summary below. Table 4 shows the summary of the Brine Mineral Resources. The current Mineral Resources of the BSOPP, inclusive of Ore Reserves, include:

- Measured Resource of 4.60 Mt @ 12.75 kg/m^3 SOP (increase of 7%)
- Indicated Resource of 15.11 Mt @ 13.10 kg/m^3 SOP (increase of 15%)
- Inferred Resource of 13.27 Mt @ 14.18 kg/m^3 SOP (decrease of 4%)

Table 4: JORC (2012) Mineral Resources Summary: Beyondie SOP Project

JORC Resource	Drainable Brine Volume (M m^3)	K Grade (mg/L)	K	SO_4	Mg	Drainable Brine Volume K_2SO_4 (SOP*) (Mt)	Total Brine Volume K_2SO_4 (SOP*) (Mt)
			(Mt)	(Mt)	(Mt)		
Measured Resource	361	5,718	2.06	6.08	2.06	4.60	12.22
Indicated Resource	1,153	5,875	6.77	19.11	6.13	15.11	45.37
Combined M + I	**1,514**	**5,837**	**8.84**	**25.20**	**8.19**	**19.71**	**57.59**
Inferred Resource	936	6,363	5.96	18.12	5.74	13.27	100.01
Total Mineral Resource	**2,450**	**6,038**	**14.80**	**43.32**	**13.93**	**32.98**	**157.60**

*SOP is calculated by multiplying Potassium (K) by a conversion factor of 2.23.

Note errors are due to rounding.

Measured and Indicated Resources are Inclusive of Ore Reserves

The Mineral Resource has been prepared in compliance with JORC Code 2012 Edition, AMEC Brine Guidelines and the ASX Listing Rules. The summary report below contains the pertinent information used in the Mineral Resource Estimate.

Ore Reserves after depletion: The BSOPP Ore Reserves have been reconciled to the brine abstraction to end of June 2021. The Ore Reserve Estimate remains unchanged from the BFS (refer ASX Announcement 18 September 2018 *Bankable Feasibility Study Completed).* A summary of the Ore Reserves reconciliation by depletion is presented in the Annual Abstraction, Resource and Reserves Summary Report below. The produced brine from Ore Reserves is presented in Table 5. The current Ore Reserves of the BSOPP after depletion are presented in Table 6 and Table 7.

The Ore Reserve Estimate will be updated during the studies in relation to further expansion opportunities. This update will be released with the study outcomes and include the revised block model, the increased Resources announced in this announcement and calibration to the abstraction as at 30 June 2021.

Table 5: Beyondie SOP Project – Produced Ore Reserves to 30 June 2021

Bore ID	Brine Volume (10^6 m^3)	Average K (mg/L)	K Mass (kt)	Average SO_4 Grade (mg/L)	SO_4 Mass (kt)	K_2SO_4 (SOP) Grade (kg/m^3)	K_2SO_4 (SOP) Mass (kt)
Abstraction from Proved Ore Reserves	3.5	8,823	30.9	25,600	88.7	19.67	68.9
Abstraction from Probable Ore Reserves	1.8	9,800	17.6	28,400	49.7	21.85	39.3
Total Abstraction from Ore Reserves	**5.3**	**9,155**	**48.5**	**26,550**	**138.4**	**20.42**	**108.2**

Note errors are due to rounding. Abstracted tonnes are pre-recovery losses

Table 6: Beyondie SOP Project - Proved Ore Reserves

Aquifer Type	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 (mg/L)	SO_4 Mass (Mt)	K_2SO_4 (SOP) Grade (kg/m^3)	K_2SO_4 (SOP) Mass (Mt)
Production Bores	115.5	6,207	0.71	17,945	2.05	13.83	1.58
Total Proved Ore Reserves	**115.5**	**6,207**	**0.71**	**17,945**	**2.05**	**13.83**	**1.58**

Note errors are due to rounding.

Table 7: Beyondie SOP Project - Probable Ore Reserves

Aquifer Type	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 (mg/L)	SO_4 Mass (Mt)	K_2SO_4 (SOP) Grade (kg/m^3)	K_2SO_4 (SOP) Mass (Mt)
Lake Sediments	208.2	4,755	0.99	13,699	2.85	10.60	2.21
Production Bores	82	6,713	0.56	18,867	1.57	14.69	1.24
Total Probable Ore Reserves	**290.2**	**5,306**	**1.55**	**15,129**	**4.42**	**11.82**	**3.45**

Note errors are due to rounding.

JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report

Introduction

Kalium lakes is pleased to provide an annual summary of brine extraction to date, inclusive of Mineral Resource Estimate and Ore Reserve reconciliation from depletion.

Brine pumping commenced in October 2019 from Ten Mile and final commissioning of all bores and trenches at Sunshine was completed by November 2020. Since then, operations have been ongoing at maximum capacity to meet the seasonal evaporation pond demands.

Following completion of the borefield and review of the production grades achieved, an update to the Mineral Resource has been completed due to the higher grades observed from production.

The annual update includes reconciliation of the Ore Reserves from depletion to reflect the abstraction to date.

Brine Extraction

As of 30 June 2021 a total of 21 production bores have been operational, with 12 at Ten Mile and nine at Sunshine, while 10.2 km of trenches at Ten Mile and 13.8 km of trenches at Sunshine have been excavated with two pumping points at each trench network. A total of 5.3 GL of brine has been pumped at an average potassium grade of 9,155 mg/L for the equivalent of approximately 108,000 tonnes of SOP. Production rates have varied according to evaporation demands, with peak abstraction between the months of November and May. Abstraction in tonnes of SOP by production area is presented in Figure 6 and Table 8.

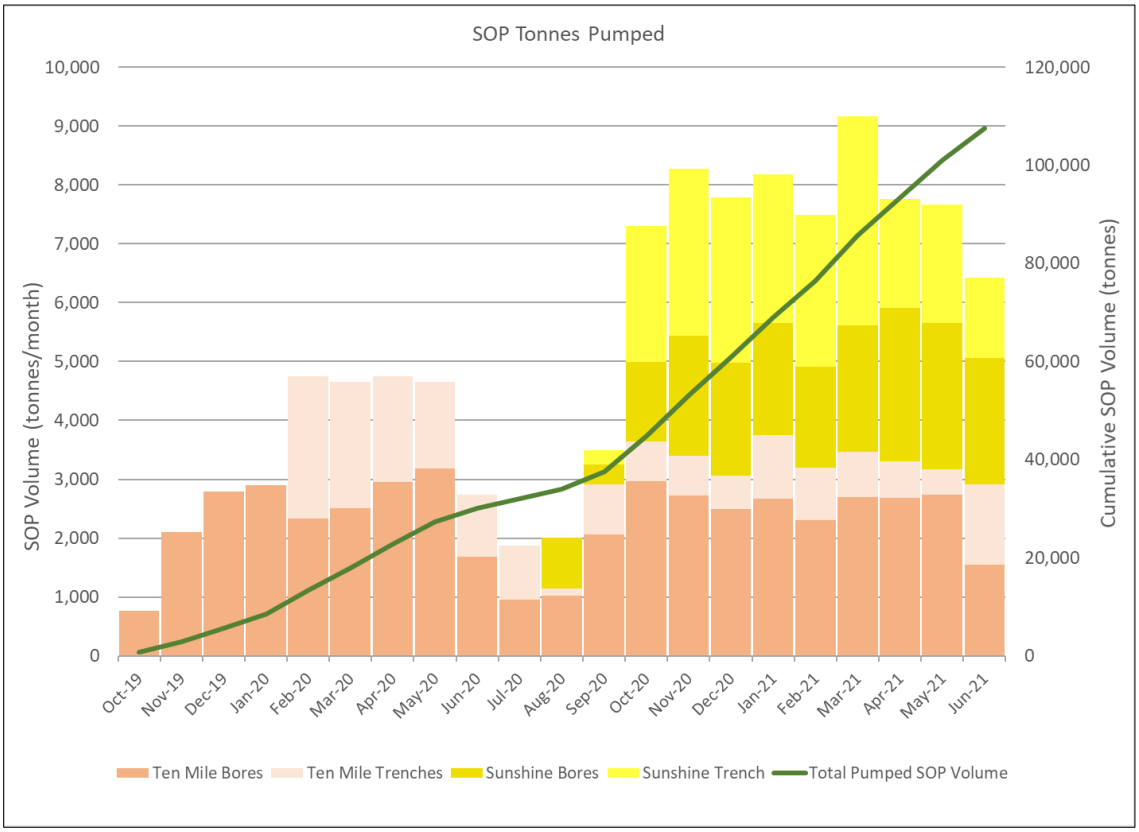

Figure 6: Abstraction rates of SOP by production area

Table 8: Extracted Brine Volumes to 30 June 2021

Abstraction Area	Brine Volume (10^6 m^3)	Average K Concentration (mg/L)	Potassium Volume (kt)	SO_4 Volume (kt)	K_2SO_4 (SOP Volume) (kt)
Ten Mile Production Bores	2.4	9,200	22.1	63.5	49.2
Ten Mile Trench	0.6	13,000	7.8	22.0	17.4
Sunshine Production Bores	1.1	8,000	8.8	25.2	19.6
Sunshine Trench	1.2	8,200	9.8	27.7	21.9
Total	**5.3**	**9,155**	**48.5**	**138.4**	**108.2**

Note errors are due to rounding. Note: abstracted tonnes are pre-recovery losses

Mineral Resources

The updated Mineral Resource Estimate covers small increases in Indicated and Measured Resources at Ten Mile Lake and Lake Sunshine and a small reduction in Inferred Resources, all within the existing Resource footprint. The update has consisted of input of additional brine samples from the screened intervals of all installed production bores and trenches, then review of the variography and search parameters to generate new block models. All other parameters remain unchanged from the September 2020 update (ASX Release 27 August 2020 *Significant Resource Upgrade at Sunshine*).

The Mineral Resource has been prepared in compliance with JORC Code 2012 Edition, AMEC Brine Guidelines and the ASX Listing Rules. The following is a summary of the pertinent information used in the Mineral Resource Estimate with full details provided in the JORC Code Table included as Appendix 3.

Exploration Summary

The BSOPP deposit is a brine, containing the target potassium and sulphate ions required to form a potassium sulphate salt. The brine is contained within saturated sediments below and adjacent to the lake surface.

The exploration phase of the project commenced in 2015 and has involved a complex data collection programme, covering augering, geophysics, drilling, water and soil sampling, aquifer testing and laboratory test. Exploration to date has comprised of the following:

- 334 aircore, diamond and sonic drill holes to collect geological and brine samples;
- 426 auger holes across all the lakes up to depths of between 1.5 and 2 m, to collect information on the lake surface geology and groundwater samples;
- 31 large 200 to 250 mm diameter cased production bores;
- 1,150 km of geophysical traverses between Ten Mile Lake and White Lake;
- Installation of 83 monitoring boreholes;
- Excavation of ten trial trenches for 1,640 m of trench;
- Grain size analysis of 114 lithological samples;
- 43 laboratory analyses of cores for porosity;
- 18 Borehole Magnetic Resonance (BMR) logs;
- 13 mini aquifer tests (1 hr pumping / 1 hr recovery);
- 17 constant rate / recovery aquifer pumping tests;
- Laboratory analysis of water samples collected from augering (453), drilling (873) and during the aquifer testing and bore development (172);
- 20 leach tests of the surface sediments;
- 19 weeks of bore test pumping;
- 11 weeks of trial trench test pumping;
- 45 weeks of trial pond pumping; and
- >1.5 GL of brine pumped from aquifers.

The details of these exploration programs are summarised in ASX release *Significant Increase in Resources at Lake Sunshine* dated 27 August 2020 and *Bankable Feasibility Study Completed* dated 18 September 2018. Kalium Lakes is not aware of any new information or data that materially affects the exploration results information included in those market announcements.

Project Geology

The Project area is located within the Collier, Salvation, Scorpion, and North-West Officer Basins, stretching over a 200 km strike. The southwestern end of the project is located on the margin of the Archean Marymia Dome of the Yilgarn Craton and the Proterozoic basin sediments. The Proterozoic basin sediments dip approximately northeast across the project areas and onlap the greenstone and granite of the Yilgarn to the southwest of the project area.

The granite in the area is characterised as monzogranite, which is potassium rich and composed mostly of quartz and potassium feldspar (alkali-feldspar); their proximity to the BSOPP area, along with other granitic inliers, makes it a suspected source of the potassium enrichment in the region's sub-surface brine deposits.

The Proterozoic sediments across the Project area are considered representative of shallow marine sediments of interbedded sandstone, siltstone and mudstone of low to medium metamorphic alteration. Sandstone is particularly prevalent on the eastern side of Ten Mile and across Sunshine.

Mafic intrusions, belonging to the Warakurna Large Igneous Province, outcrop sporadically across the BSOPP area and can be mapped with the publicly available regional aeromagnetic data sets. Identified as dolerites and amygdaloidal basalts. These intrusive rocks and their weathering profiles are also considered a source for the potassium enrichment.

During the Late Carboniferous to Early Permian glaciation the palaeo-topography was re-shaped through glacial advance and retreat, depositing glacial sediments hundreds of kilometres north and west of the Project. The residual "scoured" landscape following glacial retreat produced during those Palaeozoic times is represented by the palaeo-drainage of the region. This network has been subject to sedimentation comprising palaeovalley fill of Cenozoic sediments. Three phases of Cenozoic sedimentation are considered to make up the palaeo-drainage sequence, known as the palaeovalley sediments:

1. Palaeochannel sand – mid to upper Eocene aged
2. Lacustrine clay – late Oligocene to mid Miocene aged
3. Mixed alluvial and colluvium – Pliocene aged

The basal palaeochannel sand unit is dominated by the deposition of higher energy fluvial sand, considered to have been formed in braided river depositional environments under wet climatic conditions. These facies are typically located in the deepest parts of the palaeovalley. Unconformably overlying the basal palaeochannel sand horizon, are low energy lacustrine clay horizons interpreted as forming within valley lakes and wetlands. More discrete fluvial fine sand sequences are present within the lower clay deposits, associated with lower energy palaeo-stream and channel depositional environments during the drying climate. An upper alluvial and colluvial sequence is the youngest deposit, is derived from tectonic adjustments and deflation. It is varied in nature, and texturally further modified by ferricrete, silcrete, weathering and regolith processes.

The contact between the Cenozoic sediments and the bedrock is considered the palaeo-topography. Deep weathering profiles on this topography have been observed from geophysics and drilling. The saprolitic profiles are significant unconsolidated and friable sediments on the margins of the palaeovalley where more weakly cemented sandstone is often present. The project presented in Figure 7.

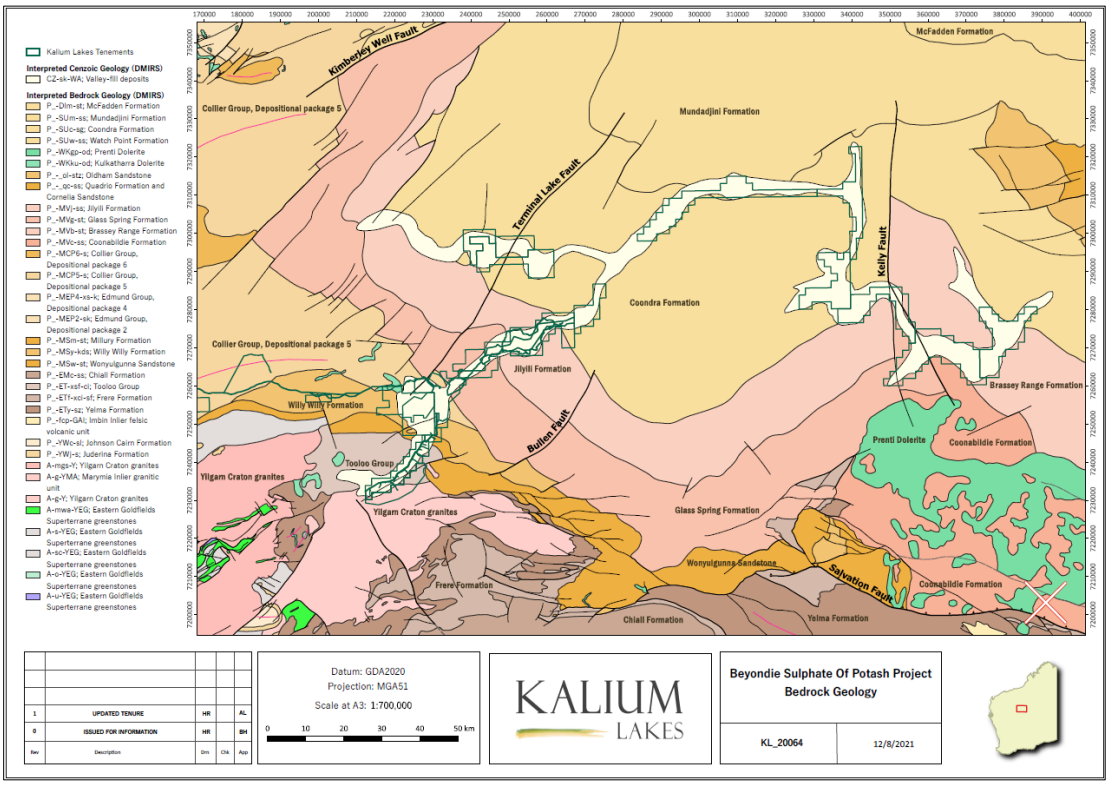

Figure 7: Interpreted Project Geology

Hydrogeology

Two regional aquifer units have been identified within the Cenozoic sediments, the palaeochannel sand aquifer, located at the base of the palaeo-drainage system, and the shallow surficial aquifer comprising Quaternary evaporites, calcrete and silt of the lake surface and alluvium. These aquifers are considered to be hydro-geologically separated from one another by the thick sequence of stiff lacustrine clays that form an aquitard.

The regional fine grained and metamorphosed bedrock sediments are considered to be on the whole of low aquifer potential. Sandstone dominated lithologies of the Jilyili and Glass Springs Formations of the Savoury Group are permeable at Lake Sunshine and the eastern side of Ten Mile Lake, in conjunction with deep weathering profiles and vesicular basalt have proven to be highly prospective aquifer targets. Regional structural features and specifically the unconformity between the Willy Willy Formation and the Backdoor Formation enhance aquifer transmissivity as linear features at Ten Mile Lake.

Groundwater within the surficial aquifer is generally between 0.2 m and 11 m below ground level, with depth to the ground water table determined by location within the catchment and local topographic changes. Groundwater flow within the surficial aquifer is generally driven by rainfall and episodic creek flow recharge to the aquifer system. The groundwater flow direction generally follows the surface topography, with recharge and groundwater mounding dominant in the ephemeral creek systems and discharge via evaporation occurring in the playa lakes through evaporation.

Groundwater within the palaeochannel sand aquifer is confined in nature and has a piezometric head that is independent to groundwater flow at the groundwater table. Piezometric head is a pressure response of regional scale that has at a very low gradient (0.00008) from southwest to northeast across the Ten Mile and Sunshine Lake areas. The piezometric head is generally between 0.1 m and 0.5 m below the elevation of the water table near the centre of the palaeochannel. This head difference becomes up to 1 m lower at the margins of the palaeovalley. These differences indicate a degree of vertical downward drainage through the profile and potential mode of recharge from the surficial aquifer to the palaeochannel sand aquifer, this maybe directly through the clay zones or, more likely, at the margins of the palaeovalley through weathered and fractured bedrock.

Where bedrock aquifers are encountered below lacustrine clay the groundwater system is confined in nature. However, where weathered bedrock is exposed outside of the palaeovalley groundwater is unconfined or leaky and moves according to local groundwater table flow patterns.
The conceptual understanding of the system and the aquifers targeted for brine production is presented in Figure 8 below.

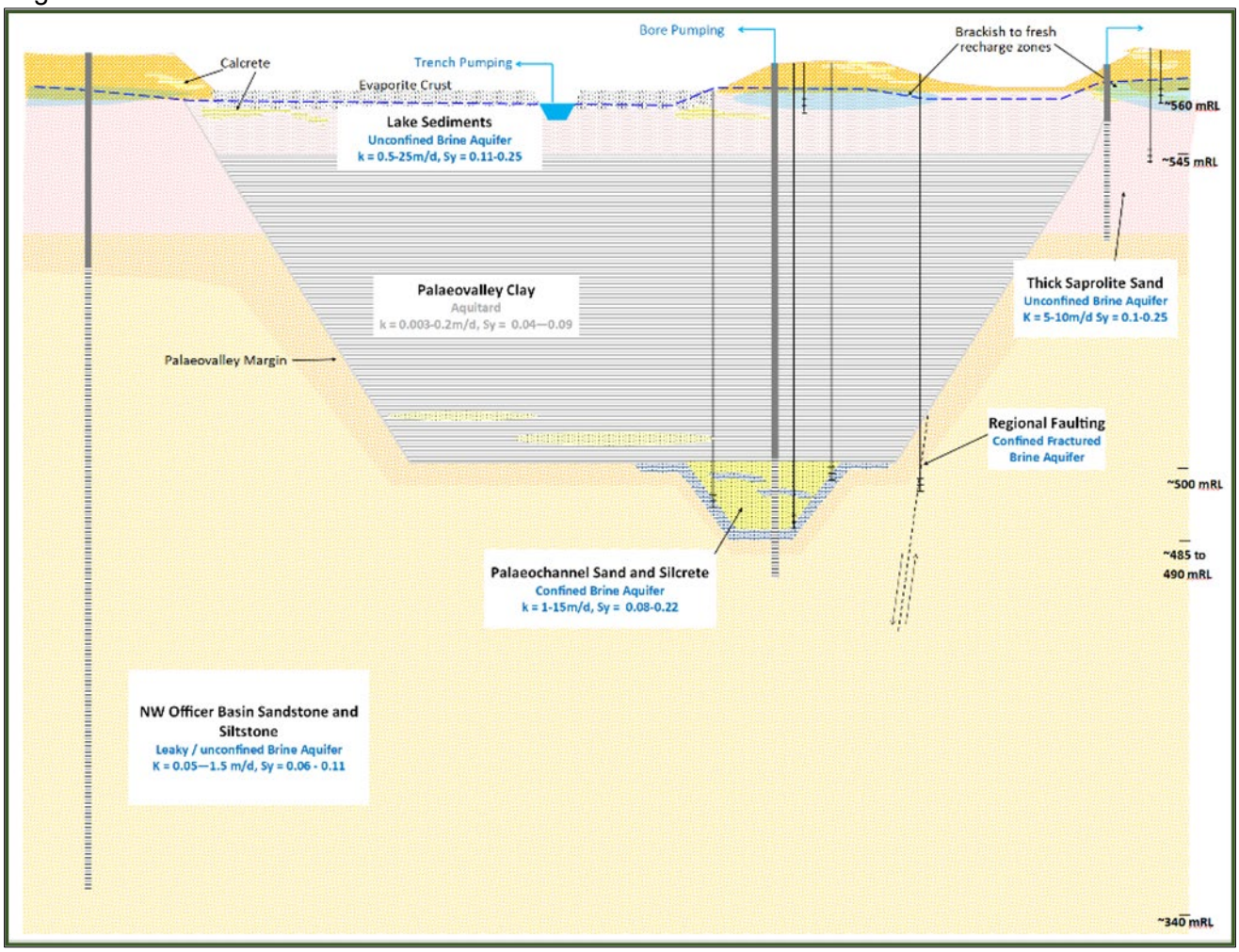

Figure 8: Hydrogeological Conceptual Model of the BSOPP

Porosity and Specific Yield

Total porosity is the volume of brine filled pores that is present in a unit volume of material. The specific yield (or drainable porosity) is the portion of the total porosity that is freely drainable under gravity. The remaining portion of the total porosity is called specific retention.

Brine resources are determined from the specific yield volume of the aquifer, whilst total porosity is reported for comparative purposes only. The economic extractable volume is determined by estimation of a Reserve which takes into account the Mining Factors of a brine including hydraulic conductivity, the dynamics of the aquifers targeted and brine grade changes.

Total porosity and specific yield have been derived from a number of sources; these include:

- Aquifer testing;
- Laboratory analysis of core and drill samples; and
- Borehole magnetic resonance (BMR) logging.

The specific yield for the lake sediments is reliant on the aquifer testing results of the trenches, these results are considered the most representative of aquifer. Core analysis has been used for calibration of the BMR logs which have been used as the primary source of specific yield for all other lithologies, this

has provided a very high vertical resolution of specific yield in the lithological profile. The adopted specific yield and total porosity ranges are presented in Table 9 and Table 10.

Table 9: Ten Mile and Beyondie Porosity and Specific Yield Ranges

Lithology	Total Porosity (-)		Specific Yield (-)	
	Range	Weighted Mean	Range	Weighted Mean
Lake Sediments	0.43 - 0.48	0.45	0.11 - 0.25	0.16
Alluvium	0.32 - 0.42	0.39	0.07 - 0.18	0.13
Palaeovalley Clay	0.32 - 0.42	0.36	0.04 - 0.09	0.06
Sand and Silcrete	0.22 - 0.35	0.34	0.17 - 0.22	0.21
Fractured / Weathered Sandstone	0.25	0.25	0.08	0.08
Fractured / Weathered Siltstone	0.22	0.22	0.03	0.03

Table 10: Lake Sunshine Porosity and Specific Yield Ranges

Lithology	Total Porosity (-)		Specific Yield (-)	
	Range	Weighted Mean	Range	Weighted Mean
Lake Sediments	0.42 - 0.48	0.45	0.12 - 0.19	0.17
Alluvium	0.14 - 0.38	0.31	0.04 - 0.15	0.12
Palaeovalley Clay	0.30 - 0.37	0.33	0.03 - 0.11	0.08
Sand	0.17 - 0.35	0.29	0.10 - 0.25	0.20
Weathered Sandstone	0.12 - 0.25	0.16	0.06 - 0.18	0.08
Sandstone	0.12 - 0.19	0.15	0.04 - 0.12	0.08
Fractured / Weathered Siltstone	0.07 - 0.27	0.24	0.03 - 0.11	0.08
Fractured / Weathered Basalt	0.24	0.24	0.16	0.16

Sampling and Sub-Sampling

During exploration all drill holes were sampled for lithology and where possible brine quality during drilling. Lithological samples of aquifer zones in the surficial aquifer (Lake Sediments and Alluvium) and palaeochannel sand aquifer were obtained from drill samples and selected for laboratory testing.

Brine samples were obtained during aircore drilling from the cyclone during extended airlift testing at varied intervals. These samples are interpreted to be indicative of the depth at which the airlift is taking place, though some contamination from the surficial aquifer cannot be ruled out. Samples obtained from test pumping are considered to be the most representative of the target aquifers, where the aquifer zone is cased and sealed with bentonite to prevent any inter-bore flow, these samples are considered to be composite samples for resource estimation. Samples obtained from trench pumping are considered representative of the length and depth of the excavation.

Auger samples are considered representative of the upper surficial aquifer at each of the lake surfaces, and all samples were taken up to a maximum depth of 1.5 m for the 2015 holes and up to 2 m depth in the 2017 and 2020 sampling. Wherever possible, auger samples were typically taken at a 1 km grid spacing.

Sonic core of 100 mm diameter was obtained from ten locations across Ten Mile and Lake Sunshine. Core was extruded from the core barrel into clear plastic core bags. Core bags were sealed and placed into core trays, which were labelled at the drill site and stored on site.
Following geophysical logging individual core trays were selected for laboratory testing and transported back to Perth. The core will be tested for permeability, total porosity, specific yield and laboratory based magnetic resonance.

Drill hole spacing in the various project areas is described below:

- Beyondie and Ten Mile Surficial Sediments is between 1600 and 150 m (average is approximately 250 m);
- Beyondie and Ten Mile Palaeochannel and Bedrock is between 1600 and 150 m (average is approximately 270 m);
- Sunshine Surficial Sediments is between 3000 and 150 m (average is approximately 250 m);
- Sunshine Palaeochannel and Bedrock is between 3000 and 150 m (average is approximately 300 m);
- Regional lake surfaces is approximately 1000 m; and
- Ten Mile West lake surface approximately 1000 m. Ten Mile West palaeovalley and bedrock is approximately 2000 m.

During operations, brine sampling of production bores and trenches has occurred on an approximately weekly basis taken from sample taps on the pumping skid headworks.

Mineral Resource Estimate Classification Criteria

Resource categories are linked to the types of data obtained, drill hole density and confidence; these are listed below by category below.

Measured Resources have been calculated for areas where:

- Drilling and testing has confirmed local site geology and aquifer geometry to a high level of confidence;
- Aquifer hydraulic properties (hydraulic conductivity and specific yield) have been determined by multiple methods to a high level of confidence;
- Test pumping has measured groundwater flow interactions between the various geological units to confirm extractability; and
- Where operation data from production bores and trenches is present
- Brine samples have been collected at regular intervals on a dense drill pattern with a high level of QA/QC to confirm brine concentrations.

Indicated Resources have been calculated for areas where:

- Drilling and testing has confirmed local site geology and aquifer geometry;
- Aquifer hydraulic properties (hydraulic conductivity and specific yield) have been determined by more limited sampling and testing than Measured Resources;
- Test pumping has been completed to demonstrate extractability;
- A number of brine samples have been collected from a selection of locations to confirm brine concentrations; and
- Lake surface leaching, the mass of the lake surface total porosity that has been measured and can be mobilised via diffusion during recharge events which has now been observed in trench operations.

Inferred Resources have been calculated, based on a lesser amount of data and confidence, where:

- Geological evidence exists to imply but not verify the existence of brine grade and aquifer geometry;
- Proven geophysical techniques have been used to infer palaeovalley aquifers away from the main drilling investigation areas;
- Surface sampling and testing has determined brine grade at shallow depths which has been inferred to reasonably persist to deeper aquifers as per the existing resource models;
- Aquifer properties can be inferred from tests undertaken in other contiguous areas of the same palaeovalley system; and

Exploration Targets have been calculated where:

- No brine-chemistry data exists of any kind to confirm the brine quality, but some aquifer continuity with known brine resources may be expected based on geophysics (for example along the palaeochannel reaches between lakes); and
- Shallow-augering has provided evidence of high potassium concentrations which may be expected to occur throughout the sequence (based on potassium distribution with depth observed elsewhere), but there is no drilling or geophysical data available to provide any geological context to the brine occurrence or infer what the sequence at depth may be.

Due to the considerable distances involved between defined brine deposit zones at the BSOPP, Resources have been split into four separate areas: Ten Mile Lake and Beyondie; Lake Sunshine; Ten Mile West and the Regional Lakes.
Resources have been determined for the five dominant lithological types within the project area:

- Lake surface sediments;
- Alluvial sediments;
- Palaeovalley clay;
- Palaeochannel sand (and silcrete where significant secondary silica cementation occurs); and
- Weathered and fractured bedrock.

Mineral Resource Estimation Methodology

- A 3D geological model was constructed in Leapfrog Geo implicit modelling software from Seequent Limited. The model used all available drilling data, surface mapping and geophysical data to model the geology across the Beyondie, Ten Mile Lake, Ten Mile West and Lake Sunshine areas. The topography of the model was derived from high precision ortho imagery of the main lake areas and bore sites. The ortho imagery has a horizontal accuracy of 0.2 m and vertical accuracy of 0.08 m, all drill holes were levelled to the topography in the model.

- All drill hole assays for potassium, sulphate and magnesium were brought into the model as 1 m intervals when taken from drilling or as composites where assays are representative of screened intervals from bores (ie test pumping and bore development).

- The Edge module in Leapfrog Geo was used for block modelling and numerical estimation. Three block models have been constructed, one for Beyondie and Ten Mile Lake, one for Ten Mile West and one for Lake Sunshine. Beyondie and Ten Mile Lake utilised standard block sizes of 250 m in the x and y direction and 5 m in the z direction. Whilst Lake Sunshine used the same x and y block size but 2.5 m blocks in the z direction. Ten Mile West utilised standard lock sizes of 500 m in the x and y direction and 10 m in z direction. Sub blocking was used to refine the block model in areas where geological surfaces intersect blocks. Parent blocks were split by up to four blocks in the x and y direction and two blocks in the z direction. The block model grade distributions are presented in Figure 9 and Figure 10.

- Estimators were set up for potassium, sulphate and magnesium for the below water table domain. The domain was clipped to boundaries of the defined resource categories and tenements, as hard boundaries. The base of the domain was defined as 460 mAHD for Beyondie and Ten Mile Lake and Sunshine and 470 mAHD for Ten Mile West. Parameter concentrations were estimated across the cells using Ordinary Kriging, ellipsoid search parameters were assigned following review of the variography of each parameter.

The search parameters for each potassium estimator are listed below:

Ten Mile Lake and Beyondie

- Ellipsoid Ranges - Max. = 8500 m, Int. = 5500 m, Min. = 95 m
- No. of Samples – Max = 20, Min = 5.

Lake Sunshine

- Ellipsoid Ranges - Max. = 6800 m, Int. = 4200 m, Min. = 110 m
- No. of Samples – Max = 20, Min = 3.

Ten Mile West

- Ellipsoid Ranges - Max. = 4500 m, Int. = 1500 m, Min. = 50 m
- No. of Samples – Max = 20, Min = 1.

- Variogram models for each parameter are presented in the JORC Tables for reference. Nearest neighbour (NN) and inverse distance squared (ID2) estimators were also run for potassium as check accuracy calculations. These plots show that the model adopted (k:3x3x2) is appropriate when plotted against the ID2 and NN methods.
- Specific yield was calculated for the surficial lake sediments using the average of the trench test-pumping analysis results. For all other lithologies the average values from core calibrated BMR logging.
- SOP grade from potassium concentrations were calculated using a conversion of 2.23, accounting for the atomic weight of sulphate (sulphur and oxygen) in the K_2SO_4 formula and rounded to two decimal points.
- Resource tonnages were calculated by multiplying the volume of the Resource Zone in each lithology by the specific yield and SOP grade to obtain the drainable SOP volume.

The brine volumes listed below cover each of the individual categories, the total volume is the summation of volumes calculated for each level of Resource category. The areas determined for Resource assessment are presented in Figure 11, Figure 12, Figure 13 and Figure 14.

Based on the criteria listed above, the brine Measured, Indicated and Inferred Resources are provided in Table 11, Table 12 and Table 13 respectively.

Exploration Target

Based on the criteria listed above the Exploration Target (ET) is provided as a range in Table 7.

The BSOPP ET is based on future exploration programmes, including a number of assumptions and limitations and are conceptual in nature. It is not an indication of a Mineral Resource Estimate in accordance with the JORC Code (2012) and it is uncertain if future exploration will result in the determination of a Mineral Resource.

The ET grade and volume is derived from the conceptual understanding of the regional geology and brine distribution from local exploration results of drilling and brine assay results. The ET approximation is in areas with no exploration results.

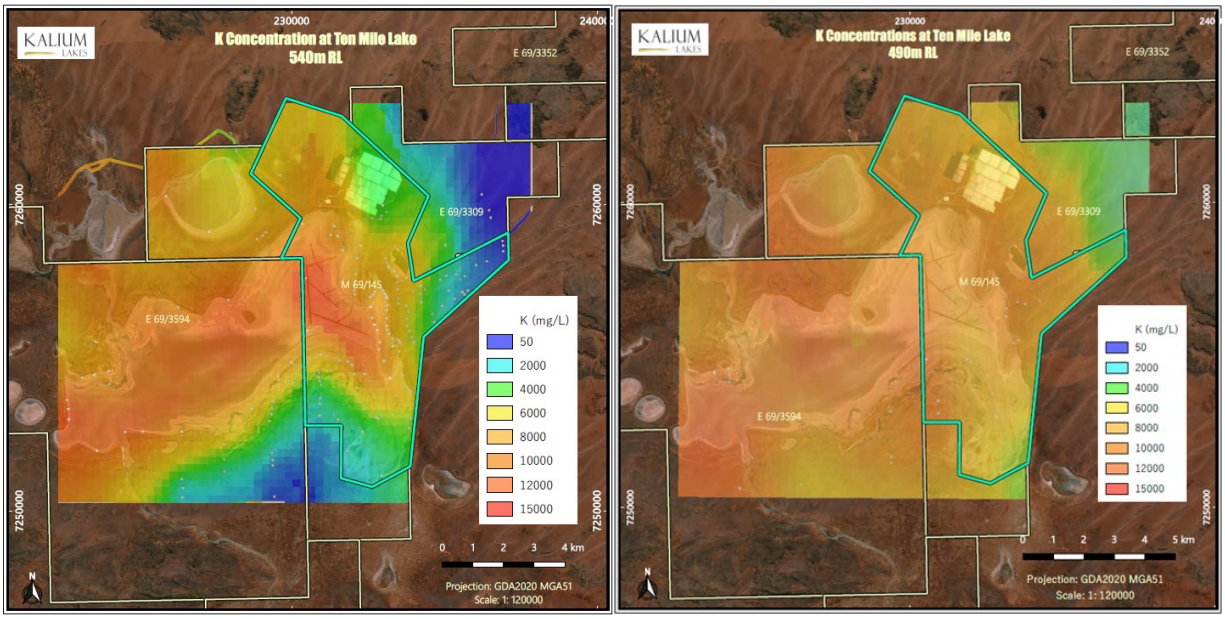

Figure 9: Block Model Potassium Concentration Ten Mile

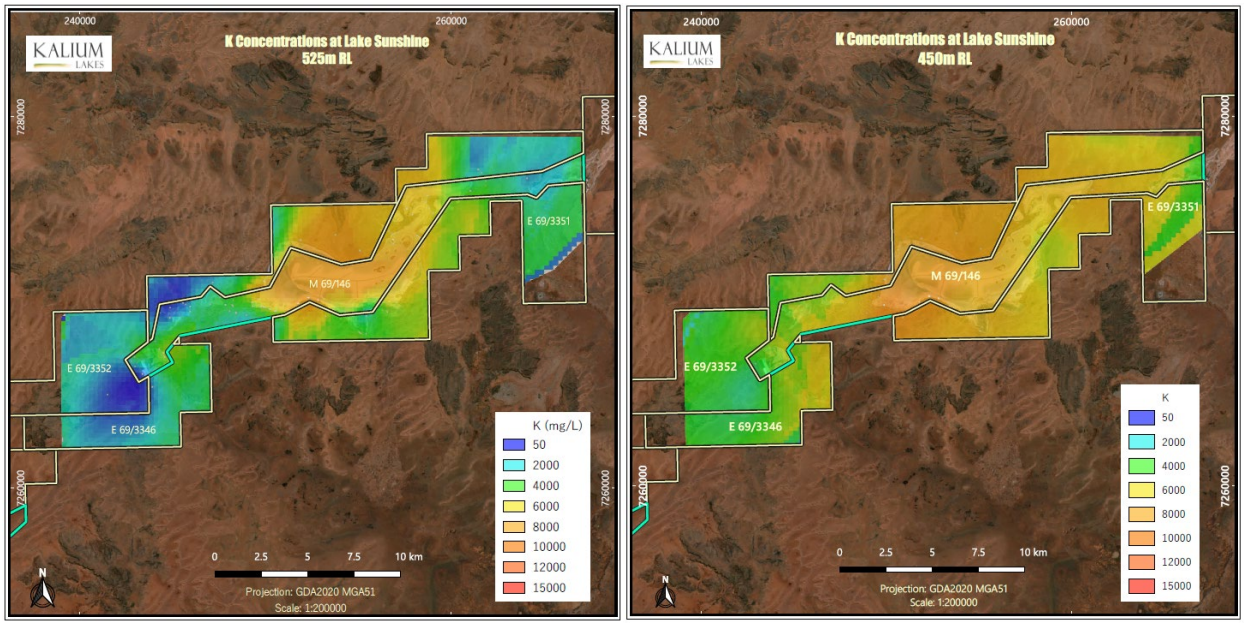

Figure 10: Block Model Potassium Concentration Sunshine

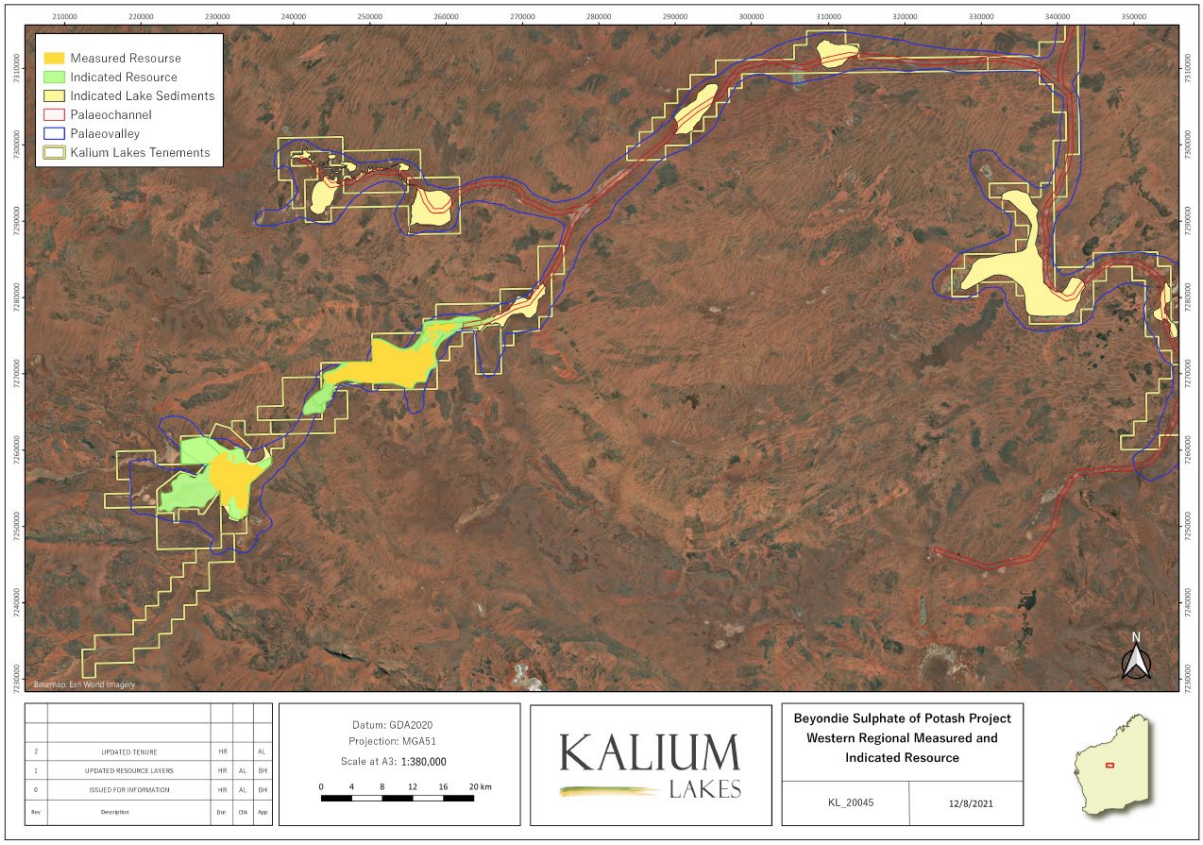

Figure 11: Location of Areas Delineated for Resource Assessment: Western Area Measured and Indicated Resources

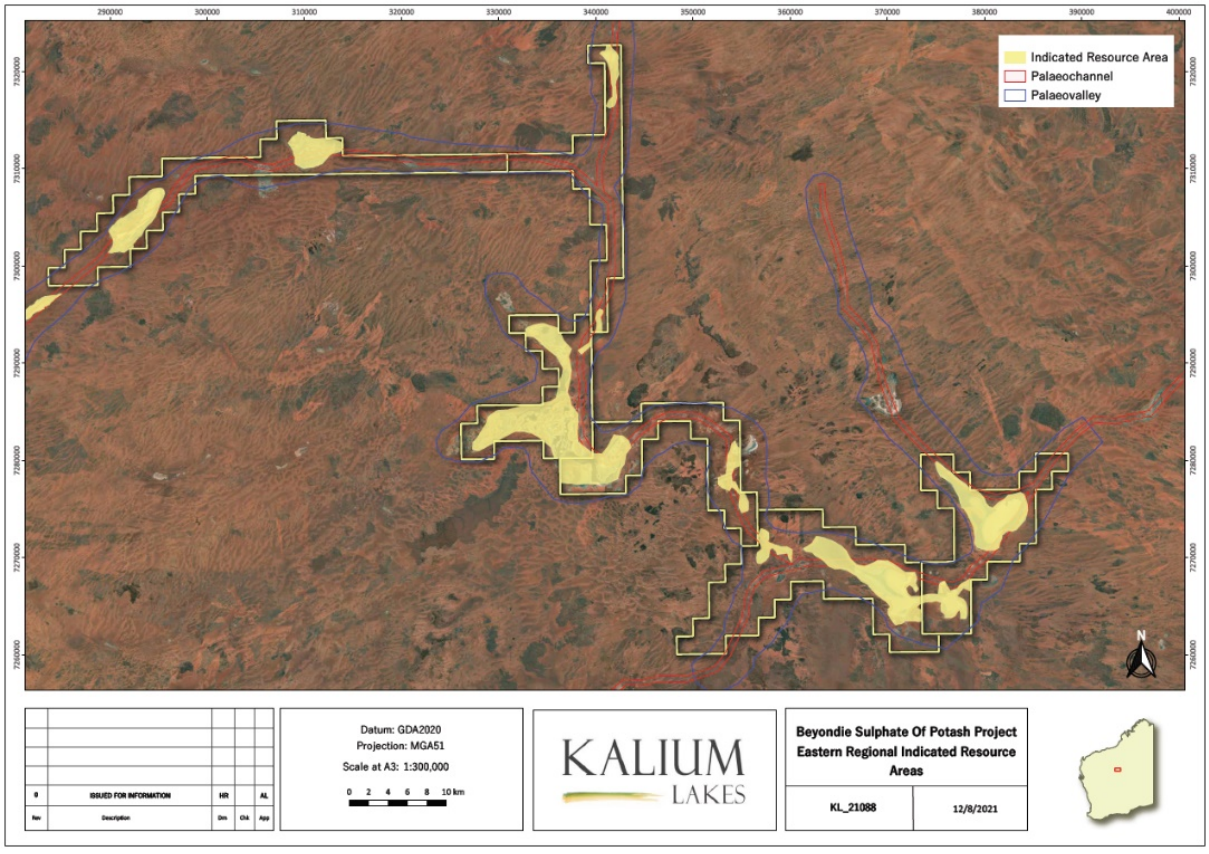

Figure 12: Location of Areas Delineated for Resource Assessment: Eastern Area Indicated Resources

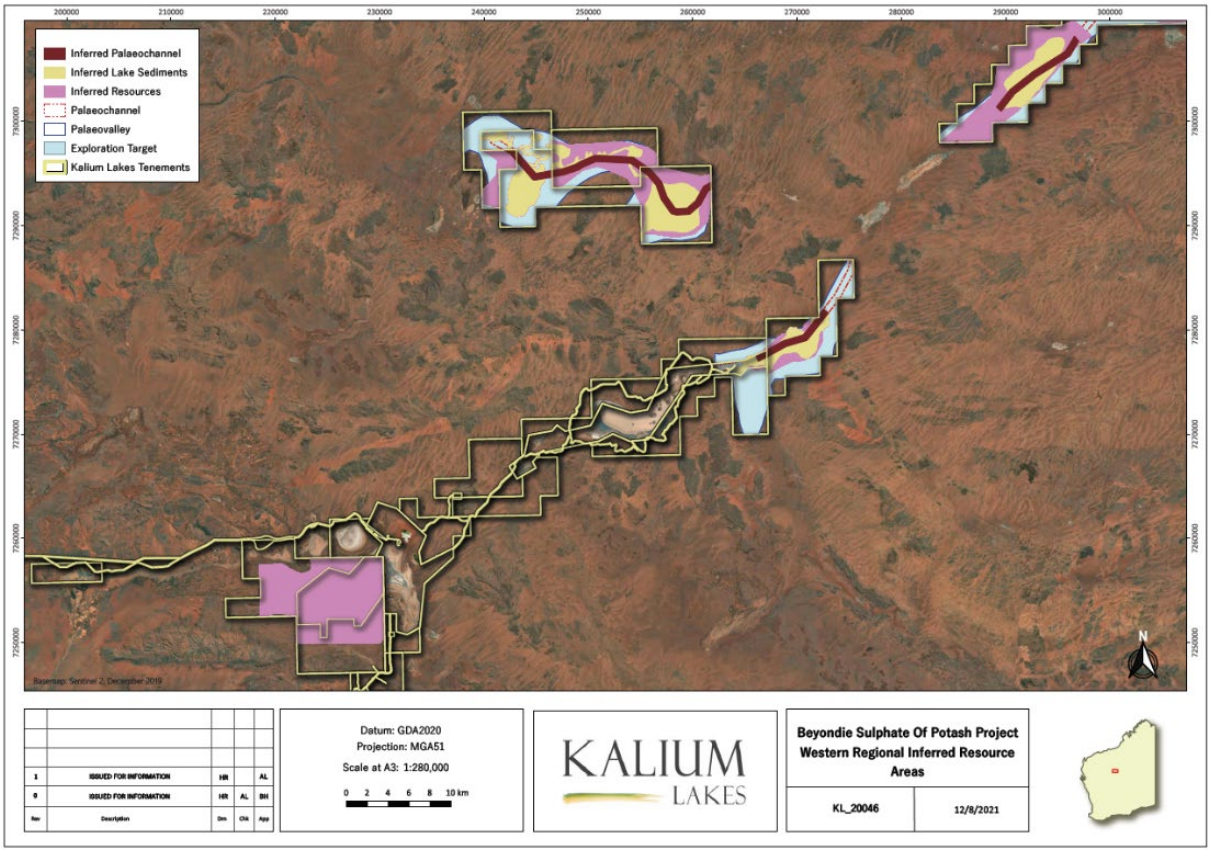

Figure 13: Location of Areas Delineated for Resource Assessment: Western Area Inferred and Exploration Target

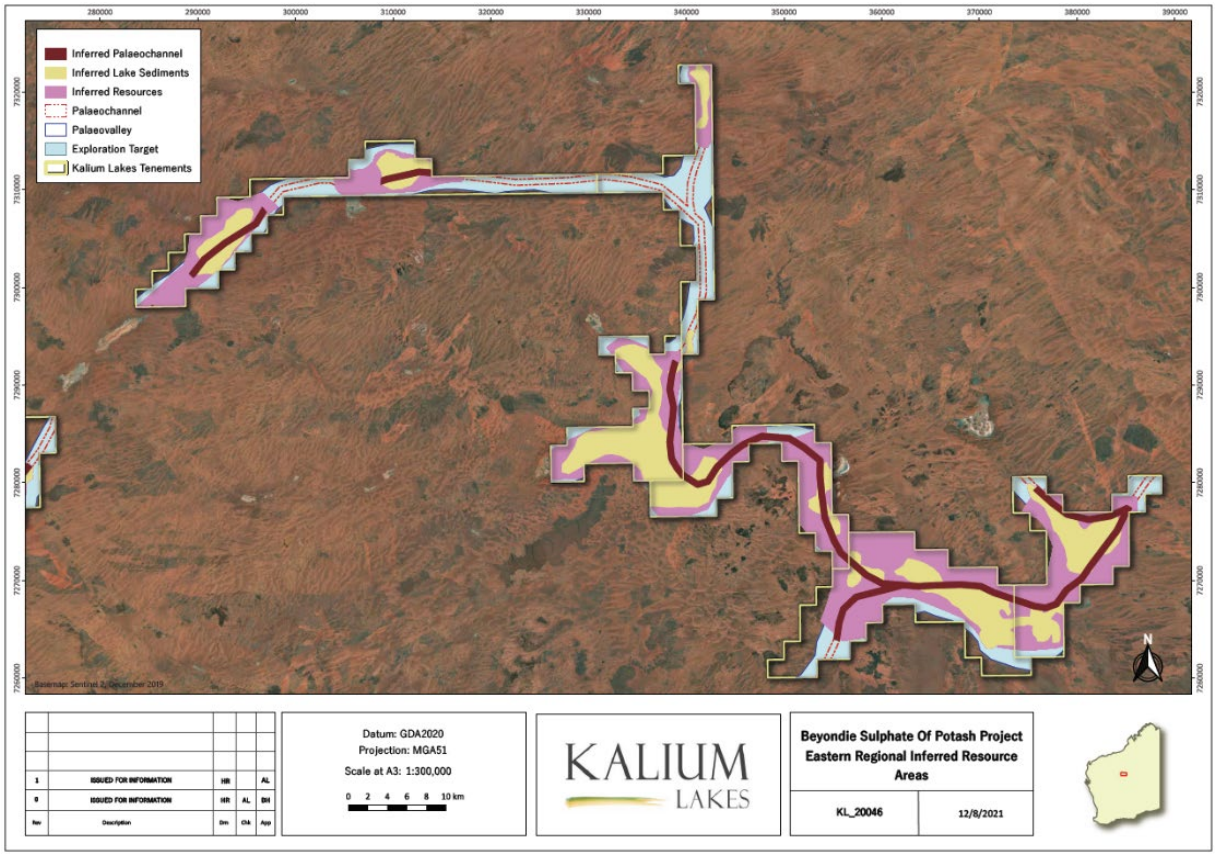

Figure 14: Location of Areas Delineated for Resource Assessment: Eastern Area Inferred and Exploration Target

Table 11: JORC Measured Mineral Resources

Aquifer Type	Volume (10^6 m^3)	Total Porosity (-)	Brine Volume (10^6 m^3)	Specific Yield (-)	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 (mg/L)	SO_4 Mass (Mt)	Mg (mg/L)	Mg Mass (Mt)	SOP Grade (kg/m^3)	K_2SO_4 Mass (Mt)
Lake Surface Sediments	278	0.47	131	0.17	46	7,463	0.35	19,097	0.89	6,624	0.31	16.64	0.77
Alluvium	122	0.31	38	0.12	15	2,432	0.04	10,556	0.15	4,379	0.06	5.42	0.08
Palaeovalley Clay	935	0.36	333	0.06	58	4,628	0.27	14,495	0.84	4,130	0.24	10.32	0.60
Sand and Silcrete	270	0.33	88	0.21	56	5,665	0.32	17,394	0.97	5,090	0.28	12.63	0.71
Fractured and Weathered Sandstone	1,371	0.16	219	0.08	110	6,241	0.68	18,909	2.07	6,553	0.72	13.92	1.53
Fractured / Weathered Bedrock	773	0.24	186	0.10	76	5,404	0.41	15,138	1.15	5,814	0.44	12.05	0.92
Total Resources	**3,749**		**995**		**361**	**5,718**	**2.06**	**16,853**	**6.08**	**5,701**	**2.06**	**12.75**	**4.60**

Note: SOP grade calculated by multiplying Potassium (K) by a conversion factor of 2.23. Errors are due to rounding.

Table 12: JORC Indicated Mineral Resources

Aquifer Type	Volume (10^6 m^3)	Total Porosity (-)	Brine Volume (10^6 m^3)	Specific Yield (-)	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 (mg/L)	SO_4 Mass (Mt)	Mg (mg/L)	Mg Mass (Mt)	SOP Grade (kg/m^3)	K_2SO_4 Mass (Mt)
Lake Surface Sediments	651	0.46	297	0.12	77	7,379	0.57	20,972	1.62	6,521	0.51	16.46	1.27
Lake Surface Leaching	N/a	N/a	N/a	N/a	80	5,373	0.43	16,986	1.36	3,632	0.29	11.98	0.96
Alluvium	1,240	0.35	438	0.13	155	4,852	0.75	13,618	2.12	4,088	0.64	10.82	1.68
Palaeovalley Clay	1,396	0.34	478	0.07	100	6,043	0.61	16,540	1.66	5,395	0.54	13.48	1.35
Sand and Silcrete	221	0.32	70	0.21	45	4,210	0.19	14,103	0.64	4,390	0.20	9.39	0.43
Fractured and Weathered Sandstone	5,081	0.16	826	0.08	406	6,135	2.49	16,998	6.91	6,109	2.48	13.68	5.56
Fractured / Weathered Bedrock	5,727	0.23	1,297	0.05	288	5,998	1.73	16,688	4.80	5,137	1.48	13.38	3.85
Total Resources	**14,316**		**3,406**		**1153**	**5,875**	**6.77**	**16,577**	**19.11**	**5,319**	**6.13**	**13.10**	**15.11**

Note: SOP grade calculated by multiplying Potassium (K) by a conversion factor of 2.23. Errors are due to rounding.

Table 13: JORC Inferred Mineral Resources

Aquifer Type	Volume (10^6 m^3)	Total Porosity (-)	Brine Volume (10^6 m^3)	Specific Yield (-)	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 (mg/L)	SO_4 Mass (Mt)	Mg (mg/L)	Mg Mass (Mt)	SOP Grade (kg/m^3)	K_2SO_4 Mass (Mt)
Lake Surface Sediments	272	0.47	128	0.13	35	11,735	0.41	31,405	1.11	7,969	0.28	26.15	0.92
Alluvium	1,352	0.43	579	0.11	153	5,884	0.90	17,939	2.75	5,899	0.90	13.11	2.01
Palaeovalley Clay	14,508	0.35	5,086	0.03	466	5,898	2.75	17,929	8.35	6,171	2.87	13.14	6.12
Sand and Silcrete	608	0.31	190	0.21	128	5,435	0.70	16,611	2.13	5,569	0.71	12.11	1.55
Weathered / Fractured Bedrock	5,350	0.21	1,149	0.03	154	7,791	1.20	24,625	3.78	6,263	0.96	17.36	2.67
Total Resources	**22,091**		**7,132**		**936**	**6,363**	**5.96**	**19,357**	**18.12**	**6,127**	**5.74**	**14.18**	**13.27**

Note: SOP grade calculated by multiplying Potassium (K) by a conversion factor of 2.23. Errors are due to rounding.

Table 14: Exploration Target

Geological Layer	Maximum Thickness (m)	Coverage (km^2)	Sediment Volume (10^6 m^3)	Total Porosity (-)	Total Stored Brine (10^6 m^3)	Specific Yield (-)	Drainable Brine (10^6 m^3)	K Grade (mg/L)	K Mass (Mt)	SO_4 Grade (mg/L)	SO_4 Mass (Mt)	Mg Grade (mg/L)	Mg Mass (Mt)	K_2SO_4 Mass (Mt)
Alluvium	6	157	942	0.4	377	0.10	94	2,000	0.2	6,100	0.6	2,300	0.2	0.4
Palaeovalley Clay	30	1,148	34,440	0.45	15,498	0.04	1,378	1,800	1.2	5,500	3.8	2,100	1.4	5.5
Basal Sands	7	108	756	0.35	265	0.18	136	1,600	0.2	5,000	0.7	1,900	0.3	0.5
Weathered Sandstone	10	253	2,530	0.15	380	0.06	152	3,500	0.5	10,500	1.6	4,200	0.6	1.2
Total					**16,519**		**1,760**	**1,942**	**2.1**		**6.7**		**2.5**	**7.6**
Alluvium	12	157	1,884	0.5	942	0.18	339	3,500	1.2	9,600	3.3	3,900	1.3	2.6
Palaeovalley Clay	50	1148	57,400	0.55	31,570	0.06	3,444	3,300	7.6	9,100	20.9	3,700	8.5	25.3
Palaeochannel Sand	15	108	1,620	0.45	729	0.25	405	3,200	1.0	8,700	2.6	3,500	1.1	2.9
Weathered Sandstone	30	299	8,972	0.25	2,243	0.10	897	6,000	5.4	18,000	16.1	7,200	6.5	12.0
Total					**35,484**		**5,085**	**3,782**	**15.2**		**42.9**		**17.4**	**42.9**

The BSOPP Exploration Target is based on a number of assumptions and limitations and is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource for the Exploration Target. It is not an indication of a Mineral Resource Estimate in accordance with the JORC Code (2012) and it is uncertain if future exploration will result in the determination of a Mineral Resource. Note: SOP grade calculated by multiplying Potassium (K) by a conversion factor of 2.23. Errors are due to rounding.

For comparative purposes, Table 15 has been provided to compare the above Resources and Exploration Target, which are based on drainable brine volumes. As can be seen the total brine volume is significantly higher than reporting according to the AMEC Guidelines for drainable brine volumes. For economic production, the drainable brine volume is the most important volume because only a small proportion of brine present of the total porosity can be abstracted, typically through lake surface recharge activity which is inherently unpredictable.

Table 15: Total Porosity Resources Summary

Level	Total Brine Volume (10^6 m3)	K* (10^6 tonne)	SO_4* (10^6 tonne)	Mg* (10^6 tonne)	SOP* (10^6 tonne)
Total In-Situ volume associated with the Measured Mineral Resource	995	5.48	16.21	5.37	12.22
Total In-Situ volume associated with the Indicated Mineral Resource	3,406	20.35	56.76	18.32	45.37
Total In-Situ volume associated with the Inferred Mineral Resource	22,091	44.89	137.03	44.07	100.01
Total In-Situ Volume associated with the Exploration Target*	16,519 – 35,484	29 – 110	89 – 303	34 – 123	65 – 245

* Tonnage for K, SO_4, Mg and SOP was calculated from the average grades of K, SO_4 and SOP and the Total Brine Volume for each resource.
Note: Errors are due to rounding.

Mining and metallurgical methods and parameters, and other material modifying parameters

The Brine Resource is to be mined with a combination of lake surface trenches and production bores. Brine is pumped to preconcentration ponds and then transferred to the evaporation and crystallisation ponds. The potassium salts are precipitated and harvested from the crystallization ponds and then concentrated into SOP at the process plant.

In addition to drainable porosity (Specific yield) as presented in Table 6 and Table 7, hydraulic conductivity, transmissivity and specific storage are important aquifer properties to assess brine recovery. These properties have been estimated as part of the Ore Reserve Estimate as detailed in ASX Announcements on 18 September 2018 *Bankable Feasibility Study Completed*. Kalium Lakes is not aware of any new information or data that materially affects the Exploration Results in that announcement.

Brine grade variation due to recharge has been assessed as part of the Ore Reserve estimate and is described in ASX Announcements on 18 September 2018 *Bankable Feasibility Study Completed*. Kalium Lakes is not aware of any new information or data that materially affects the Exploration Results in that announcement.

Pilot plant test work has been completed to confirm the process flowsheet (ASX Announcements on 18 September 2018 Bankable Feasibility Study Completed and 21 January 2019 *FEED Process Recovery Optimisation).*

Ore Reserves update from depletion

The Ore Reserve update from depletion presented in this report is based on the Ore Reserves Estimate completed as part of the BFS (See 18 September 2018 ASX announcement *Bankable Feasibility Study Completed*). The Ore Reserves presented are reconciled from abstraction to 30 June 2021 by a subtraction in volume. The Ore Reserve Estimate will be updated during the studies in relation to further expansion opportunities.

The brine abstraction has been reconciled to volumes produced from the Proved and Probable Ore Reserves, as shown in Table 16. The update in Reserves is a simple subtraction of the brine volume and tonnes produced from the 2018 Ore Reserve Estimate, where there are considered to be no material changes, (See 18 September 2018 ASX announcement Bankable Feasibility Study Completed) to update the Proved and Probable Ore Reserves, these are presented in Table 17, Table 18 and Table 19.

The Ore Reserve Estimate will be updated during the studies in relation to further expansion opportunities. This update will be released with the study outcomes and include the revised block model described above, the increased Resources and calibration to the current abstraction.

Table 16: Beyondie SOP Project – Produced Ore Reserves to 30 June 2021

Bore ID	Brine Volume (10^6 m^3)	Average K (mg/L)	K Mass (kt)	Average SO_4 Grade (mg/L)	SO_4 Mass (kt)	K_2SO_4 (SOP) Grade (kg/m^3)	K_2SO_4 (SOP) Mass (kt)
Abstraction from Proved Ore Reserves	3.5	8,823	30.9	25,600	88.7	19.67	68.9
Abstraction from Probable Ore Reserves	1.8	9,800	17.6	28,400	49.7	21.85	39.3
Total Abstraction from Ore Reserves	**5.3**	**9,155**	**48.5**	**26,550**	**138.4**	**20.42**	**108.2**

Note errors are due to rounding. Abstracted tonnes are pre-recovery losses

Table 17: Beyondie SOP Project - Proved Ore Reserves

Aquifer Type	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 (mg/L)	SO_4 Mass (Mt)	K_2SO_4 (SOP) Grade (kg/m^3)	K_2SO_4 (SOP) Mass (Mt)
Production Bores	115.5	6,207	0.71	17,945	2.05	13.83	1.58
Total Proved Ore Reserves	**115.5**	**6,207**	**0.71**	**17,945**	**2.05**	**13.83**	**1.58**

Note errors are due to rounding.

Table 18: Beyondie SOP Project - Probable Ore Reserves

Aquifer Type	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 (mg/L)	SO_4 Mass (Mt)	K_2SO_4 (SOP) Grade (kg/m^3)	K_2SO_4 (SOP) Mass (Mt)
Lake Sediments	208.2	4,755	0.99	13,699	2.85	10.60	2.21
Production Bores	82	6,713	0.56	18,867	1.57	14.69	1.24
Total Probable Ore Reserves	**290.2**	**5,306**	**1.55**	**15,129**	**4.42**	**11.82**	**3.45**

Note errors are due to rounding.

Table 19: Beyondie SOP Project – Ore Reserves Summary

Category	Drainable Brine Volume (10^6 m^3)	K (mg/L)	K Mass (Mt)	SO_4 Mass (Mt)	K_2SO_4 (SOP) Mass (Mt)
Proved Ore Reserve	115.5	6,207	0.71	2.05	1.58
Probable Ore Reserve	290.2	5,306	1.55	4.42	3.45
Total Ore Reserve	**405.7**	**5,565**	**2.26**	**6.47**	**5.03**

Note errors are due to rounding.

ENDS

Competent Persons Statement

The information in this announcement that relates to the Exploration Results, Mineral Resource estimate, Ore Reserve estimate and Exploration Target is based upon information compiled by Mr Adam Lloyd, a competent person who is an employee of Kalium Lakes. Mr Lloyd is a Member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and the activity which is being undertaken to qualify as a Competent Person for reporting of Exploration Results, Mineral Resources, Ore Reserves and Exploration Targets as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Lloyd consents to the inclusion in this announcement of the matters based upon his information in the form and context in which it appears

Additional Cautionary Statement Regarding Forward-Looking Information

Certain information in this document refers to the intentions of Kalium Lakes, but, unless otherwise explicitly stated, these are not intended to be forecasts, forward looking statements or statements about the future matters for the purposes of the Corporations Act or any other applicable law. The occurrence of the events in the future are subject to risk, uncertainties and other actions that may cause Kalium Lakes' actual results, performance or achievements to differ from those referred to in this document. Accordingly, Kalium Lakes and its affiliates and their directors, officers, employees and agents do not give any assurance or guarantee that the occurrence of these events referred to in the document will actually occur as contemplated.

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Appendix 1 – Listing Rule References

Table A1 – Mineral Resource Listing Rule References

Aspect	Comment
Geology and geological interpretation	See Geology sections of the JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report in this announcement. Brine hosted SOP deposit within a terminal basin, palaeovalley, sedimentary basin geological setting,
Sampling and sub-sampling techniques	Described in Sampling and Sub-sampling section of the JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report in this announcement.
Drilling techniques	Described in the Exploration Summary section of the JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report in this announcement.
Criteria used for classification	Described in the Mineral Resource Estimate section of the JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report in this announcement.
Sample analysis method	See JORC Table Section 1. Analysis methods for the brine samples used are inductively coupled plasma optical emission spectrometry, Ion Selective Electrode, Inductive coupled plasma mass spectroscopy, volumetrically and colour metrically.
Estimation methodology	Described in the Mineral Resource Estimation Methodology in the JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report in this announcement.
Cut-off grade(s), including the basis for the selected cut-off grade(s)	None
Mining and metallurgical methods and parameters, and other material modifying factors considered to date	Described in Mining and metallurgical methods and parameters, and other material modifying parameters section in the JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report in this announcement

Table A2 – Ore Reserve Listing Rule References

Aspect	Comment
Material assumptions and the outcomes from the Feasibility Study	See the following sections from this announcement, JORC(2012) summary report and Appendices: ▪ Key Study Works and Outcomes ▪ Financial Model - Key Assumptions and Results ▪ Sensitivity Analysis ▪ Next Steps ▪ 120ktpa Mine Plan ▪ Brine Abstraction, Mineral Resources and Ore Reserves Summary ▪ JORC (2012) Annual Brine Abstraction, Mineral Resource and Ore Reserves Summary Report ▪ Appendix 3
Criteria used for classification	For Mineral Resources on which the Ore Reserve is based, see section on Mineral Resource Estimate Classification Criteria in the JORC(2012) Summary Report in this announcement. The Ore Reserves classification from the BFS (refer ASX Announcement 18 September 2018 Bankable Feasibility Study Completed) is still valid, as described below: Proved Reserves come from the production bores that have capture zones in the Measured Resources regions of the Ten Mile Lake and Lake Sunshine deep aquifer. All trench pumps and all other production bores have been allocated to Probable Reserves based on Indicated and Measured Resources.

	Though the lake surface has Measured Resources, the effects of variable recharge on this zone means that these Resources only convert to the Probable Reserve category. The Ore Reserves only take into account the Measured and Indicated Resources of Ten Mile Lake and Lake Sunshine they do not include and Mineral Resources from Ten Mile West or Indicated Mineral Resources from the regional lake sediments that form Stage 2 of the Project.
Mining method selected and other mining assumptions, including mining recovery factors and mining dilution factors	Mining is by abstraction of brine using submersible pumps installed in trenches at the lake surface and in production bores targeting the deeper aquifers. The mine plan simulates mining via abstraction from the aquifer using calibrated groundwater flow and solute transport models which considers recharge and dilution factors as well as limitations on well efficiency, hydraulic conductivity, storage and aquifer extent of the various lithologies within the model.
The processing method and other processing assumptions, including recovery factors applied and the allowances made for deleterious elements	The metallurgical process is covered broadly through the following stages: Evaporation pond crystallization and harvest of KTMS; Pre-treatment of harvested KTMS; conversion of KTMS to Schoenite; Flotation; Cooling crystallization; conversion of Schoenite to SOP; Dewatering; Drying and Compaction. The process is considered appropriate given the high potassium brine-based nature of the mineralization. Overall Process recovery is estimated to be 91%. There are no elements in the BSOPP brine that are likely to be deleterious.
The basis of the cut-off grade(s) or quality parameters applied	A cut-off grade of 2,500 mg/L potassium has been applied to the Ore Reserve to reduce excess brine volumes supplied to the ponds which would decrease production rates of SOP due to a more dilute brine requiring additional evaporation area and time. This has been managed in the mine plan, by turning off production bores when the potassium grade goes below this concentration.
Estimation method	The Ore Reserve update presented in this report is based on a simple subtraction of the produced brine reserves from the Ore Reserve Estimate presented in the BFS (refer ASX Announcement 18 September 2018 Bankable Feasibility Study Completed). The method of estimation was as follows The solute transport models were used to simulate the abstraction as part of a mine plan. The accumulated tonnes of potassium produced from each production point (bores and trench pumps) over the life of mine were output from the solute model. SOP tonnes are calculated by multiplying potassium volume produced by 2.228475 which is based on the molar mass of K to convert to K2SO4. Where abstraction points have capture zones originating from outside the Resource Zones the trace was given a zero concentration and factored into the Reserve calculation. Only brine originating from inside the Resource Zones are estimated in the Ore Reserve. No recharge has been estimated as part of the Ore Reserves.
Material modifying factors, including approvals, mining tenements and approvals, other governmental factors and infrastructure requirements for selected mining methods and for Transportation to market	Approvals and other governmental assumptions are presented in the Key Milestones table and Appendix 3 in the announcement. Kalium Lakes currently has two Granted Mining Leases that cover Ten Mile and Sunshine production areas. Ten Mile West is subject to a current Pending Mining Lease, that is required to be granted by 2023 for the 120ktpa Mine Plan, but has no influence in the current Ore Reserves. A comprehensive list of granted and pending tenure is provided in Appendix 3. The evaporation ponds for 90ktpa is complete, expansion to 120ktpa is presented in this announcement. All updates to infrastructure are provided in the Financial Model – Key Assumptions and Results and Appendix 3 in this announcement. SOP transport to market will be achieved through bagging or bulk loading the SOP product on site, before backloading it to the required delivery or shipping export locations.

Appendix 2 – Data Tables

Table A3. Trench pump and production bore collars for updated Resource

Point ID	Location	Easting	Northing	RL (m)	End of Hole Depth (mbgl)	Screened Interval (mbgl)	
						From	To
TMPB07	Ten Mile	233090	7256974	562	86	56	86
TMPB09	Ten Mile	234858	7257559	564	87	68	87
TMPB13	Ten Mile	234239	7256828	565	83	59	83
TMPB14	Ten Mile	234214	7257374	565	90	66	90
TMPB15	Ten Mile	233374	7258628	562	70	53	77
TMPB16	Ten Mile	232146	7258225	562	86	62	86
TMPB18	Ten Mile	231968	7254800	566	89	68	89
TMTP01	Ten Mile Trench	231475	7258291	560	6	0.3	6
TMTP02	Ten Mile Trench	231907	7256388	560	6	0.3	6
SSPB05	Sunshine	249591	7270195	535	182	32	182
SSPB26	Sunshine	250554	7269565	534	66	44	66
SSPB27	Sunshine	255415	7269569	536	68	48	68
SSPB29	Sunshine	255034	7268402	536	160	57	160
SSPB31	Sunshine	249891	7269764	534	168	25	168
SSPB32	Sunshine	252335	7270253	533	130	24	130
SSPB33	Sunshine	252823	7270141	533	120	24	120

Note: all holes are vertical

Table A4. New brine assay data

Point ID	Sample Interval (mbgl)		K (mg/L)	Na (mg/L)	Mg (mg/L)	SO_4 (mg/L)	Cl (mg/L)	SOP* Grade (kg/m^3)
	From	To						
TMPB07	56	86	8,780	63,500	6,980	23,900	109,200	19.58
TMPB09	68	87	9,600	70,000	7,590	25,500	124,650	21.41
TMPB13	59	83	8,120	66,600	7,340	26,200	110,050	18.11
TMPB14	66	90	8,060	56,300	5,650	19,600	96,850	17.97
TMPB15	53	77	8,990	66,900	6,730	24,200	105,200	20.05
TMPB16	62	86	9,850	70,800	7,730	25,900	124,300	21.97
TMPB18	68	89	6,630	58,700	6,730	26,400	90,850	14.78
TMTP01	0.3	6	13,500	88,000	8,860	32,100	51,900	30.11
TMTP02	0.3	6	13,800	92,700	9,690	33,000	159,700	30.77
SSPB05	32	182	8,460	75,000	7,360	24,100	121,350	18.87
SSPB26	44	66	9,110	79,300	8,290	23,900	143,250	20.32
SSPB27	48	68	7,230	73,500	7,810	23,300	130,600	16.12
SSPB29	57	160	6,240	66,900	6,740	18,900	116,150	13.92
SSPB31	25	168	10,100	89,100	8,770	27,200	146,300	22.52
SSPB32	24	130	8,190	81,300	9,170	23,200	144,100	18.26
SSPB33	24	120	8,660	86,600	9,510	25,600	148,000	19.31

*SOP grade calculated by multiplying K by 2.23

Appendix 3 - JORC Code, 2012 Edition Reporting Tables

Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• The samples quoted in this announcement to upgrade the Resource Estimate are presented in Appendix 1. These samples were obtained from production pumping after between 3 and 6 months of pumping at each sample point. • All brine abstraction points are sampled on a weekly basis for brine production tracking • All samples have been obtained from a sample tap on the headworks of the production bore or trench pump whilst operational.

Criteria	JORC Code explanation	Commentary
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).*	• All production bores have been installed with a combination of conventional mud rotary and conventional air hammer.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *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.*	• Geological sample recovery or representation was not considered high due to the nature drilling technique of the production bores. All geological information has been taken from the exploration aircore and RC hammer programmes. The production bores have extended lower at some locations and at these locations the geology has been inferred from the production bore chip returns. • Samples over large, screened intervals will be indicative of the average across that screened interval. If in fractured rock aquifers, discrete inflow zones (fractures) will dominate the chemistry of the sample but are considered representative of the aquifer.
Geologic Logging	*Whether core and chip samples have been geologically and geotechnically logged to a 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.*	• All drill holes were geologically logged by a qualified geologist. • All geological samples collected during all forms of drilling are qualitatively logged at 1 m intervals, to gain an understanding of the variability in aquifer materials hosting the brine. • Geological logging and other hydrogeological parameter data is recorded within a database and summarised into stratigraphic intervals. • Geological logging and other hydrogeological parameter data is recorded within a database.
Subsampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Production samples are considered the most representative method of sampling the bulk aquifer. As samples have come from a period of sustained pumping. • Field analysis of pH, Salinity and SG are completed • All samples collected are kept cool until delivery to the laboratory in Perth. • Brine samples were collected in clean, rinsed 500 ml bottles with little to no air. • Field brine duplicates have been taken at approximately 1 in 11 intervals.

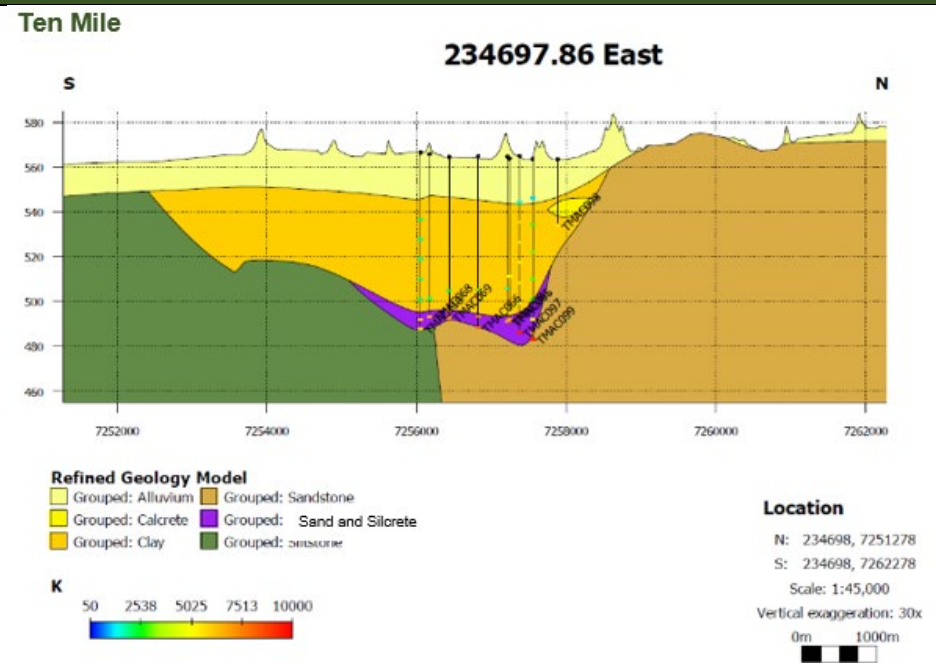
Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/ second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *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.* *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.*	• Elemental analysis of brine samples presented in this announcement are performed by Perth laboratory, the Bureau-Veritas (BV) (formerly Amdel/Ultrace) mineral processing laboratories. BV is certified to the Quality Management Systems standard ISO 9001. Additionally, they have internal standards and procedures for the regular calibration of equipment and quality control methods. • Laboratory equipment are calibrated with standard solutions. • Analysis methods for the brine samples used are inductively coupled plasma optical emission spectrometry, Ion Selective Electrode, Inductive coupled plasma mass spectroscopy, volumetrically and colour metrically. • The assay method and results are suitable for the calculation of a resource estimate. • Repeat assays and reference standards have been undertaken and indicate an average error of less than 5%. • Weekly operational lab analysis has been completed at the site laboratory, where K is determined through Inductive coupled plasma mass spectroscopy calibrated with standard solutions. Site laboratory analysis of K has an accuracy of between 200 and 800mg/L, typically less than 10%. • All onsite laboratory analysis are compared to the field analysis of SG, blind duplicate samples and quarterly check laboratory analysis of split samples at BV to ensure quality control. • Mass balances on reported brine volumes and equivalent SOP tonnes are completed monthly. • Analysis to date is considered to be appropriate in relative accuracy for operational brine data reporting.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.*	• Multiple samples have also been taken from nearby locations during sampling to verify assay results and sampling methods. • Assays have been completed on samples taken over 18 months of operational pumping indicating representative and consistent grade.

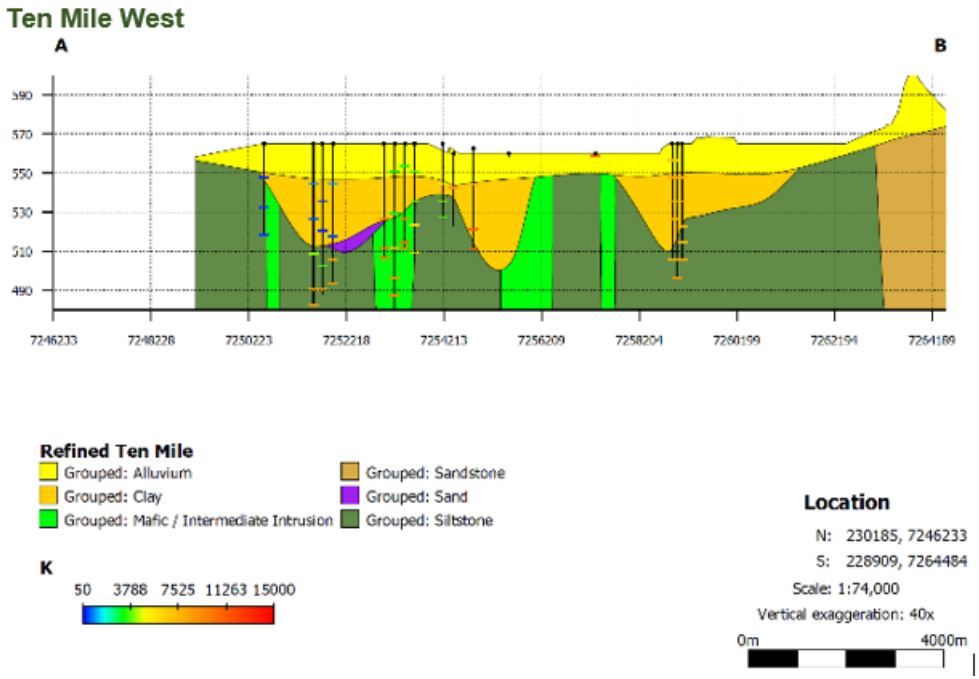
Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. *Discuss any adjustment to assay data.*	• Quarterly check laboratory analysis of split samples at BV has been completed to ensure quality control of the onsite laboratory analysis. • Data collection sheets are utilised onsite to ensure sample and data collection is standardised. • BV Assay data remains unadjusted as presented in Appendix 2. • On-site laboratory data is occasionally re-sampled to ensure any outlying sample analysis is checked. The check sample may replace the original analysis if more reflective of the previous week's analysis.
Location of data points	*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.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	• Hole location coordinates for production bores presented in Appendix 2 were obtained by a handheld GPS • Regional auger holes have been surveyed using a handheld GPS. • The grid system used was MGA94, Zone 51.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *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.* *Whether sample compositing has been applied.*	• Drill hole spacing is presented in this announcement • During operations, brine sampling of production bores and trenches has occurred on an approximately weekly basis. • The drill holes are not on an exact grid due to the irregular spatial nature of the deep targets and access issues when traversing the lakes.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *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.*	• Not applicable, considering the deposit type. • All drill holes are vertical given the estimated flat lying structure of a salt lake. • Trench pump samples are representative of the total trench network. Environmental factors of evaporation and rainfall do impact trench grades periodically. These have been observed and recorded in the operational data.
Sample security	*The measures taken to ensure sample security.*	• Perth Laboratory samples are labelled and transported by KLL personnel to Perth. They are then hand delivered to BV laboratories by KLL personnel. •

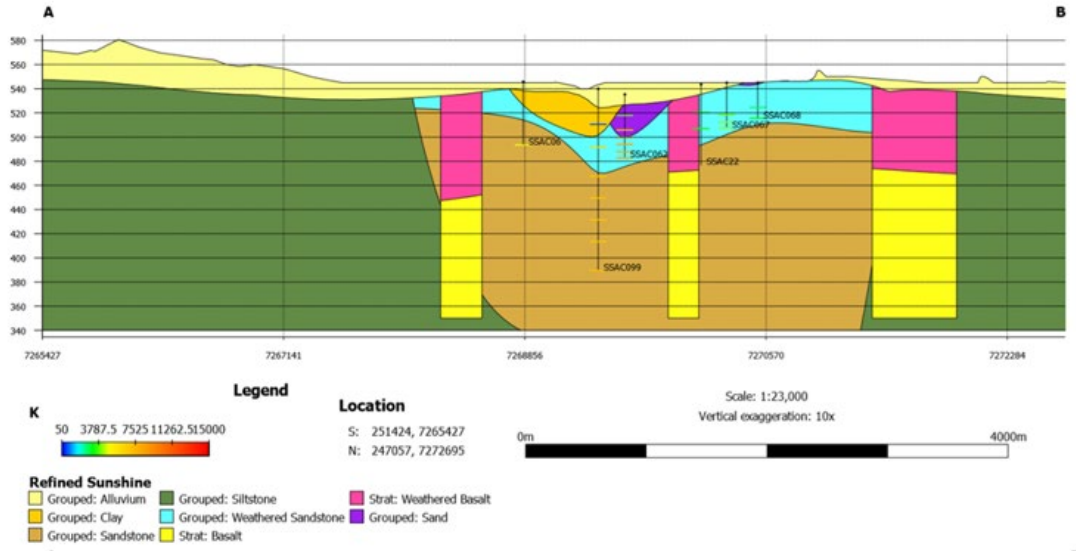
Criteria	JORC Code explanation	Commentary
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• Advisian has conducted a review of works undertaken previously. • No audits were undertaken. • Snowden completed a peer review to confirm compliance with the JORC Code and ASIC Information Note 214 of the maiden BSOPP Resources

Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Beyondie Potash Project is 100% owned by Kalium Lakes Limited (KLL or Kalium Lakes) with project tenure held under granted exploration licences: E69/3306, E69/3309, E69/3339, E69/3340, E69/3341, E69/3342, E69/3343, E69/3344, E69/3345, E69/3346, E69/3347, E69/3348, E69/3349, E69/3351, E69/3352, E69/3594. • KLL also has granted Mining Licences: M69/145 and M69/146. Pending Mining License: M69/148 • KLL also has granted Miscellaneous Licences: L52/162, L52/186; L52/187, L52/187, L52/193, L69/28, L69/29, L69/30, L69/31, L69/32, L69/34, L69/35, L69/36, L69/38, L69/40, L69/41, L69/46 • KLL's subsidiary, Kalium Lakes Infrastructure also has a granted Pipeline Licence - PL117. • KLL has a land access and mineral exploration agreement and a Mining Land Access Agreement with the Mungarlu Ngurrarankatja Rirraunkaja Aboriginal Corporation over tenures E69/3339, E69/3340, E69/3342, E69/3343, E69/3344, E69/3345, E69/3348, E69/3349 and E69/3351. • KLL has an exploration and prospecting deed of agreement, and a Mining Land Access Agreement with the Gingirana Native Title Claim Group over tenures E69/3341, E69/3346, E69/3347 and E69/3352.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been no previous exploration for SOP at the BSOPP by third parties.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit is a brine containing potassium and sulphate ions that can form a potassium sulphate salt. The brine is contained within saturated sediments below the lake surface and in sediments adjacent to the lake. The lakes sit within a broader palaeovalley system that extends over hundreds of kilometres, this system has been eroded into the North-West Officer Basin sediments. • Geology is described in more detail in this announcement. • An extract from the geology model is provided in the below section

Criteria	JORC Code explanation	Commentary
		• 

Criteria	JORC Code explanation	Commentary
		

Criteria	JORC Code explanation	Commentary
		Lake Sunshine 
Drillhole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* • *easting and northing of the drillhole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* • *dip and azimuth of the hole* • *downhole 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.*	• All new information has been included in drill collar table in Appendix 2. • All holes are vertical.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No grade cut-offs have been used. • Data aggregation comprised calculation of volume weighted average potassium, sulphate and magnesium concentration of all Specific Yield and Total Porosity within a Resource area for a given geological unit (i.e. All palaeochannel sand and silcrete zones per area were aggregated and summarised as a volume weighted average).
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').*	• Not applicable.
Diagrams	• *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.*	• Refer to figures/tables in this announcement.
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 to avoid misleading reporting of Exploration Results.*	• The exploration phase of the project involved a complex data collection programme, covering augering, geophysics, drilling, water and soil sampling, aquifer testing and laboratory test; as presented in this announcement.

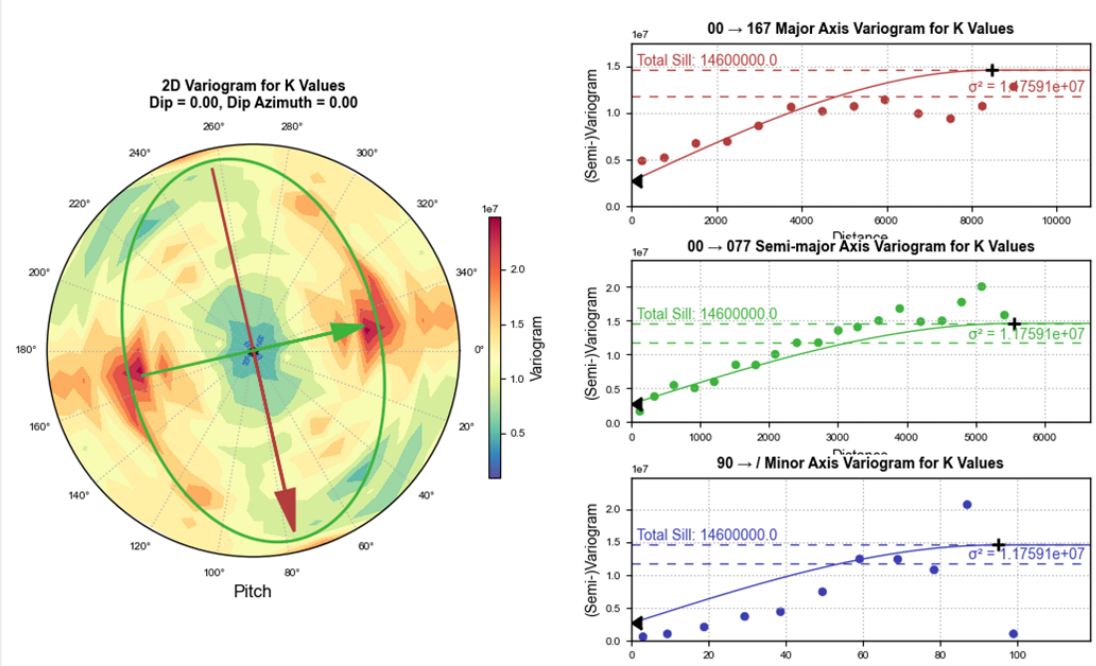
Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• See ASX Release 27 August 2020 *Significant Increase in resources at Lake Sunshine* for detailed presentation of these aspects of the project exploration programs. Kalium Lakes is not aware of any new information or data that materially affects the exploration results information included in that market announcement.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• At Stage 1 additional pilot hole drilling is required to confirm the most optimal production bore locations for the expansion phases of the project • At Stage 2, exploration drilling and installation of test bores at Central, White Lake and Aerodrome to increase confidence in existing Resources. • Installation and test pumping of test production bores at Ten Mile West and upgrade of Ten Mile West deep aquifer Resources.

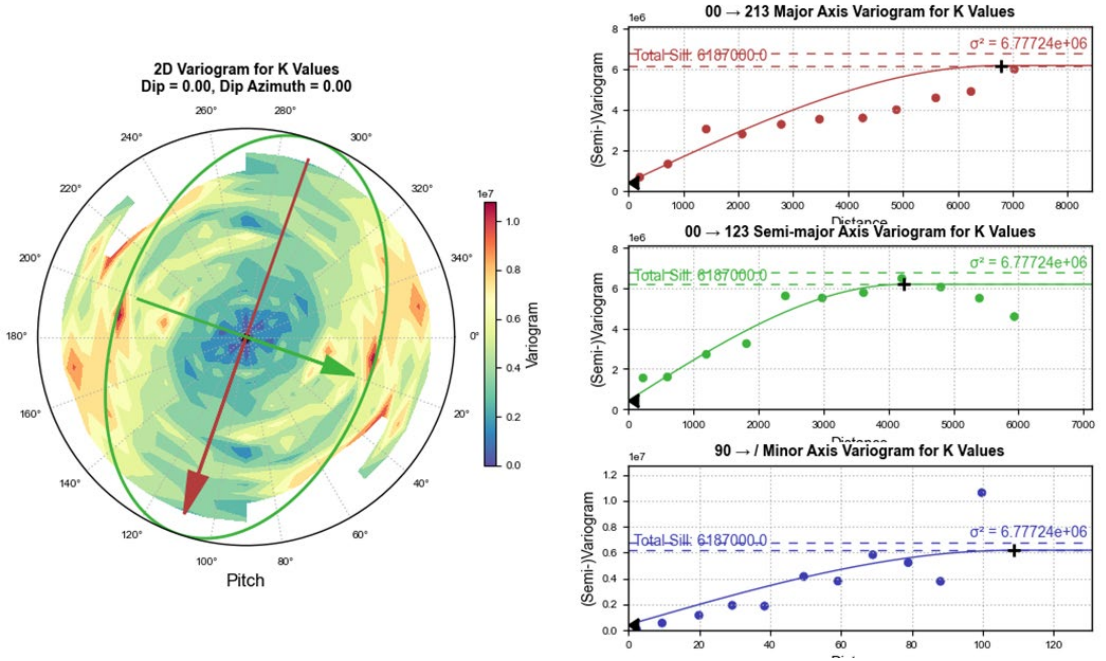
Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• Cross-check of laboratory assay reports and database. • Review of sample histograms used in Resource models. • Review of QA/QC analysis and sampling protocols. • Duplicate samples (~10%) from the augering program were assayed at ALS' Laboratory in Malaga in order to verify the assay results performed by BV. ALS is certified to ISO 17025, the standard for testing and calibration in laboratories. The results showed a good correlation amongst major ions (less than 10%) at both laboratories except for Sulphur (BV's values on average about 21% lower). Upon review of this discrepancy, BV conducted an internal check and found no reason to suggest the Sulphur assay was incorrect. BV analysed Sulphur by ICP-OES, then converted to SO4 by molecular weight calculation (this method assumes all S exists as SO4, which may be incorrect). ALS used the method APHA 4500 to

Criteria	JORC Code explanation	Commentary
		analyse the SO4. For resource assessment, the lower sulphate results were considered as the worst-case scenario. • The data is judged to be adequate for all calculations made for brine resource estimates. For a Measured and Indicated Resource variabilities of less than 10% should be achieved, or a third independent laboratory should be consulted. BV has been used as the preferred laboratory for all further brine analysis following the check laboratory results in 2016. • Laboratory analytical quality was monitored through the use of randomly selected quality control repeat samples, in addition to laboratory standards. There were 64 repeat analyses of the 717 samples, representing approximately 1 in every 11 samples. Verification of assay data included ion balances and comparison of laboratory repeats and duplicates.
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.*	• Regular site visits have been undertaken throughout the exploration field programs and operations that has verified the data obtained, since 2017. •
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The resource is contained within Cenozoic Palaeovalley stratigraphy and the underlying fractured and weathered bedrock. • The geological model for the Indicated and Measured resources is well constrained. Drill hole coverage is relatively consistent for the scale of the project, and the deposit is not structurally complex; it is alluvial fill in a palaeovalley depo-centre, within a shallow dipping large sedimentary basin. • The geological model for the fractured bedrock aquifers is less certain, the continuity and structural controls on rock fracturing are not well understood but can be mapped in geophysical responses and is considered to be associated with the dominant structural trends. • The nature of aquifer properties in different geologies does effect grade, transmissivity appears to be a minor diluting factor in the highest areas of the brine grade. In addition, the bedrock appears to be elevated in potassium which is likely to be a source of the Mineralisation. • The paleo-topography is key to the determining the aquifers with the highest transmissivity and predicting their extent within the vicinity of the surficial lakes where brine grade, specific yield and transmissivity are highest. • Refer ASX Release 27 August 2020 *Significant Increase in resources at Lake Sunshine*, for detailed geological interpretation. Kalium Lakes is not aware of any new information or data that materially affects the exploration results information included in that market announcement.

Criteria	JORC Code explanation	Commentary
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 size of the mineral resource is largely defined by the company's tenement boundaries which have been fit to the margins of the salt lake/palaeodrainage system. Where the tenement boundary is wider than the palaeochannel system, the palaeochannel boundaries have been defined by geophysical surveys (gravity, passive seismic and TEM). • The thickness of the hosting aquifer holding the brine Mineral Resources has been based on the groundwater elevation (measured as depth below surface) and a sediment thickness above the impermeable bedrock or depth of drilling. • The volume of brine that can be abstracted has been based on a combination of aquifer test pumping and core calibrated geophysical techniques using Borehole Magnetic Resonance (BMR).
Estimation and modelling techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	• As presented in this announcement. • Updated Variograms and Block model figures are presented below: Ten Mile 

Criteria	JORC Code explanation	Commentary
	• *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Sunshine  • Additional details are presented below were relevant. • Potassium, sulphate and magnesium concentration point data were separated by project area (Ten Mile, Sunshine and Ten Mile West) and imported into the leapfrog modelling domain. • Sand and Silcrete zones have been defined by the presence of either one of these facies in the lithological log, these maybe of weathered bedrock origin or transported origins but both exit strong brine flows during exploration drilling and test pumping. • Resource Zones were derived in GIS software using drill hole spacing and areas of measured drawdown from extended duration aquifer testing. • Volumetric weighted average of SOP grade per Resource Zone was calculated where multiple zones are determined. • To reflect the size and accuracy of the Resource Estimate all calculations have been rounded to decimal places as presented in this announcement. • Selective mining units have not been considered.

Criteria	JORC Code explanation	Commentary
		• No cut-off grade has been used in the Mineral Resource Estimate
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages of potassium have been estimated on a dry, weight volume basis (%w/v). For example, 10 kg potassium per cubic metre of brine.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• No cut-off grade has been used in this Mineral Resource Estimate
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.*	• The mining method recovery of brine from the below water table on the salt lake by pumping of shallow trenches (5 to 6m depth) and submersible bore pumps targeting the deeper aquifers. • Though specific yield and total porosity provide a measure of the volume of brine present in an aquifer system, hydraulic conductivity, transmissivity and specific storage controls are the main factor in defining Mining modifying factors, which are further discussed as part of the Ore Reserve estimate. • It is not possible to extract all the contained brine with these methods, due to the natural physical dynamics of abstraction from an aquifer and the varying nature of the aquifer and aquitard hydraulic conductivity. • The role of subsidence following dewatering of certain lithologies within the project is not well understood and may alter the storage potential of some high porosity sediments like clay and shale. • The current Ore Reserve provides an estimate of the economically extractable Resources.
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.*	• Chemical assays of brine waters suggest a similar chemical composition to other exploration SOP projects in Western Australia. Feasibility studies abroad have demonstrated that SOP recovery is possible with conventional mineral processing techniques. • Metallurgical test work on brine water has been carried out in both small scale lab benchtop trials and larger scale evaporation pilot ponds with confirmed results to the efficacy of standard metallurgical recovery methods.

Criteria	JORC Code explanation	Commentary
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.*	• The project is expected to have a limited, localized environmental impact, with minor impacts on surface disturbance associated with trench excavation, adjacent ”fresher” aquifer systems, stock piling of salt by-products, stygofauna and potentially groundwater dependent vegetation. For which management plans have been developed. • Acid mine drainage is not expected to be an issue, however a management plan is in place to manage impacts.
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Tonnages of potassium have been estimated on a dry, weight volume basis(%w/v). For example, 10 kg potassium per cubic metre of brine. • As the resource is a brine, bulk density is not applicable. • The resource has been calculated from Sy (drainable porosity) determined using a combination of aquifer testing and laboratory calibrated geophysical methods.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in*	• At this stage of the project an Exploration Target and Inferred, Indicated and Measured Mineral Resources are defined. The CIM Best Practice Guidelines for Resource and Reserve Estimation for Lithium Brines and JORC code were used to determine these confidence categories.

Criteria	JORC Code explanation	Commentary
	tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• None
Discussion of relative accuracy/ confidence	• *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.* • *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 evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The mineral resource contains aqueous potassium, sulphate and other ions, existing as a brine in a sub-surface salt lake and adjacent lithologies. The current JORC code deals predominantly with solid minerals and does not deal with liquid solutions as a resource. The relative accuracy of the stated resource considers the geological uncertainties of dealing with a brine. See also: AMEC Brine Guideline and the CIM Best Practice Guidelines for Resource and Reserve Estimation for Lithium Brines. • Sy estimates to determine drainable brine volume in this Resource estimate have used industry best practice techniques. Traditional core derived analysis is point based, whilst a continuous log provides a far better means to deriving average properties for individual lithologies. • BMR technology has only recently been made financially economical in the brine resource industry by the use of slim-line tools with low signal to noise ratios and appropriate depths of investigation. • In reviewing the operational data against the block model data it is evident that there is a degree of conservatism within the block model as the produced grades appear significantly higher than the grades of the adjacent blocks within the model. This is considered due to the nature of the exploration sampling using aircore methods where dilution effects may occur by mixing with lower grade brine nearer the surface and subsequently flowing downhole during the drilling process in lower permeability formations (ie lacustrine clay).

Section 4 Estimation and Reporting of Ore Reserves

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

Criteria	Explanation	Comments
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 Ore Reserve update from depletion presented in this report is based on the Ore Reserves Estimate completed as part of the BFS (See 18 September 2018 ASX announcement Bankable Feasibility Study Completed). The Ore Reserves presented are reconciled from abstraction to 30 June 2021 by a subtraction in volume. The Ore Reserve Estimate will be updated during the studies in relation to further expansion opportunities. The Mine Plan has been re-run based on a 120ktpa expansion abstraction with updated modelling. There are no material changes to the basis of the Ore Reserve Estimate. • Indicated and Measured Resources are reported inclusive of Ore Reserves. • No inferred resources are included in the Reserve estimate.
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.*	• Site visits by the CP have been regularly completed since 2017, through the exploration, construction and operational phases of the project. Site visits have allowed for verification of the data collection.
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 was completed as part of the Bankable Feasibility Study with a +/-15% level of accuracy. • The Ore Reserve update in this report is an annual reconciliation based upon abstraction to 30 June 2021. • An updated mine plan has been developed to support the 120ktpa expansion study. This mine plan uses reserves and resources from the Stage 1 area. It has been developed following an update to the numerical groundwater models as described below. - The modelling as part of the 120ktpa expansion has been calibrated to the abstraction to 30 June 2021, and then used to simulate the updated Mine Plan for the 120ktpa expansion. The following sections provides an outline of the model development and outputs that contribute to the mine plan for 120ktpa expansion. - Four separate models are utilised for the BSOPP: o Ten Mile Lake and Beyondie Shallow Aquifer o Ten Mile Lake and Beyondie Deep Aquifer o Lake Sunshine Shallow Aquifer o Lake Sunshine Deep Aquifer - Model Development - The groundwater models were developed to evaluate the recoverable resource from the shallow unconfined aquifer and deep confined aquifers in the vicinity of Ten Mile Lake and

Criteria	Explanation	Comments
		Lake Sunshine. The models have been progressively developed since the PFS in 2017, as more data has become available. The most recent upgrades include: ○ Refinement of each model with the updated geological models following drilling at Ten Mile West and drilling and test pumping at Sunshine; ○ Major upgrade at Ten Mile with the incorporation of Ten Mile West and at Sunshine with the deeper sandstone aquifer update. ○ Update the borefield and trench installations to as built. ○ Input of additional water level and pumping calibration data from continuous operational data between October 2019 and April 2021. ○ Import of the updated block model grade distributions as concentrations of K as described in the Mineral Resource Estimate. ○ Run additional predictive scenarios based on the 120 ktpa expansion at 91% recovery (as per the FEED optimisation (refer ASX Announcement 21 January 2019 FEED Process Recovery Optimisation) • Consideration to brine recharge has not been included in the mine plan, a scenario with recharge was run to determine the differences, but as per the BFS Ore Reserve Estimate has not been included in the financial model case.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• A cut-off grade of 2,500 mg/L has been applied to the Reserve. • The solute transport model has been used to predict the grade over the life of mine from each abstraction point, where grades at the abstraction point diminishes below the cut-off grade the production is omitted from the Reserve.
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 optimisation 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 volume of convertible resources has been determined by detailed numerical groundwater flow and solute transport modelling. Modelling has been completed to the Australian Groundwater Modelling Guidelines using the FeFlow modelling package. • The construction of the numerical groundwater model is based on the geological model derived from drill data. Drill spacing is such to have high confidence in geology and brine distribution in the resource areas. • Calibration of the groundwater model to steady state and transient conditions (test pumping data from trenches and bores and trial pond pumping) using an iterative process of manual and automated calibration to reduce statistical residual error between observed data and simulated data. This has been updated as part of the 120ktpa study to include calibration to the 18 months of operational pumping data. • Sensitivity analysis to “compare model outputs with different sets of reasonable parameter estimates, both during the period of calibration (the past) and during predictions (in the future)”.

Criteria	Explanation	Comments
	• *The assumptions made regarding geotechnical parameters (eg 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.*	• Predictive modelling of the resource recovery by adding production bores within the deep aquifer and extending trenches over the lake surface and simulating pumping rates over the life of mine. • Concentration of potassium has been directly input to the numerical model from the block model and simulated using conservative transport parameters. • Abstraction is mapped using capture zone analysis, any abstraction originating from outside of the Resource zone is factored out of the Reserve calculation. • Trial lake surface trenches and deep production bores have been tested in the field and proved successful in abstraction of brine. The construction methodology, design and cost determined from the field studies has been adopted for the feasibility study. • Well efficiencies have been considered when simulating abstraction rates. An average well efficiency of 60% is derived for the abstraction assessment. • Grade control in brine resources relates to the target grade of brine delivered to the concentrator ponds. Flexibility in the infrastructure design is considered the grade control management measures. • Inferred Resources are not included in the Reserve estimate. Inferred Resources make up the later part of the mine plan. • Hydraulic models have been developed to ensure brine pumping can be undertaken with the selected pipes and pumps in the study. • New abstraction bores, headworks, power supply, pumping, telemetry and monitoring have been incorporated in the design.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *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 metallurgical process is covered broadly through the following stages; Evaporation pond crystallization and harvest of KTMS; Pre-treatment of harvested KTMS; conversion of KTMS to Schoenite; Flotation; Cooling crystallization; conversion of Schoenite to SOP; Dewatering; Drying and Compaction. The process is considered appropriate given the high potassium brine based nature of the mineralisation. • For 120 ktpa SOP, the project will require up to 55 extraction bores, up to 58 km of trenches, 7 – 8.5 GL/a brine flow, 446 hectares of evaporation ponds. The extra pond area requirement was determined through modelling, using actual brine composition and site evaporation data as inputs. Design criteria include: 8,766 evaporation pond operating hours per year, 94% evaporation pond recovery, 1 mm sealed HDPE lined ponds, 7,500 purification plant operating hours and 77% purification plant recovery. • The metallurgical process proposed is similar to that used by major existing SOP producers in Utah(Compass Minerals), Luobupo (SDIC), Salar de Atacama(SQM).

Criteria	Explanation	Comments
	• *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?*	• No additional metallurgical test work have been performed since the 2019 FEED optimisation (refer ASX Announcement 21 January 2019 FEED Process Recovery Optimisation). Brine samples and raw product salts from the evaporation ponds have been analysed in the on-site and Perth based BV laboratory for grade and composition on an ongoing basis. • There are no elements in the BSOPP brine that are likely to be deleterious. • More than 90,000 tonnes of raw salts have been harvested thus far. These salts were produced with brine from the Ten Mile Lake and Sunshine Lake areas. • Hypersaline potash brine is not defined by any specifications.

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.*	• Primary Approvals have been secured, including Ministerial Statement 1098 (EPA) and EPBC 2017:8088 to support 100ktpa.
		• All environmental approvals and permits for the 90 ktpa operation have been secured, bar the Operating License, for which the aplication was submitted in July 2021. Typical approval timelines are 90 days from submission and Kalium is working closley with the Department of Water, Environment and Regulation (DWER) to secure an operating licence for 100ktpa to align with the Ministeral Approval production of 100ktpa. The application for the Operating Licence will provide authority to construct the additional ponds and plant optimisation.
		• Environmental Monitoring programmes for the 90 ktpa operation have been implemented as required by MS1098 and EPBC 2017:8088, including fauna, flora and groundwater monitoring plans.
		• Various secondary approvals have also been received, including:
		  ○ Mining Proposal Reg ID 77706 (MP) - Department of Mines, Industry Regulation and Safety (DMIRS),
		  ○ Mine Closure Plan Reg ID 77706 (MCP) - DIMIRS
		  ○ Various Works Approvals - DWER
		• A detailed review of the current Environmental and Project approvals was undertaken to establish an optimal approvals pathway for a 120ktpa operation, the focus of the review was to:
		  ○ Inform design activities, where possible, to minimise or avoid any environmental impact to Night Parrot, Bilby and Tecticornia habitats
		  ○ Identify activities that could be competed utilising existing approvals

Criteria	Explanation	Comments
		• KLL has engaged with key regulatory authories including EPA Services, DWER and, DMIRS to ensure that their assessment requirements and timelines are well understood, to identify assessment issues or risks and develop mitigation measures for these and to increase confidence that the proposed approvals pathway is fit for purpose A two phased approval strategy was developed to achieve the accelerated timeline as set out below: • Phase 1 key aspects – construction to support the 120ktpa Production o Secure the operating licence for 100ktpa which will include a provision to construct the additional ponds (DWER). o Includes the existing MP and MCP that will allow for the bore expansion at Ten Mile and Sunshine and commence construction of ponds (DMIRS). o Amendments to existing MP and MCP to include ancilary infrastructure (roads, topsoil stockpiles etc) (DMIRS). Phase 2 involves – Approval to Operate o A section 45C application will be submited in Q4 2021 to amend MS1098 from 100ktpa to 120ktpa as a non substantial change to the project. There are no material changes to the 100ktpa EPA approval and approval is anticipated by Q2 2022 based on similar approval benchmarks. o Amendment to the 100ktpa Operating Licence requesting increased production to 120ktpa will be submitted once the 45C Approval has been secured Operating licence approvals typically takes 90 days for approval once submitted. o Amendment to the MP will be submitted to facilitate production of 120ktpa. Anticipated approval Q4 2022 based on similar approval benchmarks. • A Section 38 application to EPA is required to include the proposed Ten Mile West borefield and trenches and an increase in fresh water demand from 1.5GL to 2GL. Secondary approvals including mining proposal (DMIRS) and 5C licence (DWER) will be submitted in parallel to the s38 application, with final approval anticipated for Q1 2024 based on discussions with the EPA and an assessment of the work required.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease*	The impact on Infrastructure for the 120 ktpa expansion are negligible and outlined as follows: • Infrastructure at the mine area, including workshops, warehousing, administration buildings, emergency services, laboratory, stores, and fuel farm will remain unchanged from its current built state. The increased demands on fuel use, servicing and storage space are negligible for the increase to 120 ktpa. There are no

Criteria	Explanation	Comments
	with which the infrastructure can be provided, or accessed.	increased demand for administration buildings because of the increase to 120 ktpa. The existing laboratory is sufficient for the increase to 120 ktpa. • The power station may require an additional generator and allwoances have been made accordingly. • The accommodation village will remain unchanged from its current built state. This is because there will not be any increased labour demands (i.e., demand over and above what has already been put in place for the current 90 ktpa operation) on site to support operation of the 120 ktpa production. • The gas pipeline and supply infrastructure will remain unchanged from its current built state. This is because the existing gas pipeline, gas inlet, and gas delivery stations have enough reserve capacity to supply the additional gas demand by the power station and plant when increasing the production of SOP to 120 ktpa. • The Raw water infrastructure will require an upgrade to the existing, above-ground HDPE pipeline to transfer raw water to the central raw water tank located at the process plant. Raw water will be pumped from water supply bores located within an area extending West and South of the process plant site. Approximately 1.5 GLpa of raw water will be required for the process plant and potable water for 120 ktpa SOP production. • Communications infrastructure will remain unchanged from its current built state.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.* • *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 allowances made for royalties payable, both Government and private.*	• The Capital cost estimate (CAPEX) was based on the following fundamentals: o Work Breakdown Structure. o Material Take-Offs from designs for construction and fabrication. o Mechanical equipment list, specifications & data sheets. o Electrical equipment load list. o Vehicle list. o Proposals (materials & equipment supply, installation, design & construct, etc.). o Freight estimates based on supply weight / volume requirements per 23t payload trailer (2.4m x 14m). o Direct labour hours and rates build up by first principles. o Benchmarked allowances and factors (minimal). o Preferred contracting strategies. o Use of existing knowledge from previous experience information where no other source was available. o Contingency based on capex input confidence and discreet risk modelling.

Criteria	Explanation	Comments
		• The capital cost estimate was completed to an accuracy meeting the criteria of The Association for the Advancement of Cost Engineering (AACE) Class 3 estimate accuracy of -10% to -20% on the low side, and +10% to +30% on the high side. • The operating cost estimate (OPEX) for 120 ktpa has been developed using actual operating expenses and data where available. Variable costs for 120 ktpa have increased, with the product haulage, diesel consumption (mainly from operating bore field pumps) and ROM & waste salt haulage costs the cost elements that increased the most. • The operating cost estimate is based on the following: o Overall management will be undertaken by KLL. o A number of Haulage contractors have been engaged to provide all transport of SOP product from the site to the distribution centres in WA. o Port and shipping operations will be contractor owned and operated. o Accommodation village is contractor operated. o FIFO flights for all personnel are based on a combination of commercial services between Perth and Newman and charter flights from Perth to BSOPP and will be arranged and managed by KLL. o Flight costs are based on commercial services between Perth and Newman. o Diesel fuel is purchased in bulk and distributed by KLL. o Gas is supplied as Natural Gas (NG) via the existing lateral tie-in to the Goldfields Gas Pipeline (GGP) near Kumarina roadhouse on the Great Northern Highway (GNH) under an existing three-year gas supply contract. o Power is provided via a owner-operated gas-fuelled power station. o Allowances for maintenance down time have been considered by operating unit. o The estimate base date is Q3 2021. o Escalation of the estimate past the base date has been excluded. o All costs are in Australian dollars (AUD). o An exchange rate of AU$1.00 = US$0.75 has been used until June 2025, and 0.72 thereafter. o GST has been excluded. o All tonnages are on a dry basis unless otherwise indicated. o WA Royalty Rate assumes a “downside case” royalty of 5% of “royalty value” on the basis of the SOP product being treated as a “concentrate”, however the position is still under discussion and negotiation with the WA Government with further clarity expected prior to first sales. o Native Title Royalty – 0.75% of gross revenue less shipping costs, selling agent’s fees, marketing

Criteria	Explanation	Comments
		charges payable under offtake agreement and land based haulage & port costs ○ Founders' Royalty - 1.9% of gross revenue less shipping costs, selling agent's fees, marketing charges payable under offtake agreement.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Product specifications identified and replicated with metallurgical test work. • Market reports from CRU, and Argus have been utilised to derive the assumption for the SOP price. • SOP market studies by CRU and Argus have been used as the basis for the commodity price. Long term SOP price forecasts were obtained in July 2021 for the period to 2040 which the Company has adopted in its forecasts. The Company has assumed that SOP prices remain stable for the period after 2040 for the reminder of the life of mine. The average net SOP price is calculated as the average CFR price less agent fee, marketing fees and CPT costs. • Kalium Lakes has adopted an AUD:USD exchange rate of 0.75 until June 2025, and 0.72 thereafter. • Shipping and freight costs have been determined using an Ocean Freight Outlook Study commissioned by Braemar ACM Shipbroking for Kalium Lakes in May 2021.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• Demand, supply and stock situation determined for SOP by studying recent market reports from CRU and Argus. Reports covered consumptions trends and discussions with factors that can likely affect supply and demand into the future. The reports also covered price and volume forecasts based on market trends. • The proposed SOP product meets or exceeds current market accepted specifications. • There is a Binding Offtake Agreement between KLL and K+S Asia Pacific Pte Ltd (K+S) that will see K+S committed to taking up to 90 ktpa of KLL's product, with K+S receiving a marketing fee for selling and distributing the SOP product. In respect of the additional 30 ktpa of SOP from this expansion, KLL has signed an agreement with K + S whereby K+S will increase its commitment to offtake the additional 30ktpa of production from KLL. As part of this agreement, K+S's payment terms have been improved for the first three years.

Criteria	Explanation	Comments
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• Discounted cash flow analysis (DCF) was used to calculate the Net Present Value (NPV) in this announcement. NPV is a measure of the return that is generated based on the applied assumptions. An 8% discount rate on the basis of pre-tax cashflows on a nominal basis was used for the NPV calculations. The DCF were modelled on a quarterly basis referenced to revenue, OPEX and CAPEX cashflows expressed in Australian dollars (A$) on the basis of the assumptions disclosed under the Costs, Revenue Factors and Market Assessment criteria set out above. • Short term and long term production sensitivities can include natural events, including significant wet weather events, below average evaporation for the year or/ and including climate change over the longer term.

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<td>Social</td>
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- *The status of agreements with key stakeholders and matters leading to social licence to operate.*

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- Two Native Title Land Access Agreements have been executed allowing for the consent to the grant of mining leases, ancillary tenure and approvals required for the BSOPP.
- The BSOPP tenements were originally applied for by Rachlan Holdings Pty Ltd (Rachlan) with an agreement in place to transfer tenure to KLL as soon as practicable after grant, which has occurred for all granted tenements to date.
- All relevant regulatory departments and authorities have been consulted extensively.
- Access agreements are in place with all pastoralists and neighbours that will allow construction and development of the project.
- Kalium Lakes recently successfully negotiated and executed a Deed of Variation (DoV) to include the Ten Mile West area under the provisions of the existing Gingirana LAA, critical for expansion.
- Relationship Committees have been established with both groups, with meetings scheduled every six months to discuss and implement the relevant aspects of the LAA's.
- As part of the LAA's, Kalium Lakes agreed Cultural Heritage Management Plans with both the Gingirana and Birriliburu peoples that outline the processes and obligations relating to the identification, protection and management of cultural heritage sites and places located on and near the Project footprint. This means that heritage surveys and, in some areas, cultural monitoring will be required prior to any ground disturbing activities, and these will be done in collaboration with the Gingirana and Birriliburu peoples.
- Required heritage surveys for the update to 120 ktpa have been identified and are currently being planned in collaboration with the respective groups. Surveys are expected to commence in August 2021, based on the prioritisation of the respective areas as outlined below:

Area	Activities	Native Title Group
Ten Mile	Additional ponds, additional bores, additional topsoil, additional brine pipeline, excess salt, powerline, supporting access tracks	Gingirana
GN Hwy Intersection	Backload shed	Gingirana
Sunshine	Additional bores, supporting access and brine pipeline	Gingirana / Birriliburu
Ten Mile West	Trenches, monitoring bores, production bores, brine pipeline and supporting access	Gingirana
Ten Mile South	Exploration bores and supporting access to bores from main tracks	Gingirana

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Criteria	Explanation	Comments
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.* • *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.*	• Kalium Lakes has reviewed the legislative requirements and has compiled a register of the environmental, heritage and planning approvals and permits necessary to scope, develop, construct and operate the BSOPP update to 120 ktpa • Kalium Lakes is proposing to fund the project capital expenditure with final funding sources still to be determined.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Proved and Probable Reserves were estimated in the BFS *(Refer ASX Announcement 18 September 2018 Bankable Feasibility Study Completed)*. The Proved and Probable Ore Reserves presented in this report are updated based on depletion from brine abstraction. The Ore Reserve Estimate will be updated during the studies in relation to further expansion opportunities and will incorporate all updates detailed in the mine plan for 120ktpa and the updated Mineral Resources Estimate. • Proved Reserves come from the production bores in the measured zones at Ten Mile and Sunshine deep aquifer. All trench pumps and all other production bores have been allocated to Probable Reserves. Though the lake surface has Measured Mineral Resources for the top 5 m the effects of variable recharge on this zone means that these Resources remain in the Probable category. • 36% of the Probable Ore Reserves have been derived from the Lake Sediments, 64% from production bores. • 24% of the Total Reserves have been derived from the Lake Sediments, 76% from production bores.

Criteria	Explanation	Comments
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• Reviews completed as part of the BFS and Project Update are valid (refer ASX Announcement 18 September 2018 *Bankable Feasibility Study Completed* and Announcement 21 May 2020 *Project Update and A$61 million Equity Raising*)
Discussion of relative accuracy/ confidence	• *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 qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *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 evaluation. Documentation should include assumptions made and the procedures used.* • *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 areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate*	• Model sensitivity and predictive uncertainty analysis has been completed on the numerical models during the BFS to determine the most sensitive parameters of the model and the reliability of the data used to gain an understanding of the relative accuracy of the model predictions. • Highly sensitive uncertainties in the modelling include aquifer recharge and vertical leakage from the lacustrine clay. Modelling has taken a conservative approach to these parameters to ensure the model is representative of the level of understanding of the hydrogeology. • NPV ranges and sensitivities determined for key assumptions and inputs including, SOP price, production rate, capital cost, operating cost, foreign exchange, discount rate and construction delays. • Risk Factors: As with all brine deposits, there is a risk that the brine grade is less than expected, highly variable or is unable to be abstracted from subsurface aquifers at the required rates. Additionally, there are many non-process related risks, these may be due to any of the following: o Variability in deposit could influence brine recovery. o Brine volume and extraction assessment is inaccurate. o Inability to abstract brine volumes due to low permeability of the aquifer material. o Purification facility design, operation, recovery and product specification. o Project delays and cost overruns. o Evaporation pond design. o Commodity price and currency volatility. o Dependence on key personnel. o New operational commodity and lack of experience. o Inclement weather and natural disasters. o Statutory approvals may be delayed or may not be attainable at all. o Title Risk – involuntary relinquishment of tenements. o Environmental risk due to accidents and unforeseen circumstances. o Inadequate insurances or unavailable cover. o Contractual disputes. o Third party risk i.e. financial failure, default or contractual non-compliance of suppliers, contractors,

Criteria	Explanation	Comments
	should be compared with production data, where available.	clients etc; ○ Competition from potential SOP producers; ○ Aquifer lithology; ○ Capital and operating costs; and ○ Changes in regulations and government royalties. Also refer to investor presentation and prospectus released on 21 May 2020 and other sections in the announcement for further risks that may be applicable.