5 April 2023



BEYONDIE OPERATIONS UPDATE

Kalium Lakes Limited (ASX:KLL) (**Kalium Lakes** or the **Company**) provides an interim update on the operations at its Beyondie SOP Mine (**Beyondie**).

• Implementation of SOP plant performance improvement plan (PPIP) progressing:

- SOP production for March 2023 quarter was 1,784 tonnes, the highest quarterly production to date;
- New conditioning tanks and agitators currently being installed to improve on the significant gains already achieved with flotation recovery; and
- Plant performance expected to be assisted by cooler seasonal temperatures now being experienced, whilst additional cooling capacity equipment is being progressed to optimise schoenite conversion.
- Upstream operations performing well, supported by positive brine production and KTMS harvesting output:
 - Brine production and grade remain at current required levels.
 - Harvest output for March 2023 quarter was approximately 91kt of KTMS (17% above the previous quarter) and 248kt of waste salt;
 - More than 150mm of rain fell in late March / early April requiring:
 - Measures being taken to replenish brine supply to pre-concentrator ponds;
 - Evaporation pond wet-weather mitigation plan being activated to preserve KTMS ponds and drain off surface rainwater; and
 - As a result of the wet-weather mitigation plan, harvesting has already recommenced.
- Production rate target for 60ktpa SOP now July 2023

Kalium Lakes' acting CEO, Jason Morin, said:

"We continue to advance our systematic program to drive plant improvement and ramp-up. We eagerly await the performance of the conditioning tanks over the coming weeks and their anticipated positive impact on the flotation circuit. Simultaneously, in conjunction with our technical partners and consultants, we are expending significant efforts on temperature control over the coming months to add cooling capacity and mitigate seasonal climatic conditions.

The entire Kalium Lakes team remains committed to delivering this program and realising the full potential of the Beyondie operation, and we thank all stakeholders for their ongoing patience whilst we continue to progress our plant performance improvement plan. Beyondie remains a highly attractive long life asset and provider of a strategic commodity for Australia's important agricultural industry."

Borefield & Trenching Operations

Indicative data for the March 2023 quarter included flow rates averaging approximately 159 L/s, producing around 1.15 million cubic metres of brine at an average K grade 8,369 mg/L in line with expectations.

A significant precipitation event took place in late March and early April which has produced more than 150mm of rain over a 7-10 day period. As a result, all trenches at Ten Mile and Sunshine were filled. As the trench levels reduce, natural superficial ground water is expected to improve the grade. Measures are in place to manage blending of trenches and deep groundwater bores to manage the grades in the pre-concentrator ponds which had naturally depleted following high evaporation from the summer months.

Pond Operations

The indicative harvest for the March 2023 quarter was approximately 91kt of KTMS and 248kt of waste salt. Pond operations are progressing ahead of expectations for the current quarter.

As of 31 March 2023, the inventory of KTMS on the ROM pad had increased to 142kt (subject to survey).

Following the precipitation event referred to above, the wet-weather mitigation plan for the evaporation ponds was activated by the Beyondie team. These countermeasures and controls were enacted to preserve the KTMS in the ponds and drain-off surface (fresh) rainwater, accelerating the return to harvesting (which has now recommenced). This plan was developed following the significant rain event in May and June 2022, and has been effective in mitigating delay impacts from the recent precipitation event.

SOP Plant Operations

Indicative SOP production for the March 2023 quarter combined was 1,784 tonnes, comprising increasing monthly SOP production amounts of 413 tonnes in January, 659 tonnes in February, and 712 tonnes in March. The March 2023 quarter production rates represent a significant increase in the average run rate from prior quarters, and the highest quarter of SOP production to date.

As reported in Kalium Lakes' Quarterly Activities Report on 31 January 2023, implementation of the PPIP remains in progress at Beyondie with the aim of unlocking a step change in performance by way of systematic investigation and trials on three main focus areas in the floatation circuit, being conditioning, froth mobility, and aeration.

Flotation recovery rates through January and February 2023 were in line with interim ramp-up expectations at around 50%, with rates in excess of 70% being achieved intermittently during March 2023 (albeit at feed rates below design) versus design flotation recovery rates of 80-90%.

A planned 4-day shutdown of the plant was undertaken at the beginning of March 2023 to enable regular maintenance. The new conditioning tanks/agitators were delivered to site at the end of

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March 2023 on schedule, with installation currently underway. These, combined with other identified improvements including froth mobility, improved reagent dosing, and temperature control, are expected to drive increased production rates.

Temperature control in the schoenite circuit remains a significant focus with plant operating hours restricted to incorporate cooling cycles whilst warmer ambient temperatures are present. Whilst the plant will be assisted by cooler temperatures with the approach of the winter months, additional cooling capacity equipment, to eliminate the requirement for cooling cycles and increase plant utilisation in future summer periods, is being progressed with assistance of technical partner Ebtec. Additionally, increasing flotation recovery and throughput will move plant performance closer to design and assist in reducing temperature control issues with more cooled SOP mother liquor produced from the higher schoenite production.

As a result of the continued requirement for plant cooling cycles, Kalium Lakes is now targeting an interim production rate of 60ktpa of SOP by July 2023.

Kalium Lakes now expects to update the market on further production ramp-up targets once the 60ktpa production target has been reached. As previously announced, no significant expenditure on the proposed 120ktpa expansion is planned until production ramp-up targets beyond 60ktpa are determined.

Further improvements are expected to be achieved through operational experience in running the plant and optimisation, in conjunction with Ebtec, who are providing full technical support both from Germany and on site.

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*** ENDS ***

This announcement was approved and authorised for release by the Board of Kalium Lakes Limited.

Kalium Lakes Limited



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