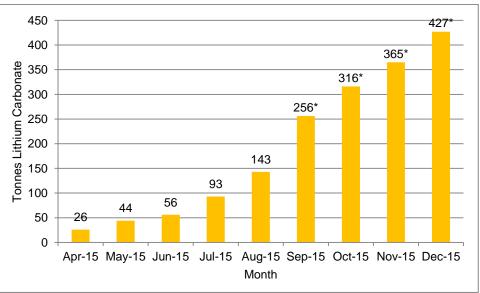


14 January 2016

# ASX / TSX ANNOUNCEMENT

## **Olaroz Lithium Facility Operations Update**

- Production of 427 tonnes of lithium carbonate was achieved in December, an increase of 62 tonnes over November, with production rates of 20tpd being achieved towards the end of the month.
- December production was negatively impacted by the need for structural repairs on rake arms in the thickener (in the purification circuit) and the planned installation of the additional boiler and associated works.
- The "de-bottlenecking" process neared completion with the additional boiler, second centrifuge and pond flocculant dosing systems installed. These debottlenecking works are planned to be completed in January as previously advised.
- Production in January is forecast to be approximately 600 to 650 tonnes.
- Commercial orders in hand to supply five battery market customers with deliveries scheduled to commence in February.



<sup>\*</sup>Sep, Oct, Nov & Dec figures include lithium carbonate tonnes recovered from within the purification circuit.

Orocobre Limited (ORE:ASX, ORL:TSX) (**Orocobre** or the **Company**) wishes to advise on progress at the Olaroz Lithium Facility.

#### **Production update**

Production at the Olaroz Lithium Facility continued to increase in December with 427 tonnes of lithium carbonate produced, an increase of 62 tonnes on November, with production rates of 20 tonnes per day (tpd) being achieved towards the end of the month. Of the total tonnes produced 65 tonnes were recovered from within the purification circuit.

Production was negatively impacted by the need for unplanned structural repairs to be conducted on the rake arms in the thickener within the purification circuit to reinforce the structures against vertical loads. The repairs were undertaken following an appraisal by Outotec, the equipment supplier. The engineering advice provided by Outotec is that the existing equipment specification is fit for purpose and they also advised on some modifications to operating controls. This, coupled with the installation and commissioning of the additional boiler and associated works resulted in an effective loss of production of approximately 150 tonnes.

#### **De-bottlenecking progress details:**

#### • Flocculation and Heat Exchangers:

The flocculation operation to settle the suspended magnesium, sodium boron and calcium salts in the concentrated brine feed pond was commissioned in December and is expected to facilitate the feed of clarified brine to the lithium carbonate plant thus reducing the rate of build-up of salts on the heat exchanger plates. The additional heat exchangers to be installed in parallel to the existing heat exchangers will be installed at the end of January and will achieve process duplication and redundancy thus allowing a heat exchanger (which cools the feed slurry to the purification circuit) to be taken offline for cleaning without interruption of the cooling of the feed slurry.

#### • Magnesium and Calcium removal by Centrifuges:

The second centrifuge has been installed and commissioned. This second centrifuge is expected to allow the nameplate flow rate to be achieved through the primary circuit.

#### • Boiler Increase and Heat Distribution:

The additional boiler was installed and commissioned in December. Final piping and circuit commissioning will occur in January as planned. The increase in boiler capacity is anticipated to permit the crystallizers to operate at design temperatures and full production capacity.

#### **Production Guidance**

With the "de-bottlenecking" projects expected to be completed during January, it is expected that the plant will achieve the operating cost breakeven run rate and enter the final stage of production ramp up. As previously advised, the timing of achievement of the nameplate production run rate is dependent upon

the successful optimisation of operating practice and process controls once the debottlenecking rectifications are complete. Production for the month of January is forecast at 600-650 tonnes with operating cost breakeven to be achieved.

#### Sales Orders

Commercial shipments of lithium carbonate have been and continue to be dispatched from the Olaroz Lithium Facility to Europe, Asia and the USA. All product that has been reported as produced is saleable product and has been sold or committed to a customer's purchase order. As previously advised samples have been provided to both industrial and battery sector customers and some customers are still completing the final evaluation process. There are currently customer orders in hand from five (5) battery market customers that have completed the product approval process and placed commercial purchase orders. These orders are scheduled for dispatch in February and March.

#### **Market Conditions**

Prices in recent times have been steadily increasing to over US\$6,000/tonne with further increases expected (based on current negotiations) as we move further into CY2016 and beyond as lithium market conditions continue to tighten. Strong market demand and supply side constraints are resulting in continued upward pressure on market prices for lithium carbonate. Current market conditions in China are very tight with spot pricing from independent third party sources being quoted in excess of US\$15,000/tonne. Although contract prices are very different to spot market rates, the behaviour of the spot price in China in recent times highlights the tight market conditions.

#### **Managing Director Comments**

Managing Director, Richard Seville, said, "The progress at Olaroz continues to be positive with the completion of debottlenecking activities continuing to draw closer. Despite some hurdles in December, the completion of the debottlenecking process is largely on track with the timetable and due for completion in January. It was very encouraging to hit a milestone production rate of 20 tpd at the end of December and we are also greatly encouraged by the increasingly favourable market conditions and rising market prices."

#### For more information please contact:

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#### **About Orocobre Limited**

Orocobre Limited is listed on the Australian Securities Exchange and Toronto Stock Exchange (ASX:ORE) (TSX:ORL), and is building a substantial Argentinian-based industrial chemicals and minerals company through the construction and operation of its portfolio of lithium, potash and boron projects and facilities in the Puna region of northern Argentina. The Company has built, in partnership with Toyota Tsusho Corporation and JEMSE, the first large-scale, greenfield brine based lithium project in approximately 20 years at the Salar de Olaroz with planned production of 17,500 tonnes per annum of low-cost battery grade lithium carbonate.

The Olaroz Lithium Facility has a low environmental footprint because of the following aspects of the process:

- The process is designed to have a high processing recovery of lithium. With its low unit costs, the process will result in low cut-off grades, which will maximise resource recovery.
- The process route is designed with a zero liquid discharge design. All waste products are stored in permanent impoundments (the lined evaporation ponds). At the end of the project life the ponds will be capped and returned to a similar profile following soil placement and planting of original vegetation types.
- Brine is extracted from wells with minimum impact on freshwater resources outside the salar. Because the lithium is in sedimentary aquifers with relatively low permeability, drawdowns are limited to the salar itself. This is different from halite hosted deposits such as Salar de Atacama, Salar de Hombre Muerto and Salar de Rincon where the halite bodies have very high near surface permeability and the drawdown cones can impact on water resources around the Salar affecting the local environment.
- Energy used to concentrate the lithium in the brine is solar energy. The carbon footprint is lower than other processes.
- The technology developed has a very low maximum fresh water consumption of <20 l/s, which is low by industry standards.
- Sales de Jujuy S.A. is also committed to the ten principles of the sustainable development framework as developed by The International Council on Mining and Metals. The company has an active and well-funded "Shared Value" program aimed at the long term development of the local people.

The Company continues to follow the community and shared value policy to successfully work with suppliers and the employment bureau to focus on the hiring of local people from the communities of Olaroz, Huancar, Puesto Sey, Pastos Chicos, Catua, Susques, Jama, El Toro, Coranzulí, San Juan and Abrapampa. The project implementation is through EPCM (Engineering, Procurement and Construction Management) with a high proportion of local involvement through construction and supply contracts and local employment. The community and shared value policy continues to be a key success factor, training local people under the supervision of high quality experienced professionals.

### The Company also wholly-owns Borax Argentina, an important regional borate producer. For further information, please visit <u>www.orocobre.com</u>

#### **Caution Regarding Forward-Looking Information**

This news release contains "forward-looking information" within the meaning of applicable securities legislation. Forward-looking information contained in this release may include, but is not limited to, the commencement of commercial production and ramp up at the Olaroz Lithium Facility and the timing thereof, the cost of construction relative to the estimated capital cost of the Olaroz Lithium Facility, the design production rate for lithium carbonate at the Olaroz Lithium Facility, the expected brine grade at the Olaroz Project, the expected operating costs at the Olaroz Lithium Facility and the comparison of such expected costs to expected global operating costs, and the ongoing working relationship between Orocobre and the Province of Jujuy.

Such forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from those expressed or implied by such forward-looking information, including but not limited to the risk of further changes in government regulations, policies or legislation; the possibility that required concessions may not be obtained, or may be obtained only on terms and conditions that are materially worse than anticipated; that further funding may be required, but unavailable, for the ongoing development of the Company's projects; fluctuations or decreases in commodity prices and market demand for product; uncertainty in the estimation, economic viability, recoverability and processing of mineral resources; risks associated with weather patterns and impact on production rate; risks associated with commissioning and ramp up of the Olaroz Lithium Facility to full capacity; unexpected capital or operating cost increases; uncertainty of meeting anticipated program milestones at the Olaroz Lithium Facility; general risks associated with the further development of the Olaroz Lithium Facility; as well as those factors disclosed in the Company's Annual Report for the year ended June 30, 2015 filed at <u>www.sedar.com</u>.

The Company believes that the assumptions and expectations reflected in such forward-looking information are reasonable. Assumptions have been made regarding, among other things: the timely receipt of required approvals and completion of agreements on reasonable terms and conditions; the ability of the Company to obtain financing as and when required and on reasonable terms and conditions; the prices of lithium and borates; market demand for product and the ability of the Company to operate in a safe, efficient and effective manner. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.