

Orocobre Limited - Quarterly Report of Operations for the Period Ended 31 March, 2012

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BRISBANE, AUSTRALIA -- ([Marketwire](#)) -- 04/30/12 -- [Orocobre Limited](#) (TSX: ORL) (ASX: ORL) -

HIGHLIGHTS AND SIGNIFICANT DEVELOPMENTS

Salar de Olaroz Lithium-Potash Project:

- Long-term pumping test at proposed extraction well field demonstrates the feasibility of pumping at least 14 L/s from individual wells. Long term pumping produced 22% higher grade brine at 875mg/l than the results from the adjacent drill hole used in resource estimate.
- Preliminary results from 3D model simulations suggest no unforeseen difficulties in extracting planned initial production of 16,400 tpa lithium carbonate.
- Detailed design engineering and procurement work continues with SKM.
- The Company has been engaged with the Jujuy Provincial Government to secure approvals for the project and following encouragement by the Government has been in discussion with recently formed provincial government owned mining company, JEMSE, about its participation in the project.

Salar de Cauchari Lithium-Potash Project:

- Exploratory drilling program yields encouraging results.
- Brine body expected to allow integration with planned Olaroz lithium carbonate production facility.

Salinas Grandes Lithium-Potash Project:

- Maiden resource estimate of 239,000 tonnes of lithium carbonate and 1.0 million tonnes of potash. Brine chemistry is attractive, with a low Mg/Li ratio, high K/Li ratio, and low sulphate & calcium levels.
- Installation of test production wells is planned for long term pumping tests. Provided that adequate pumping rates can be sustained over time with stable and economic lithium and potassium grades, the company anticipates undertaking further drilling and a preliminary economic assessment for the project.

Corporate

- Strong cash position of A\$21.848 million at end of the quarter.

Salar De Olaroz Lithium-Potash Project

The Olaroz Project is Orocobre's flagship project located in Jujuy province of Argentina, on which a definitive feasibility study for a 16,400 tonnes per annum battery-grade lithium carbonate operation was completed in 2011.

During the Quarter ended March 31, 2012, the company continued to make important progress on key activities required to commence construction of commercial operations at the Olaroz Lithium-Potash project in northwest Argentina, including negotiating with Jujuy's Provincial Governmental Bodies towards securing anticipated final governmental approvals.

Olaroz Long-term Pumping Tests and 3-D Model Simulations

On January 24, 2012, the Company announced preliminary results of a long-term pumping test on the Olaroz salar. The pumping test was located in the area of the proposed extraction well field. The well produced consistently high grade brine throughout the test, with average lithium concentrations of 875+/-10 mg/L, 22% higher than the adjacent diamond drill hole used in the resource estimate that gave 717+/-80 mg/L Li. The test has run for over three months at a flow rate of 14 litres per second. Interpretation of the data suggests that preferential flow is taking place to the well from specific geological units, where the permeability and grade are higher. The information obtained will allow these specific units to be targeted during production. The flow rate was limited by the capacity of the pump, not by the well or aquifer, so that under production conditions average well flow rates may be expected to be significantly better than the design of 15 litres per second.

The results from the long-term pumping test - together with the data on aquifer geometry, permeability, porosity, groundwater pressures, brine compositions, as well as the water balance incorporating rainfall and surface water inputs and evaporation outputs obtained during the earlier drilling and testing phase - are being used by company consultant Dr. Noel Merrick to build and calibrate a 3-D finite difference model of fluid flow and solute transport that incorporates the known variation in fluid density across the salar. The model is being built using the well-known and validated USGS Modflow-Surfact Version 4, which is at the cutting edge for this task. Dr. Merrick is a former associate professor at the National Centre for Groundwater Management at the University of Technology in Sydney.

The preliminary results from the model indicate that the cone of depression resulting from the well field pumping will be limited in extent, and the grade will decline only slowly over the project life, well within the capacity of the solar ponds to ensure a consistent feed to the plant. The model will be used to forecast and control production throughout the project life, as well as to investigate potential production increases.

Management is confident that the proposed well field design will deliver the initial annual production rate of 16,400 tonnes of battery grade lithium carbonate as outlined in the Olaroz Feasibility Study. The slow predicted declines in grade coupled with excellent flow rates, suggest the possibility of future project expansions.

Argentina's Investment Environment & Olaroz Project Provincial Government Approvals

Following the end of the Quarter, on April 25th, Orocobre issued a news release to set out its perspective on the current situation in Argentina in respect of increasing role of the state in the economy of the country. The recent and well-publicized expropriation of 51 per cent of the shares of YPF, the country's largest oil and gas producer, has caused some concerns from investors about allocating investments in Argentina-centric companies. Orocobre agrees with other commentators that the energy production sector is a matter of national strategic importance and significant political domestic sensitivity, and the YPF action should be considered in that context. Orocobre also agrees with the statements of a number of other mining companies that the mining sector is fundamentally different from the energy sector. Mining is an export industry and assists in the country's trade balance. Both the national government and the provincial government of Jujuy consider mining an important part of economic growth. In that context, both the President of the country and the governor of Jujuy have made recent public statements supportive of mining generally, and the role of mining was an important part of both leaders' addresses at their respective opening sessions of national and provincial legislative sessions.

In support of Argentina's interest in development of the resources sector, a new federally supported organization has been formed representing the governments of all mining and energy producing provinces. The organization, called Organization Federal de Estados Mineros (OFEMI), has a mandate that includes the co-ordination of provincial energy and mining policy, the promotion of the sector's development, and the encouragement of the creation of provincial government-owned companies to develop, either individually or in joint venture with private companies, the provinces' resources thereby increasing the economic returns to the provinces.

In Argentina, provincial governments already participate in projects within their jurisdictions through different models. For instance, Fomicruz S.E. (a state company) in the province of Santa Cruz holds direct interest in projects including a 7.5 per-cent interest Cerro Vanguardia mine (AngloGold Ashanti), a 10-per-cent interest in Deseado Massif project (Patagonia Gold) and a 5-per-cent interest in Cerro Moro project (Extorre); IPEEM (a public entity) in the province of San Juan is entitled to receive 1.0 per-cent to 2.0 per-cent royalties from mining projects for social and infrastructure purposes; YMAD (a private corporation owned by the provincial government and other stakeholders) in the province of Catamarca receives 20.0 per-cent of net profits from Bajo de la Alumbrera (Xstrata, Goldcorp, Yamana), and REMSA S.A. (a private corporation fully owned by the provincial government) in the province of Salta has direct ownership in a number of exploration properties. With the formation of OFEMI, the involvement of provincially governments in the resources sector is now part of national government policy.

Orocobre has been deeply engaged with the government of Jujuy in its efforts to receive final approval for the Olaroz project. Orocobre has been encouraged by the government of Jujuy to negotiate with its recently created provincial mining company, JEMSE, about its potential participation in the Olaroz Project, and this discussion is continuing. No agreement has yet been reached, but Orocobre currently anticipates that, if an agreement were to be completed with JEMSE, the most likely model would be in the form of equity participation on a structure similar to the established and politically favoured Fomicruz model in the province of Santa Cruz. Orocobre considers that such a structure should allow Orocobre to successfully finance the project through its Japanese partners and financial institutions, and to produce a return on investment commensurate with project characteristics.

Further information on the Company's project approvals progress is given in the Company's news release of 25th April 2012.

Project Engineering Update

Orocobre and its engineering partner, Sinclair Knight Merz (SKM), continued during the Quarter to focus on key detailed project engineering and procurement issues to allow construction to commence at Olaroz once the final governmental approval has been received and financing has been completed. The Company had earlier anticipated that construction would commence in the second quarter of calendar year 2012, but delays in the government approvals process has, in turn, delayed construction. In August 2011, the Company awarded the Olaroz Project's detailed engineering contract to SKM, a large international engineering projects firm. SKM has been involved in the Olaroz Project for over a year and previously completed the engineering and capital and operating cost estimates for the Feasibility Study. SKM has significant lithium-potash industry experience. It is the only company that has ever designed and managed the construction of a complete lithium brine operation, at FMC's Salar de Hombre Muerto facility in Argentina.

Salar de Cauchari Project Results from Drilling Exploratory Wells (Orocobre 85%)

On January 25, 2011 Orocobre announced encouraging results from exploratory well drilling completed during the Quarter at the Company's Salar de Cauchari property, located five kilometres south of the Company's Olaroz Project. The company's South American Salars subsidiary (85%) holds rights to over 30,000 hectares of property at Cauchari.

The objective of the drilling program was to delineate a brine body at the Cauchari Project and to allow a resource estimate to be undertaken. The company's drill program tested the area on the company's leases directly to the southeast of the highest-grade part of the brine body drill tested by [Lithium Americas Corp.](#) on its Cauchari lithium project.

The drilling program consisted of six holes, comprising five triple-tube diamond core holes and one rotary drill hole drilled vertically to between 46 and 249 metres depth. Four drill holes (CAU002D to CAU005D) terminated in units of halite (salt) and interbedded clastic sediments, suggesting this sequence continues at depth (as observed in CAU001). Holes CAU002D to CAU005D did not reach the target depths of 200 metres due to problems with drilling equipment.

The drilling program analytical results confirmed that the elevated values identified in the lithium resource defined by [Lithium Americas Corp.](#) extend into Orocobre's properties along the east portion of the Cauchari salar. Assay results received to date from CAU001D and CAU002D show elevated lithium values in areas previously predicted from publicly released Lithium Americas data.

Results received from four holes give values that include 244 metres in CAU001D 548 milligrams per litre lithium in CAU001D (from 5-249 metres) and 177 metres at 403 milligrams per litre lithium (9-186 metres) in CAU002D.

Lithium geochemistry is similar to the Olaroz Project, with average magnesium-to-lithium ratios of 2.6 to 4.9 in the three holes for which results have been received. The sulphate-to-lithium ratio is higher than Olaroz, with values from 44 to 177 for these same three drill holes.

Results are pending from drill holes in the southern portion of Orocobre's properties (CAU003 through CAU006) when received these will help define the extent of elevated lithium values and the SO₄/Li ratios in this area.

The spacing between the six holes averages 2.9 kilometres. Results suggest the lithium brine body extends over an area of approximately 26 square kilometres within Orocobre's Cauchari properties. It is expected that the brine body could extend well beneath the current drilling depth, as Lithium America Corporation's

deepest reported hole (PE10/DDH07) had not intersected basement at 450 metres.

Porosity data are being collected from the diamond drill cores by the British Geological Survey sedimentological laboratories that previously undertook this work for the company on the Olaroz project. Specific yield porosity determinations have not yet been received for core samples analysed. An estimate of the project resource is planned to be undertaken in the second quarter of calendar year 2012 once the remaining chemical analyses and specific yield porosity determinations are received from the British Geological Survey laboratories.

If sufficient resource is delineated in the Cauchari Project, the Cauchari brines could be developed and processed at the planned Olaroz Project facilities for relatively small incremental capital cost. This development strategy would require a capacity expansion of the Olaroz processing facilities beyond the currently planned rate of 16,400 tonnes per year of battery-grade lithium carbonate. Similarities in brine type are expected to allow Cauchari brine to be integrated into the planned operation with minor modifications to the processing route. Orocobre has been producing battery-grade lithium carbonate at its Olaroz pilot plant since early 2011.

Further technical information from this drilling program and mapping of the Salar de Cauchari resource areas are available in the Company's January 25, 2012 news release.

Salar de Salinas Grandes Potassium-Lithium Project (Orocobre 85%)

During the Quarter, the company announced the initial resource estimate and issued encouraging results of initial pumping tests for the Salinas Grandes lithium-potash project in Salta province, northwest Argentina. Salinas Grandes is located 70 kilometres southeast of the company's flagship Salar de Olaroz project.

An independent hydrogeological assessment estimated an inferred resource of 56.5 million cubic metres of brine at 795 milligrams per litre lithium and 9,550 milligrams per litre potassium, which is equivalent to 239,200 tonnes of lithium carbonate and 1.03 million tonnes of potash (potassium chloride) based on 5.32 tonnes of lithium carbonate being equivalent to one tonne of lithium and 1.91 tonnes of potash being equivalent to one tonne of potassium.

Details are given in the table below.

To view the table associated with this press release, please visit the following link:
http://media3.marketwire.com/docs/786075_table.jpg

The estimate extends to an average depth of 13.3 meters, and applies the company's property boundaries and a 1,000 mg/l Li cut-off from the extensive surface pit sampling data to establish peripheral resource boundaries. No internal cut-off boundaries have been used because it is inappropriate to apply them in a fluid resource where extraction will cause mixing. The weighted average specific yield used is 4.1%.

The shallow brine body has attractive grades and, as previously reported, excellent chemistry, with a low magnesium to lithium ratio of 2.5, a high potassium to lithium ratio of 12.5 and a low sulphate to lithium ratio of 5.8 in the central area of drilling, rising to 10.6 for the area covered by all the company properties over the salar. Test work since late 2010 suggests high recoveries of both potassium and lithium could be expected using a simple, low operating cost, process route. Laboratory scale testing has produced potassium (82-89% KCl), prior to washing to obtain +95% KCl.

The low sulphate levels of the Salinas Grandes brine indicate that potash recovery would be high and as a co-product of lithium carbonate production with potentially eight tonnes of potash produced for each tonne of lithium carbonate produced.

Over the past 17 to 20 months, field investigations - including 47 auger holes, 12 diamond drill holes, pumping tests and processing investigations - have been undertaken at Salinas Grandes.

This work provided the basis of the resource estimate by independent consulting Hydrogeologist Murray Brooker, as well as providing other preliminary resource conclusions.

Orocobre drilled a total of 12 diamond drill holes in the Salinas Grandes salar to an average depth of 71.4 metres, with certain holes as deep as 180 metres. Diamond core samples were sent to the British Geological Survey, with a total of 117 samples analyzed for total porosity and specific yield. The specific yield analyses provided mean values for sands (0.16), silt mixes (0.04) and clays (0.02) subsequently applied in the resource modeling.

Diamond drilling established that lithium, potassium and boron concentrations in brine are elevated (generally exceeding 600 mg/l Li) in the upper 6-20 meters of the Salinas Grandes salar. However, diamond drilling showed that concentrations decrease with depth, with only isolated Li-bearing intervals (concentrations generally less than 500 mg/l Li) to depths of approximately 70 m. On this basis a resource has only been estimated for the shallow part of the salar.

The Salinas Grandes resource estimate is based on geological controls from the 12 diamond drill holes and 47 solid stem auger holes, with geochemistry from the brine samples bailed from the auger holes. . 44 of the 47 auger holes lie within the resource area. These holes were drilled to a depth of 12 meters, except for two 16 meter and one 20 meter holes. Brine composite samples were taken every 4 meters during the auger drilling. Results for each auger hole were previously presented in the company press release dated November 15, 2011.

The areal extent of the resource was controlled by the location of pit samples, with lithium values of 1,000 milligrams per litre or greater within the salar salt pan where auger drilling was undertaken. Brine sample results and lithological information collected during the auger drilling were used to calculate a resource for the shallow brine zone. The mean specific yield values from the BGS analysis were used to calculate a weighted specific yield value for each auger hole, based on the lithologies and thicknesses recorded. The weighted specific yield data were used to calculate an equivalent brine thickness and an equivalent brine volume at the location of each auger hole, based on the interpreted thickness of the shallow brine zone.

The mass of lithium (Li), potassium (K) and boron (B) for the square metre centered on each auger hole was calculated by multiplying the equivalent brine thickness (converted to a volume in litres) by the concentration in grams per litre of each element of interest in the auger hole. These mass data from the auger holes were then kriged across Orocobre's Salinas Grandes tenements to produce concentration maps of kilograms by square metres for Li, K and B. The sum of the individual grid cells provides the total resource mass as presented in the related table.

Pump testing of auger drill holes determined hydraulic conductivities (K values) in the shallow resource zone averaged 3 m/day, with the exception of one hole which had a substantially higher K value (approx. 50 m/day) and may reflect a more permeable channel within the salar. The pump tests were carried out with low flow rates (generally less than 1.5 l/s), due to the small hole and casing size and related equipment limitations.

To better understand the behaviour of pumping from the shallow brine unit, four pump tests on purpose-constructed large diameter test production bores at different locations across the salar are planned for the next phase. These will evaluate brine extraction and the stability of brine grade over a long period of time, up to a year, to better understand the potential for commercial production.

Provided that adequate pumping rates can be sustained over time with stable and economic lithium and potassium grades, the company anticipates undertaking further drilling and a preliminary economic assessment for the project.

The next stage is to undertake long-term pumping tests in four locations within the shallow resource. Provided that adequate pumping rates can be sustained over time, with stable and economic lithium and potassium grades, the company anticipates undertaking further drilling and a preliminary economic assessment for the project.

Further technical information on Salinas Grandes maiden resource estimate and initial pumping test results is available in the Company's March 7, 2012 news release and in the "Technical Report on the Salinas Grandes Lithium Project" dated April 16, 2012.

Corporate

Cash Position

At the end of the quarter, the company had a strong cash position of A\$21.848 million.

About Orocobre Limited

Orocobre Limited is listed on the Australian Securities Exchange (ASX: ORE) and the Toronto Stock Exchange (TSX: ORL), and is the leading lithium-potash developer in the lithium and potassium rich Puna region of Argentina. For further information, please visit www.orocobre.com.

Technical Information, Competent Persons' and Qualified Persons Statements

The technical information in respect of the Salinas Grandes initial resource estimate has been prepared by Murray Brooker. Murray Brooker is a geologist and hydrogeologist and is a Member of the Australian Institute of Geoscientists. Murray has sufficient relevant experience to qualify as a competent person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is also a "Qualified Person" as defined by Canadian Securities Administrators' National Instrument 43-101. Murray Brooker consents to the inclusion in this announcement of this information in the form and context in which it appears.

The work reported in this announcement in respect of Olaroz Project long-term pumping tests and 3D model simulations has been undertaken under the supervision of John Houston, a Chartered Geologist and Fellow of the Geological Society of London, who acts as a competent person under the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is also a "Qualified Person" as defined by Canadian Securities Administrators' National Instrument 43-101. John Houston consents to the inclusion in this announcement of this information in the form and context in which it appears.

All other technical information in this announcement has been reviewed and approved by Mr. Neil Stuart, a non-executive director of Orocobre. Neil Stuart is a geologist and is a Fellow of The Australasian Institution of Mining and Metallurgy. Neil has sufficient relevant experience to qualify as a competent person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is also a "Qualified Person" as defined in NI 43-101.

Additional information relating to the Company's projects is available in "Technical Report - Salar de Olaroz Lithium-Potash Project, Argentina" dated May 30, 2011, (the Olaroz Report) and the "Technical Report - Salar de Cauchari Project, Argentina" dated April 30, 2010, which have each been prepared by John Houston, Consulting Hydrogeologist, together with, in the case of the Olaroz Report, Mike Gunn, Consulting Processing Engineer, in accordance with NI 43-101, as well as in the "Technical Report on the Salinas Grandes Lithium Project" dated April 16, 2012, which was prepared by Murray Brooker, an independent geologist and hydrogeologist.

Caution Regarding Forward-Looking Information

This MD&A contains "forward-looking information" within the meaning of applicable securities legislation. Forward-looking information may include, but is not limited to, the results of the Olaroz feasibility study, the estimation and realization of mineral resources at the Company's projects, the viability, recoverability and processing of such resources, costs and timing of development of the Olaroz project, timing of future exploration at the Company's projects, timing and receipt of approvals for the Company's projects, consents and permits under applicable legislation, trends in Argentina relating to the role of government in the economy (and particularly its role and participation in mining projects), discussions between Orocobre and the Government of Jujuy relating to final approval for the Olaroz project, the potential receipt of such final approval from the Government of Jujuy and the timing thereof, negotiations with JEMSE regarding its potential participation in the Olaroz project and the terms of such participation, the financing of the Olaroz project and the return on investment at the Olaroz project after giving effect to such participation by JEMSE, adequacy of financial resources, production and other milestones for the Olaroz project, the Olaroz project's future financial and operating performance including production, rates of return, operating costs, capital costs and cash flows, the finalization of a joint venture agreement with Toyota Tsusho Corporation, the completion of project financing for the Olaroz Project, potential operating synergies between the Salinas Grandes and Cauchari projects and the Olaroz project, the delineation of a brine body at the Cauchari Project, the processing route for brines from the Cauchari Project and the incremental capital cost of such processing, and other matters related to the development of the Olaroz project, Cauchari Project and the Salinas Grandes project.

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 that further funding may be required, but unavailable, for the ongoing development of the Company's projects; changes in government regulations, policies or legislation; the possibility that required permits and approvals, including approval from the Government of Jujuy in respect of the Olaroz Project, may not be obtained, or may be obtained only on terms and conditions that are materially worse than anticipated; an agreement with respect to JEMSE's participation in the project may not be reached, or can be reached only on terms and conditions that are materially worse than anticipated; that the financing of the Olaroz Project, and/or the return on investment at the Olaroz Project, will be materially and negatively impacted by the terms of any government participation in the Olaroz Project; that further funding may be required, but unavailable, for the ongoing development of the Company's projects

fluctuations or decreases in commodity prices; uncertainty in the estimation, economic viability, recoverability and processing of mineral resources; general risks associated with the feasibility of the Company's projects; risks associated with construction and development of the Olaroz project; unexpected capital or operating cost increases; the risk that a definitive joint venture agreement with Toyota Tsusho Corporation may not be completed and/or that project financing will not be arranged; uncertainty of meeting anticipated program milestones at the Company's projects; as well as those factors disclosed in the Company's Annual Information Form for the year ended June 30, 2011 filed at www.sedar.com.

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 agreements on reasonable terms and conditions and the ability of the Company to obtain financing as and when required and on reasonable terms and conditions. the Company's ability to carry on its exploration and development activities, the prices of lithium and potash, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. 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.

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