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**31 January 2011**

**ASX/TSX ANNOUNCEMENT  
Quarterly Report of Operations  
For The Period Ended 31 December 2010**

**Highlights:**

- **EIS approved by provincial Jujuy government for development and production at the Company’s “Flagship” Salar de Olaroz lithium-potash brine project**
- **Resource Evaluation Drilling completed at Salar de Olaroz**
- **Definitive Feasibility Study (“DFS”) engineering 80% complete at the end of the quarter**
- **Optimisation of the process route for production of lithium carbonate advances at Olaroz pilot plant**
- **Study highlights exploration potential at the Company’s Salar de Cauchari properties directly south of Salar de Olaroz**

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## **SALAR DE OLAROS LITHIUM-POTASH PROJECT**

During the quarter Orocobre Limited (“Orocobre” or the “Company”) continued to make considerable progress on the Definitive Feasibility Study on the Company’s flagship Olaroz Lithium-Potash Project located in Jujuy province in northern Argentina.

The Orocobre team focused on the execution of the many technical and governmental aspects of the project, while the Company’s partner, Toyota Tsusho Corporation (“Toyota Tsusho”), focused on the sales and marketing assessment and the project financing plans for the Olaroz development.

### **Environmental Impact Statement for the Development and Exploitation of the Salar de Olaroz Lithium-Potash Project Approved**

Just prior to the end of the quarter, the Company received approval from the Jujuy provincial government of the Environmental Impact Statement for the development and exploitation of its Salar de Olaroz Lithium-Potash Project in Jujuy Province, northern Argentina.

The approval by the Provincial Director on Mines and Energy Resources was received by the company on 31 December 2010 following the recommendation by the Unit of Mining Environmental Management (“UGAMP”) on 12 November, 2010. UGAMP is a body comprised of twelve members representing various government departments, stakeholder groups and local communities. The development recommendation was fully supported by the local community of Olaroz Chico and other regional community leaders. As part of the approval, the Company must comply with various monitoring obligations, provide additional information on its planned construction works as the project design is finalised, and keep the local communities informed about its activities.

Subsequent to the recommendation of UGAMP, the Company also signed an access and compensation agreement with the local community of Olaroz Chico.

### **Olaroz Resource Evaluation Program**

Drilling was completed for the resource evaluation drilling program. This involved 20 cored holes to 54m using sonic technology (“C series”) and six cored holes to 200m (“CD Series”) using modified triple tube coring techniques.

Very high core recoveries have been achieved with the sonic drilling program and the Company has placed considerable emphasis on ensuring that the data collected is of a high quality. Various methods have been developed to confirm that the brine sample recovered during drilling is representative of the brine at that point. Approximately 1,500 samples have been analysed for total porosity, 1000 for effective porosity and

500 for specific yield (free draining porosity). All holes have been logged with down hole geophysical methods also.

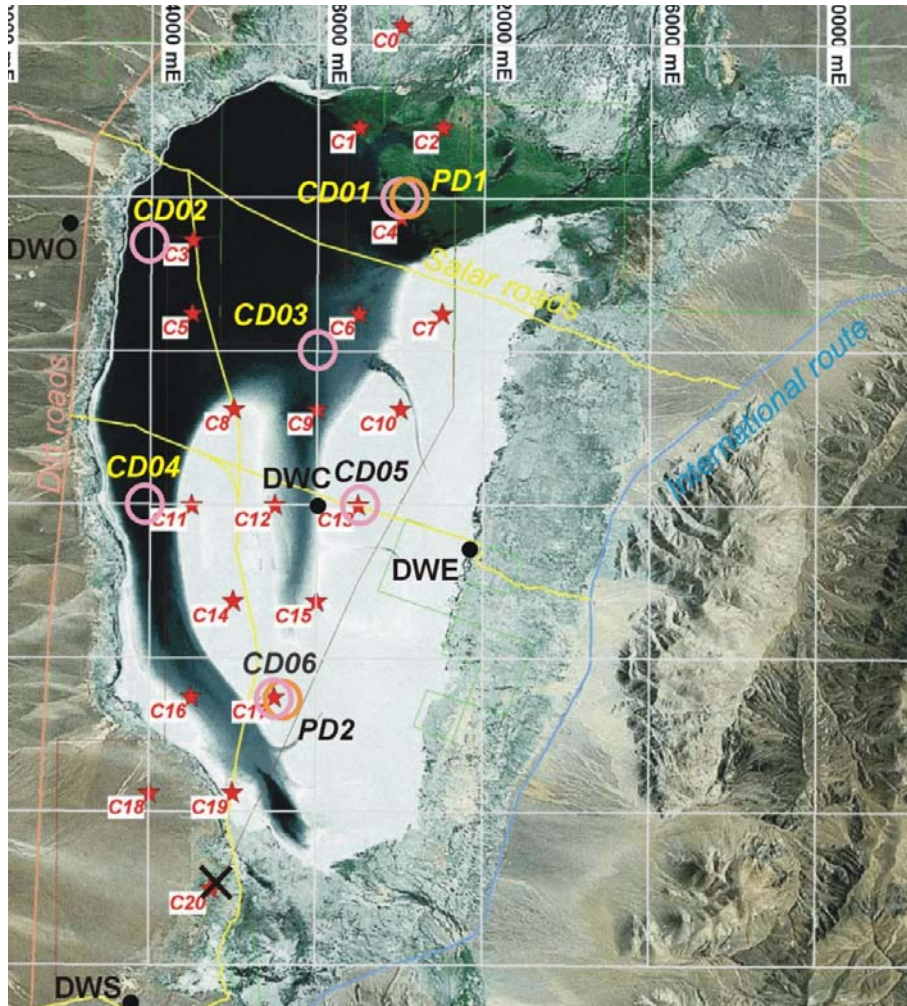


Figure 1 – Plan showing drill hole locations

In addition, three by 50m deep and two by 200m deep pumping test bore facilities (i.e. one pumping bore plus 3 to 6 monitoring bores) have been drilled and long term pumping tests are current. Four bores were also drilled around the property to assess boundary conditions.

A revised resource estimate to 200m is expected by the end of this current quarter.

The geometry of the brine body has been interpreted by the combination of the previously undertaken Audio Megneto Telluric (AMT) geophysical surveys and the drilling. The geometry, shown as the periphery of the body at surface, 100m, 200m and 300m is presented in figure 2.





**Figure 2 - Plan showing interpreted brine body at different depths based on AMT surveys and drilling.**

The brine body is an oval shape with an approximate ratio of 2:1 (length to breadth) with the breadth having a distance of approximately 10kms. This is a good geometry from which to design a pumping strategy and bore field as compared to narrow geometries. The grades in the brine body are indicated by the results so far to be highest in the centre and decrease at the margins as the brine concentrations decrease. To the south towards Cauchari, the brine body narrows and grades decrease, influenced by the impacts of the Archibarca delta to the west.

### **Pilot plant scale lithium carbonate production commences**

In the September quarter, the first lithium carbonate product was produced at the Company's process development test work facilities at the Salar de Olaroz. The process used is a modification of the "Silver Peak" method used at Clayton Valley, Nevada since the late 1960's.

During the quarter, the focus on the work was to optimise the process route to improve the purity of the product so that it can meet the high specifications required for the battery industry. Considerable advances have been made to this point both with work at the pilot plant and also at external laboratories. The Company's objective is the production of battery grade lithium carbonate from the facilities during this quarter. This can then be supplied to potential end users.



**Process Development Facilities at Salar de Olaroz**

### **Definitive Feasibility Study - Sinclair Knight Merz**

During the quarter, considerable progress was made by Sinclair Knight Merz (“SKM”), the engineers appointed to undertake engineering design and costing for the Definitive Feasibility Study. By the end of the quarter, approximately 80% of the engineering had been completed.

The Definitive Feasibility Study for the Salar de Olaroz Project is expected to be completed by the end of the current quarter.

### **SALAR DE SALINAS GRANDES POTASSIUM-LITHIUM PROJECT (85%)**

In November, drilling commenced on the Company's properties in the western part of Salinas Grandes. Unfortunately, due to the non-availability of rods and casing for a different drilling contractor at Salar de Olaroz, the drilling rig at Salinas Grandes had to be moved to Olaroz to substitute the other contractor's drilling rig on the deeper

drilling. Drilling at Salinas Grandes is planned to recommence in late March with the objective of being able to estimate a resource during the second quarter.

### **SALAR DE CAUCHARI (85%)**

The Company holds interests in over 30,000 hectares in Cauchari, the salar immediately due south of Salar de Olaroz. During the previous quarter, the Company commissioned independent geological and hydro-geological consultant, Murray Brooker, to review all the Company's information from Salar de Cauchari and the public domain information of Lithium Americas Corp. The report highlighted the exploration potential of the Company's properties in the north-east part of the salar where the Company has a large land holding immediately abutting the largest and highest grade part of the resource estimated by Lithium Americas Corp. The prime target area is approximately 48 square kilometres, similar to the main area of the Lithium Americas Corp. resource. Lithium Americas Corp.'s highest grade drill holes are along the boundary. Although the Cauchari brine body and basin is considerably narrower than Olaroz, the Company considers that it is an attractive target, particularly as the target area is distant from the Archibarca delta. The concept is that the Cauchari brine could be an incremental brine source for the Company's Salar de Olaroz plant that is expected to be located approximately 10kms to the north. The Company has lodged an EIS for exploration at Cauchari and plans to commence drilling later in 2011.

Paul Crawford  
Company Secretary

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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 the leading lithium-potash developer in the lithium and potassium rich Puna region of Argentina.

For further information, please visit [www.orocobre.com](http://www.orocobre.com).

***Technical Information***

*Scientific or technical information in this report that relates to the Company's Olaroz, Salinas Grandes and Cauchari properties is based on information prepared by or under the supervision of Mr Richard Seville, who is a member of the Australian Institute of Mining and Metallurgy. Mr Seville is the Managing Director of Orocobre Limited and has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking 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', and as a "qualified person" under National Instrument*

43-101 – Standards of Disclosure for Mineral Projects (“NI 43-101”). Mr Seville consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Additional information relating to the Company’s projects is available in the technical reports entitled “Technical Report – Salar de Olaroz Project, Argentina” dated April 30, 2010 (the “Olaroz Report”), “Technical Report – Salinas Grandes Project” dated April 30, 2010 and “Technical Report – Salar de Cauchari Project, Argentina” dated April 30, 2010, respectively, which have each been prepared by John Houston, Consulting Hydrogeologist, together with, in the case of the Olaroz Report, Peter Ehren, Consulting Processing Engineer, in accordance with NI 43-101.

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

*This report contains “forward-looking information” within the meaning of applicable securities legislation. Forward-looking information may include, but is not limited to, information with respect to the future financial and operating performance of the Company, its affiliates and subsidiaries, the estimation and realization of mineral resources, costs and timing of development of the Company’s projects, costs and timing of future exploration, timing and receipt of approvals, consents and permits under applicable legislation, results of future exploration and drilling and adequacy of financial resources. Forward-looking information is often characterized by words such as “plan”, “expect”, “budget”, “target”, “project”, “intend”, “believe”, “anticipate”, “estimate” and other similar words or statements that certain events or conditions “may” or “will” occur.*

*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 risks associated with investments in publicly listed companies, such as the Company; risks associated with general economic conditions; 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; unforeseen expenses; fluctuations in commodity prices; fluctuation in the exchange rate of the Argentine peso, the Australian dollar, the Canadian dollar or the United States dollar; litigation risk; restrictions on the repatriation of earnings by the Company’s subsidiaries; conflicts of interest of certain directors of the Company; inability to effect service of process or to enforce judgments within Canada upon and against the directors and officers of the Company; the inherent risks and dangers of mining exploration and operations in general; risk of continued negative operating cash flow; the possibility that required permits may not be obtained; environmental risks; uncertainty in the estimation of mineral resources and mineral reserves; risks that the current inferred resource at the Company’s Olaroz project will not be converted to a sufficient amount of indicated or measured resources to warrant development; general risks associated with the feasibility and development of each of the Company’s projects; the risk that a definitive joint venture agreement with Toyota Tsusho Corporation may not be completed; risks that the new process being developed by the Company will take longer to develop than anticipated or that it will not be successfully developed; risks of being unable to sell production in the event of the development of a project; foreign investment risks in Argentina; changes in Argentinean laws or regulations; future actions by the Argentinean government; breach of any of the contracts through which the Company holds property rights; defects in or challenges to the Company’s property interests; uninsured hazards; disruptions to the Company’s supplies or service providers; reliance on key personnel; retention of key employees; absence of dividends; competition; absence of unitization or reservoir management rules; the Company’s dependence on an open border between Argentina and Chile; as well as those factors disclosed in the Company’s publicly filed documents.*



*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 Company's ability to carry on its exploration and development activities, the timely receipt of required approvals, 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.*

*Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such 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.*

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001, 01/06/2010.

Name of entity

**OROCOBRE LIMITED**

ABN

**31 112 589 910**

Quarter ended ("current quarter")

**31 DECEMBER 2010**

### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date \$A'000
1.1 Receipts from product sales and related debtors		
1.2 Payments for (a) exploration and evaluation (b) development (c) production (d) administration	(5,160)	(9,251)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	211	315
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other – Foreign exchange loss	(34)	(753)
<b>Net Operating Cash Flows</b>	<b>(6,332)</b>	<b>(11,881)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a)prospects (b)equity investments (c) other fixed assets	(159)	(276)
1.9 Proceeds from sale of: (a)prospects (b)equity investments (c)other fixed assets		
1.10 Loans to other entities		
1.11 Loans repaid by other entities		
1.12 Other (provide details if material)		
<b>Net investing cash flows</b>	<b>(159)</b>	<b>(276)</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(6,491)</b>	<b>(12,157)</b>

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(6,491)	(5,670)
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	180	180
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings		
1.18	Dividends paid		
1.19	Other: Joint venture funding		76
	<b>Net financing cash flows</b>	180	256
	<b>Net increase (decrease) in cash held</b>	(6,309)	(11,901)
1.20	Cash at beginning of quarter/year to date	18,606	24,483
1.21	Exchange rate adjustments to item 1.20	(218)	(501)
1.22	<b>Cash at end of quarter</b>	12,081	12,081

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	144
1.24	Aggregate amount of loans to the parties included in item 1.10	Nil

1.25 Explanation necessary for an understanding of the transactions

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**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

nil
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2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

nil
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+ See chapter 19 for defined terms.

### Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	Nil	Nil
3.2 Credit standby arrangements	Nil	Nil

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	4,000
4.2 Development	Nil
4.3 Production	Nil
4.4 Administration	700
<b>Total</b>	4,700

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.		Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	478	3,660
5.2	Deposits at call	11,603	14,946
5.3	Bank overdraft		
5.4	Other (provide details)		
<b>Total: cash at end of quarter</b> (item 1.22)		12,081	18,606

### Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1		Interests in mining tenements relinquished, reduced or lapsed		
6.2		Interests in mining tenements acquired or increased		

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference +securities</b> <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 <b>+Ordinary securities</b>	91,181,996	91,181,996		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5 <b>+Convertible debt securities</b> <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 <b>Options</b> <i>(description and conversion factor)</i>			<i>Exercise price</i>	<i>Expiry date</i>
Unlisted Options	450,000	Nil	37.5 cents	31 July 2011
Unlisted Options	435,000	Nil	\$2.03	30 July 2013
Unlisted Options	400,000	Nil	\$2.03	30 July 2015
7.8 Issued during quarter				
7.9 Exercised during quarter				
7.10 Expired during quarter				
7.11 <b>Debentures</b> <i>(totals only)</i>				
7.12 <b>Unsecured notes</b> <i>(totals only)</i>				

**Compliance statement**

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here: ..... Date: 31 January 2011  
 (Director/Company secretary)

Print name: Paul Crawford

+ See chapter 19 for defined terms.



## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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