

# **Orocobre**

The Next
Low Cost Lithium Producer

**Investor Presentation** 

49 NORTH Resource Conference San Francisco, CA December 14, 2011



### **Cautionary Notes**

This presentation has been prepared by the management of Orocobre Limited (the 'Company') in connection with meetings with institutional investors, for the benefit of brokers and analysts and not as specific advice to any particular party or person. The information is based on publicly available information, internally developed data and other sources. Where any opinion is expressed in this presentation, it is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. No warranties or representations can be made as to the origin, validity, accuracy, completeness, currency or reliability of the information. The Company disclaims and excludes all liability (to the extend permitted by law), for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it.

This presentation contains "forward-looking information" within the meaning of applicable Canadian 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 of mineral reserves and mineral resources, costs and timing of development of the Company's projects, the forecasts relating to the lithium and potash markets provided by Roskill in the Olaroz Feasibility Study, 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, 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, potential operating synergies between the Salinas Grandes Project, the Cauchari Project and the Olaroz Project, the implications of any changes to foreign currency transfer regulations, 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, the potential for the Cauchari Project to add value for Orocobre, and other matters related to the development of the Company's projects.

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, including the foreign currency transfer regulations described in this press release, or changes in the

### Cautionary Notes (Cont'd)

interpretation or application thereof; 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, officers and experts named in the Company annual information form for the year ended June 30, 2011 (the "2011 Annual Information Form"); 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; uncertainty in the viability, recoverability and processing of such resources; general risks associated with the feasibility and development of each of the Company's projects, including unexpected capital and/or operating cost increases; the risk that a definitive joint venture agreement with Toyota Tsusho Corporation may not be completed; 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; and the Company's dependence on an open border between Argentina and Chile. See "Risk Factors" in the 2011 Annual Information Form.

Forward-looking information is based on a number of assumptions, and estimates that, while considered reasonable by the Company, may prove to be incorrect. 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.



#### **About Orocobre**

- Orocobre Limited (ASX:ORE; TSX:ORL) is a Brisbane based company listed on the ASX since 2007 and the TSX since 2010
- Corporate focus is to be the world's next low cost, brine based lithium-potash producer
- Now moving from developer to significant producer of lithium
- Cash flows from potash & other salar minerals will complement lithium production
- Toyota Tsusho is partner on flagship project
- Agreement with Toyota Tsusho provides funding structure to bring flagship Olaroz project into commercial production

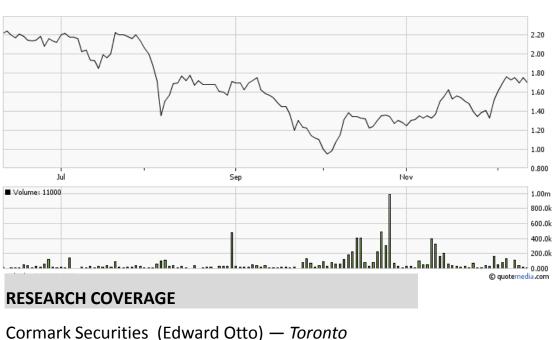


## Capital Markets Snapshot (TSX:ORL, ASX:ORE)

22%

SHARE CAPITAL & CASH POSITION					
(September 30, 2011)					
\$34.2 M					
\$0.0 M					
103.2 M					
1.5 M					
\$1.70					
\$175 M					
\$0.93 - \$4.00					
486,161					
INSIDER SHAREHOLDINGS					

**Executive & Directors** 



Dundee Securities (David Talbot) — Toronto

Byron Capital (Jonathan Lee) — Toronto

Patersons Securities (Andrew Harrington) — Sydney

#### **INVESTOR RELATIONS CONTACT**

Bruce Rose, VP Corporate Development

Tel. (604) 377-1423 brose@orocobre.com



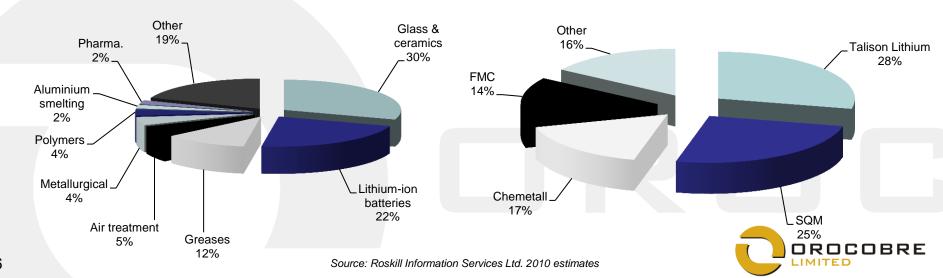
### Positive Lithium Outlook



- Lithium demand forecast at 300,000 500,000 tpa by 2025 (Chemetall, Jan11) vs. 120,000 t (est.) in 2010. [CAGR of 8 – 12% in next 15 years]
- Driven by growth in lithium batteries demand for consumer products, electrification of transport and electrical storage
- Supply side driven by brines and hard rock production
- Japan-Korea look to brines for addt'l supply. Hard rock relevant mostly to China.
- Supply response from existing brine producers constrained by development challenges & declining grades

#### **Current Lithium Demand by Industry**

#### **Current Lithium Supply by Company**



### Portfolio of Attractive Projects



#### Salar de Olaroz

- Flagship lithium project
- Toyota Tsusho partner
- DFS highlights strong fundamentals
- Significant resource long project life
- Low operating costs

### Salinas Grandes / Cangrejillo

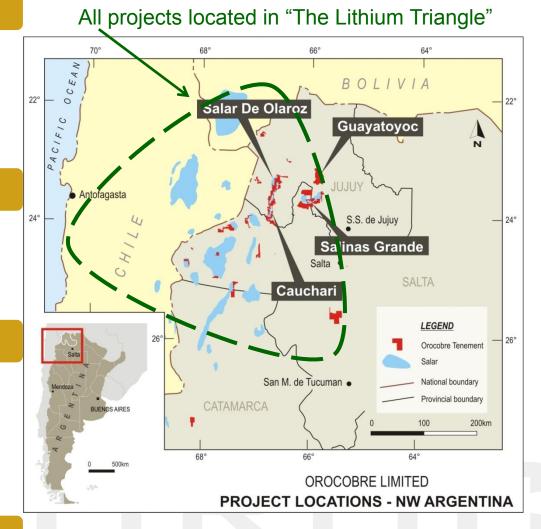
- Lithium-Potash project
- Drilling shows high grades, excellent chemistry
- Resource estimate expected Q4/2011

### Cauchari

- 30,000 ha lithium-potash property immediately south of Olaroz
- Key properties in close proximity to the high grade part of another company's resource
- Drilling in progress

### Guayatoyoc

Potassium discovery





# Flagship Olaroz Project



- DFS highlights strong fundamentals High grade, low production costs, significant JORC/NI43-101 resource (6.4 million tonnes LCE, 19.3 million tonnes potash) for 40 years project life
- Projected annual production of 16,400T of battery-grade lithium carbonate from resource with high lithium grade of 690 mg/l Li and low Mg/Li ratio of 2.4 (see Appendices)
- Very low operating costs
- Process development complete, with battery grade lithium carbonate being produced on-site for qualification
- Toyota Tsusho partner de-risks financing & marketing
- Environmental and government approvals received, awaiting final provincial government approvals
- US\$207m project development on track to commence construction in early 2012 and production in mid-2013





### The Right People

- Talented Board of Directors
  - The right mix of experience including local Argentinian, Australian,
     Canadian and international business leaders, public and private company experience, resource development, energy technology etc.
- Strong Management & Technical Team
  - Extensive experience with lithium brine development and operation
  - Team is leading strong regional workforce in Jujuy & Salta provinces
- World-Class Partners
  - Toyota Tsusho (Olaroz Project) offers important financial and strategic marketing experience — Negotiations well advanced on JV and funding
  - Will consider partners for subsequent projects
- Experienced Engineers
  - SKM (Olaroz Project) Significant industry experience, including the design & construction management of lithium brine operation in Argentina



## Near term share price catalysts

- Final provincial government approval of Olaroz project
- Completion of Olaroz project financing package with Toyota Tsusho, JOGMEC and Japanese banks
- Salinas Grandes resource estimate
- Cauchari drilling results & resource estimate



### Orocobre is Well Positioned

- Flagship Olaroz project has world-class Toyota Tsusho partner
- High quality and expanding resource base
- Technical, project and operational expertise
  - Demonstrated capability to produce battery grade lithium on site
- Resource & asset optionality to support potash & other salar minerals extraction
- Existing project pipeline provides future investment opportunities
- Strong market fundamentals for lithium & potash
- Competitive cost advantage of lithium brine producers vs. hard rock producers





# **APPENDICES**



## Olaroz DFS – Resource Estimate Summary



- Olaroz Project has very large resource base which has potential to support long project life
- Combined Measured and Indicated Resource of:
  - 6.4 million tonnes of lithium carbonate
  - 19.3 million tonnes of potash (potassium chloride)

					Concentration			Tonnes of Contained Metal		
Resource Category	Area	Thickness	Mean specific yield	Brine volume	Lithium	Potassium	Boron	Lithium	Potassium	Boron
	sq. kms	metres	%	cubic kms	mg/L	mg/L	mg/L	Million Tonnes	Million Tonnes	Million Tonnes
Measured Resource	93	54	8.4%	0.42	632	4930	927	0.27	2.08	0.39
Indicated Resource	93	143	10.0%	1.33	708	6030	1100	0.94	8.02	1.46
Measured and Indicated Resource	93	197	9.6%	1.75	690	5730	1050	1.21	10.10	1.85

Measured and Indicated Resources of 1.75 cubic kilometres at 690mg/ lithium, 5,730 mg/l potassium and 1050mg/l boron from surface to 197m depth estimated by John Houston, Consulting Hydrogeologist. The information in this report that relates to Exploration Results or Mineral Resources is based on information prepared by, or under the supervision of Mr. Neil Stuart who is a member of the Australasian Institute of Mining & Metallurgy and a member of the Australian Institute of Geoscientists. Mr. Stuart is a Director of Orocobre Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons 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 NI 43-101. Mr. Stuart consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The conversion rate used is 1 tonne of lithium metal produces 5.32 tonnes of lithium carbonate and 1 tonne of potassium produces 1.91 tonnes of muriate of potash



## Olaroz DFS – Capital Costs Estimates



Capital Cost Estimate - 16,400 tpa Lithium				
Carbonate				
Direct Costs	<b>US\$million</b>			
Brine Production Wells and				
Pipelines	7.1			
<b>Evaporation Ponds</b>	38.0			
Processing Plant	26.5			
Utilities (Power Station, Gas,				
Water, Communication)	27.3			
Infrastructure	11.9			
Contrators Distributables	15.0			
<b>Sub-Total Direct Costs</b>	125.7			
Indirect Costs				
EPCM	22.6			
Third Party Services including				
freight, construction camp,				
catering etc	18.3			
Owners Costs to Production	17.9			
Sub-Total Indirect Costs	58.8			
Total Capital	184.5			
Contingency	22.1			
<b>Total Capital including Contingency</b>	<b>206.7</b>			
Potash Plant Option	14.5			



- Capital cost estimate allows for production of battery grade product
- Allows for detailed engineering design, EPCM and working capital
- Capital costs may be reduced by optimisation in design and alternative methodology
- Estimated by Sinclair Knight Merz (SKM)



# Olaroz DFS – Very Low Operating Cost Estimates



	US\$million	US\$/t Lithium
Fixed Costs	per annum	Carbonate
Personnel Charges	5.5	335
Other	2.4	147
Variable Costs		
Supplies and Reagents	15.6	951
Energy	1.1	78
Materials Handling	0.0	0
<b>Total Operating Costs</b>	24.8	1,512
Incremental cost for Potash Option	1.3	79
Incremental benefit for Potash Option	5.9	361
Total Net Operating Cost	20.2	1,230



**Lithium only** 

- Materially less than hard rock mineral projects
- Competitive with existing brine producers

**Includes potash option** 



# Olaroz DFS – Key Economic Findings



Economic Modelling - Olaroz Project						
		Lithium	With Potash By			
		Carbonate Only	Product			
Modeled Project Life	Years	40	40			
Production Rate	TPA	16400	10000			
Capital Cost	US\$million	207	221			
Payback	Years	3	3			
Cash Operating Cost	US\$/t Li C	1512	1230			
IRR after tax, 60% debt	%	52%	56%			
IRR after tax, no debt	%	26%	27%			
NPV, after tax, ungeared						
Discount Rate 7.5%	US\$million	415	449			
Discount Rate 10%	US\$million	273	298			
Discount Rate 15%	US\$million	121	136			

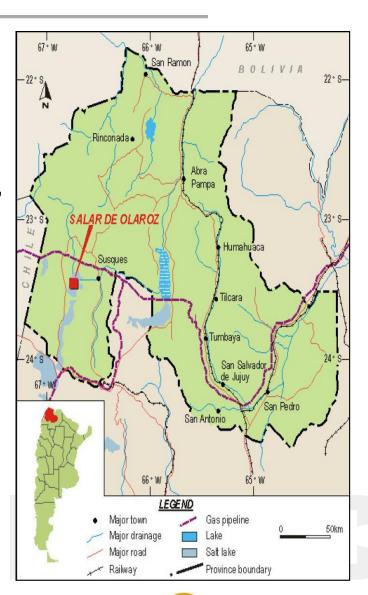


<sup>\*</sup> Modeling does not consider cost inflation and assumes constant exchange rate of US\$1 – ARG\$4

# Olaroz – Very Low Operating Costs



- Solid project fundamentals = low operating costs
  - High grade brine JORC/NI43-101 resource
  - Good chemistry allows simple low cost processing
  - Existing infrastructure including sealed road to port, gas pipeline and railway
  - Local workforce with additional support from San Salvador de Jujuy and Salta City
- Total Net Operating Cost of US\$1512/t LCE (US\$1230/t with potash credits)
- Project to be competitive with existing brine producers
- Operating costs are materially less than hard rock mineral projects





### Flagship Olaroz Project – What's New?

- Due diligence process by Toyota Tsusho and JOGMEC has been completed without material issues arising
- Terms of arrangements with Toyota Tsusho expected to be completed in 4Q 2011, with banking/JOGMEC early in 2012
- Approval received from UGAMP on EIS addenda, updating previously approved EIS and DFS results
- Strong support for project is evident, Orocobre actively engaged to obtain final provincial government approval
- Detail engineering work continues with SKM
- Project development to commence in early 2012 as planned







### Established Partner – Olaroz



- Under terms of agreement, following the provision of funding towards the DFS, Toyota Tsusho can purchase a 25% interest in the Olaroz Project (based on the project NPV)
- To do so, Toyota Tsusho must secure a low-interest debt facility guaranteed by JOGMEC (Japanese Government) for at least 60% of project Capex
- Negotiations with Toyota Tsusho and Japanese government regarding entry price, final JV and funding are progressing well
- Toyota Tsusho leading marketing effort of Olaroz lithium carbonate







# Second Major Project – Salinas Grandes (Cangrejillo)



# Strong landholding located in renowned "Lithium Triangle"

- 85% interest via South American Salars, a JV with local interests
- Orocobre holds largest land position including +13,500 hectares in the salar nucleus
- Located in Salta Province
- Good access to key infrastructure including port, gas pipeline, road and rail

# Synergies with flagship Olaroz Project

 Salinas Grandes is 70 km south-east of Olaroz and has potential to be partly integrated into the flagship Olaroz Project



Drill rig at Salinas Grandes, Salta Province

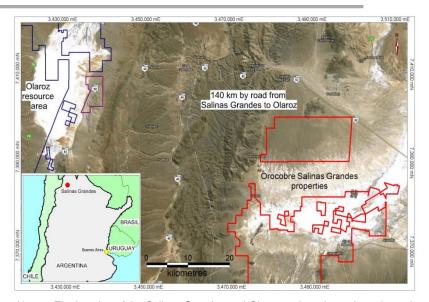


## Salinas Grandes (Cangrejillo)

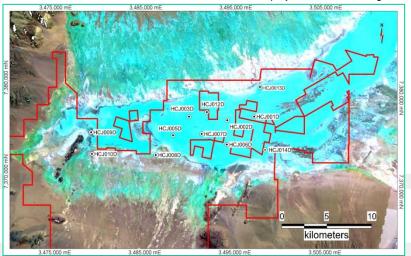
- Drilling confirms two brine bodies with good grades and significant exploration potential
- Very attractive brine chemistry
  - Low sulphate
  - Low magnesium: lithium ratio
  - High potassium: lithium ratio
- High potassium and lithium recoveries expected
- Simple processing, low operation costs

#### What's next?

- Results from auger drilling
- JORC resource estimate expected in Q4/2011
- Results from pumping tests



Above:: The location of the Salinas Grandes and Olaroz projects in northern Argentina

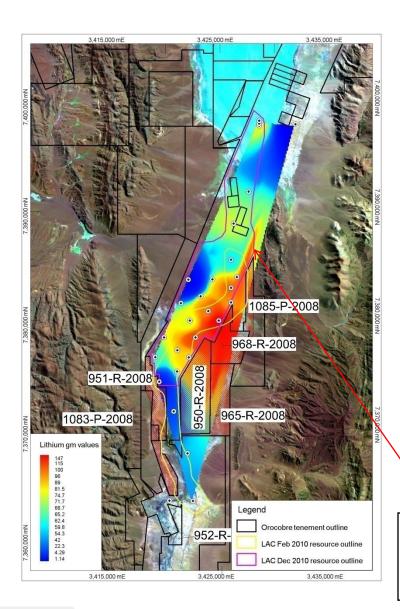


Above: The location of drill holes at Salinas Grandes within the Orocobre tenements



## Other Projects – Salar de Cauchari





# Promising project located immediately south of Orocobre's flagship Olaroz project

- Over 30,000 hectares of properties immediately south of Salar de Olaroz held by 85% South America Salars
- Li/K grades lower than Olaroz but still attractive

### Significant synergy potential with Olaroz

- Possible additional brine source for Olaroz
- Potential for brines to be pumped to future Olaroz processing facilities
- Similar chemistry but with higher sulphate level
- Should be amendable for treatment concurrently with Olaroz brine

### **Drilling commenced**

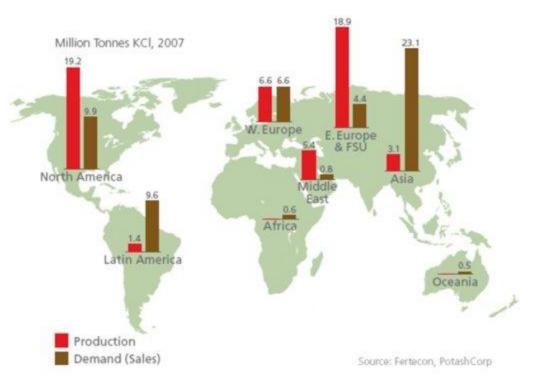
 Richest part of resource interpreted to extend south-east onto Orocobre properties

Purple boundary – LAC resource 11/10 Yellow Boundary LAC resource area 3/10



#### Potash Market

- World potash production comes from underground deposits or Salars
- Potash has strong long-term pricing outlook and significant growth potential underpinned by:
  - crop science
  - strength in agricultural economics
- Potash is an irreplaceable element enabling increased global agricultural production
- One of the growing markets for Potash is neighbouring Brazil with its booming agricultural sector
- Orocobre's projects (Salinas Grandes and Guayatoyoc) are geographically well placed to supply this market









### **Directors & Officers**

#### James Calaway — Chairman

A successful Houston-based entrepreneur with extensive experience in energy exploration, development & operations.

#### Richard Seville — Managing Director & CEO

Mining geologist and geotechnical engineer with 25 years' experience in exploration, development & operations.

#### John Gibson — Director

Energy executive experience for over 25 years, Currently CEO of CCS Corp., & Director of Parker Drilling (NYSE).

#### Federico Nicholson — Director

Respected Argentina business leader with extensive experience in agro-industrial & business advocacy sectors.

#### Fernando Oris de Roa — Director

Successful Argentina business CEO with international experience & keen understanding of public-private partnerships.

#### **Courtney Pratt** — Director

Previously led a number of top Canadian industrial and mineral concerns, including Noranda Inc. and Stelco.

#### Neil Stuart —Director

40 years experience as exploration geologist and a founding director of Orocobre.

#### Paul Crawford — Company Secretary

Accountant with 30 years experience in minerals & petroleum industries. Vast experience in ASX governance issues.

#### Jose de Castro — General Manager, Argentina

Chemical engineer with 15 years experience, including responsibility for commissioning FMC lithium plant in Argentina

#### Bruce Rose — VP, Corporate Development

28 years of commercial, investor relations & operational leadership in resources & transportation sectors.

#### Mark Smith — Finance & Administration

Accountant with 30 years experience, including financial & management roles in mining industry.



# Competent Person's and Qualified Person's Statement and Technical Information

The information in this report that relates to Exploration Results and Mineral Resources is based on information prepared by or under the supervision of Mr. Neil Stuart, who is a fellow of the Australian Institute of Mining & Metallurgy and a member of the Australian Institute of Geoscientists. Mr. Stuart is a Director of Orocobre Ltd and has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which they are 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. Mr. Stuart 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 lithium-potash project, Jujuy Province, Argentina" dated May 13, 2011 (the "Olaroz Report"), "Technical Report – Salinas Grandes Project" dated April 30, 2010 and "Technical Report – Salar de Cauchari Project, Argentina" dated April 30, 2010 (collectively, the "Technical Reports"), respectively, which have each been prepared by John Houston, Consulting Hydrogeologist, together with, in the case of the Olaroz Report, Michael Gunn, Consulting Processing Engineer, in accordance with NI 43-101.

The Technical Reports use the definitions, classifications system and guidelines of the Australasian Code for Reporting of Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia (the "JORC Code"). The resource and reserve classification system of the JORC Code is directly comparable to the resource and reserve classification system of the CIM Standards on Mineral Resources and Mineral Reserves of the Canadian Institute of Mining, Metallurgy and Petroleum.

Reference should be made to the full text of the Technical Reports, which have been filed with certain Canadian securities regulatory authorities pursuant to NI 43-101 and are available for review under the Company's profile on SEDAR at www.sedar.com.

