

31 January 2012

# **ASX/TSX ANNOUNCEMENT**

# **Quarterly Report of Operations** For The Period Ended 31 December 2011

# HIGHLIGHTS AND SIGNIFICANT DEVELOPMENTS

Salar de Olaroz Lithium-Potash Project:

- Completion of management negotiations on investment terms of Toyota Tsusho Corp. Ltd., Mizuho Corporate Bank mandated as lead arranger for debt component of project
- Pumping tests and 3-D modelling suggest possible expansions beyond 16,400 tpa of battery grade lithium carbonate.
- Orocobre and its engineering partner, Sinclair Knight Merz, focused on detailed engineering and procurement to allow construction to commence in early 2Q 2012.

Salar de Cauchari Lithium-Potash Project:

- Six hole exploratory drilling program completed yielding encouraging results
- Brine body expected to allow integration with planned Olaroz lithium carbonate production facility.

Salinas Grandes Lithium-Potash Project:

• Grid auger drilling program completed – provides key resource modelling data

Corporate

• Strong cash position of A\$27.7 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 earlier in 2011.

During the quarter, the company has made substantial progress on key activities required to commence construction of commercial operations at the Olaroz Lithium-Potash project in northwest Argentina including completion of management negotiations on investment term of Toyota Tsusho Corporation Ltd, debt financing arrangements with Mizuho Corporate Bank Ltd and Japan Oil, Gas and Metals National Corporation (JOGMEC) and advancement of the project's approval process with the Provincial Government of Jujuy, Argentina. In addition, the detailed engineering design and procurement process has advanced including the ordering of critical path items.

# **Project Financing**

Orocobre and Toyota Tsusho mandated Mizuho Corporate Bank Ltd as lead arranger for the debt component of the project development. This is expected to be for 60% of the capital cost which was estimated in the feasibility study at US\$207 million. The facility is planned to be guaranteed by JOGMEC.

The company has also completed management negotiations with Toyota Tsusho Corporation regarding the terms of its investment and for the project financing arrangements together with associated shareholders' and marketing agreements. The process has now moved to the drafting of definitive agreements and finalization of financing and subsequent investment approval process for both companies. Funding is contingent on the completion of all definitive agreements, Mizuho and JOGMEC's approval of project loans and guarantees respectively, the finalization of bank loan documents and final investment approval by Toyota Tsusho Corporation and Orocobre.

Orocobre expects project financing agreements to be completed by the end of February 2012 and construction to commence in the second quarter of 2012 subject to receiving final Jujuy provincial government approval.

#### **Final Provincial Government Approval**

As of December 10<sup>th</sup>, the new administration of Governor Eduardo Fellner has assumed control of the provincial government. Gabriel Romanosky has been appointed Production Minster and is responsible for the function of the Committee of Experts and approval. With changes in place, the Company now enters what management expects will be the final phase of approval for the project with the Jujuy government. While it is difficult to predict the exact timing, we remain optimistic that this approval will materialize within a timeframe that correlates with the completion of key financing agreements. Assuming the likely completion of these financing and governmental agreements, the company remains on track to commence construction early in the second quarter of 2012.

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

Subsequent to the end of the quarter, on January 24<sup>th</sup>, 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 project definitive feasibility study. The slow predicted declines in grade coupled with excellent flow rates, suggest the possibility of future project expansions.

# 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 in the second quarter of 2012 subject to financing and governmental approvals. In addition, the company has ordered certain critical path items for the operation. Earlier, in August 2011, the Company awarded the Olaroz Project's detailed engineering contract to Sinclair Knight Merz ("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.

Further information on the Company's activities at The Olaroz project is given in the Company's news releases of 28<sup>th</sup> December 2011 and 25<sup>th</sup> January 2012.

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

Subsequent to the end of the quarter, on January 25<sup>th</sup>, 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 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 per cent)

During the quarter, the company completed a grid auger drilling program on 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. The auger program complements the diamond drilling program completed earlier in 2011that indicated the presence of two brine bodies with good grades and significant exploration potential. Diamond drilling holes were to between 60 and 75 m depth, with one hole drilled to 71 m with a diamond core and to 180 m total depth with a tricone. Further technical information on the diamond drilling program is contained in the company's news releases of 31 October 2011 and 18 July 2011.

The auger drilling program consisted of 47 solid stem auger holes drilled on a north-south oriented grid, with an average spacing of 1.7 kilometres between holes. Holes were drilled vertically to between two and twenty metres depth, depending on access conditions within the salar. Geological samples were logged and results compiled on geological sections, which show a significant increase in sand on the northern margins of the salar where sand has been sourced from the northern alluvial fan.

Samples were collected during the drilling by bailing brine from the hole every four metres (and at two metres in four-metre-deep holes). The upper four-metre sample is representative of the interval zero to four metres, the deeper samples (four to eight metres, eight to 12 metres, 12 to 16 metres and 16 to 20 metres) are composites from the hole to the depth at the point of sampling. Further information on the auger drilling program, including average results for each auger hole, are provided in the Company's news release of 21 November 2011.

Composite values are influenced by the lithium concentrations in each lithological unit and the permeability of individual lithological units, with higher permeability units influencing brine-sample compositions more than lower permeability units. The shallow brine body occurs over an area of approximately 170 square kilometres, of which approximately 110 square kilometres is located within Orocobre's properties.

Samples in the shallow brine body exhibit attractively low magnesium-lithium ratios, averaging 2.7 for all samples. Sulphate levels are low, ranging from 947 mg/l on the margins of the salar to an isolated maximum of 11,978 mg/l within the salar, with an average of 3,628 mg/l. Within the zone of greater than 1,000 mg/l lithium, in the zero-to-four-metre samples sulphate averages 3,572 mg/l.

The shallow brine body is hosted in a sequence of sand, silt and clay units, with an increase in sand content in the north of the salar. Halite is limited to a maximum thickness of 0.5 metre from surface in the centre-south of the salar. The elevated lithium brine concentrations encountered during auger sampling correlate well with the distribution of elevated lithium values from previous pit sampling.

Specific yield porosity determinations have been received for core samples analysed by the British Geological Survey. The results are similar to those obtained at the company's Olaroz project for the same types of sediments. The specific yield porosity data, auger drilling and previous diamond drilling results will be used to undertake a resource estimate on the shallow brine body. Guidance on the potential for extraction of the brine will be released with the resource estimate.

The close proximity of Salinas Grandes to the Company's Salar de Olaroz project provides potential operational synergies. One potential synergy could be the processing of concentrated Salinas Grandes lithium brine at an expanded Olaroz lithium carbonate plant following potash recovery at Salinas Grandes.

The Company's current focus is to complete an analysis of the resource estimate and to establish an understanding of the brine extractability through pumping tests. Pump testing of the auger drill holes is now under way to gather data on permeability and flow rates, and to assess the extractability of the brine.

# Corporate

# New Argentine Foreign Currency Transfer Regulations

In late October, Argentina's national government decreed that export revenues from mining projects must be repatriated and converted to Argentine currency prior to being distributed either locally or overseas. This overturned oil and mining companies' pre-existing exemption from Argentina's currency repatriation laws that apply to all other sectors' primary producers.

A preliminary analysis by the company's Argentine legal counsel indicates that this decree does not affect regulations allowing purchase and transfer of foreign currency to offshore destinations in consideration for the purchase of equipment or supplies, debt repayment, or dividend payments. Management current assessment is that this decree does not have a material effect on Orocobre's current and proposed Argentine operations. The company will continually assess implications on the financial and operational aspects of the company that may arise from the new regulations.

#### Cash Position

At the end of the quarter, the company had a strong cash position of A\$27.7m.

#### For more information please contact:

Australia & Asia	North America
Richard Seville	Bruce Rose
Managing Director	VP- Corporate Development
Orocobre Limited	Orocobre Limited
M +61 419 916 338	M + 1 (604) 377 1423
E. rseville@orocobre.com	E. brose@orocobre.com

#### **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 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), the "Technical Report – Salinas Grandes Project" dated April 30, 2010 and the "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, Mike Gunn, Consulting Processing Engineer, in accordance with NI 43-101.

Information in this news release relating to the testing results of Lithium Americas Corp. has not been verified by Orocobre, and such information is not necessarily indicative of results that will be obtained by Orocobre at the Cauchari Project.

#### **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, 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, the forecasts relating to the lithium and potash markets provided by Roskill in the Olaroz feasibility study, timing and receipt of approvals for the Company's projects, consents and permits under applicable legislation, 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, approval from the Jujuy provincial government of the Olaroz Project, potential operating synergies between the Salinas Grandes and Cauchari projects and the Olaroz project, the implications of the changes to foreign currency transfer regulations in Argentina that are described herein, 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; fluctuations or decreases in commodity prices; the possibility that required permits or approvals may not be obtained; 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 wwwsedar.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 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. 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, except in accordance with applicable securities laws.

# **Appendix 5B**

Rule 5.3

# 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**

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ABN

31 112 589 910

Quarter ended ("current quarter")

**31 DECEMBER 2011** 

#### 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 a	nd related debtors	37	110
1.2	Payments for (a) explorate	tion and evaluation	(130)	(2,708)
	<ul><li>(b) develop</li><li>(c) product</li></ul>	oment ion	(5,991)	(5,991)
	(d) adminis	stration	(606)	(2,024)
1.3	Dividends received			
1.4	Interest and other items or received	f a similar nature	480	898
1.5	Interest and other costs of fina	ance paid		
1.6	Income taxes paid			
1.7	Other – Foreign exchange los	s		
	Net Operating Cash Flows		(6,210)	(9,715)
	Cash flows related to investi	ing activities		
1.8	Payment for purchases of: (a	a)prospects b)equity investments		
19	Proceeds from sale of: (a	c) other fixed assets	(476)	(512)
1.9	(t)	b) equity investments c) other fixed assets	-	27
1.10	Loans to other entities			
1.11	Loans repaid by other entities			
1.12	Other (provide details if material)			
	Net investing cash flows		(476)	(485)
1.13	Total operating and investing forward)	cash flows (carried	(6,686)	(10,200)

<sup>+</sup> See chapter 19 for defined terms.

1.13	Total operating and investing cash flows (brought forward)	(6,686)	(10,200)
1.14 1.15 1.16 1.17 1.18	<b>Cash flows related to financing activities</b> Proceeds from issues of shares, options, etc. Proceeds from sale of forfeited shares Proceeds from borrowings Repayment of borrowings Dividends paid	10	57
1.19	Other: Joint venture funding Cost of Share Issue		
	Net financing cash flows	10	57
	Net increase (decrease) in cash held	(6,676)	(10,143)
1.20 1.21	Cash at beginning of quarter/year to date Exchange rate adjustments to item 1.20	34,236 141	37,678 166
1.22	Cash at end of quarter	27,701	27,701

# 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	279
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

# 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

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

<sup>+</sup> See chapter 19 for defined terms.

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# **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	3,000
4.2	Development	Nil
4.3	Production	Nil
4.4	Administration	500
	Total	3,500

# **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	1,526	755
5.2	Deposits at call	26,175	33,481
5.3 Bank overdraft			
5.4 Other (provide details)			
	Total: cash at end of quarter (item 1.22)	27,701	34,236

# 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				

<sup>+</sup> See chapter 19 for defined terms.

#### 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.

7.1	Preference <sup>+</sup> securities	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.2	<ul> <li>(description)</li> <li>Changes during quarter</li> <li>(a) Increases through issues</li> <li>(b) Decreases through returns of capital, buy-backs, redemptions</li> </ul>				
7.3	<sup>+</sup> Ordinary securities	103,195,029	103,195,029		
7.4	<ul><li>Changes during quarter</li><li>(a) Increases through issues</li><li>(b) Decreases through returns of capital, buy-backs</li></ul>				
7.5	<b>*Convertible debt securities</b> (description)				
7.6	<ul><li>Changes during quarter</li><li>(a) Increases through issues</li><li>(b) Decreases through securities matured, converted</li></ul>				
7.7	<b>Options</b> (description and			Exercise price	Expiry date
	conversion factor) Unlisted Options Unlisted Options	435,000 400,000 650,000	Nil Nil Nil	\$2.03 \$2.03 \$1.50	30 July 2013 30 July 2015 30 Nov 2016
7.8	Issued during quarter	650,000	Nil	\$1.50	30 Nov 2016
7.9	Exercised during quarter				
7.10	Expired during quarter				
7.11	<b>Debentures</b> (totals only)				
7.12	<b>Unsecured notes</b> (totals only)				

# **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.

GA Cford.

Sign here:

..... Date: 30 January 2012 (Director/Company secretary)

Print name: Paul Crawford

<sup>+</sup> 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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<sup>+</sup> See chapter 19 for defined terms.