# PREMIUM ORGANIC FERTILIZER MARCH 2016



## **Overview**

# Salt Lake Potash (SO4) plans to produce Sulphate of Potash (SOP) from salt lakes in Western Australia

Premium Product	SOP is a premium agricultural fertiliser, where supply cannot meet demand.				
Low Cost, Organic	Salt lake brine projects are ORGANIC <u>and</u> have a massive cost advantage as they use solar evaporation.				
Australia's Best Projects	<ul> <li>SO4 has Australia's best salt lake SOP projects:</li> <li>size and quality of resource – 85Mt of SOP with an average grade of 8.7 kg/m³ of K<sub>2</sub>SO<sub>4</sub> at the Company's flagship Lake Wells project</li> <li>resource recoverability – aquifers identified</li> <li>superior infrastructure setting</li> </ul>				
Excellent Economics	Excellent potential economics – low cost, high margin, very long life.				
Right Team	Board and management with a track record of delivering for shareholders.				
News Flow	Scoping Study underway and significant news flow expected.				

## **SOP is a Premium Agriculture Commodity**

#### **ESSENTIAL MACRONUTRIENT**

Potash provides potassium which is an essential crop nutrient.

SOP also provides sulphur, the "fourth macronutrient".

#### **HIGH VALUE**

Favoured by global demographic shift to high value specialty crops (including citrus, potatoes, beans, nuts, strawberries, mangoes, tomatoes, coffee, tobacco, spinach, peas etc.).

Environmentally friendly – no chloride contamination (K<sub>2</sub>SO<sub>4</sub>), low salt index and ORGANIC.

#### **SUPPLY CONSTRAINED**

Most countries, including Australia, are import dependent.

Most SOP comes from expensive secondary processing of MOP (KCI).

Salt lakes with the right chemistry are geologically scarce.

#### **PRICE**

SOP is the premium potash product.

SOP currently sells for a 50-100% premium to more common MOP.

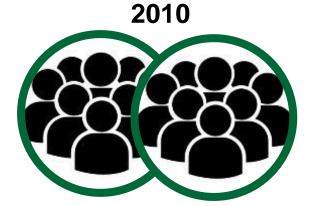
Landing in Australia for A\$1,000/t today.

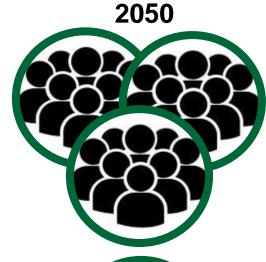
## Megatrends Underpinning Fertilizer Demand

#### **POPULATION**

By 2050 the world's population will reach 9.1 billion, 34% higher than today. (UN Study)







1.800 m<sup>2</sup>

per capita

# AGRICULTURAL PRODUCTIVITY

Reduced arable land drives need for increased productivity







#### **CHANGING DIETS**

Urbanisation, higher incomes are driving diets towards higher valued crops





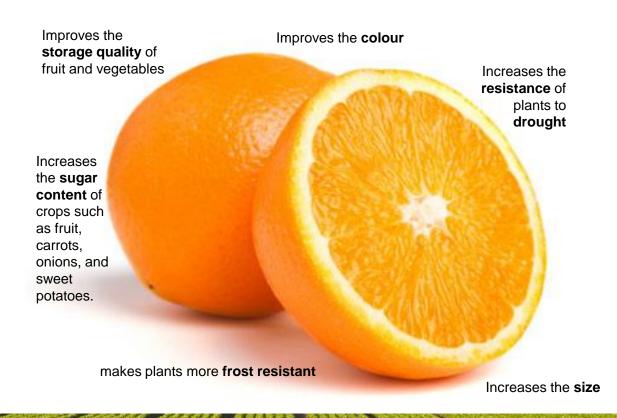
# **SOP for Premium Agriculture**

SOP's demand is driven by high value crops.

SOP contains 18% sulphur, the "fourth macronutrient", especially important for oil crops.

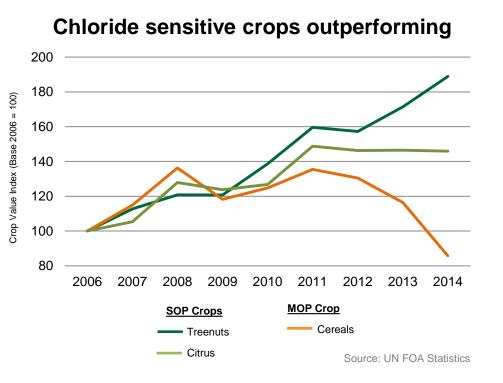
# **SOP Consumption** 30% 30% 15% 25% ■ Treenuts ■ Vegetables Fruits Tea, Tobacco, turf, etc. Source: Compass Minerals

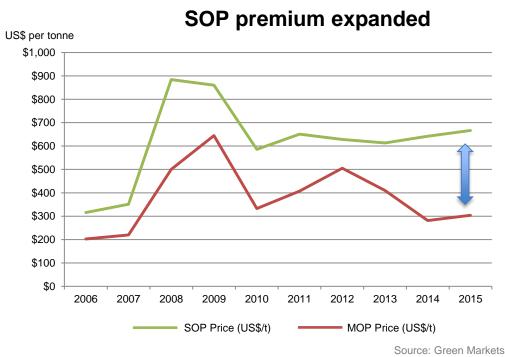
#### **SOP for Enhanced Quality**



## Value Drives Pricing Resilience

- SOP is preferred for chloride sensitive crops because muriate of potash (MOP) contains chloride.
- High value chloride sensitive crops have been immune to the downturn in major grains.
- SOP price premium expanded during 2013 2015.



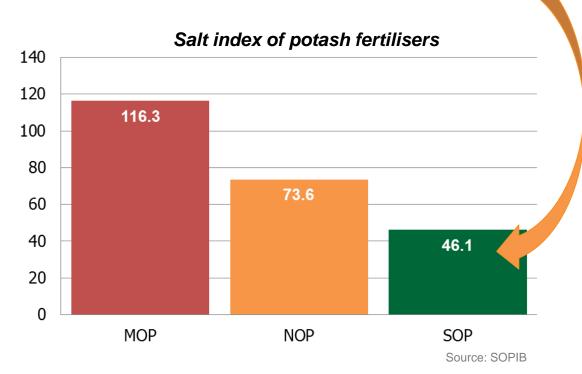


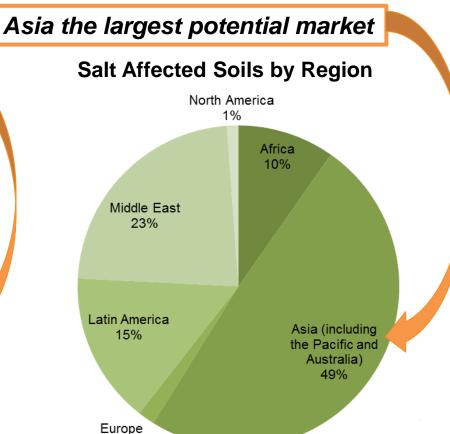
## **The Superior Potassium Source**

Long term market potential for SOP is significantly higher than current supply constrained market (10-12Mt\* versus current 5-6Mt).

\* Greenmarkets/Bloomberg

SOP has the lowest salt index compared to other sources of K, such as MOP and NOP. Provides the solution to chloride build up in soils





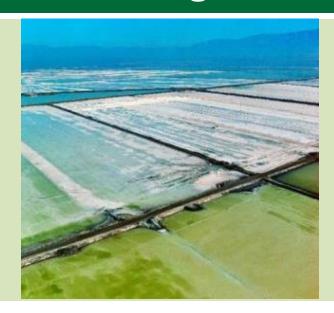
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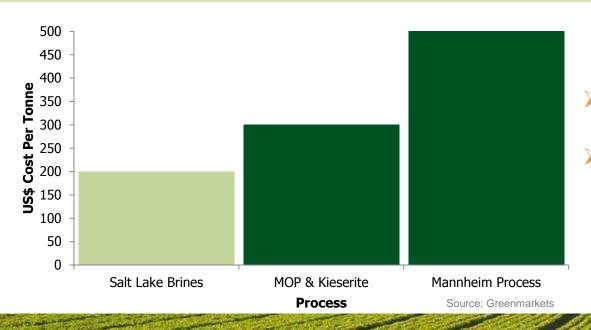
Source: UN FOA Statistics

## Salt Lake Brine SOP has a Massive Cost Advantage

#### Solar evaporation does most of the work

- Salt lake SOP has been produced in:
  - USA (Utah) since the 1970s around 350,000 tpa.
  - China since early 2000s around 2,600,000 tpa (reaching peak production).
- Inland Australian evaporation rates are up to 3x higher than Utah.

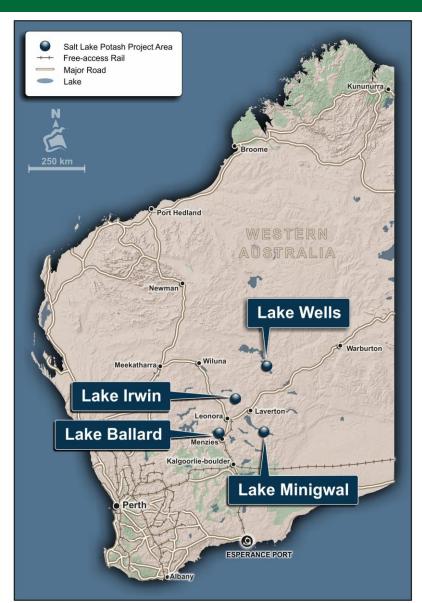




- Average salt lake costs US\$200/t.
- Average Secondary costs US\$400/t.

## SO4 has the Best SOP Projects in Australia

- Very large resource at Lake Wells 85Mt of SOP in just the upper 52m.
- Open in almost all directions.
- Aquifers at surface AND at depth indicate potential for brine extractability.
- Easily the best location and infrastructure proposition i.e. much lower costs.
- Clear permitting pathway with no current Native
   Title claims and initial heritage clearance.
- Three other large lakes in the Northern Goldfields with potential for integration.



## Very High Quality Resource at Lake Wells

- Three phases of drilling in 12 months:
  - shallow core drilling;
  - deeper air core; and
  - deeper core drilling currently underway.
- High quality data including geology, porosity and wide-spread brine sampling.
- Excellent and consistent brine chemistry across the resource.

		Potassium (K) Magnesium (N		ium (Mg)	SO <sub>4</sub>		K <sub>2</sub> SO <sub>4</sub>				
	Area (km²)	Sediment Volume (M m³)	Porosity	Brine Volume (M m³)	Concent- ration (kg/m³)	Tonnage (Mt)	Concent- ration (kg/m³)	Tonnage (Mt)	Concent- ration (kg/m³)	Tonnage (Mt)	Tonnage (Mt)
Measured	341	5,427	0.464	2,518	4.009	10.1	6.886	17.3	19.175	48.3	23
Indicated	59	775	0.464	359	3.806	1.4	6.968	2.5	17.809	6.4	3
Inferred *	77	18,521	0.368	6,814	3.949	26.5	7.058	47.7	17.855	120.3	59
Total	477	24,723	0.392	9,691	3.921	38.0	7.011	67.5	18.218	175	85

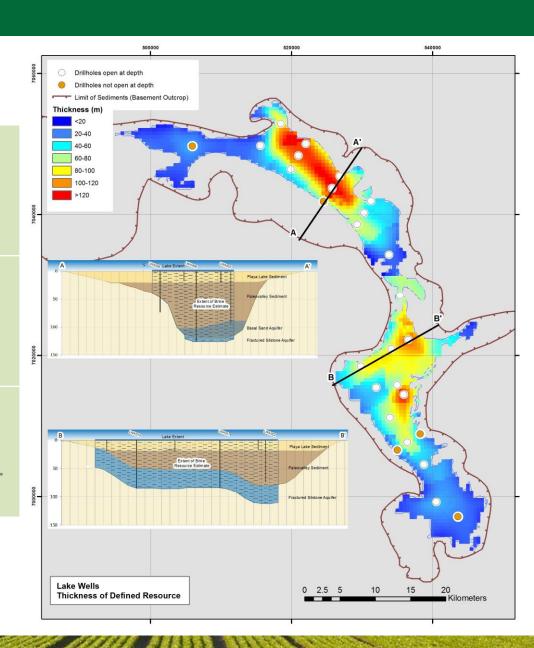
<sup>\*</sup> Using Porosity of 0.30 for the Fractured Siltstone Aquifer

# Resource Expansion Likely

 Resource limited to Lake edge at the moment.

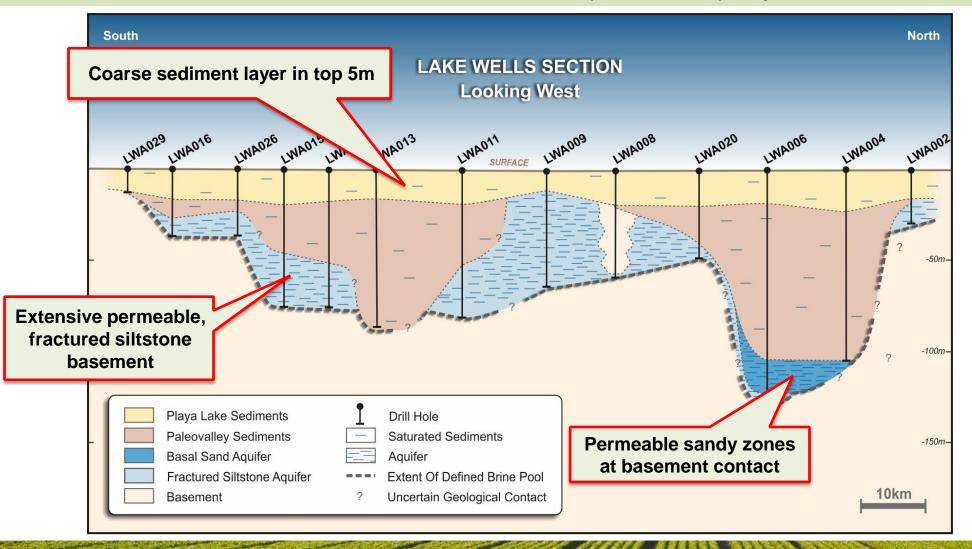
Open at depth in most holes.

 Testing the Fractured Siltstone Aquifer for porosity will allow higher resource category.



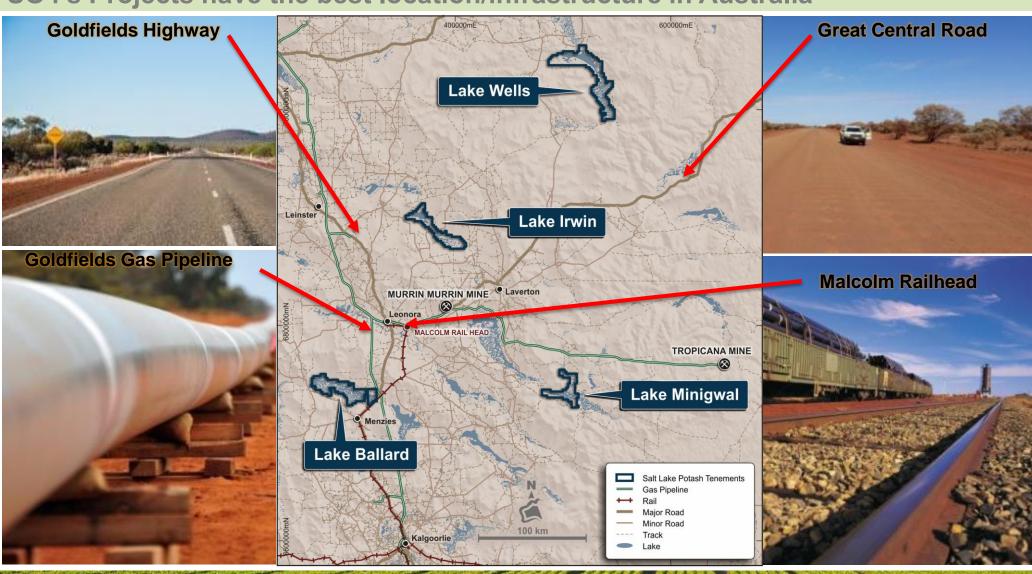
## **Geological Outcomes Indicate Potential Brine Extractability**

Porosity (brine content) does not equal permeability (brine flow). It is critically important to have permeable zones to recover brines. Brine extraction rates will determine production capacity.



## **Best Infrastructure for SOP in Australia**

SO4's Projects have the best location/infrastructure in Australia



## **Established Production and Process Route**







**Brine Extraction** 

Solar Evaporation

Harvest of Potassium Salts



SOP to Market



SOP Dried, Screened & Sized



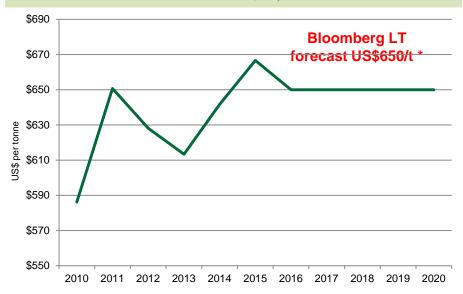
Schoenite Separated by Flotation & **SOP Crystallisation** 

Process chart for illustration purposes only. No images are of Salt Lake Potash Limited's property or operations

# Potential for Superior Margins/Returns

#### Prices to remain high

Current SOP Price ~A\$1,000 tonne.



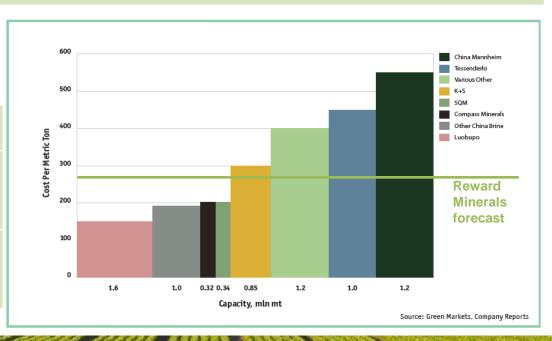
#### Opex very low for brine projects

- Average opex approx. \$200-250/t, half that of secondary production.
- Reward Minerals forecast US\$163/tonne minegate plus US\$99/tonne transport.

Sources: Greenmarkets, Company Reports and ASX Announcements

#### **Capex low**

- Capital Intensity lower than alternative projects.
- Reward forecasting capex of US\$256m for 400k tpa at Lake Disappointment, including US\$45m for roads + US\$57m for infrastructure.
- Average Capex of other large potash project developers > US\$1,000/tonne.



## Management with Right Track Record

# lan Middlemas Chairman

Respected resource executive with extensive finance, commercial and capital markets experience. Current Chairman of Berkeley Energia Limited and Equatorial Resources Limited & former Chairman of Papillon Resources Ltd and Mantra Resources Limited.

# Matt Syme Director

Chartered Accountant with over 25 years of experience in mining and company management. Former MD of Berkeley Energy (BKY) and Sierra Mining (SRM). Grew BKY from a \$4m shell to over \$200m by acquiring and completing initial scoping study on the Salamanca Uranium Project in Spain. Grew SRM from \$5m to over \$80m when sold to RTG Mining inc by acquiring and exploring the Mabilo Copper/Gold Project in the Philippines.

# Jason Baverstock Director

Founded Australia Salt Lake Potash Pty Ltd (acquired entity) with the purpose of establishing the foremost exploration and development business in the emerging salt lake SOP industry in Australia. Strategically acquired company assets over a 5 year period. Over 10 years of financial and research expertise focused on the Greater China region, including Chinese fertiliser sector analyst.

#### Aharon Arakel Senior Consultant

Dr Arakel brings to the company a wealth of industry knowledge in hydrogeology and saline processing. He is an internationally recognised authority on salt lake deposits and inventor of process technologies for potash and mineral products recovery from saline water resources.

# Ben Jeuken Consultant/ Hydrogeologist

The Principal Hydrogeologist of Groundwater Science, Ben Jeuken, has over 10 years of experience in groundwater resources assessment and management for mining. He has experience in salt lake brine potash evaluation, aquifer testing, wellfield planning and installation for mining, and the development of conceptual hydrogeological models.

# Carlos Perucca Consultant Process Engineer

Minerals Process Engineer with 25+ years of experience in mineral processing engineering, specializing in Potash and Phosphates beneficiation. Significant experience from operations in North, South and Central America, including salt lake brine production.

# **Corporate Structure**

EQUITIES ON ISSUE				
Ordinary Shares on Issue	106,052,696			
Unlisted Options (exercise prices ranging from \$2.73 to \$6.00)	205,443			
Performance Rights – (PFS, DFS & Construction)	22,500,000			
VALUATION				
Market Capitalisation *	\$40.30m			
Cash on hand (31 December)	\$1.26m			
Enterprise Value	\$39.04m			
HOLDING STRUCTURE				
Directors/ Vendors	~37%			
Australian HNW	~36%			
UK HNW	~5%			
Others	~22%			

<sup>\*</sup> Valuations and holding details as at 29 February 2016 SO4 = A\$0.38

# **Clear Path Forward**

Maiden Resource at Lake Wells.	✓
Results from air-core drilling program testing the depth potential of the lake.	$\checkmark$
Updated JORC resource estimate for whole lake.	$\checkmark$
Laboratory studies of the brine chemistry characteristics (underway)	Q1 2016
Pump testing of Lake Wells aquifers (underway).	Q1 2016
Field evaporation trials at Lake Wells.	Q2-3 2016
Environmental, infrastructure, market and other baseline studies.	H1 2016
Lake Wells Scoping Study completion.	H1 2016
Lake Irwin – permitting and sampling.	H1 2016

### **Disclosures and Disclaimers**

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#### **Forward Looking Statements**

Some of the statements contained in this presentation are forward looking statements. Forward looking statements include but are not limited to, statements concerning plans for its mineral projects, exploration and development activities, development plans and timing, development and operating costs, and other statements which are not historical facts. when used in this presentation, and in other published information of SLP, the words such as "aim", "could", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements.

Although SLP believes that its expectations reflected in the forward-looking statements are reasonable, such statements involve risk and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward looking statements include the potential that SLP's projects may experience technical, geological, metallurgical and mechanical problems, changes in mineral product prices and other risks not anticipated by SLP.

#### **Competent Persons Statement**

The information in this presentation that relates to Mineral Resources for Lake Wells, is extracted from the reports entitled 'Lake Wells Resource Increased By 193 Percent to 85Mt of SOP' dated 22 February 2016 and 'Significant Maiden SOP Resource of 29Mt at Lake Wells' dated 11 November 2015 and is available to view on the Company's website www. saltlakepotash.com.au. The information in the original ASX Announcement that related to Exploration Results for Lake Wells based on information compiled by Mr Ben Jeuken, who is a member Australian Institute of Mining and Metallurgy. Mr Jeuken is employed by Groundwater Science Pty Ltd, an independent consulting company. Mr Jeuken has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jeuken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this presentation that relates to Exploration Results for Lake Wells, is extracted from the reports entitled 'Aircore Drilling Confirms Deeper Potential At Lake Wells' dated 23 November 2015, 'Successful Shallow Core Drilling Completed at Lake Wells' dated 22 September 2015 and 'Wildhorse Acquires Two Large Scale High Grade Sulphate Of Potash Brine Projects' dated 9 April 2015 and is available to view on the Company's website www.saltlakepotash.com.au. The information in the original ASX Announcement that related to Exploration Results for Lake Wells based on information compiled by Mr Ben Jeuken, who is a member Australian Institute of Mining and Metallurgy. Mr Jeuken is employed by Groundwater Science Pty Ltd, an independent consulting company. Mr Jeuken has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jeuken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



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