

Developer of the largest high-grade brine SOP Deposit in Australia

Proactive Investors Presentation
Sydney
3 February 2020



ASX | RWD www.rewardminerals.com

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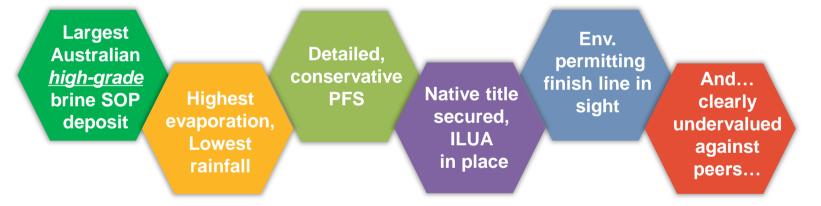
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### INVESTMENT RATIONALE



# Reward Minerals is the developer of the Lake Disappointment Brine Sulphate of Potash Project



An attractive project underpinned by a key global long-term investment theme: Feed the world!



### CONTENTS



- **▶** Corporate Snapshot
- **► SOP Market Basics**
- ► Lake Disappointment? What's with that name?
- **► LD Project Overview & Metrics**
- **▶** LD Upside
- Current Activities

REWARD MINERALS LTD

**▶** Conclusions

### REWARD CORPORATE SNAPSHOT



Capital Structure 22 Jan 2020 ASX:RW	Capital Structure	22 Jan 2020	ASX:RWD
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Ordinary Shares on Issue	162.6m
Rights and Options on Issue	17.6m
Share Price	\$0.15
Undiluted Market Capitalisation	\$24.4m
Cash & Equivalents	~A\$1.6m
Undiluted Enterprise Value	A\$22.8m

#### **Major Shareholders**

Name	Shares (m)	%
Michael Ruane	54.1	33.3
Horizon Minerals	7.2	4.4
Top 20 Shareholders	98.2	60.4

# REWARD MINERALS LTD

#### Colin McCavana - Non-Executive Chairman

- 30+ years experience in mining and earthmoving industries
- Ops and development management of Australian and international projects
- Founder and Managing Director of Haddington Resources Ltd
- Also Chairman of Northern Minerals Ltd

#### Michael Ruane - Executive Director

- 40+ years experience in chemical and metallurgical fields
- Previously senior technical advisor and manager at Lake McLeod Potash, WA
- Manager of mining operations in WA and the Northern Territory
- PhD (Chemistry), MRACI

#### Rod Della Vedova - Non-Executive Director

- 30+ years in the Solar Salt industry with Dampier Salt Ltd (Rio Tinto)
- 11 years as Chief Chemist and 24 years as Process Superintendent
- BSc. Chemistry, Post Graduate Diploma Chemical Engineering

#### **Greg Cochran – Chief Executive Officer**

- Highly experienced, international C-suite mining executive
- Previously MD of Deep Yellow Ltd, CEO of Terramin, EVP Uranium One
- M Sc. Mining Eng. & Mineral Economics, MBA (Cranfield), FAusIMM, GAICD

### WHAT IS SOP? SULPHATE OF POTASH



### The <u>Premium</u> source of potassium fertiliser – K<sub>2</sub>SO<sub>4</sub>

- A low-chloride source of potassium and sulphur
- Potassium (K) one of the 3 essential plant macronutrients
- Sulphur is also an important nutrient
- Applied to speciality and/or chloride sensitive crops
- SOP supplies less than 10% of the potash market
- "MOP" (Muriate of Potash, KCI) is the world's major source of K
- MOP can contribute to increases in soil salinity
- SOP trades at a significant premium to MOP



MOP is a <u>volume</u> business, SOP is a <u>value</u> business

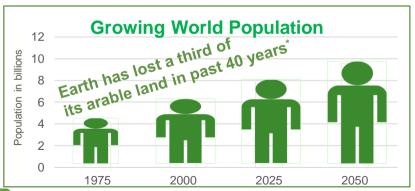


### WHAT IS DRIVING SOP GROWTH?

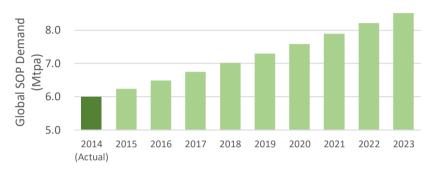


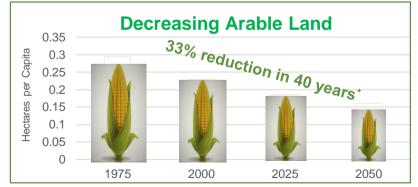
### **SOP Demand drivers**

- Increasing population, decreasing arable land
- Increasing soil salinity
- Need for improved water efficiency
- China prompted major growth
- Could India be next?
- Changing demographics improved diet



#### SOP Growth forecast: ~4% pa







### WHAT'S WITH THAT NAME?





Explorers Frank Hann & Talbot

Here to the southward he sighted a large lake ten miles distant, and they made their way to it next day, but found it was all white salt ... "it is the largest thing in lakes I ever saw ... I shall call the lake Lake

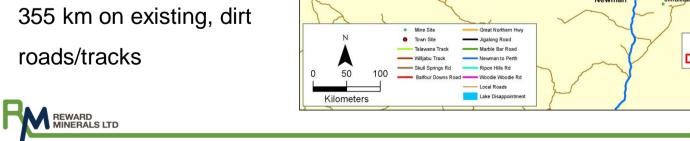
Disappointment as I was disappointed in not finding water in it."

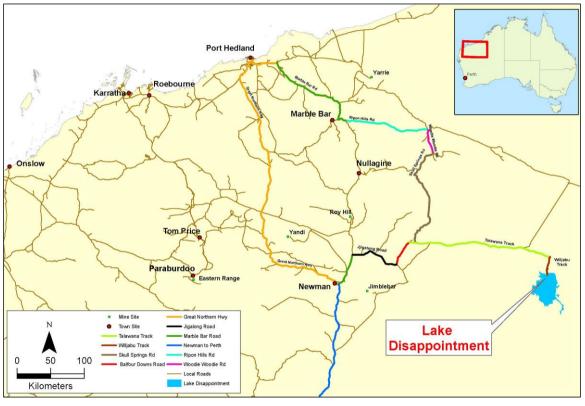
Beard, J. S. (2005). "Drainage Evolution in the Lake Disappointment Catchment, Western Australia" (PDF) citing "Hann's diary quoted by Donaldson & Elliott, 1998". Journal of the Royal Society of Western Australia.

### LAKE DISAPPOINTMENT BRINE SOP PROJECT

#### Location

- 866 km from Port Hedland. class-leading bulk export terminal
- ▶ 511 km on the Great Northern Highway
- roads/tracks

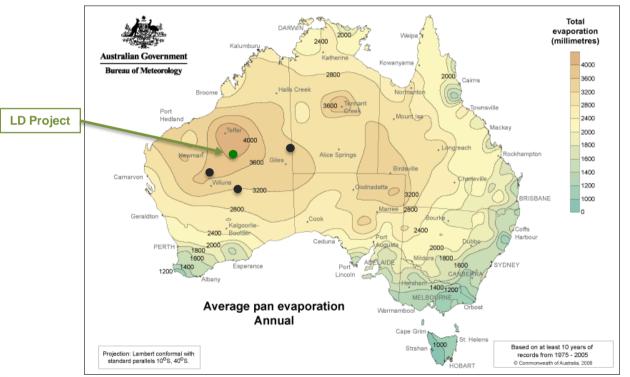




### **HIGHEST EVAPORATION RATE**



#### No better location for a brine evaporation operation in Australia

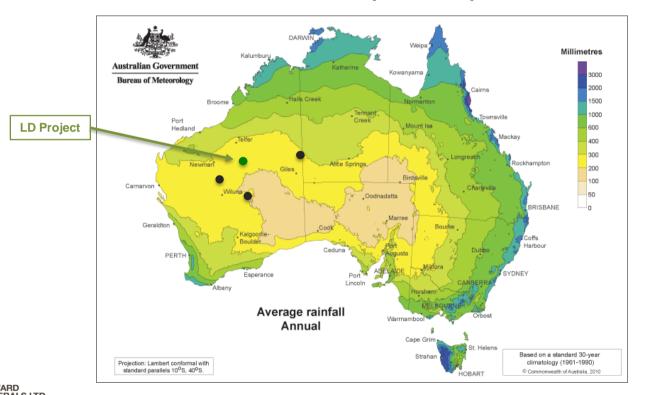




### **LOW RAINFALL**



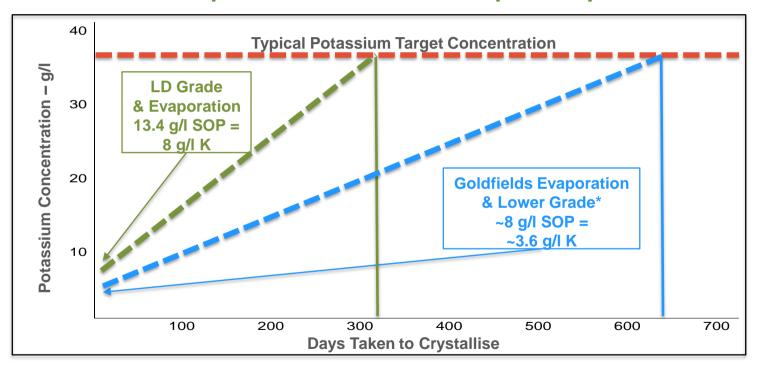
#### No better location for a brine evaporation operation in Australia



### SUPERIOR GRADE AND EVAPORATION



#### Grade and evaporation have a direct impact on production





# **OPERATIONAL AND COST IMPLICATIONS**



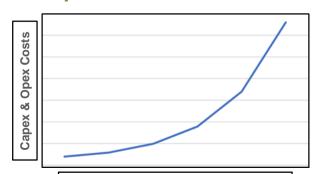
#### To match output, lower grade operations need to:





#### Bigger ponds, more seepage, lower evaporation rates make it worse:



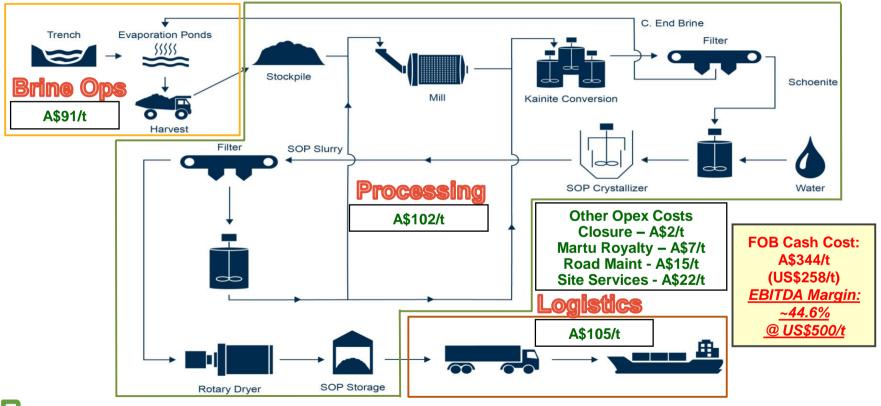


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Decreasing grade/Lower Evaporation

### STANDARD SOLAR EVAPORATION PROCESS-





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Ex-Works Cost: A\$239/t (US\$180/t)

### REALISTIC AND DELIVERABLE LOGISTICS

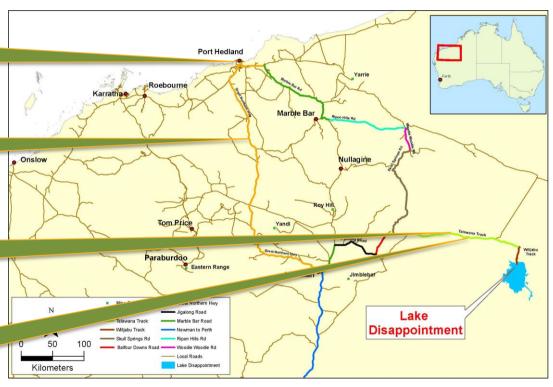


Port Hedland: A world class port exporting millions of tonnes per year

511 km on the Great Northern Highway

First 250 km
designed in detail
from terrain models
at +/-100mm
accuracy

355 km of existing, frequently used dirt roads/tracks



Logistics cost per tonne SOP: A\$105 (FOB Port Hedland) (US\$79/t)



### PERMITTING IS CRITICAL.....



#### UPDATED WA EPA SCHEDULE

OI DAILD WALLAGOILLDGLL														
	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20
Public exhibition of ERD														
DWER provided final comments to Reward														
Reward submits response to submissions														
DWER reviews responses to submissions and publishes the responses														
DWER/EPA Board site visit														
DWER final review of ERD and prepares briefing notes for EPA Board Meeting														
Reward presentation to EPA Board									<b>•</b>					
DWER consults with Decision Making Authorities and Reward about draft conditions									•					
DWER prepares & publishes report to Minister														
Public appeals can be lodged														
Resolution of appeals														
Minister issues Statement														



The most thorough, extraordinarily long process......

And the finish line is in sight....

# PERMITTING IS CRITICAL.....





Government of Western Australia: Environmental Protection Authority

Status of Active Formal Assessments - s. 38

Part IV of the Environmental Protection Act 1986

Last Updated: 20 January 2020

	Proposal Informati	ion		Stage 1 and 2 erral of Prop			Ass	Stage 4 EPA Report	Stage 5 Decision on Proposal			
Proponent	Proposal Title	Level of Assessment	Received	LoA Determined	LoA Published	Approval of Environmental Scoping Doc	Approval of Environmental Review Doc	Close Date for Public Review of ERD	Response to Public Submissions	Completion of EPA Assessment	EPA Report Released	Ministerial Statement
Kalium Lakes Limited	Beyondie Sulphate Of Potash Project	Environmental Review with no Public review	31/10/2017	22/11/2017	27/11/2017	13/3/2018	4/2/2019	Not Applicable	Not Applicable	21/3/2019	8/4/2019	7/6/2019
Reward Minerals Ltd	Lake Disappointment Potash Project	Environmental Review with Public review	13/6/2016	13/7/2016	18/7/2016	25/10/2016	29/1/2019	18/3/2019	12/9/2019	24/10/2019	4/12/2019	
Agrimin Limited	Mackay Sulphate of Potash Project	Environmental Review with Public review	2/1/2019	30/1/2019	4/2/2019	In Prep - Proponent						
Australian Potash Limited	Lake Wells Potash Project <sup>1</sup>	Environmental Review with no Public review	21/12/2017	5/2/2018	5/2/2018	21/9/2018	In Prep - EPA					
BCI Minerals Pty Ltd	Mardie Project	Environmental Review with Public review	17/4/2018	18/6/2018	18/6/2018	28/11/2018	In Prep - Proponent					
Salt Lake Potash Ltd	Lake Way Sulphate of Potash Project <sup>1</sup>	Environmental Review with no Public review	19/9/2019	18/12/2019	23/12/2019	In Prep - Proponent						
						Salt	Projects					
K + S Salt Australia Pty Ltd	Ashburton Salt Project	Environmental Review with Public review	11/10/2016	27/10/2016	7/11/2016	24/1/2018	In Prep - Proponent					
Leichhardt Industrials	Eramurra Industrial Salt Project	Environmental Review with Public review	7/12/2018	19/6/2019	24/6/2019	In Prep - EPA						

Note 1. Lake Wells and Lake Way are the only two "salts" projects not being assessed under both Commonwealth and State environmental legislation.



### PROJECT METRICS - COSTS & PRODUCTION



### Capital cost

- A\$345 M, includes indirects and owners costs (+/-20%)
- A\$451 M, includes contingency & pre-production costs

### **Production**

- At least 400,000 tpa
- ~9 Mt SOP produced over ~25 years
- Less than 10% of the resource

### **Operating cost**

- Cash cost A\$335/tonne (FOB Port Hedland)
- AISC A\$376/tonne (FOB Port Hedland)



### PROJECT METRICS - ECONOMICS



### **Assumptions**

Price: US\$500/tonne, FX: AUD/USD: 0.75

Discount Rate: 8% Real

• Royalty: State: 3.75%, Martu: 1.25%

### **Margins**

- Average EBITDA 45% (~\$118 M/year)
- Average Cash 48% (~\$122 M/year)

### Returns

- Pre-tax: NPV8% \$518 M, IRR 19%
- Post-tax: NPV8% \$293 M, IRR 15%
- State & Martu Royalties: ~\$286 M



Are the assumptions conservative?

# **INDUSTRY ECONOMIC ASSUMPTIONS**



Company	Project	Study Level	Discount Rate	Pricing	AUD / USD Exchange Rate	Effective AUD SOP Price	State Royalty
Australian Potash	Lake Wells	DFS	8% Pre- and Post-Tax nominal. Inflation 2%. Implies 5.88% real	US\$614/t (real) LOM	US\$614/t (real) LOM  0.67 average derived from forward Curve (Suggests nominal).		A\$0.73/t SOP
Kalium Lakes	Beyondie	BFS	8% Post-Tax nominal. Inflation 2%. Implies 5.88% real	US \$606/t SOP (nominal average LOM)	· · · · · · · · · · · · · · · · · · ·		A\$0.73/t SOP
Salt Lake Potash	Lake Way	BFS	8% Post-Tax, assumed to be real	US\$550/t LOM (assumed real, premium product)	0.68 (assumed flat real)	A\$808/t	2.50% on FOB revenue (A\$20.22/t SOP)
Agrimin	Lake MacKay	PFS	8% Post-Tax Real	Flat real US\$555/t SOP (US\$520/t FOB plus 13% for granular)	0.75 Plat real	A\$740/t	A\$0.73/1 SOP
Reward	Lake Disappointment	PTS	8% Post-Tax Real	Flat Real US\$500/t SOP	US\$500/t SOP 0.75 Flat real		3.75% on FOB revenue (A\$25/t SOP)

### Reward adopted the most conservative assumptions...



### **CURRENT/UPCOMING ACTIVITIES\***



- Environmental Permitting:
  - Final stages at state level
  - Well advanced at federal level
- Resource Conversion:
  - Infill drilling program completed
  - Grade upside
- ► Flowsheet Improvements:
  - Ongoing R&D (focused on enhancing recovery)
  - Targeting cost reductions & operational efficiencies
- Pond Trials:
  - Crystallisation: Crude potash harvested for next phase





### CONCLUSIONS



### Reward is well positioned, its LD Brine SOP Project:

### Is technically robust

- Conservative PFS conducted to exacting standards
- On Australia's largest high-grade SOP deposit, with an
- Independently reviewed Flowsheet

### ... and economically attractive, with

Scope to improve economics on multiple fronts

### ... and at 407,500 tonnes SOP/annum

- Can be one of the world's largest, longest-life brine SOP producers
- ▶ In the best operating environment & a leading mining jurisdiction



### Anything but disappointing



### **APPENDICES**



# **GLOBALLY SIGNIFICANT TIER 1 RESOURCE**



#### 153 Mt Indicated & Inferred <u>Drainable</u> SOP Resource – Australia's largest

		Unit	Nominal Dimensions (m) Volume					Assigned Specific Yield		Drainable
	Hydrostratigraphic Unit	Symbol	Тор	Base	Thick.	(m³ x 10 <sup>6</sup> )	(m <sup>2</sup> x 10 <sup>6</sup> )	Effective Porosity (%)	Grade (kg/m³)	SOP (Mt)
Accessible	Upper lake bed sequence	Qhs & Qhl	0.5	2	1.5	1,123.5	749.0	15	13.4	2.26
Zone	Lower lake bed sequence	Qpl	2	6	4	2,996.0	749.0	13	13.4	5.22
(Indicated)			Subtotal						13.4	7.48
Exclusion	Upper lake bed sequence	Qhs & Qhl	0.5	2	1.5	738.0	492.0	15	13.4	1.48
Zone	Lower lake bed sequence	Qpl	2	6	4	1,968.0	492.0	13	13.4	3.43
(Indicated)	ated)		Subtotal							
	Total -	Shallow Re	source (Inc	licated)					13.4	12.39
Accessible	Weathered basement	PUw	6	80	74	55,426.0	749.0	12	11.2	74.49
Zone (Inferred)	Weathered basement (sandy sections)	PUw	80	90	10	6,987.0	698.7	22	11.2	17.20
(interrea)	Subtotal							11.2	91.69	
Exclusion	Weathered basement	PUw	6	80	74	36,408.0	492.0	12	11.2	48.93
Zone (Inferred)	Zone nferred) Subtotal									48.93
	Total - Deep Resource (Inferred)									140.62
	Total F	Resource (In	dicated & I	nferred)					11.35	153.01

Notes:

- 1. Total area of the lake:1.241km2
- 2. Total area of the accessible zone: 749km<sup>2</sup>
- 3. Total area of the exclusion zone: 492km2
- 4. Figures have been rounded to 2 significant numbers
- 5. Resource compliant with JORC, CIMM and draft AMEC guidelines



LD's large resource offers lower resource risk, long life and scalability

# PFS RESULTS – CAPITAL COSTS



Initial and Sustaining Capital Costs (LOM Real)	AUD M
Production - Trenches and Ponds	57.6
Process Plant	73.2
Infrastructure	108.8
Site Support Temporary Services	2.9
Construction Costs	59.2
Subtotal	301.7
Indirect Costs (EPC, Consultants, Commissioning)	20.0
Owners Costs	23.4
Subtotal	43.4
Total Capital Costs before Contingency	345.1
Contingency	59.9
Total Initial Capital Cost	405.0
Working Capital (Pre-Production Operating Expenses)	45.6
Total Development Capital Cost	450.6



# SOURCE INFORMATION FOR INDUSTRY ECONOMIC ASSUMPTIONS



The table on Slide 18 contains information sourced from the following company reports:

- 1. Australian Potash Ltd: <u>AUSTRALIAN POTASH LTD ANNOUNCES DEFINITIVE</u> <u>FEASIBILITY STUDY OUTSTANDING OUTCOMES OVER 30 YEAR MINE LIFE</u>, 28 August 2019.
- 2. Kalium Lakes Limited. <u>Bankable Feasibility Study Completed with Exceptional Financial Outcomes</u>, 18 September 2018.
- 3. Salt Lake Potash Limited. <u>OUTSTANDING BANKABLE FEASIBILITY RESULTS</u> <u>FOR LAKE WAY, 11 October 2019.</u>
- 4. Agrimin Limited: <u>PRE-FEASIBILITY STUDY COMPLETED FOR MACKAY SOP PROJECT</u>, 7 May 2018.
- 5. Reward Minerals Ltd:. <u>PFS Confirms LD Project as a Globally Significant SOP Project</u>, 1 May 2018 and <u>LD SOP Project PFS Enhancements</u>, 13 July 2018.



### **COMPLIANCE STATEMENTS**



#### Competent person statements:

The information in this report that relates to the existing Lake Disappointment Project Mineral Resource Estimate and hydrogeology is extracted from the report titled "Lake Disappointment (LD) Project Confirmed as a Globally Significant Tier 1 Sulphate of Potash Deposit" which was published in an ASX announcement dated 7 February 2017 and is available to view on <a href="https://www.rewardminerals.com">www.rewardminerals.com</a>. The information in the original report was based on information compiled by Mr Robert Kinnell, a hydrogeologist and Competent Person who is a Member of The Australian Institute of Mining and Metallurgy and a Fellow of the Geological Society of London. Mr Kinnell was employed by Strategic Water Management and was a consultant to Reward Minerals. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Kinnell 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 2017 mineral resource announcement and that all material assumptions and technical parameters underpinning the resource estimate continue to apply and have not materially changed. 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 ASX announcement.

The information in this presentation that relates to Brine and Sediment Assays and Analyses is based on information compiled by Mr Geoff Browne, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Browne is a consultant to Reward Minerals Ltd. Mr Browne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Browne consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

#### Notes:

- 1. Refer to ASX announcement dated 7 February 2017 titled "Lake Disappointment (LD) Project Confirmed as a Globally Significant Tier 1 Sulphate of Potash Deposit" for full details of the Mineral Resource. The Company confirms that it is not aware of any new information or data that materially affects the information included in the 2017 announcement and that all material assumptions and technical parameters underpinning the resource estimate continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings were presented in the original ASX announcement have not been materially modified.
- 2. Refer to the assumptions, sensitivities, risk factors and cautionary statements contained in ASX Announcement dated 1 May 2018, titled "PFS Confirms LD Project as a Globally Significant SOP Project" for details disclosed respectively in Table 2 (pages 4-6), Table 3 (pages 7-8) and on pages 12 and 13 of that announcement, as well the details included in the PFS Executive Summary appended thereto, which may adversely impact upon the information and forecasts in this announcement.
- 3. Refer to ASX announcement dated 13 July 2018 titled "LD SOP Project PFS Enhancements" for full details of the improvement in product logistics costs for the LD Project and the associated improvement in the Project's economics.
- 4. The Company confirms that all material assumptions and technical parameters underpinning the Lake Disappointment Project PFS and its enhancements continue to apply and have not materially changed nor been materially modified.
- 5. Additional information in relation to trench pumping trials, including volumes abstracted, flow rates and grades have been reported in the Company's quarterly reports published subsequent to the PFS Announcements.

