# **ASX RELEASE**



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**OPTIONS** 20.9M (\$0.25 - \$0.50)

MARKET CAPITALISATION \$64.5M (undiluted)

CASH \$6.3M Dec'15 Qtly

#### **DIRECTORS & MANAGEMENT**

Colin McCavana Chairman

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Non-Executive Director

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Managing Director

Daniel Tenardi

Projects Director

Paul Savich
Corporate Development Officer
& Company Secretary

Bianca Taveira

Company Secretary

#### **KEY SOP PROJECTS**

LD Potash Project Karly Potash Project Dora Potash Project

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# QUARTERLY REPORT FOR THE PERIOD ENDING 31 December 2015

# **Corporate**

Cash on hand at 31 December 2015 was approximately \$6.3 million.

Reward Minerals Limited ("Reward" or "the Company") received its 2014/15 research and development ("R&D") rebate totalling \$853,000 during the quarter. This receipt reflected the significant R&D work undertaken by the Company during the past financial year as it continues to advance the LD Sulfate of Potash ("SOP") Project.

The Company also completed an Institutional and Broker roadshow during the quarter following the release of the LD Project substantially increased SOP resource.

# **LD Potash Project**

# Significant SOP Resource at the LD Project

The LD SOP Project is located within the Little Sandy Desert, northwest Western Australia and comprises of over 5,200km² of granted Exploration Licences. Resource drilling completed at the Project in March 2015 with the aim of expanding the Company's previously stated Indicated Mineral Resource estimate contained in the upper 4 metres of the lake.

Over 12 vertical core holes have been completed to date followed by chemical analyses and gravimetric moisture (porosity) testing of the recovered core.

During the December quarter the Company was pleased to release the results of the LD Project drilling program which culminated in an increase in the brine SOP Mineral Resource (JORC 2012) to 564 million tonnes at an average grade of 13.7kg/m³. This grade is equivalent to approximately 7.1kg/m³ of lakebed sediment.

Table 1: LD Project SOP Mineral Resource Estimate

Category	Area	Avg. Thickness	Volume	Avg. Porosity	Brine Volume	Brine SOP Grade	SOP Mineral Resource
Indicated	749km²	67m	46bm³	53%	27bm³	13.8kg/m³	359Mt
Inferred	492km²	58m	30bm³	51%	14bm³	13.6kg/m³	205Mt
Total	1,241km²	63m	78bm³	52%	40bm³	13.7kg/m³	564Mt

Figures have been rounded to 2 significant numbers

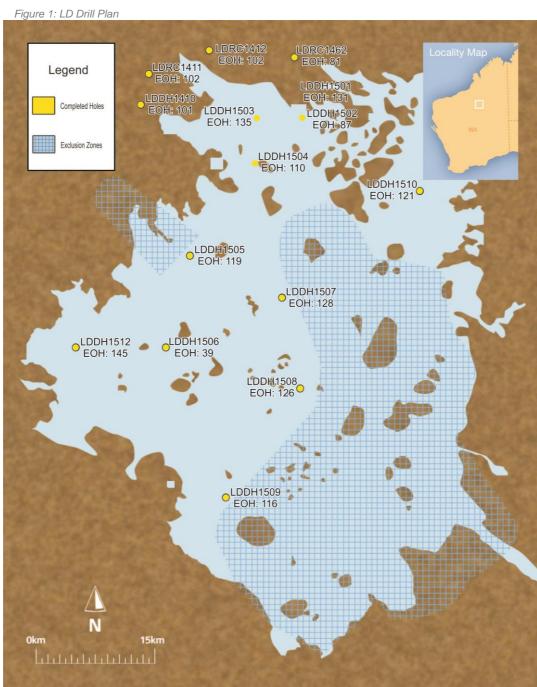
Pendragon Environmental Solutions ("PES"), an independent hydrogeological specialist, compiled the estimate and is involved in ongoing hydrogeological works and modelling being undertaken at the Project.

# **LD Potash Project**

# **Significant SOP Resource for the LD Project (cont.)**

The Mineral Resource estimate is only for the exposed surface area of the lake. Earlier drilling indicated significant Resource potential extends beyond the lake edge and at depth. The resource also uses a 40% porosity cut-off.

Up to the date of the estimate the Company drilled 11 diamond holes to an average depth of 114 metres on LD. Drilling typically encountered clayey sediments from surface to 80+ metres depth before entering sandy/weathered or competent sediments. Holes were normally terminated after penetrating ±10 metres of fresh bedrock or as limited by rig power constraints.



# **LD Potash Project**

### Significant SOP Resource for the LD Project (cont.)

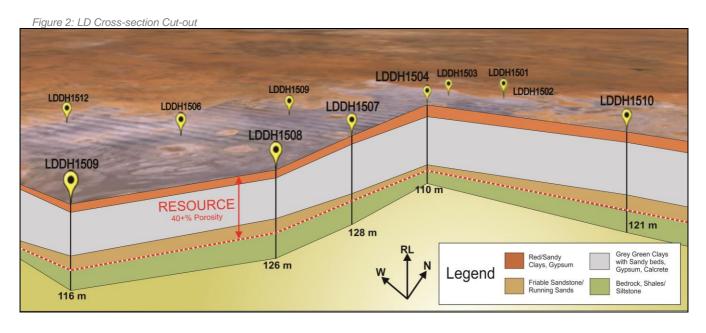
Cores were delivered from LD to Reward's in-house laboratory where over 450 samples were prepared for brine analysis at ALSM Laboratories. The in-house process was reviewed by PES and independent samples were analysed per Quality Assurance/Quality Control regimes by independent laboratories.

Entrained brine retrieved from cores from all holes provided surprisingly consistent levels of Potassium and Sulfate while Magnesium levels fluctuated somewhat downhole with the highest values typically near the lake surface.

Reward established a maiden Mineral Resource at LD in 2007 based on shallow drilling (4 vertical metre average) noting high Potassium values and favourable chemistry for the production of SOP. The findings from this recent program correspond well with the 2007 data for the near surface horizons.

While it has been demonstrated from earlier drilling that Potassium bearing brines are contained in lake and paleovalley sediments throughout the LD sub-basin, the Mineral Resource is confined to 1,241km² within the surficial boundaries of the lake. The Mineral Resource estimate is based on core holes LDDH1501-10 located with a hand held GPS. Cross-sectional core samples were taken on a 1.5 to 2 metre vertical spacing.

The Mineral Resource model is based on topography, stratigraphy and core analyses. The playa surface represents the top of the brine aquifer with accurate elevation measurements from recently completed surveys (refer to ASX Announcement 26 August 2015). Stratigraphy is documented via detailed geological logging. Drill hole data includes specific gravity of the sediments, gravimetric moisture content (weight/weight) and analyses of brine extracted from the core samples (for full details please refer to 2015 LD drilling exploration results ASX Announcements). Gravimetric moisture content was used to directly calculate porosity given lakebed sediment samples used in the resource calculation were fully saturated. Samples were also submitted to SGS and other independent laboratories for porosity and density determinations. Only sediments with a porosity of above 40% were included in the Mineral Resource estimate.



The total Mineral Resource is contained within 78 billion cubic meters (bm³) of sediments to an average depth of 63 metres below the lake surface. This Mineral Resource does not represent the minable (extractable) portion of the SOP, nor does it include brine recharge likely to occur from areas outside the Mineral Resource boundary, particularly upon drawdown of the Mineral Resource brines.

# **LD Potash Project**

# Significant SOP Resource for the LD Project (cont.)

While the Mineral Resource includes areas subject to an exclusion zone under the LD Project Indigenous Land Use Agreement, the consistency in stratigraphic sequences and sediments and earlier exploration has allowed for an Inferred Mineral Resource estimate within these areas. A breakdown is provided in Table 2 below.

Table 2: LD Mineral Resource Estimate Break-down

Category	Avg. Thickness	Volume	Avg. Porosity	Brine Volume	Brine SOP Grade	SOP Mineral Resource	
Mineral Resource Estimate Outside of Exclusion Zone							
Indicated	67m	48bm³	53%	25bm³	13.8kg/m³	359Mt	
Inferred	58m	16bm³	42%	0.7bm <sup>3</sup>	11.7kg/m³	8Mt	
Mineral Resource Estimate Within Exclusion Zone							
Inferred	58m	28bm³	51%	14bm³	13.6kg/m³	197Mt	
Total	63m	78bm <sup>3</sup>	52%	40bm³	13.7kg/m³	564Mt	

Note: Refer to Figure 2 for identification of the areas within the Exclusion Zone, rounded to 2 significant numbers

Due to the hydrogeology and postulated direction of flow throughout the LD sub-basin and paleovalley system the drainage of brines from the exclusion area is expected to occur during the course of production at the LD Project.

Refer to the announcement dated 23 November 2015 for full details.

#### **Development**

During December the Company received approval of a Mining Proposal for Small Operations from the Department of Mines & Petroleum ("**DMP**"). The works propose construction on LD of an access causeway, small scale evaporation ponds (approximately Olympic pool size) and a trench to provide brine supply to the ponds. The proposed works will examine construction methodologies as well as the requirement for specialist or conventional earthmoving equipment for production scale facilities with the aim of reducing this capital component.

Reward continues to receive strong support from the Martu community for the LD Project and is pleased to provide employment opportunities to local communities during pond construction and other current site activities. As Project development proceeds these opportunities will increase.

Figure 3: Proposed Pilot Ponds, Trenches & Causeway



# **LD Potash Project**

# **Development**

In order to complete these earthmoving activities the Company recently acquired an amphibious excavator capable of traversing the surface of LD. An operator will be contracted to undertake the works.

Figures 4 & 5: Company-owned Amphibious Excavator





Following recent works approval from the DMP and the Department of Water, the Company commenced drilling of a potential fresh water aquifer some 25km north of LD.

Reward is pleased to advise that a significant flow of fresh/low salinity water has been encountered. Flow and draw down data are yet to be established but preliminary flow rates are very encouraging. Water samples are in transit to the laboratory for analysis. Initial in house testing suggests the water recovered to date may be of potable quality. Further details will be provided as they become available.

# **Dora Potash Project**

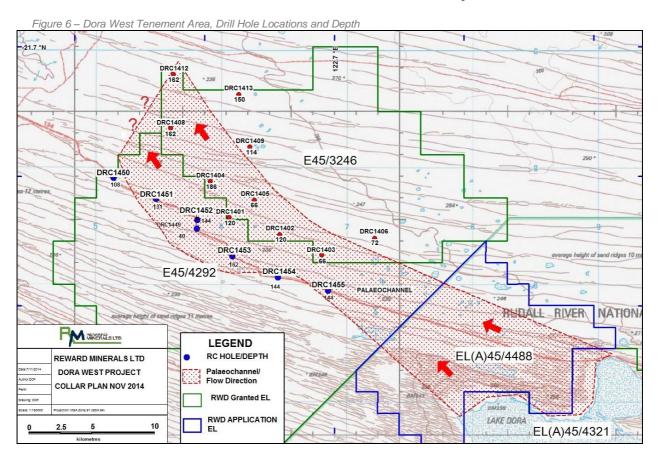
With the Company's focus on the LD Project limited work has been undertaken during the quarter at the Dora Project.

Earlier exploration at Dora targeted the palaeovalley which traverses the granted tenements located north-west of Lake Dora proper. To date 17 holes have been drilled. The static water table (SWT) in the drilling area is generally less than four metres below surface. Heavy brine flows were encountered in seven of the holes drilled.

Brines recovered from the holes drilled were relatively low in Total Dissolved Salts ("TDS") indicating they are well under saturation levels, presumably due to incoming surface runoff. The chemistry of the brines is favourable in terms of K:Mg, SO<sub>4</sub>:K and Na:K ratios however the dilution of the Palaeochannel brines by fresh ground water percolating from the margins of the valley significantly reduces the SOP content of in-situ brines. While dilution is not ideal, favourable evaporation conditions in the region counteract the dilution effect of surface waters to a significant degree.

Additional drilling and brine analysis data is required to better define Palaeochannel depth and width dimensions for Resource estimation purposes.

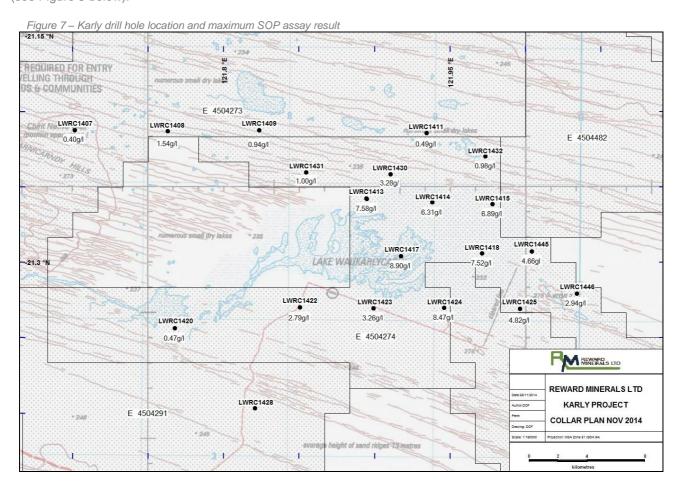
Refer to the announcement dated 11 October 2014 for full details and analytical results.



# **Karly Potash Project**

In line with the Company's focus on its flagship LD Project limited work was performed during the quarter at the Karly Project.

During 2014 the Company completed a maiden drilling program at the Karly Project. A total of 20 RC drill holes and one cased borehole were completed for a total of 2,909 metres. The widely spaced holes covered a north-west south-east distance of approximately 35km and an east-west distance of approximately 20km at the widest point (see Figure 5 below).



The Static Water Level ("SWL") was less than two metres in all areas tested therefore the ground drilled was effectively saturated with water or brine from near surface. Chemistry and ion ratios of brines encountered were similar to those observed at the LD and Dora West Projects and hence suitable for SOP recovery following evaporation.

Data recovered confirmed the Palaeovalley concept and the presence of a large Palaeo-system. Based on brine flows into the Waukarlycarly Embayment from a south-easterly direction which concentrate in the vicinity of Lake Waukarlycarly providing brines with SOP values of up to 9kg/m³ near the evaporation epicentre. Considerable additional exploration is required to provide a meaningful assessment of the Waukarlycarly Embayment Potash potential.

Refer to the announcement dated 3 December 2014 for full details and analytical results.

For further information please visit our website: www.rewardminerals.com

Yours faithfully

Michael Ruane Director on behalf of the Board

#### **Competent Persons Statement**

The information in this report that relates to Mineral Resources or Ore Reserves is based on information compiled by Mr Carel van der Westhuizen, a Competent Person who is a Member of The Australian Institute of Geoscientists, a Certified Environmental Practitioner (CEnvP) of the Environment Institute of Australia and New Zealand and a member of the International Association of Hydrogeologists. This information was prepared and disclosed under the JORC Code 2012. Mr van der Westhuizen is employed by Pendragon Environmental Solutions Pty Ltd and 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 van der Westhuizen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Brine and Sediment Assays and Analyses is based on information compiled by Dr Geoff Browne, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Browne is a consultant to Reward Minerals Ltd. Dr 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'. Dr Browne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr David O'Farrell, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr O'Farrell is a consultant to Reward Minerals Ltd. Mr O'Farrell 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 O'Farrell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources or Ore Reserves other than the November 2015 LD Project Resource is based on information compiled by Mr Mr Simon Coxhell, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Mr Coxhell is a consultant to Reward Minerals Ltd. Mr Coxhell 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Coxhell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# Tenement Holdings as at 31 December 2015

Tenement	Status	RWD Ownership at Quarter End	% Interest Acquired During the Quarter	% Interest Disposed During the Quarter			
		LD, Western A	ustralia				
E45/2801	Granted	100%	-	-			
E45/2802	Granted	100%	-	-			
E45/2803	Granted	100%	-	-			
E69/2156	Granted	100%	-	-			
E69/2157	Granted	100%	-	-			
E69/2158	Granted	100%	-	-			
E69/2159	Granted	100%	-	-			
E69/2902	Granted	100%	-	-			
E45/3285	Granted	100%	-	-			
E45/3286	Granted	100%	-	-			
E45/4090	Granted	100%	-	-			
E45/4121	Granted	100%	-	-			
L45/302	Granted	100%	-	-			
M45/1227	Granted	100%	-	-			
E69/3275	Granted	100%	100%	-			
E69/3276	Granted	100%	100%	-			
E69/3277	Granted	100%	100%	-			
		Lake Auld, Wester	n Australia				
E45/2804	Granted	0%	-	100%			
Dora West, Western Australia							
E45/3246	Granted	100%	-	-			
E45/4292	Granted	100%	-	-			
EL(A)45/4321	Application	-	-	-			
EL(A)45/4488	Application	-	-	-			
Karly, Western Australia							
E45/4273	Granted	100%	-	-			
E45/4274	Granted	100%	-	-			
E45/4291	Granted	100%	-	-			
E45/4293	Granted	100%	-	-			
E45/4294	Granted	100%	-	-			
E45/4299	Granted	100%	-	-			
E45/4324	Granted	100%	-	-			
EL(A)45/4482	Withdrawn	-	-	-			