# **ASX RELEASE**



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CASH POSITION \$6.3M (Dec'15 Qtly)

#### **DIRECTORS & MANAGEMENT**

Colin McCavana Chairman

Rod Della Vedova

Non-Executive Director

Michael Ruane

Managing Director

Daniel Tenardi

Projects Director

Paul Savich
Corporate Development Officer
& Company Secretary

Bianca Taveira

Company Secretary

#### **KEY PROJECTS**

LD Project Karly Project Dora Project

#### **HEAD OFFICE**

Reward Minerals Ltd 159 Stirling Highway Nedlands WA 6009

PO Box 1104 Nedlands WA 6909

ACN 009 173 602 ABN 50 009 173 602

T: 08 9386 4699 F: 08 9386 9473

E: admin@rewardminerals.com

# LD SOP PROJECT - DEVELOPMENT UPDATE

- Construction of four test trenches now complete with drawdown and sustained test pumping underway.
- Construction of 500m causeway, pilot ponds and brine supply trench nearing completion.
- Updated process flowsheet following results from the LD exploration program and early pumping trial brines leading to appointment of a North American based engineering consultant to advance plant modelling and design.
- Process water definition is continuing to provide excellent results.

Reward Minerals Limited ("Reward" or "the Company") is pleased to provide shareholders with the following update on activities at the LD Sulfate of Potash Project ("LD Project") in the northwest of Western Australia.

## Trench Brine Supply

Construction of four test trenches on LD has been completed and are providing important geotechnical information and near surface brine flow data. An initial 12 trenches are planned for detailed hydrogeological test work over the next two months at representative locations on the lake.

Drawdown and sustained test pumping has commenced at two of the trenches. Data from the trenches will define long term brine supply parameters for SOP production at LD. Initial brine flow rates from the trenches have exceeded expectations and pumping is continuing. Data from the first few trenches will be available shortly.



## **Bore Pumping Trials**

Brine recovery trials from cased bores on LD are also in progress. As reported recently (see ASX Announcement 4 February 2016) preliminary pumping trials provided encouraging brine flows from depth. However, the flow rates measured so far have been constrained by the size and type of bore pumps which could be used down the core holes drilled and by difficulties in transporting larger pumping units across LD.

Access has now improved and drilling of larger diameter holes is in progress to confirm the potential for large brine flows from basal sand and friable sandstone known to exist at depth. Recent air lift pumping from a bore on land (2.5km north of LD) provided >20 litres/second from a 150mm diameter hole.

# **Pilot Evaporation Ponds**

Following approval of the Mining Proposal for Small Operations for construction of pilot ponds, machinery has been mobilised and construction has commenced. Construction should be completed within three months and will provide substantial information relating to the handling of LD-specific sediments, beyond (extensive) geotechnical data obtained to date. Seepage and evaporation trials will commence immediately upon completion of construction.

The Company is pleased to have a construction team with a significant component of local Martu employees and appreciates the significant level of community support it has received as activities continue to ramp up.



Work to date on trenching and pilot pond wall construction has been very encouraging in confirming the presence of a low permeability clay layer at 1-1.5m depth in the area designated for Project evaporation ponds as predicted by earlier auger (geotechnical) probing.

Also of importance has been recent confirmation that clay material recovered during trenching appears suitable for construction of pond walls demonstrating significant support strength and low brine transmissivity. These observations, while preliminary, suggest that evaporation ponds constructed from lake sediments available will not require plastic membrane sealing of side walls or the base area.

Pond construction and trenching activities with the Company's amphibious excavator have been highly encouraging and performed well on the lake without bogging. Rates of earth moving and trenching have been above expectations which augers well for a significant reduction in the capital cost of pond construction at LD from Scoping Study estimates.

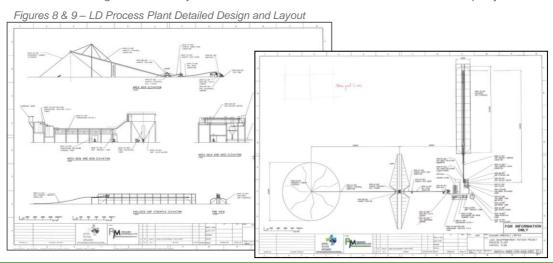






#### **Process Plant & Flowsheet**

The Company has completed substantial bench-scale test work establishing chemistry and processing data for brines derived from the LD exploration program and early pumping trials. The Company has appointed a global engineering firm with specific Potash experience relevant to the LD Project to model two unit operations in the Project flowsheet prior to full detailed design for feasibility evaluation. Works will be undertaken at that company's Saskatoon office.



# **Process Water Borefield**

Another key segment of LD development is the availability and supply of process water and the cost structure of establishing this facility.

A vigorous exploration program is in progress to confirm a process water supply of 3.5-4 gigalitres per annum required for an SOP output of 400,000 tonnes per annum via Shoenite intermediate. Drilling has focussed on an area approximately 20km north of LD where eight holes have been drilled to date averaging over 100 metres depth.

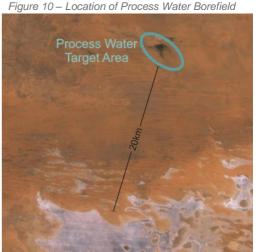
Good water flows of 4-6 litres/second from 100mm diameter holes have been encountered in four of the holes on the western sector of the exploration area. The quality of water recovered from the bores to date has been variable (3,000 to 15,000 TDS) but with very low calcium and magnesium content and should be suitable for plant operation.

The Company has a high quality water supply area approximately 16 kilometres north of LD which to date has been used only for domestic purposes. A single bore operating at the site provides more than the currently required amount of water analysing <2,000 TDS and the quality is improving with time.

Applications have been lodged for approval to drill additional holes in this area to establish its potential to provide a high quality water supply for at least a significant portion of LD operational requirements.







## Haul Road, Transport & Infrastructure

Reward engaged Survey Group Pty Ltd to conduct a detailed survey of 250km of the Talawana Track and design an upgrade suitable for 80kmph transport of product from LD to the Newman-Marble Bar Road.

The survey and design studies have been completed. Tender documents for the proposed upgrade will be dispatched shortly to prospective contractors for costing to establish this key feasibility parameter in the near future.



Further updates and results will be provided shortly as they become available.

Yours faithfully,

Michael Ruane Director on behalf of the Board

#### **About Reward Minerals**

Reward Minerals Limited is an ASX-listed Sulfate of Potash Company.

The Company's LD SOP Project is located in northern Western Australia and comprises tenements covering an area of over 5,000km<sup>2</sup>. The location is well suited to brine based SOP recovery operations which benefit from prevailing high evaporation and low humidity conditions.

LD is host to a substantial brine SOP resource totalling 564Mt of SOP grading 13.7kg/m³ (refer to ASX announcement on 23 November 2015). A Scoping Study for the LD Project was completed in April 2015 and suggests excellent operating and financial metrics.