



## ASX Announcement

31 August 2017

### COMPANY DETAILS

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### PRINCIPAL AND

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### ASX CODE

PWN

### FRANKFURT CODE

A1JH27

### OTC PINK CODE

PWNNY

### CORPORATE INFORMATION

#### 31 August 2017

359M Ordinary shares  
123M Partly paid shares  
17M Listed Options  
5M Unlisted options

### BOARD OF DIRECTORS

#### Adrian Griffin

(Non-Executive Chairman)

#### Patrick McManus

(Managing Director)

#### Chew Wai Chuen

(Non-Executive Director)

#### Natalia Streltsova

(Non-Executive Director)

## PARKWAY MINERALS (ASX: PWN) ANNOUNCES IMPROVEMENTS TO PHOSPHATE FERTILISER PROCESS FLOWSHEET

### Highlights

- **Simpler flowsheet offers lower capital and operating costs**
- **Recoveries ranged from 52% to 68% at a range of concentrate grades between 15 and 20% P<sub>2</sub>O<sub>5</sub>, with 1 stage of flotation and without grinding**
- **Process improvements identified that should enhance both recovery and grade**

Parkway Minerals NL (“PWN”, “Parkway” or “the Company”) is pleased to announce the results of independent testwork carried out to enhance the Company’s phosphate fertiliser flowsheet for the Dinner Hill project.

Dinner Hill is the flagship of the Dandaragan Trough (Figure 1). Previous work had outlined a large resource of both phosphate and glauconite both of which can be used for the manufacture of fertiliser products (refer ASX announcement 3 June 2015).

Dinner Hill is located in an area of high quality infrastructure, close to rail and export ports. The development plan is to start mining to produce single superphosphate as stage 1 and use Parkways patented K-Max<sup>®</sup> process to produce sulphate of potash (SOP), high magnesium SOP, alum and phosphoric acid as stage 2. This reduces risk, capital requirements and shareholder dilution.

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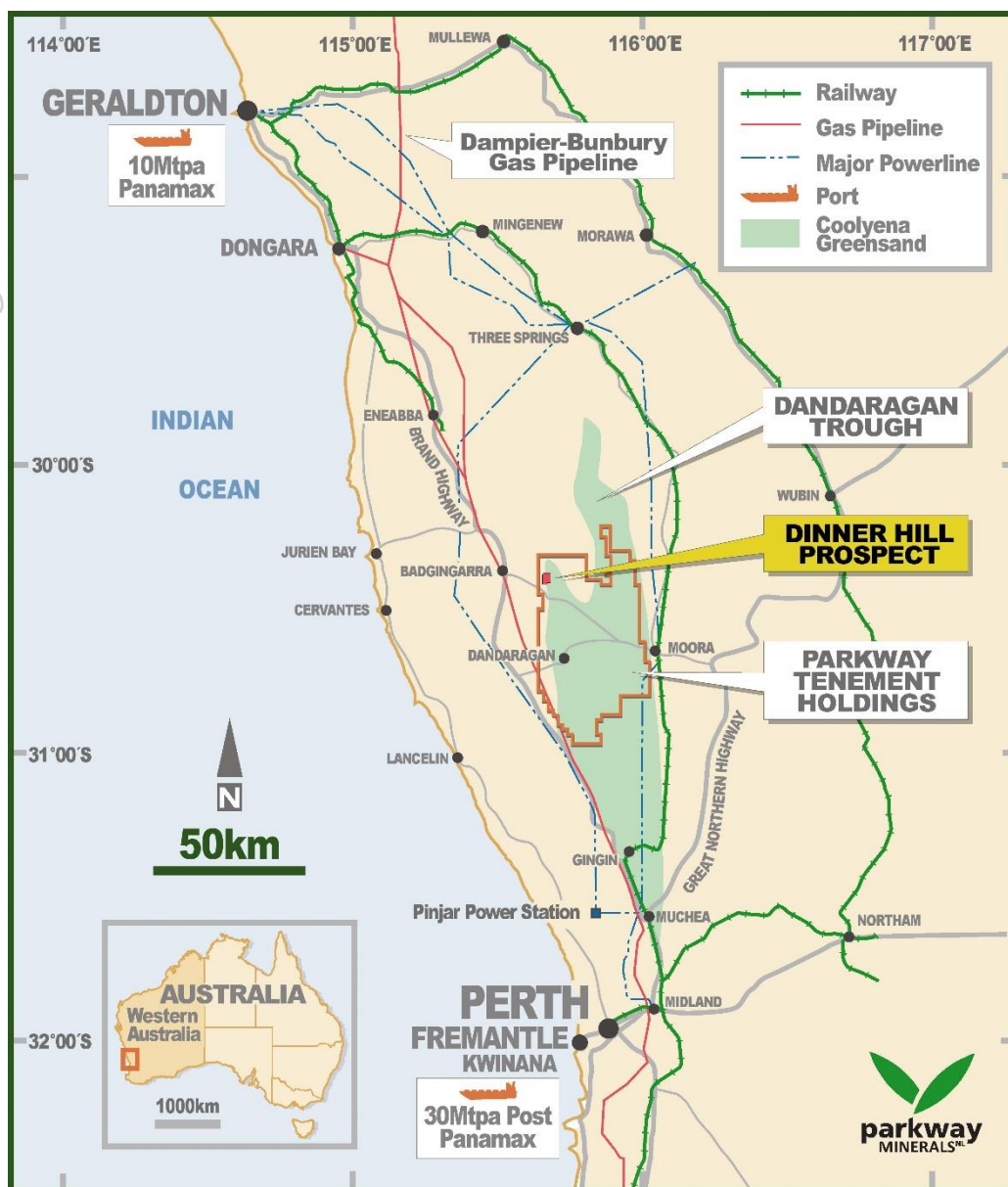


Figure 1 Dinner Hill Location

### Dinner Hill Pre-Feasibility Testwork

As part of the Pre-Feasibility testwork for Dinner Hill the flowsheet developed as part of the Scoping Study was reviewed, and opportunities to improve the process flowsheet were identified.

Testwork was initiated with KEMWorks, based in Central Florida, USA. KEMWorks is a company that is focused on phosphate mining, processing and project development (website: <http://kemworks.com>). The testwork was aimed at identifying process improvements that could lead to increased Separation Efficiency and/or cost reductions.

A sample of ore from the Molecap Greensand containing phosphate nodules was provided. Unfortunately the sample was lower grade than the majority of the phosphate resource, which makes direct comparisons with some of the earlier testwork difficult. Typically a lower grade feed leads to a lower recovery and/or lower concentrate grade.

In the scoping study test work, the processing regime, developed by Perth based consultants, Strategic Metallurgy comprised:

- beneficiation,
- grinding and
- flotation (Coarse and fine circuits, 2 sets of Roughers, 3 sets of Cleaners, 3 sets of Scavengers),

which resulted in a product grade of 28% P<sub>2</sub>O<sub>5</sub>, with a recovery of 60% from a feed grade of 2.9% P<sub>2</sub>O<sub>5</sub>.

Test work at KEMWorks utilizing only beneficiation and a simpler flotation regime (rougher) on only part of the feed, produced a grade of between 15 and 21% P<sub>2</sub>O<sub>5</sub> with recoveries between 52 and 68%, from a feed grade of 1.8% P<sub>2</sub>O<sub>5</sub>. The testwork successfully utilized attritioning as a much lower energy process to break up the larger phosphate particles, whilst minimizing generation of fines, which have proved difficult to separate efficiently in earlier work.

Identified flowsheet improvements (not tested) include:

- Selective size reduction, of coarse fractions, to enhance liberation,
- Further cleaning flotation stages
- Further scavenger flotation stages
- Investigation of reverse flotation, a fairly standard treatment for phosphate flotation

**Parkway Managing Director, Patrick McManus said** "The achievement of this separation performance is a step forward for the Dinner Hill phosphate project. More than 50% of the phosphate was recovered by simple attritioning and screening at Imm, at a grade of 15 to 20% P<sub>2</sub>O<sub>5</sub>. Size reduction of this coarse fraction and cleaner flotation will improve grades and should allow an improved overall recovery, whilst meeting our final grade targets of +28% P<sub>2</sub>O<sub>5</sub>. Elimination, or significant reduction in size, of a grinding circuit will have a strong impact on both capital and operating costs".

#### **Next steps**

Now we have identified areas where we should see a marked improvement in separation, a larger, and more representative sample will be used for further testwork to explore the process improvements identified.

For further information contact:

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#### **About Parkway Minerals**

*Parkway Minerals (ASX: PWN) is an exploration company focused on developing large greensand deposits in West Australia's Perth Basin. The Company aims to define a substantial resource base and investigate how best to recover phosphate, potash and other minerals from the Dandaragan Trough. The project is well situated in relation to infrastructure, with close access to rail, power and gas. A successful commercial outcome will allow the Company to become a major contributor to the potash and phosphate markets at a time of heightened regional demand.*

*The Company has a major land holding over one of the world's largest known glauconite deposits, with exploration licenses and applications covering an area of over 1,800km<sup>2</sup>. Previous exploration indicates glauconite sediments are widespread for more than 150km along strike and 30km in width. A pre-feasibility study is in progress for stage 1, production of phosphate fertilisers.*

*The company owns 26% of Davenport Resources, which owns a potash exploration project in the South Harz region of Thuringia, in Central Germany. The region has been a potash producing area for over 100 years.*