

# First diamonds discovered from the Bellsbank Kimberlite Pipe Exploration Project



7 March 2018

Frontier Diamonds Limited (ASX: FDX) (**Frontier** or **the Company**) advises of the discovery of the first diamonds from its Bellsbank Kimberlite Pipe Exploration Project. Bellsbank is located 10 km from the Company's 74%-owned Sedibeng Diamond Mine operations in the Northern Cape Province, South Africa.

## Highlights

- ▲ First diamonds recovered from a plant commissioning sample taken from the upper levels of the calcretised kimberlite facies of the Bellsbank Kimberlite Pipe.
- ▲ Sample treated as part of the hot commissioning of the dual bulk sample and tailings treatment plant that was recently completed at a total cost of approximately US\$1.2 million.
- ▲ Biggest stone recovered was 1.45 carats.
- ▲ Current depth of pit is approximately 20m and is still within the hard calcrete zone that covers the upper 30m of the kimberlite pipe.
- ▲ Discovery of diamonds in the upper calcretised kimberlite suggests a strong possibility that the lower facies will contain diamonds.
- ▲ Economic evaluation of the Bellsbank Kimberlite Project, including resource and reserve estimation, and mine planning, to commence shortly after bulk sample has been taken.

Figures 1 and 2: Diamonds recovered from the Bellsbank Kimberlite Pipe Exploration activity



Discussing the results Frontier’s CEO, Jan Louw, said: *“We are excited to announce the discovery of the first diamonds from the Bellsbank Kimberlite Exploration Project. The quality of diamonds recovered from the plant commissioning sample is very encouraging and supports our decision to proceed to the next phase in developing the asset.*

*“We will now focus our efforts on increasing the pit layout to enable us to access the primary kimberlite pipe and conduct an adequate bulk sample. The newly commissioned plant facilities give us the added advantage of performing the bulk sample program at a relatively low overall cost and in an expedited manner. We are proceeding with an economic assessment of the Bellsbank Pipe and are looking forward to reporting the next round of results once finalised.”*

Figure 3 and 4: Mining development at Bellsbank



Source: Frontier, February 2018



The Bellsbank property is located 10km west of the Company’s Sedibeng Diamond Mine, located approximately 110km northwest of Kimberley in the Northern Cape Province of South Africa. The pipe is a 130m x 80m “blow” on a proven fissure system and was discovered through ground magnetics and gravity surveying. A geological report regarding the Bellsbank Kimberlite Pit is being prepared by the Competent Person (CP) and will include a review of historic and current exploration results.

The recovery of the first diamonds from the processing of a plant commissioning sample taken from the upper levels of the calcretised kimberlite facies of the Bellsbank Kimberlite Pipe is a positive indication of the mineralisation of the asset, while the gem qualities appear similar to the existing Sedibeng production. Lower uncalcretised kimberlite is expected to be intersected at a depth of 27m as established by historic drilling records.

Figures 5 and 6: Processing of the plant commissioning sample, Bellsbank Kimberlite



Source: Frontier, February 2018

The Bellsbank sample material was processed via the newly commissioned bulk sample processing plant facility located at Sedibeng. The plant has been specifically designed to operate as a dual batch treatment facility dedicated either to processing of bulk samples extracted from the nearby Bellsbank Exploration Project, as well as other regional exploration targets, or as a concentrate retreatment plant to allow the treatment of available tailings material from the Sedibeng Mine.

No definitive diamond grade (cpht) has been determined given the limited volumetric material processed. According to the CP, the current commissioning sample can be regarded as sub-economic 'mineralised waste'. It appears to be low-grade in-situ mineralisation that cannot be classified as either a Mineral Resource or Ore Reserve, and is intended for stockpiling.

The entire crushing and screening process of the sample at the new Sedibeng plant, together with the treatment of the screened product at the existing DMS plant, and subsequent sorting of the diamonds, was overseen by the CP over a period of five days. Two days were used to thoroughly clean and purge the DMS and Final Recovery plants before processing the sample.

The Company will proceed to commission a public geological report accompanied by historic and current exploration results, including a description of the style and nature of mineralisation. This report will consider the results of the next 10m blast, which will expose the underlying hypabyssal kimberlite. Grade estimations will be established after taking a sufficient bulk sample of the exposed kimberlite.

## **Competent Person's Statement**

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The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Stephen le Roux, a Competent Person who is a Member of the South African Council for Natural Scientific Professions. Mr le Roux is an independent geological consultant, self-employed and contracted for this work by Frontier Diamonds Limited.

Mr le Roux 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 le Roux consents to the inclusion in this announcement of the matters based on his information in the forma and context in which its appears.

## Forward Looking Statements

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This announcement contains forward looking statements that are subject to risk factors associated with diamond mining businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, production results, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

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### About Frontier Diamonds Limited

Frontier Diamonds Limited (ASX: FDX) is an independent diamond mining company with interests in two producing underground mines in South Africa, the Sedibeng Diamond Mine and the Star Diamond Mine, and a development project at Bellsbank.

Visit [www.frontierdiamonds.com](http://www.frontierdiamonds.com) for information on Frontier's current and planned future activities.

