

ASX Release: 17 May 2017

Exploration Update

Aircore Drilling Recommences in Lake Lefroy

Key Points:

- **Aircore drilling recommenced to follow up two key gold prospects identified from an earlier drilling campaign undertaken by the Company on Lake Lefroy**
- **Prospects located adjacent to the interpreted position of the Woolibar Fault, a major regional structure interpreted from geophysical data, to the east of and subparallel to the Boulder Lefroy Fault**
- **At the Zanex prospect, extensional drilling planned to follow up an encouraging intersection of 17m at 2.14g/t Au from 40m to the end of hole, returned from hole LEFA 047 from the recent program**
- **Extensional aircore drilling to also follow up the new gold anomaly at LLT04 where 4m at 1.71g/t Au from 44m in LEFA 086 was intersected, part of an emerging trend defined over 3500m**
- **Drilling at the two prospects to total approximately 2500m in 45 holes, with results anticipated in June**
- **The drill program is part of a much broader and ongoing drill focused exploration drill program on the Company's Lefroy Gold Project**

The Board of Lefroy Exploration Limited (ASX: LEX) ("Lefroy" or "the Company") is pleased to announce the commencement of a follow up aircore drilling program along the Woolibar Trend in Lake Lefroy at its flagship Lefroy Gold Project ("LGP" or "Project"), located approximately 50km to the south east of Kalgoorlie. This follow up drill program to further evaluate new gold anomalies from the preliminary exploration program in February is designed to reaffirm the Company's concept on the emerging gold prospectivity along or proximal to the Woolibar Fault.

The Company completed an early stage aircore drill program in February 2017 to evaluate seven priority target areas located within the eastern part of Lake Lefroy in its wholly owned tenements (Figure 1). The seven targets evaluated comprised six conceptual targets defined from geophysical datasets and one geochemical target known as the Zanex prospect, where previous drilling by Cyprus Gold Australia Limited in 1997 intersected 6m at 2.97gpt Au from wide spaced aircore drilling that has never been followed up (refer to LEX Prospectus dated 8 September 2016).

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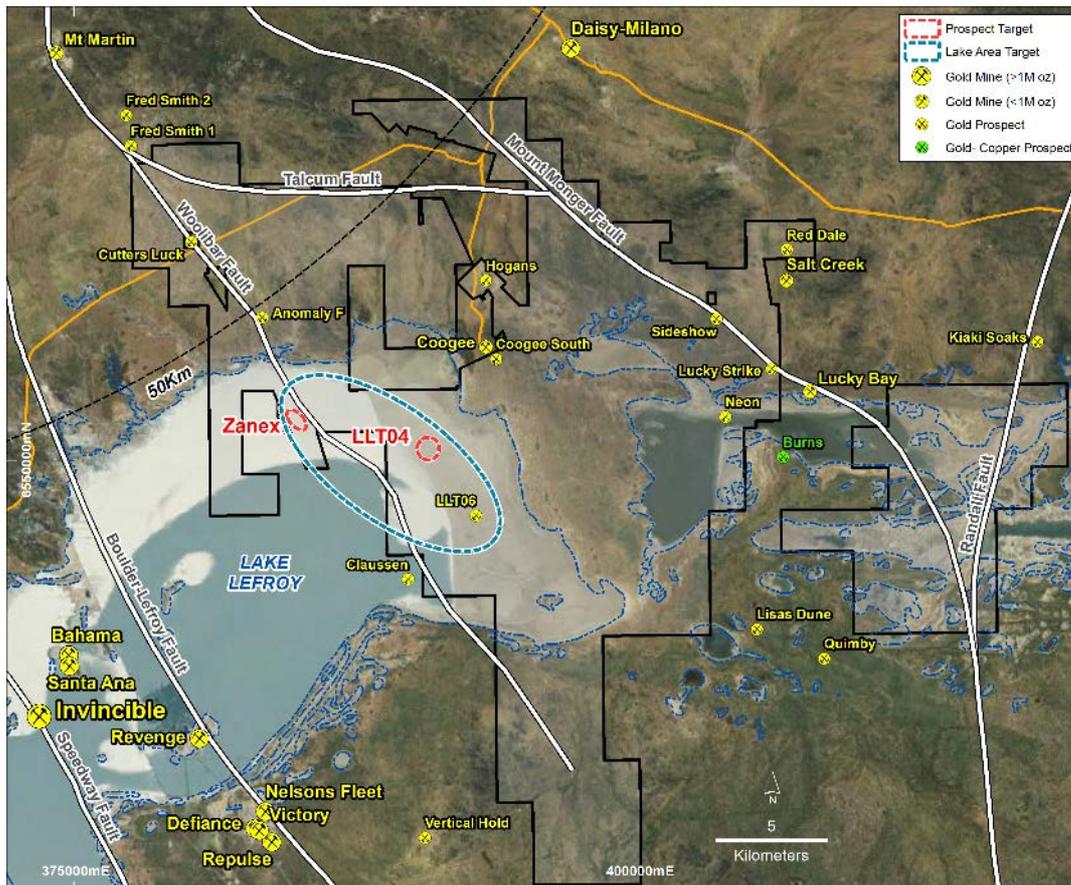


Figure 1 Lefroy Gold Project tenement package and location of the Zanex and LLT04 prospects adjacent to the Woolibar Fault and key area of focus (blue outline) along that trend and in Lake Lefroy

The six conceptual targets were generated following interpretation of airborne magnetic and detailed ground gravity geophysical datasets that has provided an improved geological and structural framework for the area (refer LEX: ASX announcement 23 December 2016). These targets were selected on the basis of areas of geological and/or structural complexity that have been derived from interpreting the geophysical data and, in particular, the detailed ground gravity data acquired by the Company in November 2016.

All targets evaluated in the February program lie along or adjacent to a corridor termed the Woolibar Trend (Figure 1). Within Lake Lefroy, the targets extend over a 10km northwest strike length. To the north of Zanex, this trend encompasses the historical Cutters Luck gold workings and a series of small but nevertheless important alluvial gold workings. These occurrences support the hypothesis that the trend could be gold mineralised structure that is subparallel to the Boulder Lefroy and Speedway Faults that control the regional geological architecture that hosts the major gold mines to the west such as Revenge, Victory and Invincible (Figure 1).

The results from the February drill program have reaffirmed the tenor of gold at the Zanex prospect and highlighted two new and emerging targets at LLT04 and LLT06 that are based upon a subtle geochemical gold signature, a favourable geological environment and trends defined from aeromagnetic data (Figure 2).

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The Zanex prospect consists of a north west trending sequence of strongly altered high Mg basalt over a 500m strike length intruded by altered porphyry. An encouraging intersection of 17m at 2.14g/t Au from 40m to the end of hole returned from hole LEFA 47 was returned from the recent drilling program. The hole intersected some 20m of transported cover above saprolite and terminated in an interpreted altered mafic lithology. The early stage drilling at Zanex remains predominantly wide spaced drilling within a stripped regolith profile and further extensional or step out drilling is planned to test the trend along strike.

At the LLT04 and LLT06 targets contouring maximum gold value in each hole has resulted in the definition of cohesive anomalies (+40ppb Au) that are located 3.5km apart along strike on the same magnetic unit, which from bottom of hole drill chips is recognised to be a magnetite altered mafic unit. (Figure 2). Importantly, the best intersections returned from each anomaly were 4m at 1.71g/t Au from 44m in LEFA 086 at LLT04, and 4m at 2.39g/t from 88m in LEFA 113 at anomaly LLT06. The current air core drilling program will focus on the LLT04 target, where the depth of transported cover at 50m is less than at LLT06.

The proposed air core drilling at LLT04 will consist of approximately 24 holes on grid lines spaced 320m apart, with hole centres at 80m or 160m. The aim of the program is to follow up and extend the gold anomaly recently identified but also to test the sharp contact zone as defined from both the aeromagnetic and gravity data. This geological contact is considered by the Company to be a prospective area for gold mineralisation, with contrasting rock units that could be a favourable structural environment.

The total drill program of approximately 45 holes for 2500 metres is expected to take 10 days to complete with assay results from composite samples to become available in June.

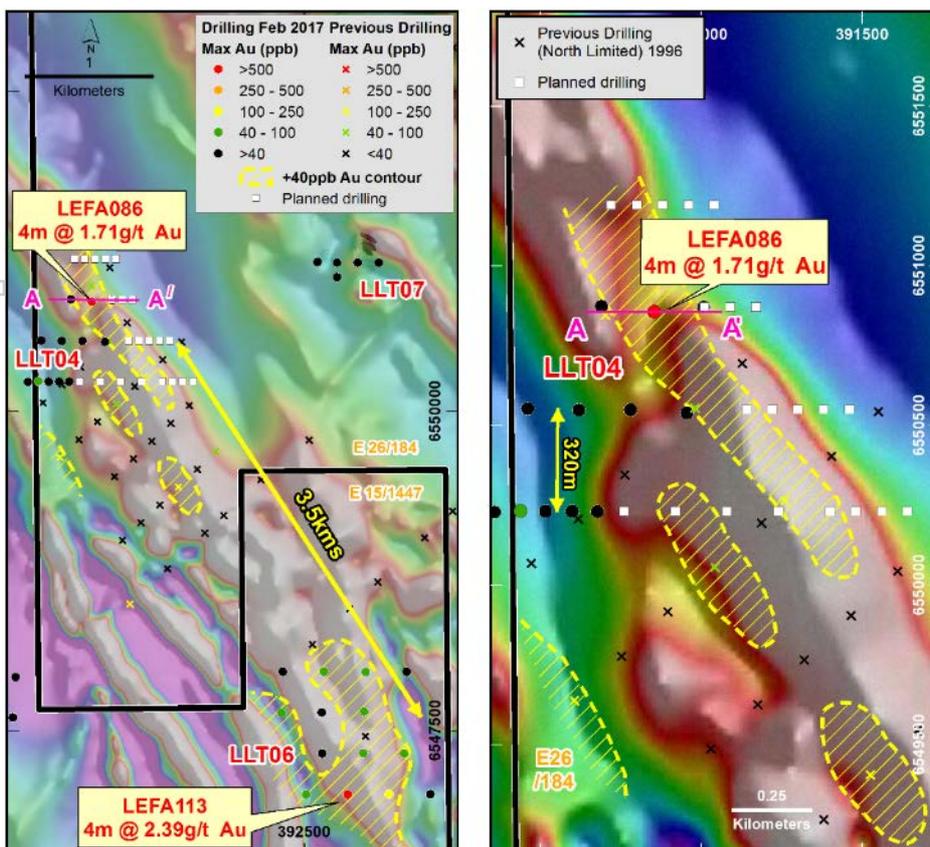


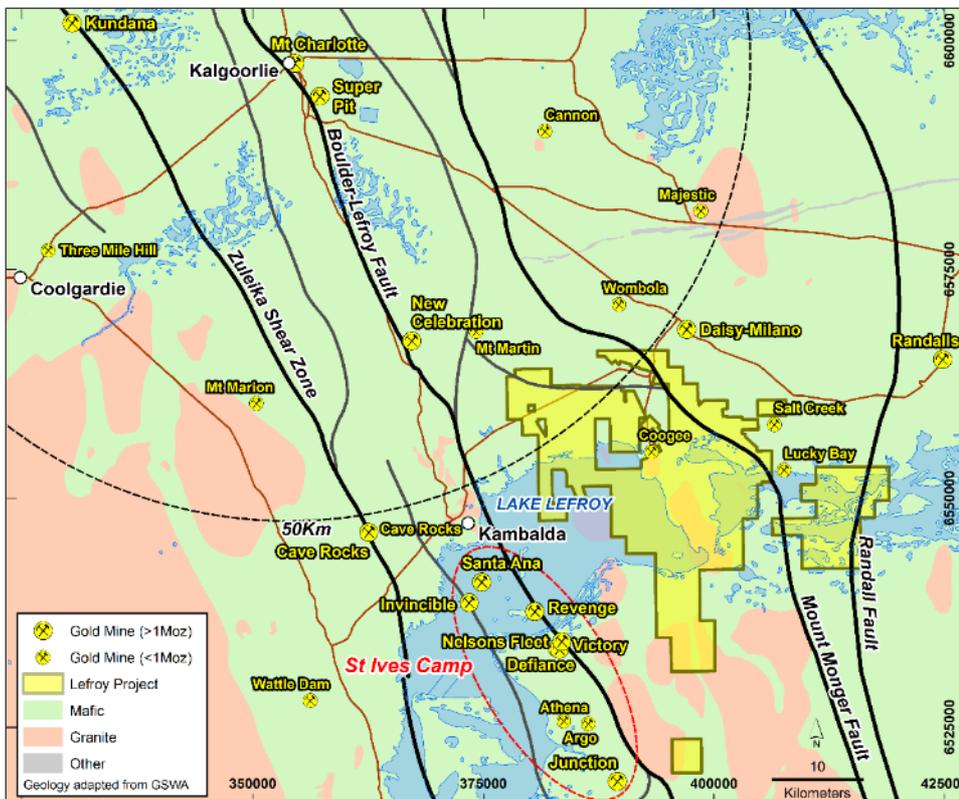
Figure 2 Drill hole plan at the LLT04 and LLT06 prospects over TMI-RTP1VD aeromagnetic image highlighting previous and planned drilling.

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About Lefroy Exploration and the Lefroy Project

Lefroy Exploration Limited is a new WA based and focused explorer taking a disciplined methodical approach in the search for high value gold deposits. Key Projects include the Lefroy Gold Project (LGP) to the south east of Kalgoorlie and the Lake Johnston Project 120km to the west of Norseman.

The 100% owned Lefroy Gold Project contains mainly granted tenure covering 547km², located in the heart of the world class gold production area between Kalgoorlie and Norseman. The Project is in close proximity to Gold Fields' St Ives gold camp, which contains the newly discovered Invincible gold mine located in Lake Lefroy, and is also immediately south of Silver Lake Resources (ASX: SLR) Daisy Milano gold mining operation. The LGP supports the commitment by the Company to focus on exploration for new greenfields gold discoveries in areas of limited or no previous exploration but in areas that have favourable geological and geophysical characteristics.



Location of the Lefroy Gold Project relative to Kalgoorlie, Gold Fields St Ives Gold Camp near Lake Lefroy, and major gold deposits.

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Notes Specific-ASX Announcements

The following announcements were lodged with the ASX and further details (including supporting JORC Reporting Tables) for each of the sections noted in this Announcement can be found in the following releases. Note that these announcements are not the only announcements released to the ASX but specific to exploration reporting on the Lefroy Gold Project. The Company confirms that it is not aware of any new information or data that materially affects the information on prospects in Lake Lefroy included in the following announcements.

- Lefroy Exploration Limited-Prospectus 8 September 2016
- Lefroy Commences Exploration 24 October 2016
- Gravity Survey Completed at Lefroy Project 22 November 2016
- Managing Directors AGM Presentation 5 December 2016
- Exploration Update 23 December 2016
- Drilling Campaign Commences on Lake Lefroy 8 February 2017
- Initial Drilling at Lake Lefroy Completed 9 March 2017
- Exploration Update: New Gold Anomalies Defined in Lake Lefroy 3 April 2017
- Quarterly Activity Report ending 31 March 2017, 28 April 2017.

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson a competent person who is a member of the Australian Institute of Geoscientists (AIG). Wade Johnson is employed by Lefroy Exploration Limited. Wade has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Wade Johnson consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.