ASX Announcement

15 January, 2018



Exploration Update: Diamond drilling underway at Zanex

Key Points

- Diamond drilling is underway at the high priority Zanex prospect on Lake Lefroy, south east of Kalgoorlie
- Drilling is to be co-funded by WA State Government Exploration Incentive Scheme (EIS) grant
- Zanex is a priority gold prospect identified by air core drilling along the Woolibar Fault
- The Woolibar Fault is east of and parallel to the Boulder Lefroy and Speedway Faults that control gold mineralisation at St lves
- Vertical aircore drilling at Zanex has defined a gold anomaly over a 1000m strike length and is open along strike
- Best result from air core drilling at Zanex is 17m at 2.14 g/t Au from 40m to the end of hole in LEFA047
- Three angled diamond drill holes will evaluate the primary system below the regolith-hosted gold mineralisation, with each hole up to 170m deep



Diamond drilling at Zanex January 2018 (Looking north west)

Geoffrey Pigott Managing Director

James Beecher

Wade Johnson

Flagship Exploration Project Lefroy Gold Project

Growth Exploration Projects Lake Johnston Project Murchison Project

Australian Registered Office Level 2, 11 Ventnor Avenue West Perth, 6005

E: info@lefroyex.com T: +61 8 9321 0984 ARBN: 052 123 930

www.lefroyex.com

15 January, 2018



Further to the ASX announcement of 19 December 2017, the Board of Lefroy Exploration Limited (ASX: LEX) ("Lefroy" or "the Company") is pleased to announce that a specialised lake diamond drilling rig has commenced diamond drilling at the Zanex Prospect located approximately 50km to the south east of Kalgoorlie in the Eastern Goldfields Province of Western Australia (Figure 1).

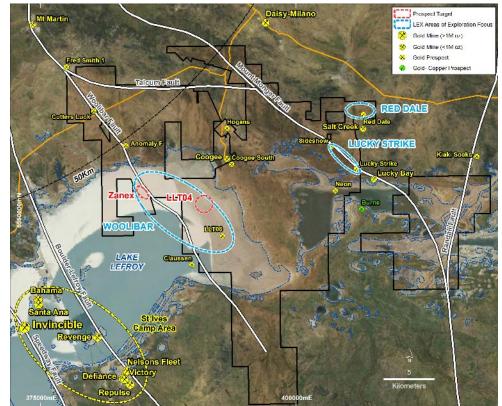


Figure 1 Lefroy Gold Project and the location of Zanex in Lake Lefroy, proximity to the interpreted Woolibar Fault and two other key areas of active exploration focus by the company.

Diamond drilling has recently commenced with very good progress made on the first of a three hole diamond drill program.

Managing Director, Wade Johnson commented; "The commencement of diamond drilling at the Zanex prospect represents an exciting milestone in our search for a large new gold discovery on Lake Lefroy. Zanex is the most advanced gold prospect along the Woolibar trend which is emerging as an under explored 13km long structural corridor in a world class gold district. The diamond drilling is an important step to understand the primary controls on gold mineralisation and we are pleased that this program is supported with co-funding by the WA State Government EIS scheme."

The Zanex Prospect is the most advanced of a number of gold prospects identified by aircore drilling during 2017 on Lake Lefroy. The prospects were initially identified by a geophysical based targeting exercise completed in December 2016. This also identified, and is reinforced by gravity data, a north westerly trending structure termed the Woolibar Fault.

15 January, 2018



This fault is to the east of and parallel to the Boulder Lefroy and Speedway Faults which have a primary influence on gold deposits at the St Ives gold camp. The Woolibar Fault extends for approximately 15km within Lake Lefroy

Wide spaced air core drilling by the Company along the Woolibar Fault on Lake Lefroy intersected anomalous gold mineralisation that supports the Company's view that the Woolibar Fault may be of similar stature and prospectivity to the nearby Boulder Lefroy and Speedway Faults.

The Zanex gold anomaly, defined by air core drilling during 2017, has established a north westerly trending sequence of strongly altered and deformed, high Mg basalt, that is intruded by porphyry and is open along strike (Figure 2). This drilling which was on a nominal 160m line and 80m hole centre spacing, has defined a gold mineralised trend over a 1000m strike length coincident with the altered basalt host rocks.

The best intersection for this air core drilling was 17m at 2.14 g/t Au from 40m to the end of hole in LEFA047. This hole intersected approximately 20m of transported cover and terminated in an altered mafic host rock. Air core drilling along strike returned additional gold intercepts that generates a 1000m long gold plus 250ppb gold anomaly, that is open along strike (Figure 2)

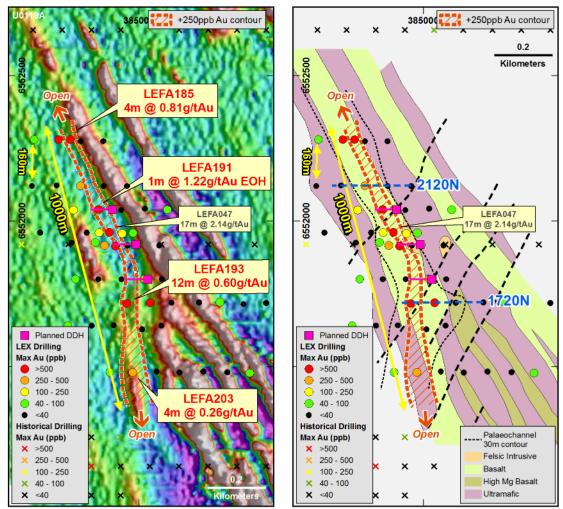


Figure 2 Zanex Prospect drill hole location plan over detailed ground magnetics (left) and interpreted geology (right), key gold intersections and planned diamond drill holes



To further evaluate this new gold trend a program of deep angled diamond drilling is underway to test for a primary mineralised zone beneath the oxidised rock (saprolite), transported cover and more recent lake sediments. The secondary objective of the program is the gain a better appreciation of the host stratigraphy, alteration and structure that can provide important geological characteristics to better understanding the regional significance of the Woolibar Fault.

Three holes, each on individual sections, are proposed to evaluate the core part of the Zanex gold anomaly. Drill sections will be wide spaced at approximately 140m apart. Each hole will be precollared to top of fresh rock by rock roller method.

The Zanex drilling program will be supported by funding through the State Government of Western Australia's Exploration Incentive Scheme. This program directly supports explorers in Western Australia through a competitive program which offers co-funding to innovative exploration drilling projects. The Company was successful in the recent co-funded Round 16 drilling grant for the drill program at Zanex. The co-funding will support 50% of the direct drilling costs.



Figure 3 Specialised lake diamond drill rig set up on first hole (looking north)



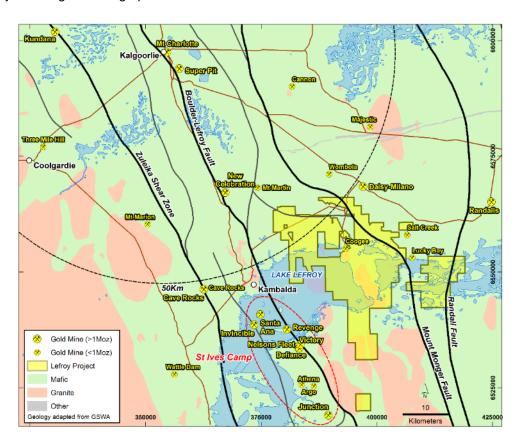
Figure 4 LEX Managing Director Wade Johnson, with first core trays from Zanex Prospect



About Lefroy Exploration Limited and the Lefroy Gold Project

Lefroy Exploration Limited is a WA based and focused explorer taking a disciplined methodical and conceptual approach in the search for high value gold deposits in the Yilgarn Block of Western Australia. Key projects include the Lefroy Gold Project 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 Invincible gold mine located in Lake Lefroy, and is also immediately south of Silver Lake Resources' (ASX: SLR) Daisy Milano gold mining operation.



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

For Further Information please contact:

Wade Johnson Managing Director Telephone: +61 8 93210984

Email: wjohnson@lefroyex.com



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 Zanex Prospect at the Lefroy Gold Project.

- Lefroy Exploration Limited-Prospectus: 8 September 2016
- Managing Directors AGM Presentation: 5 December 2016
- Initial Drilling at Lake Lefroy completed: 9 March 2017
- New Anomalies on Lake Lefroy: 3 April 2017
- March 2017 Quarterly Activities Report: 28 April 2017
- June 2017 Quarterly Activities Report:27 July 2017
- Drilling Extends gold anomalies along the Woolibar trend: 20 June 2017
- September 2017 Quarterly Activities Report: 25 October 2017
- EIS sponsored diamond drilling to commence at Zanex: 19 December 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.