

ASX Release: 27 January 2017

QUARTERLY ACTIVITY REPORT

For the Period Ending 31st December 2016

Highlights:

- **Successful Capital Raising of \$4.0 million before costs of the issue under a Public Offer and re-quotation on ASX on 19 October 2016 as Lefroy Exploration Limited (“Lefroy, LEX or the Company”).**
- **Appointment of Mr Wade Johnson as Managing Director**
- **Acquisition of 100% of Hogans Resources Pty Ltd and tenement E15/1447 from Montezuma Mining Company (MZM) creates a single contiguous land package in excess of 540km² named the Lefroy Project.**
- **Acquisition by Lefroy of the gold and nickel rights to granted exploration licence E63/1777 at Lake Johnston from Lithium Australia Ltd**
- **Completed detailed ground gravity survey at the Lefroy Project contributing to improved understanding of geological trends beneath Lake Lefroy**
- **Interpretation of geophysical datasets over part of the Lefroy Project yields a number of priority structural targets for early drill evaluation**
- **Initial aircore drill program at Lucky Strike Prospect (Lefroy Project) supports previous drilling and defines gold mineralisation over a 220m strike length**
- **Airborne magnetic survey completed at Lake Johnston initiates Ni exploration to the north and along strike of the Emily Anne Nickel deposit.**
- **Secured statutory land access requirements to targets for drilling in Lake Lefroy planned to commence in February 2017.**

The Board of Lefroy Exploration Limited (ASX: LEX) is pleased to provide its report on activities and progress made during the December 2016 Quarter. The Quarter was a transformational period for the Company, with the successful capital raising of \$4.0 million and re-quotation on the ASX on 19 October 2016 launching the Company as a new Western Australian based gold and nickel explorer with assets in the Eastern and Murchison Goldfields.

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EXPLORATION OVERVIEW

The Company has secured three key projects in the Yilgarn Block of Western Australia where it is focusing exploration aimed at discovering high value gold and nickel deposits capable of being rapidly developed. During the quarter, immediately post re-quotation, the Company launched exploration activities over two of its key project areas. These activities have generated results and targets earmarked for follow up evaluation in the first quarter of 2017.

Lefroy Gold Project, 100% ownership by Lefroy

The Lefroy Gold Project (“LGP”), located some 50km to the south east of Kalgoorlie, is the Company’s flagship project, with five advanced gold target areas recognised from appraisal of previous exploration completed by others over the past 25 years.

The LGP is a commanding contiguous land package covering in excess of 540km² in the heart of the world class gold production area between Kalgoorlie and Norseman. The LGP adjoins the Gold Fields owned St Ives gold camp and mining centre, which contains the newly discovered Invincible gold deposit, currently in production, and located in the western part of Lake Lefroy. The LGP is also immediately south of the Mount Monger Gold Operation and adjoins the site of the Randalls Processing Facility - both operated by Silver Lake Resources (ASX: SLR) (refer Figure 1).

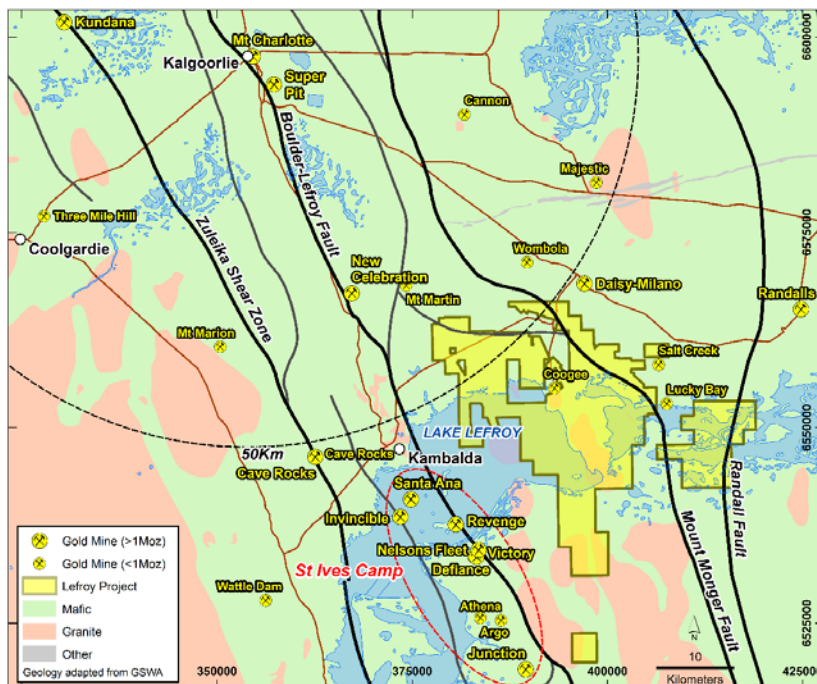


Figure 1 Location of the Lefroy Gold Project relative to Kalgoorlie, Gold Fields St Ives Gold Camp and major gold deposits.

Initial compilation of previous geochemical, geophysical and drilling data over the LGP, and ongoing interpretation, has identified five priority target areas for early stage drilling testing. Exploration during the quarter was initiated on two of these target areas yielding results that have helped to advance the geological model and generate targets for follow up exploration.

Woolibar Trend

The major focus during the quarter was the completion of an extensive detailed ground gravity survey over the western half of the project, principally in Lake Lefroy, and covering one of the priority gold targets known as Zanex, which lies along or adjacent to the interpreted Woolibar structural trend.

The gravity survey captured new data points on a regular 400m by 100m grid pattern on the tenements that cover the eastern half of Lake Lefroy. An Infill survey on a 200m by 100m grid pattern was completed over a priority area after recognition of emerging geological trends from interpretation of the wider spaced survey data. This new data complements and merges with the Company's existing detailed gravity dataset over the remainder of the Lefroy Gold Project, a first for the Project. The combined data give the Company a unique advantage to advance the geological model and improve the understanding of the geological and structural setting beneath the lake cover.

Preliminary interpretation of the geophysical data has yielded 7 priority target areas in Lake Lefroy that are considered to have favourable lithological and structural settings that could host gold mineralisation (Figures 2 and 3). The additional seven targets complement the existing Zanex Prospect, also in Lake Lefroy, where historical (1997) drilling intersected encouraging gold mineralisation from wide spaced drilling.

To advance evaluation of the targets in Lake Lefroy the Company completed a Heritage Survey and had Programs of Work (POW) completed and approved during the quarter. The Company has also contracted a purpose-built lake drilling rig with drilling due to commence in February 2017.

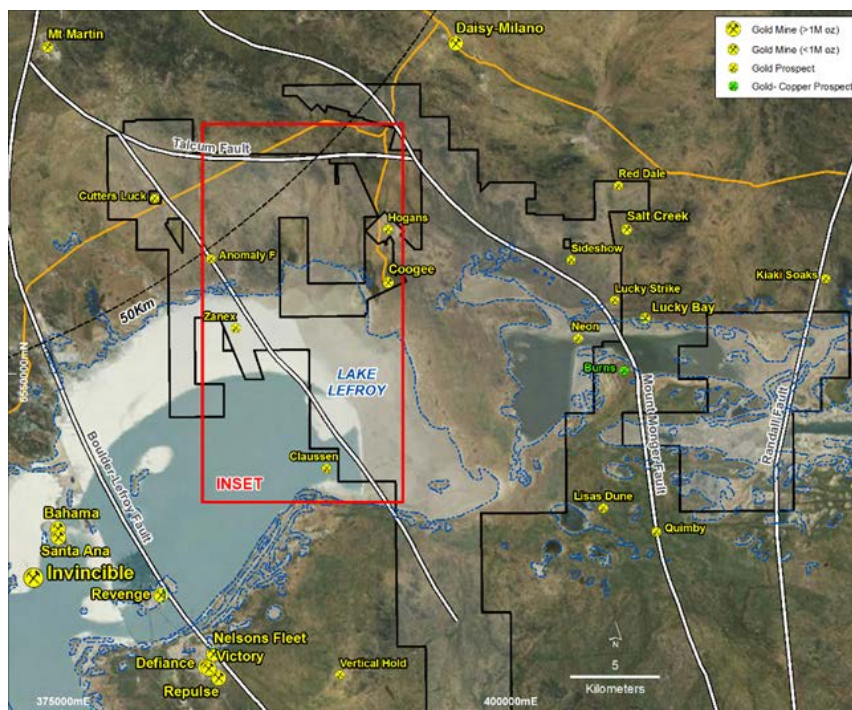


Figure 2 Lefroy Project tenement package and location and extent of geophysical interpretation

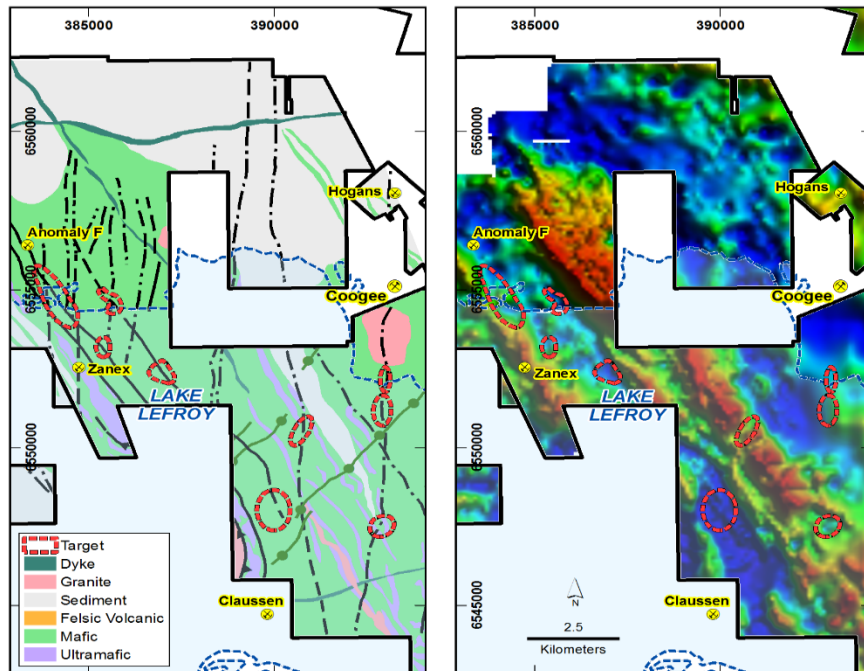


Figure 3 Inset Map-Highlighting geological interpretation on left and residual gravity image on right, both with targets and extent of Lake Lefroy.

Lucky Strike

The Lucky Strike Prospect, is 2km NW of Lucky Bay open pit gold mine (Silver Lake Resources) (Figure 4). The setting is an aeromagnetic high associated with a NW-SE trending sequence of carbonaceous shale, quartz porphyries and dolerite overlain by some 13m of transported cover.

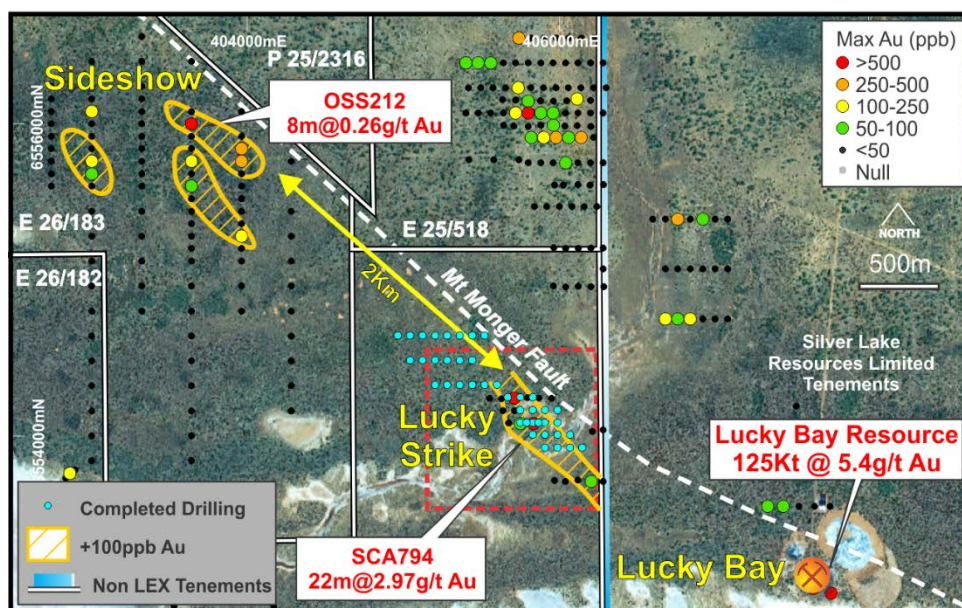


Figure 4 Location of Lucky Strike Prospect and completed air core drill holes (refer to inset map below for detail)

Previous (2010) wide spaced reconnaissance geochemical drilling by Integra Mining Limited at Lucky Strike intersected a highly anomalous intersection of 22m at 2.97g/t Au in air core hole SCA 794, within a subtle 100ppb Au gold trend defined from four drill traverses (refer ASX announcement 17 November 2016 - Commencement of Drilling at Lucky Strike).

During the Quarter the Company completed an early stage air core drill program to investigate and validate the intersection in SCA 794 (Figures 4 and 5)). A program of 41 angled air core holes for 2777m were completed on eight traverses, evaluating approximately 1100m of strike that lies proximal to the interpreted position of the regional scale Mt Monger Fault.

The drilling intersected a sequence of deeply weathered (up to 110m) siltstones, shales and carbonaceous sediments beneath approximately 14m of recent cover that masks the geology in the area and makes surficial exploration ineffective. A strongly oxidised ferruginous clay unit was intersected in multiple traverses and is interpreted to represent a banded iron rich sediment.

The drilling defined a core NW trending zone of bedrock gold mineralisation over a 220m strike length (Figure 3), that is associated with the ferruginous unit noted above and includes the intersection in SCA794. Approximately 300m along strike to the NW, a new zone of gold mineralisation is emerging based on wide spaced drilling and centered on hole LEFA 027 which intersected **5m at 0.76g/t Au** to end of hole (Figure 5).

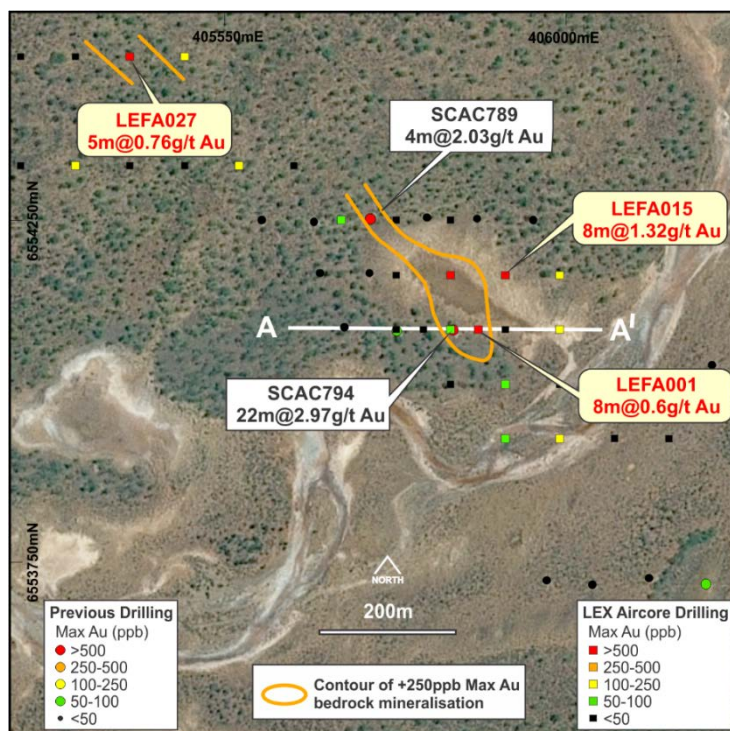


Figure 5 Inset plan of drill holes, bedrock gold anomaly and location of key drill section A-A'

Drill holes LEFA 001 and 002, which were designed to validate SCA 794, were partly successful, with LEFA 001 (40m to the east) intersecting **8m at 0.60g/t Au** to end of hole. Drill hole LEFA 002, which aimed to twin the original hole, was terminated early due to hard ground (Figure 6). The Company is very encouraged by the results of the first pass air core campaign and planning for additional air core to extend the strike of the system, and deeper reverse circulation (RC) drilling targeting existing anomalies, is underway.

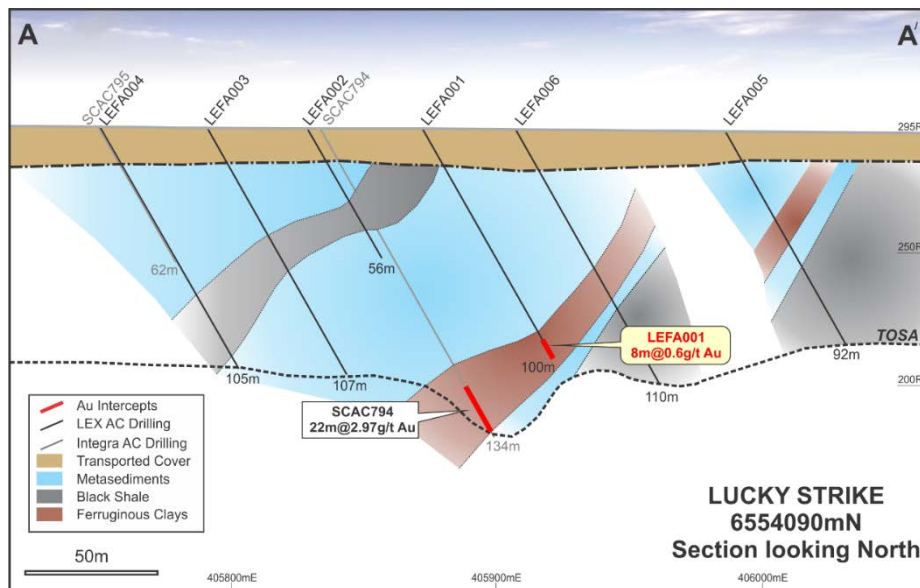


Figure 6 Lucky Strike Drill section 6554090N

Land Acquisition

During the quarter the Company entered into an agreement with a private prospector to acquire 100% interest in three contiguous granted tenements covering 6.4 square kilometres that adjoin the Lefroy Project. The commercial terms of the agreement are a modest cash payment with no retained royalties. The tenement package adjoins the Company's land holding where aircore drilling was completed at the Lucky Strike prospect (adjacent E26/182). Importantly, acquisition of the package will now consolidate the Company's tenement covering the Red Dale prospect to the north with the core Lefroy Project, further strengthening the Company's foothold in this district.

Lake Johnston Project (Gold and Nickel), Lefroy 100% of Gold and Nickel Rights

The Lake Johnston Project is located 120km west of Norseman and comprises two exploration licences (E63/1722 & 1723) held under title by Lefroy and one exploration licence (E63/1777) held by Lithium Australia NL (ASX:LIT). These holdings form a cohesive package in excess of 300km² over the Lake Johnston Greenstone Belt. Lefroy has acquired the gold and nickel rights to E63/1777 under a Tenement Rights Agreement.

The area is considered prospective for gold and nickel, with the tenement package covering the northern strike extension to the Maggie Hayes and Emily Anne nickel mines. The T1 nickel prospect, where previous drilling of geophysical (Ground EM) anomalies intersected sulphides in ultramafic rocks, lies along strike to the north of Emily Anne.

During the quarter the Company initiated exploration to improve and advance targeting for nickel sulphide mineralisation. A 50m line spaced aeromagnetic survey was completed in December 2016 to cover areas interpreted to host ultramafic rocks that may be prospective for nickel sulphides, and to complement the existing detailed aeromagnetic data. Processing of the survey data with the existing dataset has been completed and will provide the basis for follow up interpretation to advance the nickel exploration program. The survey was completed in collaboration with Lithium Australia NL (ASX:LIT).

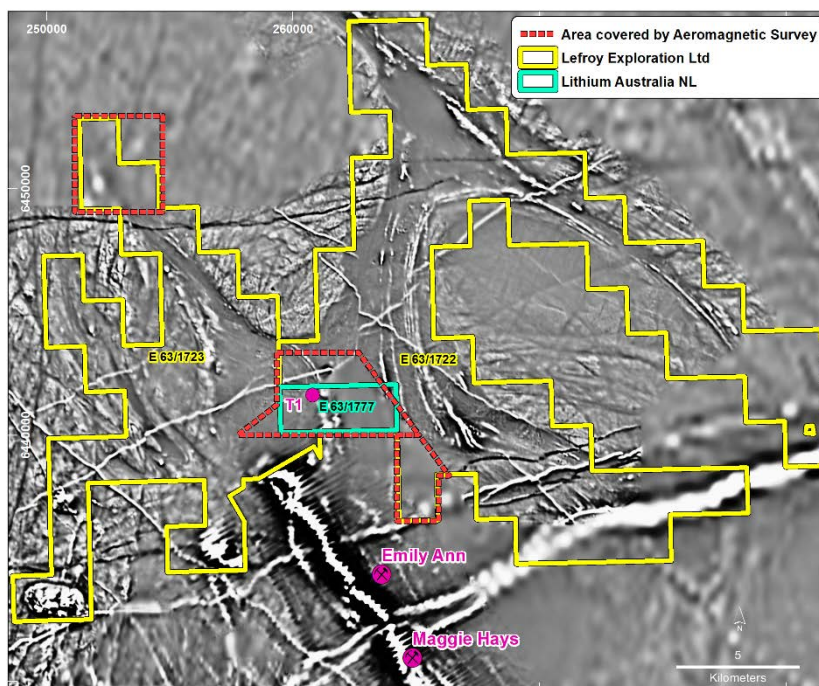


Figure 7 Lake Johnston tenement package highlighting extent of completed aeromagnetic survey

Murchison Gold Project, Lefroy 100%

The Murchison Gold Project comprises two pending exploration licences and eighteen pending prospecting licences covering 134km² to the west of Cue. One exploration licence lies to the south and along strike from Big Bell, and the other tenements form a contiguous package near to and adjoining the Cuddingwarra Mining Centre. During the quarter the Company progressed negotiations with the Native Title Corporation for a Heritage Access agreement. It is anticipated an agreement will be reached in the March Quarter 2017 which will subsequently allow the required process to commence towards grant of the tenements.

Exploration Outlook

The Company is planning to accelerate its exploration activities in the March Quarter and in subsequent quarters of 2017. This work will focus on drilling campaigns at the Lefroy Gold Project, with air core drilling planned to commence in Lake Lefroy at Zanex and other priority targets generated from interpretation of geophysical data. Planning and preparations for this program are underway.

At Lucky Strike, air core drilling to follow up and extend the existing anomaly, and reverse circulation (RC) drilling to test the existing anomalies at depth are scheduled for March 2017. A Program of Work is already approved to conduct the air core drilling.

The Company will also continue to compile historical drilling information at the Lefroy Gold Project and add data to its growing master database. This data search includes sourcing information from non-digital archived reports, preparing to digital format and entering to the master. In particular the focus will be on compilation of historical drill data along the Woolibar Trend.

CORPORATE

The December Quarter 2016 was a period of transformation for the Company.

On 19 October 2016, the Company's securities were reinstated to official quotation on the ASX, after completion of all the Transactions as presented in the Prospectus released to the ASX on 8 September 2016 and approval being granted by the ASX to allot the Shares under the public offer. The allotment of 20,000,000 shares at \$0.20 per share, to raise \$4 million under the public offer was completed on 14 October 2016. Following the reinstatement, Lefroy has 64,463,920 fully paid ordinary shares on issue.

The key transactions undertaken during the quarter are noted in detail in the announcement dated 17 October 2016 and summarised as follows:-

- Acquisition by Lefroy of all the issued capital in Hogans Resources Pty Ltd (HRPL) for consideration of 7,600,000 Lefroy shares.
- Acquisition by Lefroy of granted tenement E15/1447 from Montezuma Mining Company Ltd (ASX: MZM) and the issue of 4,200,000 Lefroy Shares to MZM.
- The transfer of the Lithium Rights in Lefroy's tenements E63/1722 and E62/1723 to Lithium Australia NL (ASX: LIT), and the acquisition by Lefroy of the gold and nickel rights to LIT's E63/1777. Under this transaction Lefroy received 9,000,000 LIT shares and LIT received 3,000,000 Lefroy shares.

Mr. Wade Johnson was appointed Managing Director of the Company on 19 October 2016. Mr Johnson is a geologist with over 25 years of experience in the mineral exploration industry with a strong focus on gold in Western Australia.

On 6 December 2016, Mr James Beecher resigned as the Company Secretary and Ms Susan Hunter was appointed to that role.

During the quarter the Company spent \$0.22 million on its exploration activities as noted in this report. At 31 December 2016 the Company had cash reserves of approximately \$3.25 million and held 6,750,000 shares in Lithium Australia NL.

Subsequent to the end of the end of the Quarter, the Company announced the change of its Australian Registered Office and postal address to Level 1, 11 Ventnor Avenue, West Perth, WA, 6005, Australia and PO Box 821 West Perth WA 6872.

About Lefroy Exploration and the Lefroy Gold Project

Lefroy Exploration is a new WA based and focused explorer. 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 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.

For Further Information please contact:

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Notes Specific-ASX Announcements December Quarter 2016

The following announcements were lodged with the ASX during the December 2016 Quarter and further details (including supporting JORC Reporting Tables) for each of the sections noted in this Quarterly Activities Report can be found in the announcements. Note that these announcements are not the only announcements released to the ASX during the Quarter but specific to exploration reporting.

- Lefroy Commences Exploration 24 October 2016
- Commencement of Drilling at Lucky Strike 17 November 2016
- Gravity Survey Completed at Lefroy Project 22 November 2016
- Strategic Land Package Acquired at Lefroy Project 25 November 2016
- Managing Directors AGM Presentation 5 December 2016
- Initial Drilling at Lucky Strike Supports Gold Trend 23 December 2016
- Exploration Update 23 December 2016

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson and Geoff Pigott, both competent persons who are members of the Australasian 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. Geoff Pigott is a Non-Executive Director of Lefroy Exploration and 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. Geoff Pigott consents to the inclusion in this report of the matters based on his work in the form and context in which it appears.

LEFROY EXPLORATION LTD TENEMENT SCHEDULE December 31 2016

Project	Tenement ID	Ten status	Holder	Interest %
Lefroy	E26/0183	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	E26/0184	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	E 26/0131	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	E 26/0134	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	E 26/0150	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P 26/3689	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P 26/3690	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P 26/3691	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P 26/3764	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P 26/3765	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P26/3889	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P26/3890	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P26/3891	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	P 25/2059	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	E 25/0517	Live	HOGANS RESOURCES PTY LTD	100 ¹
Lefroy	E26/0182	Live	LEFROY EXPLORATION LTD	100
Lefroy	E15/1447*	Live	MONTEZUMA MINING COMPANY LTD	100*
Lefroy	P25/2316	Live	LEFROY EXPLORATION LTD	100 ²
Lefroy	P25/2317	Live	LEFROY EXPLORATION LTD	100 ²
Lefroy	E25/0518	Live	LEFROY EXPLORATION LTD	100 ²
Lefroy	E15/1497	Pending	LEFROY EXPLORATION LTD	100
Lefroy	E15/1498	Pending	LEFROY EXPLORATION LTD	100
Lefroy	E26/0193	Pending	LEFROY EXPLORATION LTD	100
Lefroy	P25/2421	Pending	LEFROY EXPLORATION LTD	100
Lake Johnston	E63/1722	Live	LEFROY EXPLORATION LTD	100 ³
Lake Johnston	E63/1723	Live	LEFROY EXPLORATION LTD	100 ³
Lake Johnston	E63/1777	Live	LITHIUM AUSTRALIA NL	Note
Murchison	E21/0192	Pending	LEFROY EXPLORATION LTD	100
Murchison	E21/0193	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2256	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2257	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2258	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2259	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2260	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2261	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2262	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2263	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2264	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2265	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2266	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2267	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2268	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2269	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2272	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2273	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2274	Pending	LEFROY EXPLORATION LTD	100
Murchison	P20/2275	Pending	LEFROY EXPLORATION LTD	100

1-Hogans Resources Pty Ltd was acquired by LEX during the Quarter

2-Tenements acquired through a Sale and Purchase Agreement, ASX Announcement 25 November 2016.

*E15/1447- title is in the name of Montezuma Mining Company Ltd (ASX: MZM), but beneficially owned by LEX. Transfer of title to LEX is in process.

Note-E63/1777-LEX has the gold and nickel rights.

3-E63/1722 and E63/1723- Held under title by LEX, LIT have rights to Lithium