## ASX Announcement

27 April, 2018



## March 2018 Quarterly Activities Report

## LEFROY EXPLORATION LIMITED

Western Australian Focused Gold Explorer

ASX Code: LEX

Shares on Issue: 64.8m

Current Share Price: 14.5c

Market Capitalisation: \$9.4m

**Board of Directors** Chairman Gordon Galt

Non-Executive Directors Michael Davies James Beecher Geoffrey Pigott

Managing Director Wade Johnson

Flagship Exploration Project Lefroy Gold Project

**Growth Exploration Projects** Lake Johnston Project Murchison Project

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## Highlights

- Programmes of diamond and RC drilling totalling 2408m were completed within the Lefroy Gold Project at two prospects;
- At the Lucky Strike prospect RC drilling has extended the strike and depth of the BIF hosted gold system and defined a high grade zone that remains open-ended
- Significant multiple shallow oxide gold intersections were returned including:-
  - 12m at 1.51g/t Au from 52m in LEFR050
  - o 7m at 1.18g/t Au from 35m in LEFR051
  - 15m at 2.18g/t Au from 42m in LEFR056
  - o 6m at 5.37g/t Au from 79m in LEFR056
    - Including 3m at 10.3g/t from 80m
  - o 2m at 7.59g/t Au from 115m in LEFR057
  - o 5m at 3.34g/t Au from 80m in LEFR058
- Three exploratory diamond drill holes were completed at the Zanex prospect on Lake Lefroy, which confirmed the presence of a gold mineralised structure within a favourable geological sequence
- At Red Dale, a maiden Mineral Resource Estimate for the palaeochannel hosted gold mineralisation, outlined an indicated resource of 484,000 tonnes at 1.26g/t for 19,600 ounces of gold
- An auger sampling program near Lucky Strike has confirmed a large surface gold anomaly known as Capstan, with a 950m strike length. The anomaly is untested by previous drilling



## INTRODUCTION

The Board of Lefroy Exploration Limited (ASX: LEX) ("Lefroy" or "the Company") is pleased to provide its report on activities and progress made during the March 2018 Quarter. Lefroy is a gold focused exploration company taking a systematic conceptual exploration approach at its flagship Lefroy Gold Project (Lefroy Project or LGP) located approximately 50km to the south east of Kalgoorlie in the Eastern Goldfields Province of Western Australia (Figure 1). The Company is maintaining its exploration strategy and approach for the discovery of a new large gold system.

The Lefroy Gold Project is wholly owned by the Company. The commanding semi-contiguous granted land package covers 547km<sup>2</sup> immediately east of the world class St Ives Gold camp, operated by Gold Fields and south of the high grade Mt Monger gold centre operated by Silver Lake Resources Limited (ASX:SLR). Four gold processing operations are strategically located within 50km's of the project and provide commercial options for processing any gold discovered.

Exploration during the quarter focused on two priority prospects, and one emerging target located within 5km of Silver Lake Resources (ASX: SLR) Randalls processing plant. Early stage diamond drilling was also completed at the Zanex prospect on Lake Lefroy, along the regional scale Woolibar Fault (Figure 1). The results from the March Quarter drilling continue to enhance and extend the developing BIF hosted gold system at Lucky Strike located along the Mt Monger Fault. The gold prospectivity of this area was further enhanced with the confirmation of the broad Capstan gold in soil anomaly, located 500m north of Lucky Strike.

The continued commitment by the Company to early stage gold exploration at the Lefroy Gold Project is now delivering strong results and new geological concepts that will be further capitilised on during the next 6-12 months.



Figure 1 Location of the Lefroy Gold Project and key areas of focus



## **EXPLORATION ACTIVITIES**

#### Lefroy Gold Project (LEX 100%)

The Lefroy Gold Project covers a large belt of Archaean aged rocks transected by major structural trends interpreted by the Geological Survey of Western Australia (GSWA), previous explorers and researchers. The project is bounded by two major structures, the Boulder Lefroy to the west and the Mt Monger Fault to the east, that are believed to have a major control on the geological architecture and gold mineralisation in the district.

The LGP is bounded by the high grade Daisy Milano underground mine (SLR) to the north and the world class St Ives gold camp (Gold Fields) to the west, which hosts the recently developed Invincible gold mine.

During the Quarter the Company completed and received results for reverse circulation (RC) drilling at Lucky Strike, diamond drilling at Zanex and auger sampling completed in the previous quarter at Capstan. The positive geological and assay results from each early stage program continue to enhance the potential for a larger primary gold system at each area. In addition the exploration approach continues to develop the geological model at each prospect and in the wider area, thereby giving the Company a key advantage in target selection.

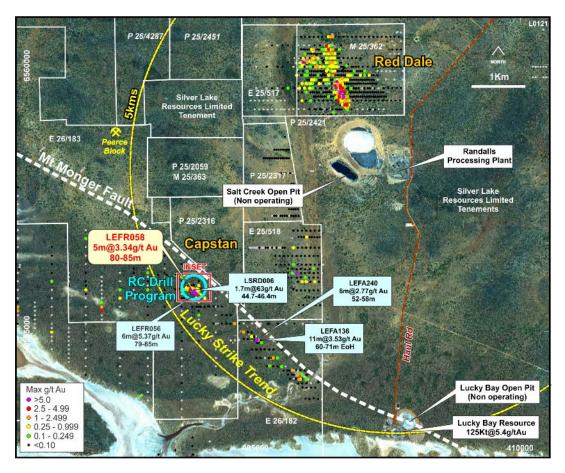
#### Lucky Strike Trend

The Lucky Strike Trend is located approximately 2kms to the northwest of the high grade Lucky Bay open pit mined by Silver Lake Resources (ASX:SLR) during 2015, and 5km to the south west of the Randalls Processing Plant (Figure 2). The Company has interpreted from geophysical and geological data that the Lucky Strike Trend shares a similar geological and structural setting to Lucky Bay, being adjacent to the regional Mt Monger Fault that separates mafic units of the Bulong Antiform to the north and metasedimentary rocks to the south.

Reconnaissance early stage (wide spaced) air core drilling by the Company since November 2016 has defined a new and emerging gold mineralised trend hosted within sedimentary rocks over a 3,000m strike length. The geological sequence at Lucky Strike and the mineralisation intersected are considered similar to those present at the Lucky Bay gold deposit located approximately 2kms along strike to the south east.

There, gold mineralisation is hosted by a highly oxidised sedimentary iron formation within a sequence of black shale. The continuity of the iron formation demonstrates the emergence of a 4.5km gold mineralised trend defined from air core drilling from the Lucky Bay deposit to the northwest, along the Lucky Strike Trend, and coincident with the interpreted position of the Mt Monger Fault (Figure 2).





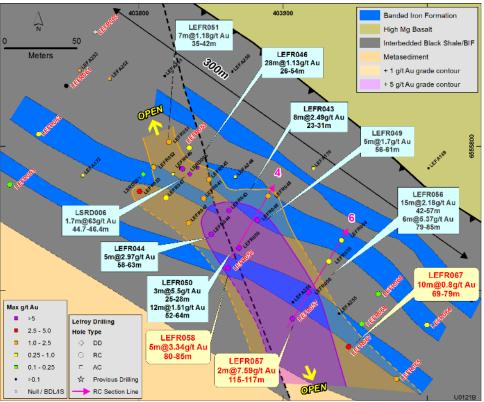
**Figure 2** Location of the Lucky Strike Trend relative to the LEX Red Dale Prospect and proximity to the Randalls Processing Facility and infrastructure operated by SLR. The key Lucky Strike RC and air core gold intersections are also highlighted (refer to Figure 3 for detailed inset map)

In August 2017 a precollared diamond drilling program consisting of 6 holes, for a total of 362.5m of core drilling, was completed to determine the geometry of the host rock and gold mineralisation along the trend. Drill hole LSRD006 returned significant multiple, narrow, high grade oxide gold intersections.

The mineralised intervals correspond to a wide zone (approximately 25m down hole length) of highly oxidised Banded Iron Formation (BIF) and siltstone. Significant intersections from LSRD006 include 1.7m at 63g/t Au from 44.7m (Inc. 0.9m at 107g/t Au) and 0.3m at 10.3g/t Au from 46.6m. Drilling has since focused on expanding the dimensions of the mineralisation along strike from LSRD006.

During the Quarter the Company completed two RC drilling programs, totaling twenty one holes at Lucky Strike to evaluate extensions to, and the geometry of, the recent discovery of high grade shallow gold mineralisation defined by the initial RC drilling campaign in November 2017. The programs comprised 1835m of angled drilling on six 20m to 40m spaced drill sections to evaluate the strike length of the system to 380m, and also to test the depth extensions within fresh rock (Figure 3).





**Figure 3** Lucky Strike Prospect drill hole and geological plan showing recent drilling and location of higher grade mineralisation. (Recent drill holes noted in red font)

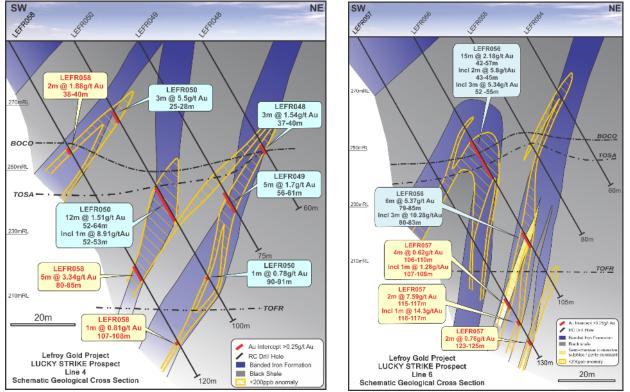
The results (Table 1) from the March Quarter RC drill program delivered strong, broad gold intersections from four of the six sections drilled, and have further demonstrated strike continuity to the gold system and BIF host sequence. The drilling intersected multiple, mineralised magnetic banded iron formation ("BIF") units within a package of metamorphosed siltstone, shale and black shale over a 300m strike length. The identification of multiple mineralised BIF units improves the potential for a broader zone of mineralisation. Significant results from that RC drill program include:-

- o 5m at 1.70g/t Au from 56m in hole LEFR049;
- o 3m at 5.50g/t Au from 25m in hole LEFR 050;
- o 12m at 1.51g/t Au from 52m in hole LEFR050;
- o 7m at 1.18g/t Au from 35m in hole LEFR051;
- o 15m at 2.18g/t Au from 42m in hole LEFR056;
- 6m at 5.37g/t Au from 79m in hole LEFR056;
   Includes 3m at 10.3g/t Au from 80m
- o 2m at 7.59g/t Au from 115m in hole LEFR057;
- o 5m at 3.34g/t Au from 80m in hole LEFR058.

The gold intersections in holes LEFR056, LEFR057 and LEFR058 are an important new development for Lucky Strike, with mineralisation that is open down dip and along strike. In particular, the high grade gold mineralisation in LEFR056 (3m at 10.3g/t from 80m) is from an interval of semi massive to massive



pyrite within BIF (Figure 5) in the primary zone (fresh rock) which is a newly encountered style, and importantly open is along strike and down dip.



**Figure 4&5** Drill sections Line 4 and Line 6 gold mineralisation in the multiple BIF host units (refer figure 3 for location of the sections)

The drilling has confirmed continuity of the host BIF package and defined a gold system that has a strike length of approximately 300m. Within this 300m corridor, a new high grade (plus 5g/t Au) zone has been identified with, approximately 80m in strike and which is open both along strike and down dip. The discovery of the high grade zone is a new development in the evolution of this greenfields BIF hosted gold system and is a focus for further exploration.

The discovery of high grade gold mineralisation on three consecutive sections at the northern end of the Lucky Strike Trend is a further significant development. This gold system is within a broad subtle (100ppb) gold anomaly defined over a 670m strike length by wide spaced angled air core drilling and reinforces the Company's commitment to following up low level gold anomalies in favourable geological environments.

The emerging Lucky Strike discovery lies along a 3000m gold and geological trend that lies sub parallel and proximal to the regional scale Mt Monger Fault (Figure 2). Two other zones of elevated gold mineralisation have been outlined along this trend to the south east of Lucky Strike but these are yet to be evaluated by RC drilling. The Company has also recognised the importance of the BIF hosted gold mineralisation and its implications for exploration in the broader area where the aeromagnetics define additional BIF stratigraphy.

Subsequent to the end of the Quarter RC drilling has recommenced at Lucky Strike to further test the high grade zone.



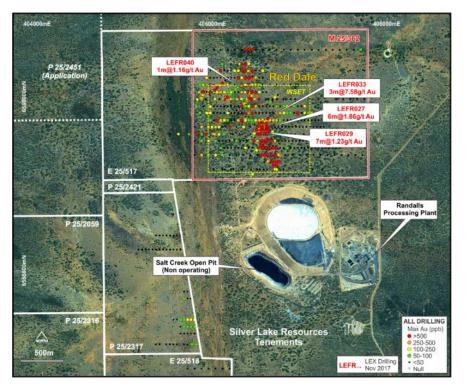
## Red Dale

The Red Dale Prospect adjoins (Figure 2 & 6), and is immediately north, of the Randalls Processing Plant and Salt Creek Open pit (abandoned) held by Silver Lake Resources (ASX: SLR). Gold mineralisation was identified at Red Dale in 2007 by Integra Mines Limited ("Integra") following on from their discovery of the Salt Creek deposit located 2.5km to the south. This drilling during the period 2007-2010 identified a large regolith hosted gold anomaly approximately 1.2kms in length by up to 1km in width.

Numerous gold intersections were reported at or near the base of the palaeochannel sediments (transported overburden) in gravel horizons overlying a similar package of rocks as found at Salt Creek. The Company believes that this broad anomaly and the intersections are reflecting anomalous gold in transported basal gravels and sands (Figures 8 & 9) derived from a nearby bedrock source, and that the coarse material in the channels is unlikely to have been transported a significant distance.

In May 2017 the Company completed 26 vertical RC holes at the southern end of the palaeochannel. This program recorded significant intersections, including 9m at 1.69g/t Au from 41m in LEFR006 and 6m at 1.75g/t Au from 42m in LEFR013, to confirm a gold mineralised palaeochannel system over 320m of strike and open to the north and south (Figure 6 & 7).

The Company lodged an application for a Mining Lease (Figure 6) over the key area of gold mineralisation at Red Dale in August 2017 to speedily advance this prospect which is expected to be granted in the June quarter of 2018.



*Figure 6* Red Dale prospect location and drill hole plan with key intersections relative to the Randalls Processing Plant and tenement holding. Extent of Mining Lease application M25/362 also shown.

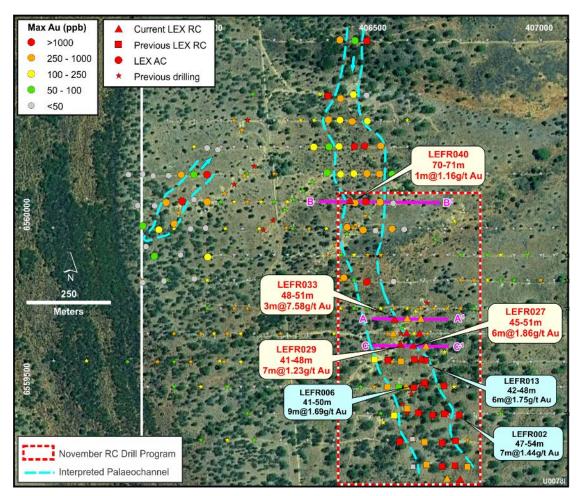


During the March Quarter, the Company completed a Mineral Resource estimate for the palaeochannel hosted gold mineralisation at Red Dale. The primary objective at Red Dale is to discover a significant bedrock gold deposit, analogous to Salt Creek. In doing so Lefroy has recognised the potential significance of the overlying palaeochannel gold mineralisation.

The continuity of mineralisation and grade, and the proximity to the Randalls Mill make the Red Dale palaeochannel an attractive proposition. The aerial extent of this regolith hosted mineralisation is a gold anomaly that has provided guidance to exploration for a primary source, but given the proximity to the Randalls Mill, it was recognised by the Company as an envelope of oxide mineralisation, in itself, which could carry a resource estimate.

Resource Evaluation Services ('RES') was engaged by the Company to prepare the maiden resource estimate for the Red Dale palaeochannel mineralisation, based on drill holes available as of 8 January 2018. A digital geological model was constructed based on sectional interpretations provided by the Company. The Model was estimated by RES using Ordinary Kriging.

The model is considered by RES to be a robust estimation of the in situ resource. At a 0.5g/t Au cutoff grade the Red Dale Palaeochannel Mineral Resource Estimate contains 484,000tonnes at 1.26g/t Au (Au cut grade) for 19,600 ounces of gold (Table 2).



*Figure 7* Red Dale prospect drill hole plan with key intersections and trend of the Palaeochannels (sourced from LEX ASX release dated 15 December 2017). The larger of the outlined palaeochannel is the North Target.

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The Mineral Resource estimate was prepared based on the following key parameters prepared by Resource Evaluation Services (RES) in their report titled "*Red Dale Prospect, Lefroy Project, Resource Estimation, March 2018*".

## Tenure

Tenement E 25/517 is held by Hogans Resources Pty Ltd a 100% owned subsidiary of Lefroy. It was granted 29/5/2015 and expires 28/5/2020. The tenement comprises two graticular blocks covering 518.27 ha. Pending mining lease M 25/362 covers the eastern two thirds of the exploration tenement including the identified mineralisation (Figure 6)

## Topography

A topographic surface was created for the model from the available drill hole collar positions and elevations.

## Field Visit

RES has not inspected the site or drilling and sampling activities but has relied upon details supplied by the Company.

## Geology

The Red Dale prospect area is located over the hinge of the Bulong Anticline, within the Gindalbie Domain of the Kurnalpi Terrane. Geological mapping (1:2500 scale) by Jigsaw Geoscience identified variably outcropping units of gabbro, dolerite and basalt with interflow sedimentary units cut by various tonalitic to granitic dykes. Structural information is limited due to the poorly exposed outcrop. The Archaean sequence at the Red Dale prospect is covered by a thin silt rich soil layer overlying nodular calcrete and strongly magnetic maghemite nodular-clay rich laterite. This transported sequence is underlain by transported clays +/-basal quartz sand and grits.

The Red Dale tenement area contains approximately 40-50m of transported cover, which is made up of dominantly transported clays with meandering palaeochannels. A dominant (Figure 7) North-South trending palaeochannel runs through the middle of the tenement and comprises a channel incised into the underlying basement geology. In the deepest parts of the channel there is often coarse sub-rounded to angular quartz gravel, which fines up through a sequence of sand and sandy clay.

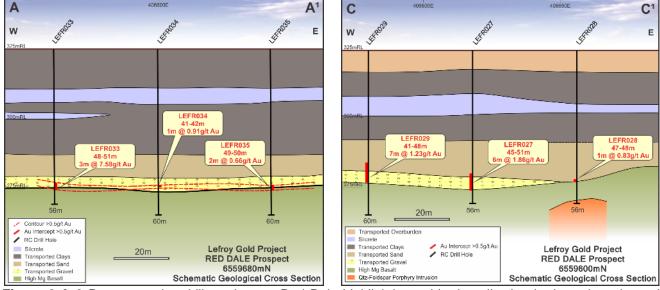
### Mineralisation and Alteration

The mineralisation style at Red Dale, which this drill program was primarily targeting, is palaeochannel hosted gold. The target area consisted of two areas which have been generated from a detailed desk study of the historic drilling being the Western Channel and the North Channel target. Gold mineralisation is hosted within palaeochannel sands and gravels that mark the base of the palaeochannel (Figures 8 & 9). The better gold grades are associated with coarse palaeochannel gravels. The gravels commonly intersected by drilling at the base of the palaeochannel directly overlying Archean basement dolerite, gabbro, or sediment.

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**Figure 8 & 9** Representative drill sections at Red Dale highlighting gold mineralisation in the palaeochannel transported gravel horizon (Refer Figure 7 for location of the sections) *Taken from LEX ASX release dated 15 December 2017 and titled High Grade Result from Drilling at Red Dale* 

## Drilling and Sampling

The drilling data over the paleo channel comprises angled Air Core (AC) drilling undertaken by Integra Mines Limited ("Integra") during 2006-2010 and, 41 mostly vertical Reverse Circulation (RC) holes drilled by Lefroy in 2017 and 2018. Seven (7) additional holes were drilled using RC hammer in the cover material and a large AC bit through the palaeochannel to try and optimise sample recovery and quality.

Thirty two (32) Lefroy Reverse Circulation drill holes, 13 Integra Air Core drill holes and six Integra Diamond Drill holes intersect the anomalous gold mineralisation in the palaeochannel. All holes were used to define the palaeochannel limits. Only the Lefroy RC drill holes were used for the resource estimation.

Lefroy drill collars were set out using a hand-held GPS with an accuracy of ±5m. Holes were surveyed using Topcon RTK GPS by contractor Goldfieldssurveyor Pty Ltd and recorded in the Lefroy hosted database. Survey uses a MGA94 control at the nearby SLR mine-site and two control stations at Lefroy's nearby Lucky Strike prospect.

Only angled drill holes were down-hole surveyed using a Reflex Gyro operated by the Challenge RC drillers. To date only LEFR040 has been down hole surveyed by LEX.

All other drill holes are assumed to be vertical for their full depth.



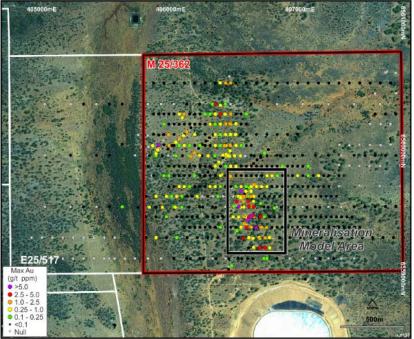


Figure 10 Red Dale drill hole plan and location of the resource model estimate

The complete RC samples were collected from the cyclone at one metre intervals in plastic bags and arranged in rows of 10 or 20 bags/samples. A sample split was also collected from the sample cyclone. No split samples were collected from 0 m to 36m depth as this zone is not considered to contain economic mineralisation based on previous air core drilling, however bulk samples collected in green bags are preserved. One split sample directly off the drill rig were collected to produce a bulk 2 kg to 3 kg sample which was sent to the laboratory in Kalgoorlie for analysis from 36 m to EOH (end of hole).

Samples were processed and analysed by laboratory Bureau Veritas Pty Ltd in Kalgoorlie. The samples were dried, pulverised and split to produce a 40 g charge for analysis by fire assay with final Au determination by Atomic Absorption Spectrometry (AAS).

Geological logs were recorded by Lefroy geologists using Maxwell Geoservices ('Maxwell') Logchief data capture software into a tough book computer for synchronising with the Lefroy database hosted by Maxwell.

## Quality Control

For the purposes of the mineral resource estimation, analysis of the QAQC data has been confined to the Bureau Veritas data applicable to the Company's RC drilling used to estimate the resource.

Certified standards G906-2 (2.46 ppm Au), G902-7 (1.41 ppm Au), G312-9 (5.84 ppm Au) and G311-6 (0.22 ppm Au) were inserted into the sample sequence by the site geologist. Field duplicates have been submitted from samples taken in the palaeochannel. Consequently, the database records field duplicates as being taken and submitted at irregular intervals ranging from 1 in 50 to 1 in 400 (source Maxwell QAQC reporting). The field sample rate in the palaeochannel is approximately 1 in 20.

Analysis of the standard samples shows good accuracy. The field duplicates show only moderate precision. This is consistent with a high nugget, variable deposit and further supports the need for high volume sampling to improve analysis precision. The sampling quality is considered adequate to support an Inferred or Indicated resource.



## **Geology Modelling**

All geological drilling data was used to make the geological interpretation. Only LEX RC analyses were considered as valid. Hand-drawn cross-sectional interpretations of the deposit were provided to RES by Lefroy. These sections were used to guide the digital interpretation.

The palaeochannel was modelled as a sandy gravel rich layer, above the interpreted (Lefroy) Base of Alluvium (BOA). A nominal lower grade cut-off of 0.4 g/t Au was used based on the sample population statistics. Lower grades were accepted where geological continuity was interpreted.

The upper logged "laterite" layer (duricrust of lithified alluvium) was modelled based on the geological logs. The laterite layer was specifically modelled as it may require ripping or blasting if mined and hence impact on the mining cost. The Base of Alluvium (BOA) and Base of Complete Oxidation (BOCO) surfaces were modelled based on the Lefroy interpretation. The channel and laterite were modelled as 3D solids. The BOCO and BOA were modelled as 2D surfaces.

Several instances of mineralisation extending below the interpreted base of alluvium were noted. These generally lower grade samples were regarded as potential down hole contamination. Where anomalous these samples were not included as part of the palaeochannel

Block modelling is carried out so that interpolation techniques can be used to estimate grades for points between the known data points, within geologically defined volumes. To increase the resolution of geological boundaries within a block model a process called sub-blocking is applied, whereby the blocks are split into sub-blocks at wireframe boundaries. Sub-blocks are normally re-aggregated wherever possible to produce intermediate-sized sub-blocks within a parent block, thus reducing the size of the model for computational purposes. The model was constructed and estimated using the Surpac software from Geovia.

### Grade Interpolation

Grade estimation for the Red Dale deposit was carried out using linear estimation methods. A multi pass estimation plan was used for all estimation domains. The estimation was made into the parent cell. An Ordinary Kriging (OK) was used to estimate Au in the palaeochannel only. Only RC drill hole samples were used in the estimation of grades. Grade estimates are usually strongly influenced by outlier values. This can result in an over- estimation of the global grades. To prevent this, high-grade treatment was applied to the Red Dale model using spatial restraining above a grade threshold.

The high-grade thresholds were initially chosen according to discontinuities in the cumulative probability plots for the respective estimation domains, and iteratively adjusted based on visual and statistical validation of the model against the drill hole data. At Red Dale a significant discontinuity occurs at 4 g/t. Validation of the estimation showed that spatial restraining produced a model better aligned to the raw data with a reduction in smoothing and better representation of the nuggetty nature of the ore body.

Statistical and visual assessment of the block model was undertaken to assess successful application of the various estimation passes and to ensure that as far as the data allowed, all blocks within mineralised domains were estimated and the model estimates considered acceptable



## Dry Bulk Density

No dry bulk density analyses were available for Red Dale. No drill core or bulk samples suitable for analysis have been taken to date.

The available documentation on several similar deposits in the region were reviewed by RES. S2 Resources Limited (ASX: S2R) is the only group reporting a resource at present and used an assumed bulk density of 1.8 tm<sup>-3</sup>. RES considers this to be too low for the Red Dale deposit. 1.8 tm<sup>-3</sup> would be suitable for an unconsolidated sand. The palaeochannel sands, however, are compacted under 30-40 m of overburden clays, so the bulk density can be expected to be higher.

After discussion with Lefroy management, a nominal density values of 2.0 tm<sup>-3</sup> was applied to all sub surface blocks on the model.

#### Mineral Resource

The Mineral Resource estimated for the Lefroy Red Dale deposit was based on drill holes available as of 8 January 2018. The resource is classified as Indicated under the JORC (2012) guidelines. The drill hole density, geological logging and interpretation and sample quality are sufficient to support this classification. The results of the estimation are tabulated at a selection of cut off grades in Table 2.

Au g/t	Cumulative	Cumulative	Cumulative	Au Cut	Au UnCut
Cut	Tonnes	Cut Oz	UnCut Oz	g/t	g/t
0	579,000	20600	22400	1.11	1.21
0.5	484,000	19600	21400	1.26	1.38
1	297,000	14900	16700	1.56	1.75
1.5	150,000	8900	10200	1.84	2.13
2	29,000	2400	3600	2.55	3.78
2.5	5,300	700	1400	3.90	8.35
4	2,300	400	700	5.19	9.50
4.5	600	200	100	8.33	5.46
5	500	100	100	9.59	6.81

**Table 2** Red Dale Palaeochannel resource estimate at varying cut off grades

 (Figures have been to the appropriate level of precision)

The Mineral Resource reported by Lefroy is all the resource model that is above 0.5g/t (Table 2) and is constrained to a depth of 60m from surface. There are no economic criteria built into the resource estimate. The reporting cut off adopted (Au Cut g/t Au) was selected to reflect grade required for an open pit mining operation. This satisfies the "reasonable prospects of eventual economic extraction" criteria for JORC compliance. Further RC drilling along strike to the north may increase the resource, and this drilling, when undertaken will be secondary to exploration for a primary source.



## Zanex: - Woolibar Trend (Lake Lefroy)

The Zanex Prospect is the most advanced of a number of gold prospects identified by aircore drilling during 2017 in Lake Lefroy (Figure 1). The prospects were initially identified by a geophysical based targeting exercise completed in December 2016. This also identified, and is reinforced by interpretation of gravity data, a north westerly trending structure termed the Woolibar Fault.

The 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 Invincible gold mine at St Ives is situated along the Speedway Fault. The Woolibar Fault extends for approximately 15km in a south easterly direction within Lake Lefroy and the Company believes this may be a structure analogous to the 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 open along strike. 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.

During the quarter, three (3) precollared angled diamond holes totaling 573m were drilled to test for a primary mineralised zone beneath the oxidised rock (saprolite), transported cover and more recent lake sediments over a 380m strike. Holes depths ranged from 156m to 210m. The secondary objective of the program is to gain a better appreciation of the host stratigraphy, alteration and structure that can provide important geological characteristics to better understand the regional significance of the Woolibar Fault.

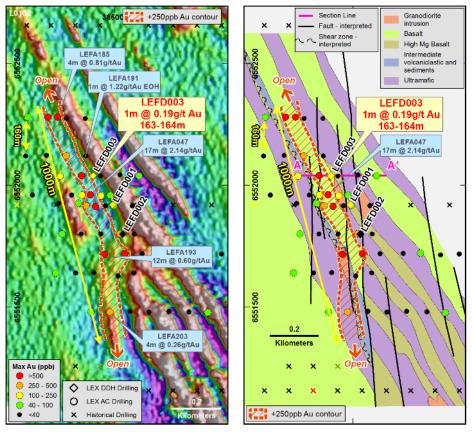


Figure 11 Zanex prospect drill hole plan and location of the three diamond drill holes



Three holes, each on individual sections (Figure 11), targeted the main part of the Zanex gold anomaly. Drill sections were spaced at approximately 140m apart. The program was partly supported by co-funding through the State Government of Western Australia's Exploration Incentive Scheme (EIS).

The drilling intersected a variably deformed favourable geological sequence of basalt, metasediments and ultramafic intruded by multiple felsic porphyry dykes that has significantly advanced the geological model. A strong deformation zone was intersected at the metasediment-ultramafic contact with associated subtle (0.05-0.20g/t Au) primary gold mineralisation within LEFD003.

Whilst no significant gold intersections were recorded the program has successfully advanced the geological model and confirmed the structural trend that supports the Woolibar Fault concept. This new data will be interrogated with key gravity, ground magnetic and geochemical datasets to focus exploration along the structural trend.

### Capstan

The Capstan prospect is located immediately north of Lucky Strike and a large surface gold anomaly was recognised from assessment of previous surface exploration (Figure 12). The results of an auger drilling program (374 holes) completed in December 2017 were reported during the Quarter (refer LEX ASX announcement dated 7 February 2018) and confirmed the anomaly (expressed as a plus 20ppb Au result) over a 950m strike length (Figure 13).

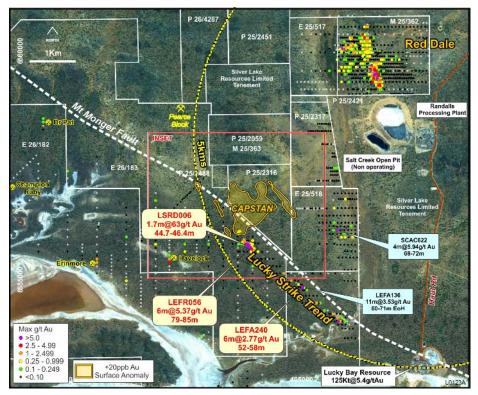
The results from the program have confirmed a large and robust surface gold anomaly (plus 20ppb Au) to the north of Lucky Strike that may represent the surface expression of a bedrock gold source. The anomaly extends over an area approximately 950m by 750m and has a general north westerly trend sub parallel to stratigraphy and the mineralisation identified at Lucky Strike (Figure 12).

The Capstan gold anomaly has not been evaluated by drilling. The anomaly is interpreted from geophysical data and regional mapping to overlie a sequence of mafic rocks (Inc. high Mg Basalt, Dolerite) proximate to the interpreted position of the Mt Monger Fault. A mafic rock package has the opportunity in the optimum structural setting to host brittle lode gold style mineralisation.

The Company considers the Capstan anomaly to be significant when placed in context of the gold mineralisation intersected at Lucky Strike. Capstan may represent the surface expression of a mafic hosted bedrock gold system that could have a similar structural setting to Lucky Strike and demonstrate a cluster of bedrock mineralisation styles in the immediate area.

A Programme of Works (POW) for first pass air core drilling has been approved by the Department of Mines, Industry Regulation and Safety (DMIRS) and drilling is scheduled to commence in May 2018.





**Figure 12** Location of the Capstan anomaly relative to the LEX Lucky Strike Trend and Red Dale Prospect and proximity to the Randalls Processing Facility and infrastructure operated by SLR. The key Lucky Strike RC, Diamond and aircore gold intersections are also highlighted (refer Figure 11 for inset map)

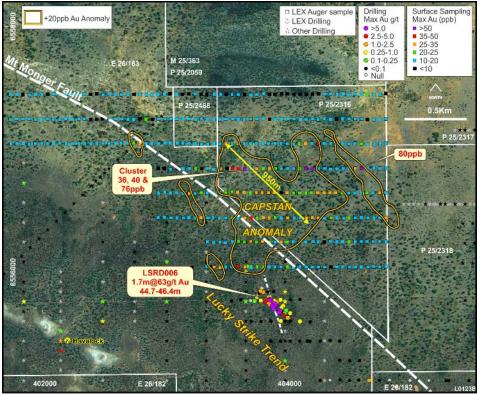


Figure 13 Capstan gold in auger anomaly –auger plan and showing proximity to the Lucky Strike Trend



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

The Lake Johnston Project is located 120kms 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 300kms<sup>2</sup> 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 continued to compile previous exploration dating back to the mid 1990's from open file sources. This compilation revealed a detailed ground gravity survey completed in 2009, and that partially covers the Company's tenement E63/1723. Analysis of the gravity data supports the Company's interpretation of a regional gravity high within the tenure may reflect an underlying thicker package of ultramafic rocks extending north from the Emily Anne Ni deposit.

The Company will continue to compile and assess previous exploration data to develop targets and an improved geological model to assist with gold and nickel exploration.

#### Murchison Gold Project, Lefroy 100%

The Murchison Gold Project comprises a portfolio of two Exploration Licences (EL's) and eighteen Prospecting Licences (PL's) covering 134km<sup>2</sup> to the west of Cue. This package includes one Exploration Licence located to the south and along strike from the Big Bell gold mine, and the other tenements form a contiguous package near to and adjoining the Cuddingwarra Mining Centre.

The Company continued to advance alternative options to conduct exploration on the large prospective tenement holding given the focus and exploration success at the LGP. Discussions continued to progress during the quarter with a party interested in acquiring the tenement package.

# ASX Announcement



## 27 April, 2018

## **EXPLORATION OUTLOOK**

The Company will continue exploration activity in the June Quarter to advance the Lucky Strike BIF hosted system with additional RC and diamond drilling, and complete the maiden air core drill program at Capstan.

The Company also continues 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 database.

In particular the focus will be on continued compilation and assessment of historical drill data in the vicinity of the Lucky Strike trend to define additional BIF hosted targets.

### CORPORATE

During the quarter the Company spent \$0.52million on its operating activities, of which \$0.39million was attributed to direct exploration expenditure as noted in this report. Excluding any income the Company continued to maintain a strong commitment to in-ground expenditure, with 75% directed to exploration and evaluation in the March Quarter.

At 31 March 2018 the Company had cash reserves of approximately \$1.19 million.

The Company released its Financial Report for the Half Year Ended 31 December 2017 on 13 March 2018.

The Company changed its Australian Registered office to Level 2, 11 Ventnor Avenue West Perth on 2 January 2018.



## Table 1: 2018 RC Drilling-Lefroy Gold Project-Lucky Strike Trend

RC Drill hole intersections tabulated below are calculated with a 0.25g/t Au lower cut for the entire drill program. These represent the intersections from individual 1m sample results and include 2m of internal dilution. Samples are routinely collected as 1m sample intervals from the drill rig cyclone.

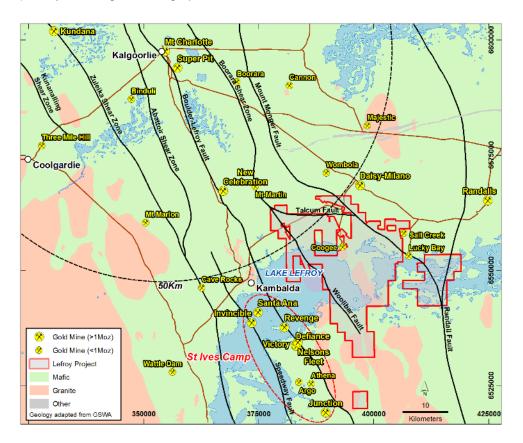
Hole ID	Collar N (MGA)	Collar E (MGA)	Collar RL	Dip	Azimuth	Hole Depth (m)	Depth From (m)	Depth To (m)	Downhole Intersection (m)	Au Value (g/t)	
LEFR048	403890	6555766	291	-60	30	60	37	40	3	1.54	
LEFR049	403882	6555749	291	-60	30	75	56	61	5	1.7	
LEFR050	403869	6555730	291	-62	30	100	25	28	3	5.5	
LEI KOSO	403809	0555750	231	-02	50	100	52	64	12	1.51	
			Including				52	53	1	8.91	
LEFR050	403869	6555730	291	-62	30	100	90	91	1	0.78	
LEFR051	403821	6555803	291	-60	30	60	35	42	7	1.18	
							25	27	2	0.88	
LEFR052	403810	6555786	291	-60	30	80	56	57	1	0.26	
							64	70	6	0.62	
LEFR053	403801	6555769	291	-60	30	100	78	79	1	3.27	
							83	84	1	0.38	
LEFR054	403941	6555735	291	-60	30	60	22	26	4	0.4	
LEFR055	403932	6555720	291	-60	30	80	43	44	1	0.54	
	102010	6555600	204	60		405	47	48	1	0.55	
LEFR056	403918	6555699	291	-60	30	105	36	37	1	0.27	
			Including				42	57	15	2.18	
			Including				43 52	45 55	2	5.8 5.34	
			Including		1	1	60	61	1	0.32	
LEFR056	403918	6555699	291	-60	30	105	79	85	6	5.37	
			Including		ļ	ļ	80	83	3	10.28	
							32	33	1	0.31	
							60	64	4	0.33	
LEFR057	6555681	403907	403907	292	-60	30	135	92	93	1	0.29
								106	110	4	0.62
		115	117	2	7.59						
			Including				116	117	1	14.3	
LEFR057	6555681	403907	292	-60	30	135	123	125	2	0.76	
	6555746	402062	202	60	20	120	46	47	1	0.26	
LEFR058	6555716	403862	292	-60	30	120	80	85	5	3.34	
			Including				81	83	2	4.71	
			Including				84	85	1	4.82	
LEFR058	6555716	403862	292	-60	30	120	107	108	1	0.81	
LEFR059	6555799	403835	291	-60	30	50	27	32	5	0.48	
LEFR062	6555809	403730	290	-60	30	80	16	17	1	0.99	
LEFR064	6555676	404000	290	-60	30	80	47	48	1	0.29	
							32	34	2	0.92	
LEFR065	6555639	403979	290	-60	30	125	47	50	3	0.61	
							60	61	1	0.29	
LEFR067	6555661	403946	291	-60	30	120	49	50	1	0.27	
							69	79	10	0.72	
		L	Including		1	1	69	70	1	3.4	
LEFR067	6555661	403946	291	-60	30	120	108	110	2	0.41	



## About Lefroy Exploration Limited and the Lefroy Gold Project

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

The 100% owned Lefroy Gold Project contains mainly granted tenure covering 547kms<sup>2</sup>, located in the heart of the world class gold production area between Kalgoorlie and Norseman. The Project is in close proximity to Gold Fields Limited's St Ives gold camp, which contains the recently developed 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 by the Company but specific to exploration completed during the March 2018 Quarter.

- Exploration Update-Drilling Commenced at Lucky Strike: 8 March 2018
- Drill Results Extend Gold Mineralisation at Lucky Strike: 14 February 2018
- Robust Surface Gold Anomaly Confirmed at Capstan: 7 February 2018
- Exploration Update-Zanex and Lucky Strike Drilling Completed: 2 February 2018
- Exploration Update-RC drilling underway at Lucky Strike25 January 2018
- Exploration Update-Diamond Drilling Underway at Zanex: 15 January 2018

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.

#### **RED DALE-Mineral Resource Estimate**

The following announcements that document the drilling results from Red Dale 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.

- High Grade Result from Drilling at Red Dale: 15 December 2017
- Exploration Update-RC Drilling Commenced at Red Dale: 14 November 2017
- September Quarterly Activities Report: 25 October 2017
- Drilling Recommences at Red Dale:11 August 2017
- Broad Zone of Gold Mineralisation Identified at Red Dale: 19 May 2017
- RC Drilling Commenced at Red Dale: 24 April 2017

#### Competent Persons Statement

The information in this report that relates to the Sampling Techniques and Data and Reporting of Exploration Results for the Red Dale deposit is based on, and fairly represents, information which has been compiled by employees of Lefroy Exploration under the supervision and guidance of Mr. Wayne Carter, Senior Exploration Geologist at Lefroy Exploration and Member of the Australasian Institute of Geoscientists. Mr. Carter has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Carter consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The information in this report that relates to the Mineral Resource estimate at the Red Dale deposit is based on, and fairly represents, information which has been compiled by Mr Stephen Godfrey. Mr. Godfrey is Principal Resource Geologist at Resource Evaluation Services, a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr. Godfrey has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Godfrey consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.



LEF	KOY EXPLORAT	ION LID TENEN	MENT SCHEDULE 31 March 2018	
Project	Tenement ID	Ten status	Holder	Interes %
Lefroy	E26/0183	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	E26/0184	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	E 26/0131	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	E 26/0134	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	E 26/0150	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P 26/3689	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P 26/3690	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P 26/3691	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P 26/3764	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P 26/3765	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P26/3889	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P26/3890	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P26/3891	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	P 25/2059	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	E 25/0517	Live	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	E26/0182	Live	LEFROY EXPLORATION LTD	100
Lefroy	E15/1447	Live	LEFROY EXPLORATION LTD	100
Lefroy	P25/2316	Live	LEFROY EXPLORATION LTD	100
Lefroy	P25/2317	Live	LEFROY EXPLORATION LTD	100
Lefroy	E25/0518	Live	LEFROY EXPLORATION LTD	100
Lefroy	E15/1497	Live	LEFROY EXPLORATION LTD	100
Lefroy	E15/1498	Live	LEFROY EXPLORATION LTD	100
Lefroy	E26/0193	Live	LEFROY EXPLORATION LTD	100
Lefroy	P25/2421	Live	LEFROY EXPLORATION LTD	100
Lefroy	P25/2451	Live	LEFROY EXPLORATION LTD	100
Lefroy	P26/4287	Live	LEFROY EXPLORATION LTD	100
Lefroy	M25/362	Pending Pending	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	M25/363			100
Lefroy	M26/842	Pending	HOGANS RESOURCES PTY LTD	100 <sup>1</sup>
Lefroy	E15/1615	Live		100
Lefroy	P26/4391	Pending		100
Lefroy	P26/4392	Pending	LEFROY EXPLORATION LTD	100
Lefroy	P26/4393	Pending	LEFROY EXPLORATION LTD	100
Lefroy	P26/4394	Pending	LEFROY EXPLORATION LTD	100
Lake Johnston	E63/1722	Live	LEFROY EXPLORATION LTD	100 <sup>2</sup>
Lake Johnston	E63/1723	Live	LEFROY EXPLORATION LTD	100 <sup>2</sup>
Lake Johnston	E63/1777	Live	LITHIUM AUSTRALIA NL	Note
Murchison	E21/0192	Live	LEFROY EXPLORATION LTD	100
Murchison	E21/0193	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2256	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2257	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2258	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2259	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2260	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2261	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2262	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2263	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2264	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2265	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2266	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2267	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2268	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2269	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2272	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2273	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2274	Live	LEFROY EXPLORATION LTD	100
Murchison	P20/2275	Live	LEFROY EXPLORATION LTD	100



## Notes to accompany tenement listing

1-Hogans Resources Pty Ltd is a wholly owned subsidiary of Lefroy Exploration Limited Note-E63/1777-LEX has the gold and nickel rights.

2-E63/1722 and E63/1723- Held under title by LEX, Lithium Australia NL (ASX:LIT) have the rights to Lithium

#### JORC CODE, 2012 Edition-Table 1 Report –Lefroy Project –Lucky Strike Prospect March Quarter 2018 RC Drilling SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	MPLING TECHNIQUES AND DATA JORC Code Explanation	Commentary
Criteria Sampling techniques	<ul> <li>JORC Code Explanation</li> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The sampling noted in this release has been carried out using Reverse Circulation (RC) drilling at the Lucky Strike Prospect. The RC program comprised 21 angled holes for 1835m, holes varying in depth from 60-135m with and average depth of 80m. 20 of the 21 holes were drilled -60° (dip) and one at -62° toward 030° (Azimuth) spaced along 20m or 40m centres.</li> <li>Sampling and QAQC protocols as per industry best practice with further details below.</li> <li>RC samples were collected from the cyclone at 1m intervals in plastic buckets and arranged in rows of 10 or 20 samples. 1m split samples were collected from 0m to end of hole (EOH). 1m split samples directly off the drill rig splitter were collected to produce a 2-3kg sample which was sent to the Laboratory in Kalgoorlie for analysis. Samples were dried, pulverised, split to produce a 40g charge for analysis by fire assay with Au determination by Atomic Absorption Spectrometry (AAS).</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>The Reverse Circulation (RC) drilling was completed by a KWL350 RC rig from Raglan Drilling (Kalgoorlie). Low air face sampling hammer drilling proved satisfactory to penetrate the regolith and reduce contamination risk.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>The majority of samples remained dry with good recovery obtained. Where samples were wet or experienced less than desired recovery this was instantly evident in size of the bulk sample laid on the ground and was carefully recorded by a Lefroy representative on hard copy sample sheets.</li> <li>Drilling with care (eg. clearing hole at start of rod, regular cyclone cleaning) if water encountered, to reduce incidence of wet – sticky sample and cross contamination, the cyclone was cleaned out again at the end of each drill rod.</li> <li>Insufficient sample population to determine whether relationship exists between sample recovery and grade. The quality of the sample (wet, dry, low recovery) was recorded during logging.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Detailed logging of, regolith, lithology, structure, veining, alteration, mineralisation and recoveries recorded in each hole by qualified geologist.</li> <li>Logging carried out by sieving individual 1m sample cuttings, washing in water and the entire hole collected in plastic chip trays for future reference.</li> <li>Every hole was logged for the entire length.</li> </ul>
Sub-sampling techniques and sample	• If core, whether cut or sawn and whether quarter, half or all core taken.	<ul> <li>No core drilling completed</li> <li>Sampling of 1m intervals directly off rig-</li> </ul>

Criteria	JORC Code Explanation	Commentary
preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>mounted rotary splitter into prenumbered calico bags. Sample weight 2 - 3 kg. Collected sample bags placed in labelled and numbered plastic and/or polyweave bags for despatch to assay laboratory.</li> <li>The sample preparation of the RC samples follows industry best practice, involving oven drying, pulverising, to produce a homogenous sub sample for analysis.</li> <li>Along with submitted samples, standards and blanks were randomly inserted (approximately every 20 samples) and were included in the laboratory analysis. Standards were certified reference material prepared by Geostats Pty Ltd. Duplicate samples were collected at zones of interest and at irregular intervals of about 1 in every 1-2 holes.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples routinely analysed for gold using the 40gram Fire Assay digest method with an AAS finish at Bureau Veritas's Kalgoorlie Laboratory.</li> <li>Quality control process and internal laboratory checks demonstrate acceptable levels of accuracy. At the laboratory regular assay repeats, lab standards, checks and blanks were analysed.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The results have been reviewed and verified by alternative company personnel.</li> <li>No holes were twinned.</li> <li>Capture of field logging is electronic using Toughbook hardware and Logchief software. Logged data is then exported as an excel spreadsheet to the Company's external database managers which is then loaded to the Company's DATASHED database and validation checks completed to ensure data accuracy. Assay files are received electronically from the laboratory and filed to the Company's server, and provided to the external database manager.</li> <li>There has been no adjustment to the assay data. The primary gold (Au) field reported by the laboratory is the priority value used for plotting, interrogating and reporting.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	DGPS operated by a third-party
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> </ul>	<ul> <li>Hole spacing is at nominal 20m centres on 030<sup>o</sup> orientated drill lines with line spacing 20m to 40m to the NW and SE of previous</li> </ul>

Criteria	JORC Code Explanation	Commentary
	• Whether sample compositing has been applied.	geological unit logged as a SIF (sedimentary iron formation). Where SIF was logged by the geologist, 1m samples were sent to the laboratory for analysis by fire assay. Where it has been inferred no gold mineralisation should occur, samples were collected using a scoop from the 1m bulk samples laid out on the ground at the time of drilling, into a 4m composite sample which was also sent to the laboratory for the same fire assay analysis. The geologist dictated to the field supervisor which samples should be collected as 1m samples and which ones should be a composite sample. The field supervisor then collected these samples in sequence using pre-numbered calico bags. Where 1m samples were collected, the original 1m spilt from the cyclone was simply placed into a numbered calico bag.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The North-East orientated drill traverses considered effective to evaluate the roughly North-West trending sedimentary iron formation (SIF) stratigraphic unit which is interpreted to be the prospective host rock. The RC drill holes were intended as follow up work to assess previous Lefroy AC and DD drill holes which were orientated on East-West drill lines which intercepted high gold grades and favourable geology.</li> <li>The new orientation of the RC drilling is considered to be a more effective test of "true" width of the host rock due to the fact the host rock unit is striking roughly North-West/South-East.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Samples were bagged in labelled and numbered polyweave or plastic bags, collected and personally delivered to the Bureau Veritas Laboratory (Kalgoorlie) by Company field personnel. Samples were then sorted and checked for inconsistencies against lodged Submission sheet by Bureau Veritas staff.</li> <li>Bureau Veritas checked the samples received against the Lefroy Exploration Limited (LEX) submission sheet to notify of any missing or extra samples. Following analysis, the sample, pulps and residues are retained by the laboratory in a secure storage yard.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>All sampling and analytical results of the drill program were reviewed by the Senior Exploration Geologist and Managing Director. Anomalous gold intersections were checked against library chip trays to correlate with geology. No specific audits or reviews have been conducted.</li> </ul>

# Section 2: REPORTING OF EXPLORATION RESULTS – LEFROY PROJECT- Lucky Strike Prospect-March Quarter 2018 RC Drilling

Criteria	h Quarter 2018 RC Drilling JORC Code Explanation	Commentary
Mineral tenement	Type, reference name/number, location and	The Lefroy Project is located approximately
and land tenure status	<ul> <li>ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>50 km in south east from Kalgoorlie, Western Australia and consists of a contiguous package of wholly owned tenements held under title by LEX or its wholly owned subsidiary's Hogans Resources Pty Ltd. The work described in this report was completed on Exploration Licence E26/183 held 100% by Lefroy Exploration Limited through the acquisition of title holder Hogans Resources Pty. Ltd in October 2016.</li> <li>The tenement is current and in good standing with the Department of Mines and Petroleum (DMP) of Western Australia.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Some previous exploration work was completed on the Lucky Strike trend by Integra Mining Limited, Western Mining and Octagonal Resources. The bulk of this work included phases of Aircore (AC). This work identified mineralisation along the trend, however no previous explorer had produced the gold grades Lefroy has identified.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Lefroy Project is located in the southern part of the Norseman Wiluna Greenstone Belt and straddles the triple junction of three crustal units, the Parker, Boorara and Bulong Domain. The Lefroy project tenements are mostly covered by alluvial, colluvial and lacustrine material with very little outcrop. Archean geology at the Red Dale prospect is concealed by overlying transported clay, laterite and sand/gravel. Drill information has revealed major lithology types including schistose in part ultramafic sequence, dolerite/gabbroic rocks and intermediate intrusives. Aeromagnetic data reveals (truncated in part) NNW trending features.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Table containing drill hole collar, survey and intersection data for material (gold intersections &gt;0.25gpt Au with a max of 2m internal dilution) drill holes are included in the Table 1 in the body of the announcement.</li> <li>No Information has been excluded.</li> </ul>
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	<ul> <li>All report grades have been length weighted. High grades have not been cut. A lower cut off of 0.25gpt Au has been used to identify significant results (intersections).</li> <li>Where present, higher grade values are</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>included in the intercepts table and assay values equal to or &gt; 1.0 g/t Au have been stated on a separate line below the intercept assigned with the text 'includes'.</li> <li>Reported RC results have been calculated using 1m split samples. No metal equivalent values or formulas used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All results are based on down-hole metres.</li> <li>Previous drill coverage has provided guidance for the presence of steeply dipping stratigraphy comprising a sedimentary package of rocks containing sedimentary iron formations (SIF) which provide the best host rock for gold mineralisation. A recently completed ground magnetic survey over the area of interest confirms a NW strike of the magnetic sediments within the stratigraphy and hence has guided the orientation of drilling for this program. Structural measurements on orientated diamond drill core from a previous Lefroy Exploration drill program also assisted in decided which orientation to drill these follow up RC holes. Results from this drill program do not represent 'true widths' however holes are designed to intercept the host sequence perpendicular to its strike.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Appropriate summary diagrams (section &amp; plan) are included in the accompanying announcement.</li> </ul>
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>Significant assay results are provided in Table 1 for the recent LEX RC drill program.</li> <li>Drill holes with no significant results are not reported.</li> <li>Significant assay results from historical drilling are noted in the body of the report.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>All relevant data has been included within this report.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The appropriate next stage of RC drilling is currently underway and noted in the body of the report.</li> </ul>

## JORC CODE, 2012 EDITION – TABLE 1 RED DALE MINERAL RESOURCE ESTIMATE

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The deposit has been sampled by RAB, RC, Air Core and Diamond drilling. Lefroy Exploration Limited (LEX) drilling has included RC and AC.</li> <li>2-3 kg chips samples have been taken by cone splitter or scoop/spear. Half core has been sampled by Integra.</li> <li>ASD sample analysis was used by Integra.</li> <li>Samples have all been taken to industry standard practice, however a population bias exists in the analyses between the AC and RC drilling. Geological logging is considered accurate.</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>RAB, RC, Air Core and Diamond drilling has been used across the tenement. RC and AC sampling has intersected the mineralisation. AC samples are interpreted as being too small and analyses are biased. LEX RC drilling uses a face sampling hammer returning sample to a cone splitter.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Sample recovery monitored by site geologists.</li> <li>Sample weights and condition are not routinely recorded.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Integra Mining Limited (Integra) – samples have been geologically logged. Methods not recorded</li> <li>Lefroy - All samples are geologically logged into an electronic device. Chip trays are kept for all sampling, photographed and digitally stored in the database.</li> <li>The level of detail is adequate to support a Mineral Resource estimation</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Integra diamond drill hole core was cut in half for sampling (none intersects deposit).</li> <li>LEX RC samples were cone split at the drill rig. Discard was retained.</li> <li>LEX AC samples were scoop/spear sampled from sample pile.</li> <li>Large diameter AC was trialled with preliminary results indicating the larger volume produces a more representative sample.</li> </ul>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Fire Assay procedure is considered appropriate for this type of deposit.</li> <li>ASD analyses were not used for the resource estimation.</li> <li>Lefroy RC drilling QAQC procedures include the submission of standards and field duplicate samples.</li> <li>Analysis of RC QAQC data indicates and acceptable level of preparation and analysis quality. Accuracy is good, precision is moderate.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No verification sampling has been undertaken.</li> <li>No hole pairs were considered suitable for twin analysis.</li> <li>Limited information on Integra logging and sampling exists.</li> <li>Lefroy Logging and sampling procedures are fully documented.</li> <li>Narrow tube AC and ASD samples were removed from the resource estimation due to quality concerns.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Lefroy Drill hole location surveys have been field checked and corrected where necessary.</li> <li>Relative collar locations of other drilling matches Lefroy data.</li> <li>Grid - MGA94_51</li> </ul>
spacing and ibution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data spacing is adequate to confirm the continuity of the mineralisation and is suitable for a mineral resource estimate.</li> <li>No sample compositing has been used for the samples intersecting the resource.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>With one exception the drilling is all vertical providing the best orientation to intersect the sub horizontal palaeochannel deposit.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Integra – no detail of sample Chain of custody is available.</li> <li>Lefroy – Chain of custody of samples was maintained and procedures documented. Sample security is considered accurate.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No external audits or reviews have been undertaken.

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Tenement E 25/517</li> <li>Held by HOGANS RESOURCES PTY LTD a 100% owned subsidiary of Lefroy Exploration Ltd.</li> <li>Pending Mining Lease M 25/362 covers the western two thirds of the tenement.</li> <li>No other impediments or issues have been noted.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>1995-2003 Previous geochemical and RAB reconnaissance was undertaken by Hampton Hill Mining NL</li> <li>2005-2006 Red Dale Exploration conducted a review of the airborne magnetic survey</li> <li>2006- 2014 Integra – general reconnaissance, AC, Diamond drilling</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Buried Palaeochannel, coarse quartz sands and gravel, gold interpreted as derived from nearby source
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Tenement contains 670 drill holes, 170 drilled by Lefroy</li> <li>51 drill holes intersect the palaeochannel mineralisation.</li> <li>32 Lefroy RC drill holes intersect the palaeochannel mineralisation.</li> </ul>
Data aggregatio n methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No data aggregation has been used.
Relationshi p between mineralisati on widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Drill holes are vertical and intersections represent the true thickness of the deposit.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	See main body of report
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Exploration results are not being reported

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	Exploration results are not being reported
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Exploration results are not being reported

## **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>RES has undertaken a data validation comparing the resource database to available original data.</li> <li>RES has checked the internal integrity of the resource database.</li> <li>No errors or omissions material to the resource estimation were identified</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>RES has not undertaken a site visit due to logistical difficulties.</li> <li>Detailed interviews have been done with site personnel.</li> </ul>
Geological interpretati on	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The deposit is a palaeochannel with relatively simple geometry.</li> <li>The deposit is open to the north and south.</li> </ul>
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>550 m strike</li> <li>50 - 150 m wide</li> <li>1 - 6 m thick, commonly ~4 m</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>The modelling and grade estimations for Red Dale were completed using Surpac software.</li> <li>Model block size (50 x 25 x 2) is based on drill hole spacing.</li> <li>Grade estimation for the Red Dale deposit was carried out using linear estimation methods. A multi pass estimation plan was used for all estimation domains. The estimation was made into the parent cell.</li> <li>An Ordinary Kriging (OK) was used to estimate Au in the paleo channel only.</li> <li>Only RC drill hole samples were used in the estimation of grades.</li> <li>Statistical analysis indicated outlier samples that required management. The Pass 1 estimation used a spatial restraint to limit the influence of high grade samples to approximately one block. Passes 2 and 3 used a 4 g/t threshold to cut samples.</li> <li>Hard boundaries were used between domains so that a domain was estimated with only the samples within that domain.</li> <li>Search ellipses are anisotropic reflecting the variogram ranges. Search distances were based on the variogram range and incremented proportionally for Pass 2 and Pass 3.</li> <li>The estimation plan parameters used for grade interpolation are summarised in Table 11 1. Three estimation passes were run, with passes 2 and 3 relaxing the search criteria to capture adequate samples for the estimation of peripheral blocks. Estimations were made into the parent cell. Parent cell grades were assigned to sub-cells.</li> <li>Un-Cut Au and Spatially Restrained Au grades were estimated as grams per tonne (ppm) into the variables au_uncut and au_cut respectively.</li> <li>Statistical and visual validations of the deposit were made. The model is considered a robust</li> </ul>

Criteria	JORC Code explanation	Commentary
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Dry tonnes are reported.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>A range of cut off grades have been reported</li> <li>An economic analysis of the deposit has not been undertaken to determine a mining cut off.</li> </ul>
Mining factors or assumption s	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul> <li>No mining assumptions have influenced the resource estimation.</li> </ul>
Metallurgic al factors or assumption s	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>No metallurgical assumptions have influenced the resource estimation.</li> </ul>
Environme n-tal factors or assumption s	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>No environmental assumptions have influenced the resource estimation.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Bulk density of the palaeochannel material is assumed at 2.0 tm<sup>-3</sup>.</li> <li>The palaeochannel material is a consolidated quartz-rich sandy gravel.</li> </ul>
Classificati on	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The deposit has been systematically drilled and sampled over the resource area typically on a 40 m by 40 m grid pattern.</li> <li>The geology is simple.</li> <li>Drilling, sampling and analysis methods are appropriate.</li> <li>Quality standards have been maintained.</li> <li>The classification of Indicated reflects the competent persons view of the deposit.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	No external audits or reviews have been undertaken.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The resource reported accurately represents a global estimate of the size and grade of the deposit.</li> <li>The simple geology makes the estimation of the deposit volume very accurate.</li> <li>The high nugget nature of the deposit makes local estimations unreliable and precludes classification of the deposit as Measured.</li> </ul>