

ASX ANNOUNCEMENT

24 January 2017

## **DRILLING OF KEY GOLD TARGETS RE-COMMENCES AT ROE HILLS PROJECT, WA**

### **Highlights:**

- **Exploration drilling program has resumed at the Roe Hills Gold Project following the Christmas/New Year break.**
- **The initial eight holes of the 25-hole program were completed in late 2016, comprising:**
  - **6 RCP holes for 955m (RHRC001 – RHRC006); and**
  - **2 RCP pre-collars for 240m (RHDD0033; RHDD0034).**
- **Assay results for completed holes are currently awaited.**
- **Remaining program will comprise a further 17 holes for 3420m, comprising:**
  - **5 RCP/diamond cored holes for 1,160m; and**
  - **12 RCP holes for 2,260m.**
- **Drilling will test multiple existing gold occurrences delineated by historical drilling and several new priority targets outlined in recent months.**
- **Roe Hills is located along strike immediately south of the emerging Bombora/Crescent discoveries at Breaker Resources' (ASX: BRB) Lake Roe Project, where recent drilling has returned impressive intercepts including 39m at 3.22g/t Au (ASX: BRB, 19th December 2016).**

Kairos Minerals Ltd (ASX: KAI; "Kairos" or "the Company") is pleased to advise that drilling has resumed to test multiple priority gold targets at its 100%-owned **Roe Hills Gold Project**, located 120km east-southeast of Kalgoorlie in Western Australia (see Figure 1 & 2).

The program, comprising up to 5,000 metres of combined reverse circulation percussion (RCP) and diamond core drilling, re-commenced as planned in January 2017 following the Christmas/New Year break, and will continue through February to complete the remainder of the planned programme. The drilling will test multiple existing gold occurrences delineated by historical drilling and several new priority targets outlined by Kairos in recent months (see ASX Announcement, 27 September 2016).

### **2016 Program**

- **Total completed: 8 holes for 1195m, including:**
  - **6 RCP holes completed for 955m (RHRC001 – RHRC006); and**
  - **2 RCP pre-collars completed for 240m (RHDD0033; RHDD0034).**

### **2017 Program**

- **Total proposed: 17 holes for 3420m, including:**
  - **5 RCP/diamond cored holes for 1,160m; and**
  - **12 RCP Holes for 2,260m.**

The Company is very encouraged by the drilling completed to date, which has been focused on the +2km long Terra Trend and the Ginger Kiss Trend, situated immediately west of Silver Lake Resources' (ASX: SLR) French Kiss gold deposit (1.945Mt @ 1.89g/t Au for 118,490oz Au).

Assay results for the completed holes are currently awaited, however preliminary indications from geological logging suggest strongly sheared dolerite and gabbroic lithologies showing disseminated sulphides including pyrrhotite and pyrite with associated alteration assemblages including biotite, sericite, chlorite and quartz carbonate veining.

Kairos' technical team is also continuing to produce further high-quality targets from the ongoing project evaluation process, and is maintaining a dynamic approach to the continuation of drilling.

In conjunction with the drilling, Haines Surveys has completed detailed gravity surveys over the Roe Hills Project area. These surveys were designed to complement existing aeromagnetic data in order to better define potential gold-bearing structures hidden beneath transported cover. The surveys continue to be evaluated and final results will be announced in context with the drilling results.

Surface sampling programs have also been planned over selected areas of residual soil cover. These will be undertaken in the current quarter, and will provide an initial assessment of key areas which have not previously been explored or which remain under-explored.

### **Management Comment**

Kairos's Managing Director Joshua Wellisch said the Company was looking forward to completing the remainder of the planned drilling at Roe Hills.

"The results from this drilling will provide a vital insight into the nature and controls of gold mineralisation within the Company's Roe Hills tenements in the Eastern Yilgarn Craton, which is emerging as an exciting new gold exploration province.

"Breaker Resources' continued drilling success immediately to the north of our tenements provides us with strong encouragement, and we look forward to reporting the results from our own drilling as they come to hand," Mr Wellisch said.

**Background**

The Roe Hills Project lies within the Kurnalpi Terrane of the Eastern Goldfields, Eastern Yilgarn Craton (EYC) in a rapidly emerging gold province which is currently enjoying a significant level of exploration activity and investor interest.

The Company’s tenure encompasses a dominant land-holding in the area comprising a total of 324km<sup>2</sup> and covering a 40km continuous strike length of the interpreted southern extensions of the highly prospective Leonora-Laverton greenstone belts (see Figures 1 & 2).

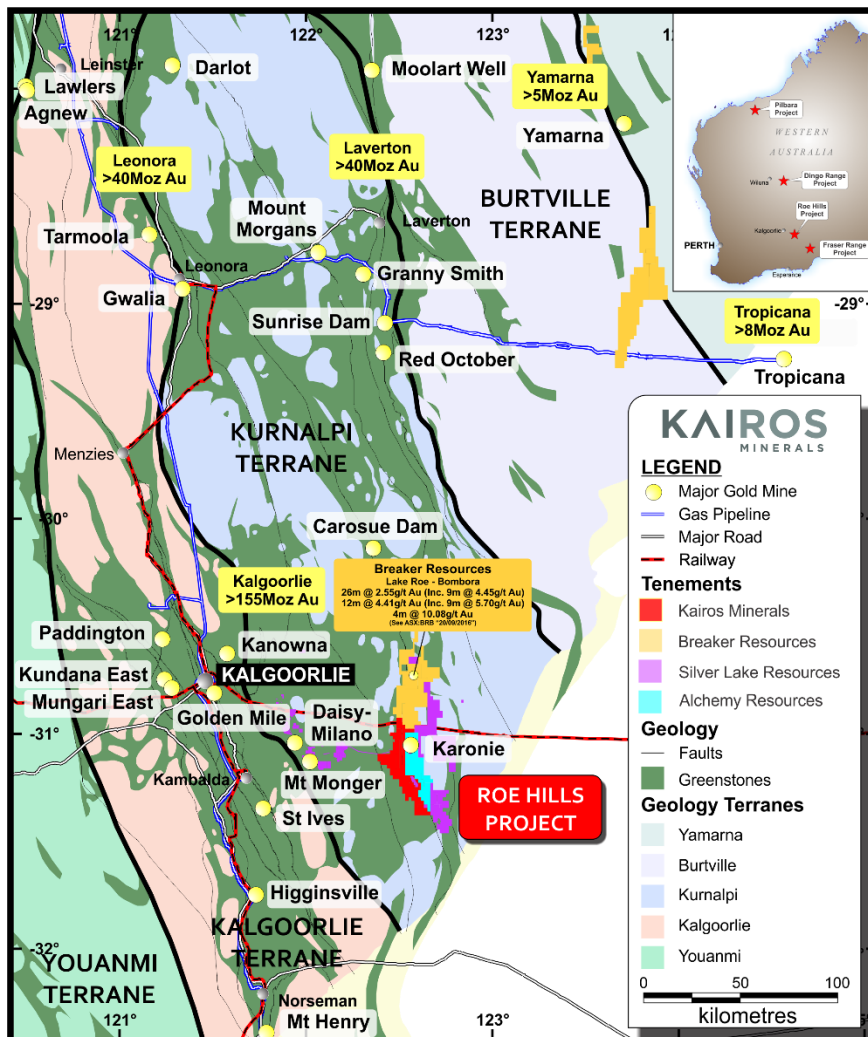


Figure 1. Roe Hills Project location – East Yilgarn Craton (EYC) Kurnalpi Terrane

The Roe Hills Project is flanked by Silver Lake Resources’ (ASX: SLR) Mt Monger/Randalls Gold Operations to the west and the Aldiss Gold Project to the immediate east. Breaker Resources (ASX: BRB) has recently confirmed the discovery of a potentially significant new goldfield at its Lake Roe Project, located ~10km to the north-east of Kairos’ tenement package within the same tectono-stratigraphic corridor (see Figure 1 & 2).

Virtually no methodical gold exploration has been undertaken at Roe Hills for more than 15 years, with the last concerted gold exploration in the region undertaken by BHP and WMC in the mid-1990s.

By contrast, the Laverton goldfield – which also lies within the Kurnalpi Terrane of the EYC, some 200km to the north of Roe Hills – has grown from a reported gold resource endowment of <3Moz in the early 1990s to a current endowment of >28Moz thanks to discoveries by Company’s including Dacian Gold (Mt Morgans >3Moz); AngloGold Ashanti (Sunrise Dam >10moz), Goldfields (Wallaby >8Moz, Granny Smith >2Moz) and Saracen Mineral Holdings (Carosue Dam >4Moz), (see figures 1 & 2).

The potential for significant new discoveries to be made under cover by applying modern exploration methodologies in this historically under-explored region has recently been demonstrated by Breaker Resources (ASX: BRB) at the nearby Lake Roe Project.

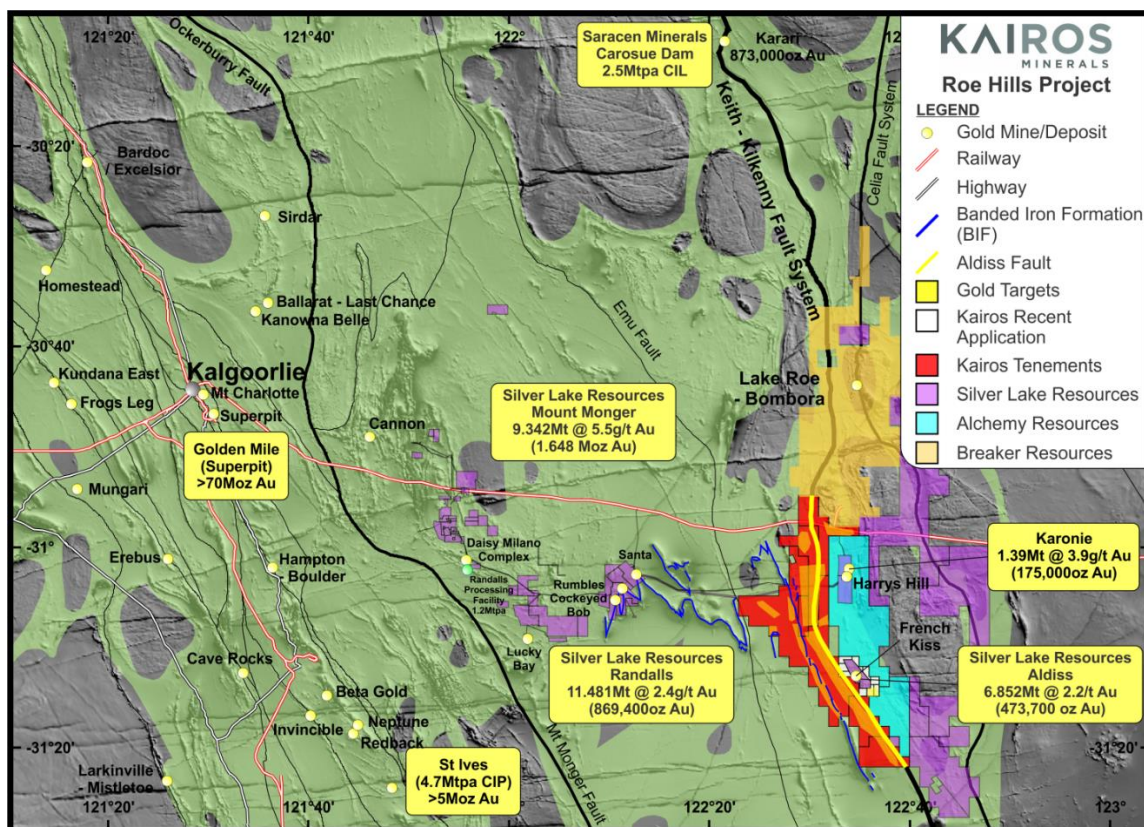


Figure 2. Project location – tenure & gold targets

### Roe Hills Project – Key Targets

With the assistance of expert consultants, Kairos’ geological team has been progressing a detailed review of the gold exploration potential at Roe Hills in preparation for the current drilling program. This work has delivered a number of positive results, which are summarised below and presented in figures 3 & 4:

- The project is bounded by the Celia/Claypan and Emu Fault systems and secures 40 strike kilometres of the Keith-Kilkenny Lineament (locally known as the “Aldiss” Fault) – all of which are regionally extensive deep crust/mantle tapping structures, well recognized as controlling the distribution of many of WA’s major gold deposits;
- Numerous ENE and WNW “linking” structures transect the project stratigraphy, providing dilational traps within favourable lithologies and defining multiple priority targets with the potential to host significant gold mineralization;
- An initial collaborative targeting exercise undertaken with geophysical consultants Newexco Services Pty Ltd has identified multiple high-priority gold targets. A summary of historical intercepts from these areas is presented below (previously announced in KAI June 2016 Quarterly Report):

#### ***Terra Trend***

- **UR19** 16m @ 46.8g/t Au from 38m  
***Including*** 4m @ 181.4 g/t Au from 38m
- **TD1** 35m @ 1.0 g/t Au “stockwork” from 116.5m  
***Including*** 3m @ 1.8 g/t Au from 117.1m
- **KD1** 25m @ 1.2 g/t Au from 161m  
***Including*** 1m @ 20.4 g/t Au from 165m
- **KD3** 20m @ 0.71 g/t Au from 238m  
***Including*** 7m @ 1.65g/t Au from 238m

#### ***Ginger Kiss Trend***

- **KR01** 26m @ 0.84 g/t Au from 74m
- **GKRC1** 4m @ 1.66 g/t Au from 74m
- **GKRC2** 2m @ 2.2 g/t Au from 74m
- **GKRC3** 2m @ 0.9 g/t Au from 76m
- **GKR11** 4m @ 1.22 g/t Au from 64m

#### ***Talc Lake Trend***

- **ROE147** 18m @ 1.65 g/t Au from 138m  
***Including*** 2m @ 11.0 g/t Au from 138m

#### ***Sheehans Well Trend***

- **ROE247** 5m @ 13.7 g/t Au from 50m

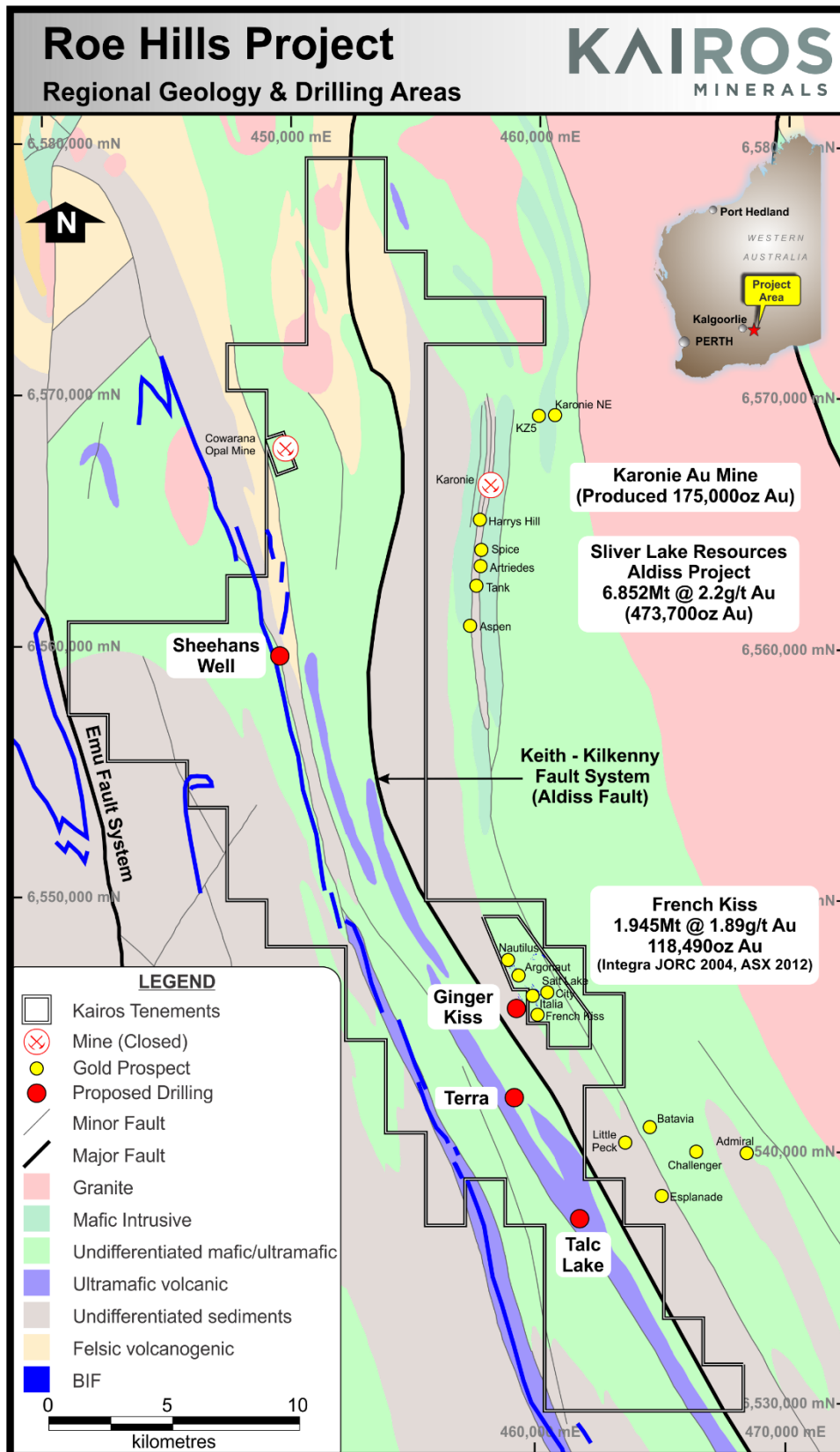


Figure 3. Prospect locations – tenure & proposed drilling

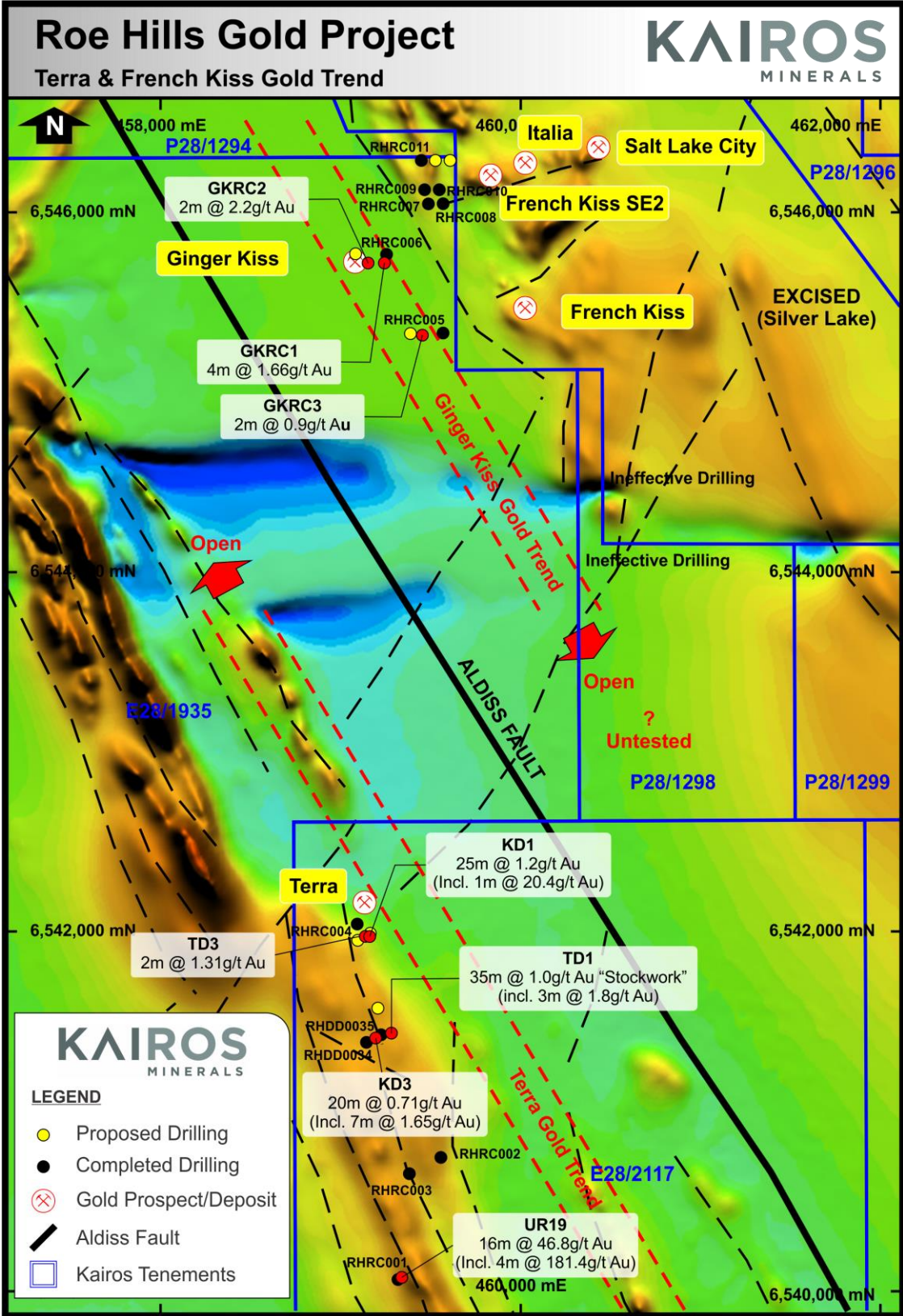


Figure 4. Prospect locations - TMI, gravity interp with completed & proposed drilling

- A review of historical geochemical data in conjunction with detailed mapping of the regolith (near-surface environment) by geochemical consultant Dr Nigel Brand has highlighted extensive areas within the Roe Hills tenement package where historical exploration and surface geochemistry is believed to have been ineffective – significantly enhancing the exploration potential;
- A reinterpretation of the regional geology has highlighted the Western BIF (banded iron formation) ultramafic package at Roe Hills as being a fault dislocated extension of the BIF sequences which host all of the key deposits on Silver Lake Resources' (ASX: SLR) Randall's Project tenements, including Randalls, Cock-eyed Bob, Santa and Maxwells. This sequence remains under-explored and significantly enhances the prospectivity of the project;
- The Company's geological team has now confirmed the presence of gold-bearing structures and favourable mafic host lithologies within the Ginger Kiss and Terra prospect trends, both of which have strong geological similarities to Silver Lake's Aldiss Project;
- A review of the French Kiss Deposit (Integra open file Wamex Reports) has highlighted the possibility of gold mineralisation occurring within a conjugate shear set. A shallow east-dipping and south-plunging "main" lode and a previously unrecognized higher grade, steeply west dipping, "secondary" lode. A similar structural setting is interpreted at Ginger Kiss and Terra and both trends will be targeted for drill testing as part of the current program;
- Kairos' Ginger Kiss and Terra trends occur within extensive "demagnetized zones" adjacent to Silver Lake's French Kiss Deposit and coincident with the interpreted position of the "Aldiss" Fault. This suggests the presence of a major "plumbing system", graben-style block and/or thrust faulting, intense alteration, magnetite destruction and deeper weathering associated with fluid movement along the "Aldiss Fault" and a network of second order structures related to it.





**ENDS**

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**COMPETENT PERSON STATEMENT:**

**Competent Person:** *The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled and reviewed by Mr Steve Vallance, who is a Non-Exec Director for Mining Projects Group and who is a Member of The Australian Institute of Geoscientists. Mr Hutchison has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' (the JORC Code 2012). Mr Vallance has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.*