

#### **ASX ANNOUNCEMENT**

28 July 2017

## QUARTERLY ACTIVITY REPORT FOR THE PERIOD ENDING 30 JUNE 2017

## ASX: NXM Capital Structure

Shares on Issue 83.3 million Unlisted Options 1.7 million Cash on Hand \$5.5 million (30/06/17)

#### **Corporate Directory**

Mr Paul Boyatzis Non-Executive Chairman

Mr Andy Tudor Managing Director

Dr Mark Elliott Non-Executive Director

Mr Bruce Maluish Non-Executive Director

Mr Phillip Macleod Company Secretary

## **Company Projects**

Eastern Goldfields WA Company and Farm-In JV

Pinnacles Project (Gold)

Pinnacles JV Project (Gold)

Mt Celia Project (Gold)

Triumph Project (Gold)

#### **HIGHLIGHTS**

## **Pinnacles Regional Gold Project**

- Regional auger survey completes~50% tenement coverage
- Auger soil results to date define 16 gold anomalies
- 3 high priority / 1 medium priority / 12 areas of interest
  - GT5 anomaly Au (+ Bi-Te-Mo) 1.9km x 300m
  - GT6 anomaly Au (+ As-W) 2km x 600m
  - GT7 anomaly Au (+As-Bi-Sb-Te) 1.5km x 800m
  - GT8 anomaly Au (+As-Sb-Mo) 800m x 500m
- Ground geological / structural mapping completed over auger soils coverage area



Photo 1: Auger sampling program Pinnacles Regional Gold Project Eastern Goldfields, Western Australia.

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## **NEXUSMINERALS**

During the quarter ended 30 June 2017, Eastern Goldfields gold explorer, **Nexus Minerals Limited** (ASX: NXM) (Nexus or the Company) completed a number of successful work programs. These included the completion of the Phase 2 auger soil geochemical sampling program, and the follow-up infill auger sampling of anomalies identified in the Phase 1 program. The auger program now covers ~50% of the tenement area, whilst the other ~50% remains to be sampled. Ground geological activities were undertaken concurrently with the auger program over the highly prospective Pinnacles regional 100km² tenement area.

Nexus Minerals tenement package at the Pinnacles Gold Project is largely underexplored and commences less than 5km to the south of, and along strike from, Saracen Minerals (**Saracen**) >4Moz Carosue Dam mining operations, and current operating Karrari underground gold mine.

Nexus holds a significant land package (100km²) of highly prospective geological terrain within a major regional structural corridor, and is actively exploring for gold deposits.

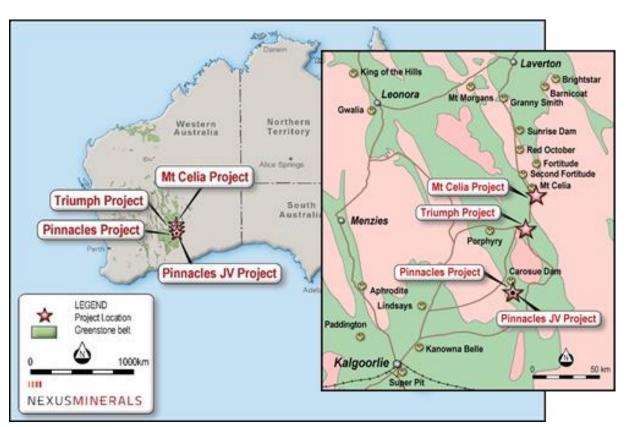


Figure 1: Nexus Project Locations - Eastern Goldfields, Western Australia.

#### **Pinnacles Regional Gold Project**

The combined Pinnacles Gold Project area covers 100km² of highly deformed Archaean greenstone sequence of basalts, dolerites, and co-magmatic high-level intrusions. This mafic volcanic association is overlain by a series of medium to coarse grained volcaniclastic sandstones and subordinate felsic volcanic rocks. These greenstones have been intruded and disrupted by the forceful intrusion of a series of granitoid rocks. This geological and structural setting is considered to be highly prospective for gold mineralisation.

## **Auger Soil Geochemical Program**

Auger sampling targeting calcareous soils (calcrete) has been successfully employed as the preferred geochemical sampling medium for gold exploration in the Eastern Goldfields for the past decade. Mineralisation in the Carosue Dam district, including Karari, Whirling Dervish, Luvironza, Monty Dam and Twin Peaks deposits were all identified using this technique.

This Phase 2 program (Figure 2 "Auger Survey Area") was designed to cover an area of prospective geological units, and north-south structures (Figure 4) that also exhibit gravity lows (Figure 5) – the "ingredients" of Carosue Dam style mineralisation. The auger program has now covered ~50% of the tenement area, whilst the other ~50% remains to be sampled.

The program also infilled anomalous area GT5 identified in the Phase 1 program (Figures 2 and 3 "Auger Infill Area"), reducing the sample spacing from 400m x 80m to 100m x 80m.

836 shallow auger samples were collected across the south eastern 25% of the tenement area. Samples were collected on a 400m x 80m grid and analysed for gold and 32 additional pathfinder elements to identify mineralisation and as a lithological mapping tool. 408 samples were collected as infill samples to GT5 Phase 1 anomaly.

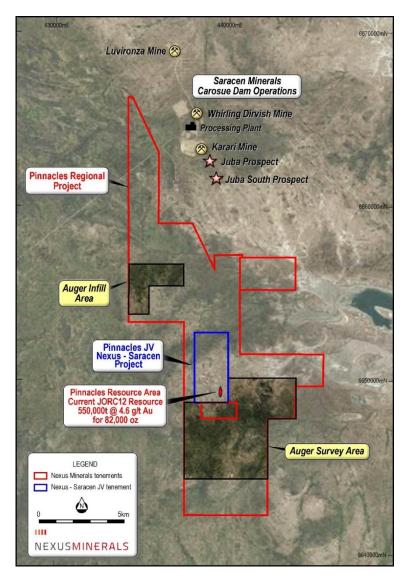


Figure 2: Nexus Pinnacles Regional Auger Soil Survey

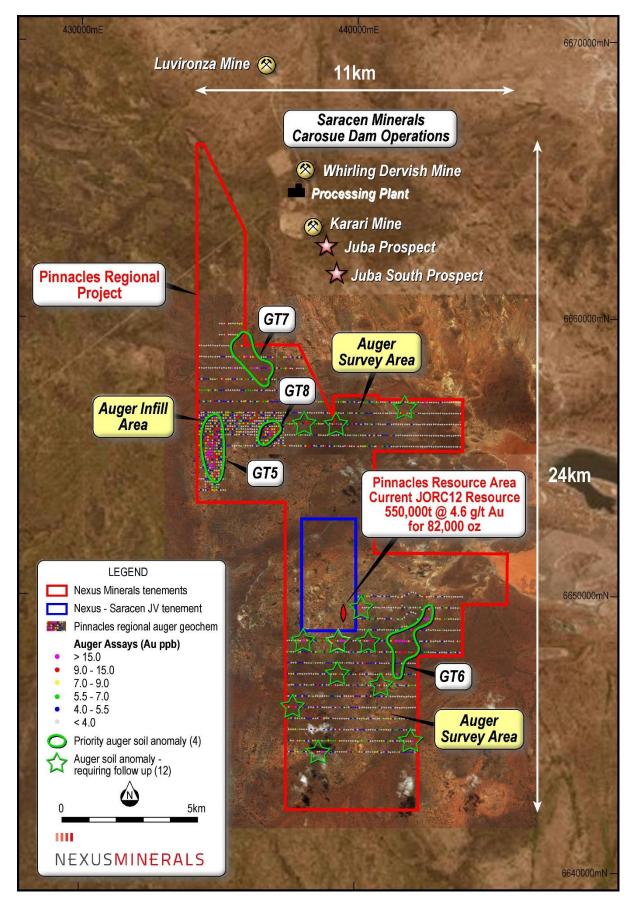


Figure 3: Nexus Pinnacles Regional Auger Soil Survey Results



1) **GT5** – This high priority 2.4km x 300m Au anomaly (max 61.7 ppb Au +Bi-Te-Mo pathfinder elements) was identified in the Phase 1 program. The anomaly shows good strike continuity across six of the 400m spaced survey lines and is striking north-south within a sheared ultramafic unit. This area is located in a gravity low and had been highlighted previously as a zone of interest from Nexus regional aeromagnetic assessment and interpretation.

The Phase 2 infill auger soil lines were undertaken at 100m x 80m over the 2.4km x 300m and have constrained the core Au anomaly boundaries further to 1.9km x 300m.

A final auger soil program will be undertaken to reduce the sampling density to 50m x 40m to further define the core of the anomaly, and the area will also be covered with a ground magnetic survey to allow drill targets to be defined.

2) **GT6** – This high priority 2.0km x 600m Au anomaly (max 619 ppb Au +As-W pathfinder elements) has been identified in this Phase 2 program. The anomaly occurs in a prospective structural setting located on a north south fault offsetting the regional Yilgangi Fault. This is a similar structural setting to that of the Carosue Dam deposits of Karari and Whirling Dervish immediately to the north of the Nexus tenements. The anomaly is also situated within the Carosue Dam basin sediments and is located over a gravity low – also "ingredients" of the Carosue Dam deposits.

This anomaly will now be subject to infill auger sampling to 50m x 40m to define the core of the anomaly and allow drill targets to be defined.

3) **GT7** – Previously "Broad anomalous zone" – This medium priority anomaly is elevated in Au (+As-Bi-Sb-Te pathfinder elements). The 2.5km x 1.5km zone identified in the Phase 1 program, contains a medium priority gold anomaly (max 47 ppb Au) that surrounds a pathfinder element anomaly. The structural setting is significant as it is located on the same fault that displaces the Karari and Whirling Dervish gold mines to the north east. Mapping has identified sheared and silicified tuff and volcaniclastic sedimentary units, with local felsic intrusive. Detailed mapping was undertaken over this anomaly to better define geology and structure.

This anomaly will now be subject to infill auger sampling to 200m x 80m to better define the core and extent of the anomaly, thus allowing drill targets to be defined.

4) **GT8** – This high priority 800m x 500m Au anomaly (max 17.1 ppb Au +As-Sb-Mo pathfinder elements) was identified in the Phase 1 program, with infill lines in Phase 2 program increasing sample density to 100m x 80m. The anomaly occurs in a prospective structural setting located on a distinct northwest-southeast gravity offset feature, and also lies over a complex magnetic feature.

A final auger soil program will be undertaken to reduce the sampling density to 50m x 40m to further define the core of the anomaly, and the area will also be covered with a ground magnetic survey to allow drill targets to be defined.

5) **Triple/Double/Single sample site anomalies (12 of)** – Multiple sample sites with elevated gold results >9 ppb Au with the initial broad 400m x 80m sample spacing providing significant scope to host significant mineralisation. These areas require ground geological truthing and infill auger soil lines to better define these anomalies.



#### **Geology and Structure**

The project tenements are underlain by a north-south trending Archaean greenstone sequence with the Carosue Basin volcaniclastic sediments dominating to the east of the Yilgangi Fault. To the west of the Yilgangi Fault a more mafic dominated package is observed consisting of volcaniclastic sediments intercalated with basalt and ultramafic rock units with minor units. This greenstone sequence is sandwiched between two ovoid Archaean granitoid plutons to the east and the west.

Structurally the region is cut by a series of north-south trending faults with offsets of tens to hundreds of metres. These faults are particularly common in this Carosue Dam region as the greenstone belt passes through a relatively narrow "neck" between the two granitoids. This is also the area where most of the known Carosue Dam mineralisation is concentrated. Mineralisation is known to occur proximal to, and east and west of the Yilgangi Fault. This fault is a major feature that dissects the Nexus tenement package for a strike distance of some 15km. It can clearly be seen as a "spine" feature on the gravity survey map (Figure 5).

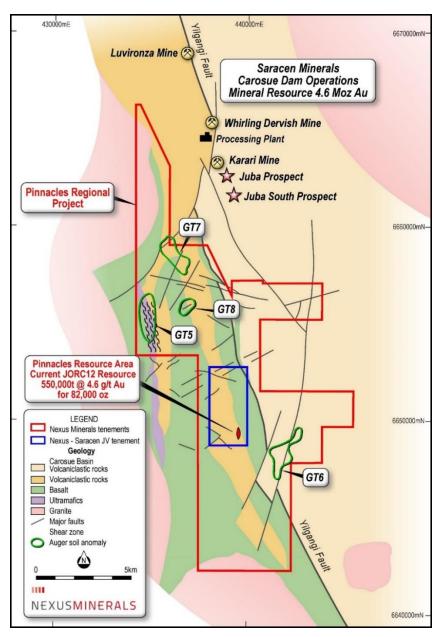


Figure 4: Nexus Pinnacles Regional Geology & Structure with Priority Auger Geochemistry anomalies overlain

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## NEXUSMINERALS

#### **Gravity Survey**

The successful use of gravity surveys to identify the stratigraphy hosting major deposits in the Carosue Dam basin by Saracen, on their tenement immediately to the north of Nexus regional tenements, has provided Nexus with the encouragement to undertake its own gravity survey, now completed, covering the Company's 100km² regional package (Figure 5).

Saracen reported in its ASX release of 27 July 2016 that 'the gravity survey successfully defined the prospective corridor of late basin volcaniclastic sediments which host the major deposits in the Carosue Dam corridor. The key stratigraphy is defined in the gravity data as a gravity low. Many of the deposits in the Carosue district are hosted in this gravity low and are generally proximal to north south striking faults.'

Results are encouraging with gravity lows being identified in the east and west of the tenement package (volcaniclastic sediments), separated down the centre of the tenements by a gravity high (basalt) coincident with the Yilgangi Fault zone.

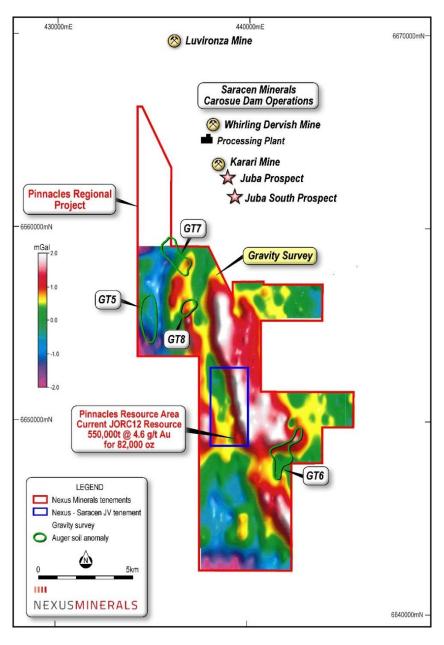


Figure 5: Nexus Pinnacles Regional Gravity Survey with Priority Auger Geochemistry anomalies overlain

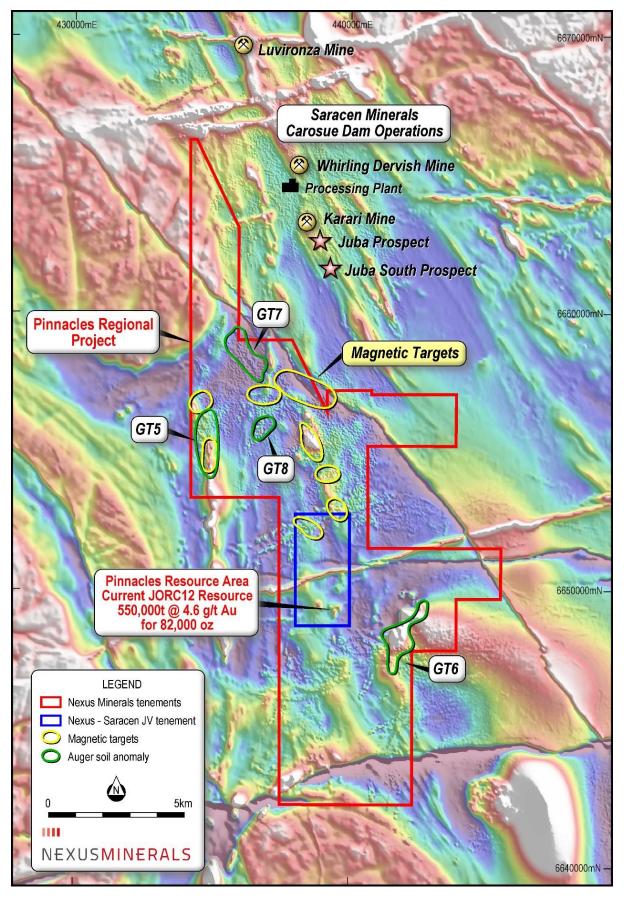


Figure 6: Nexus Pinnacles Regional Airborne Magnetic Targets with Priority Auger Geochemistry anomalies overlain



#### Mt Celia Project

The Mt Celia Gold Project lies 180km north east of Kalgoorlie within the southern part of the Laverton Tectonic Zone (LTZ). This structure hosts numerous major gold mines and currently contains Mineral Resources of ~20 million ounces.

The project area contains numerous small historic gold workings, within a shear zone extending locally over 3km in length, and consisting of quartz filled shears within mafic lithologies.

Data compilation and assessment was completed during the March quarter, with initial field investigations commencing in the September quarter.

No field work was undertaken during the quarter.

## **Triumph Project**

The Triumph Gold Project is located 145km northeast of Kalgoorlie and comprises both 100% owned tenements (46km²) and a Farm-In/Joint Venture agreement (24km²). The total project area covers ~70km².

To date, the Company has undertaken multiple IP ground geophysical programs, which identified a central high strain zone. When layered with geology, structural interpretation and ground magnetics, the structural controls on mineralisation are better understood.

No field work undertaken during the June quarter.

#### **Corporate**

During the quarter, Managing Director Andy Tudor updated brokers on the Company's activities including the Pinnacles Regional Gold project, the Pinnacles JV Gold project, and other Company projects. Nexus intends to attend several roadshows and presentations in the September quarter.

At the end of the June quarter, the Company held A\$5.5m cash and equivalents.

## <u>September 2017 Quarter – Work Program</u>

During the September 2017 quarter, the Company intends to undertake the following activities:

Pinnacles Regional Gold Project

- Follow up auger geochemical soil survey to infill Phase 1 and 2 high priority anomalies
- Detail ground geological investigation of priority auger soil anomalies
- Detailed ground magnetics survey over anomalies GT5 and GT8
- Integrate auger geochemical results with aeromagnetic, ground magnetic, gravity, structural and geological data sets to allow completion of drill planning for initial RC drilling program

## Mt Celia Gold Project

- Ground truthing of areas of interest identified through historic data search
- Integration of new geological information with available geological and structural data sets

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## **NEXUSMINERALS**

#### **About Nexus**

Nexus is actively exploring for gold deposits on its highly prospective tenement package in the eastern goldfields of Western Australia.

The Company has entered into a Farm-in and Joint Venture Agreement over the Pinnacles JV Gold Project with Saracen Gold Mines Pty Ltd, a subsidiary of Saracen Mineral Holdings Limited (ASX:SAR) (see ASX Release 17 September 2015). This investment is consistent with the Company strategy of investing in advanced gold exploration assets.

Nexus Minerals is a well-funded resource company with a portfolio of gold projects in Western Australia. With a well-credentialed Board, assisted by an experienced management team, the Company is well placed to capitalise on opportunities as they emerge in the resource sector.

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The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation, prepared, compiled or reviewed by Mr Andy Tudor, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Tudor is a full-time employee of Nexus Minerals Limited. Mr Tudor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The exploration results are available to be viewed on the Company website www.nexus-minerals.com. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements. Mr Tudor consents to the inclusion in the reports of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Nexus Minerals Limited Pinnacles JV Mineral Resource is based upon information from the Company's announcement dated 13 October 2016 and is available to view on the Company's website at www.nexus-minerals.com. The information was compiled by Mr Paul Blackney, a Competent Person who is a member of The Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Blackney is a full-time employee of Optiro Pty Ltd, consultants to Nexus Minerals Limited. Mr Blackney has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

#### **SUMMARY OF NEXUS MINERALS LIMITED TENEMENTS**

AUSTRALIA	Interest at beginning of Quarter	Interest at end of Quarter
Pinnacles (Gold)	·	
M28/243	85%	88% - Earning interest through Farm-In JV
P28/1185	100%	100%
E28/2526	90%	90%
E28/2487	100%	100%
Triumph (Gold)		T
E31/1088		
P31/2074	100%	100%
P31/2075		
P31/2076		
E31/819		80% - Earning interest through Farm-In JV
E31/820		
P31/1960		
P31/1961	80% - Earning interest through Farm-In JV	
P31/1962		
P31/1963		
P31/1964		
Mt Celia (Gold)		I
P39/5484		100%
P39/5485	100%	
P39/5486		
E39/1890		
E39/2037 (Application)	0%	0%
P39/5836 (Application)	0%	0%
Turkey Nest Dam (Gold)	L	<u> </u>
E39/2025 Application	0%	0%