NEXUSMINERALS

ASX ANNOUNCEMENT **18 July 2016**

Major Intrusive Related Alteration System Identified at Pinnacles

ASX: NXM

Capital Structure

Shares on Issue 70.4 million

Unlisted Options 3.5 million

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 tenements

Pinnacles JV Project (Gold)

Pinnacles Project (Gold)

Triumph Project (Gold)

Mt Celia Project (Gold)

- **Recently completed IP geophysical program highlights "Pinnacles Corridor" and Pinnacles North anomalies**
- **Drill ready gold targets identified within "Pinnacles Corridor" and Pinnacles North anomalous areas – planning underway to allow priority drill testing**
- **Extensive coincident chargeability high and resistivity high anomaly identified over magnetic anomalies within the "Pinnacles Corridor" (GT1)**
- **The anomaly may be related to areas of disseminated sulphides (chargeability highs) and large zones of silicification (resistivity highs) – frequently associated with gold mineralisation**
- **The 1.5km x 250m north trending resistivity high and chargeability high anomaly exhibits the signature of a major intrusive related alteration system**
- **The resistivity high occurs within an extensive broader 2.5km x 600m north - north west trending zone of higher resistivity – prospective alteration**
- **IP survey also confirms resistivity high centered on Pinnacles North coincident gold / arsenic soil geochemical anomaly (GT2)**
- **Potential "repeat" of Pinnacles East style mineralisation is observed in a duplicate structural position, 200m south east of the Pinnacles East resource (GT3)**
- **Narrow north south coincident chargeability & resistivity high possibly representing deformed silicified black shale unit (GT4)**
- **The survey has highlighted the significant scope for regional gold exploration potential**

Eastern Goldfields gold explorer, **Nexus Minerals Limited (ASX: NXM) (Nexus** or **the Company)** is pleased to announce the results of the recently completed Gradient Array Induced Polarisation **(GAIP)** geophysical survey conducted on the Pinnacles JV project in the eastern goldfields of Western Australia.

The GAIP survey, in conjunction with the previous aeromagnetic interpretation, has produced encouraging results highlighting the considerable regional exploration gold potential. The survey identified a broad zone of resistivity highs and in part chargeability highs with the highest coincident anomaly occurring directly over the previously identified aeromagnetic target within the "Pinnacles Corridor".

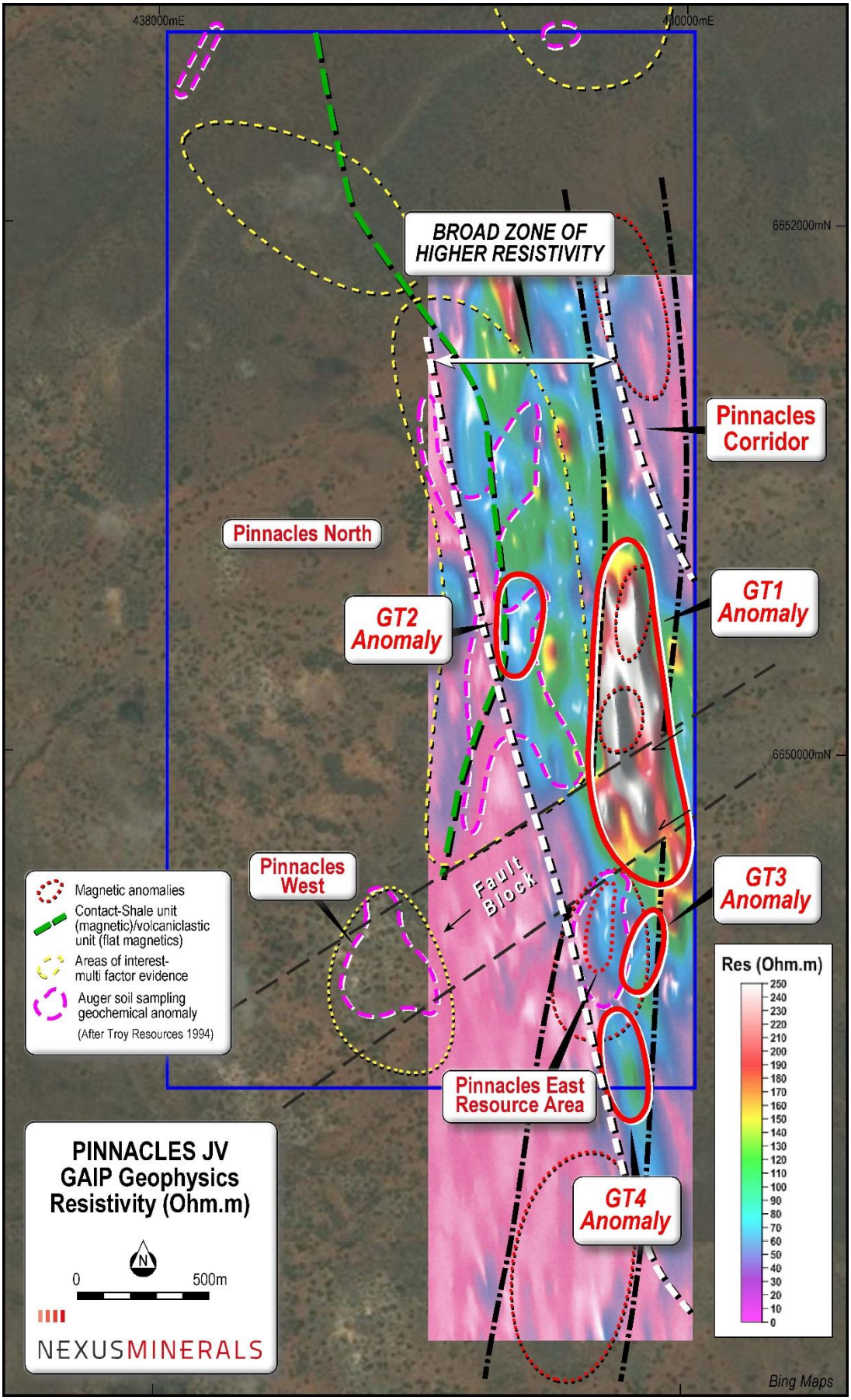

Figure 1. Pinnacles JV tenement GAIP Resistivity over Aeromagnetic & Soil Geochem Anomalies.

Gradient Array IP Survey

The Gradient Array Induced Polarisation (GAIP) method is a geophysical method used in gold exploration and provides two forms of results, being Resistivity and Chargeability. Taking measurements involves use of a transmitter to generate a current, and a receiver to measure the resulting voltages. The Resistivity will use voltage and current measurements to calculate the resistivity of the rocks, while Chargeability will involve measuring the subsurface voltage response of some minerals at certain times after the current supply is switched off.

The method was selected as it allows a large area to be covered where the positions of anomalies are not well known, and also has the potential to identify zones of:

Resistivity – highs representing potential silica alteration / quartz veining also often associated with gold mineralisation, and;

Chargeability – highs representing the presence of sulphides (pyrite / arsenopyrite) often associated with gold mineralisation.

The Nexus gradient array IP survey was conducted over a 4km x 1km grid, with 200m spaced lines, tightened to 100m spacing over the Pinnacles East resource area for a total of 23 line kilometres. Recordings were taken at 25, 50 and 100m along the lines. The 100m data provided a reliable data set for this first pass survey, with the 50m and 25m data providing better delineation of structures, alteration and lithological distribution.

The GAIP survey has identified a number of local and regional features (Fig. 1 and 2 – 50m data shown):

1) The resistivity data shows a broad north - north west trending 2.5km x 600m zone of increased resistivity, with a number of higher order anomalies within it.
2) This broad resistivity zone contains coincident high order resistivity (up to 650 ohm.m) and chargeability (up to 40mV/V) anomalies (GT1 anomaly). Areas where these resistivity and chargeability anomalies coincide are considered excellent targets for gold mineralisation. These highs also coincide with previously identified aeromagnetic highs representing potential high level intrusions.
3) Resistivity highs also occur along contact zones of magnetic / non-magnetic rock units, within the previously reported Pinnacles North 1.6km x 300m geochemical coincident gold (>15ppb) arsenic (>50ppm) anomaly, and beyond. These contact zone resistivity highs are interpreted to represent silicification of a black shale unit. This is highly prospective as this rock unit also hosts the Pinnacles East gold mineralisation (GT2 anomaly).
4) Pinnacles East gold mineralisation is defined in the GAIP data by a weak but distinct resistivity anomaly co-incident with the current resource. A potential "repeat" of Pinnacles East style mineralisation is observed in a duplicate structural position, 200m south east of the Pinnacles East resource (GT3 anomaly).
5) A narrow north south coincident chargeability & resistivity high possibly representing a deformed silicified black shale unit (GT4 anomaly).
6) The chargeability high predominantly to the west of the shale/volcaniclastic unit contact (green dashed line on fig. 2) is likely to represent a graphitic black shale lithological unit. The presence of this graphitic unit is important, as with the correct structural and chemical factors it can aid in the deposition of gold.

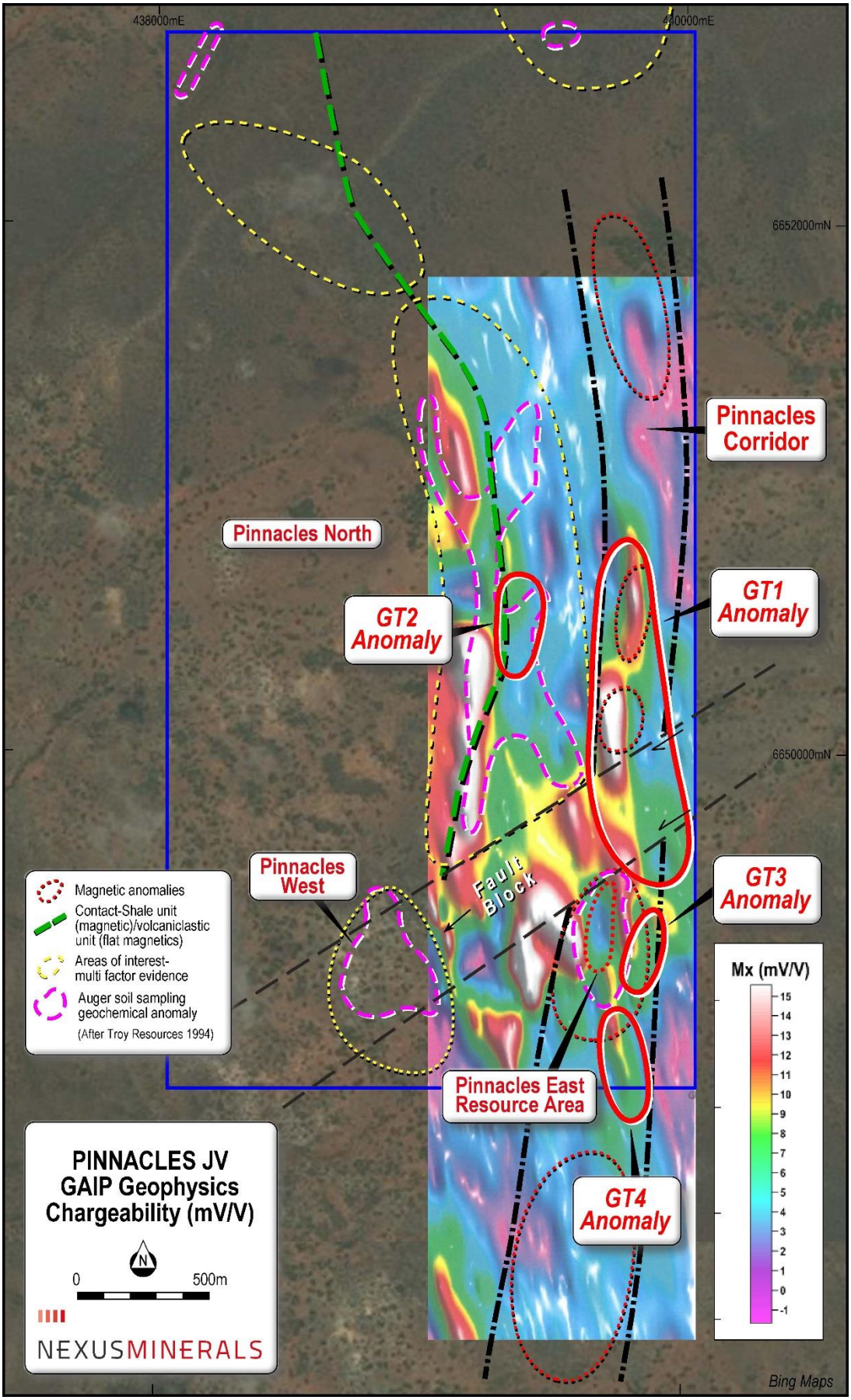

Figure 2. Pinnacles JV tenement GAIP Chargeability over Aeromagnetic & Soil Geochem Anomalies.

The GAIP survey, in conjunction with the previous aeromagnetic interpretation, has produced encouraging results highlighting the considerable upside for the regional exploration gold potential - both within the Pinnacles JV tenement and the larger surrounding Pinnacles Regional tenement package.

Nexus is continuing to build up geological, structural and mineralisation information of the region with interpretation models being built and modified as new information is gathered and assessed.

Drill planning is now at an advanced stage for the further testing of the Pinnacles East resource area as well as regional targets recently identified.

Nexus Minerals Managing Director, Andy Tudor, said *"This geophysical program, in conjunction with our other exploration activities, has provided very useful information that will assist us in drill targeting. The size and magnitude of the coincident resistivity and chargeability anomaly identified within the broader regional anomaly is very encouraging for the discovery of mineralisation associated with zones of silicification and/or sulphides. Drill planning is currently underway and we plan to test these anomalies as a matter of priority."*

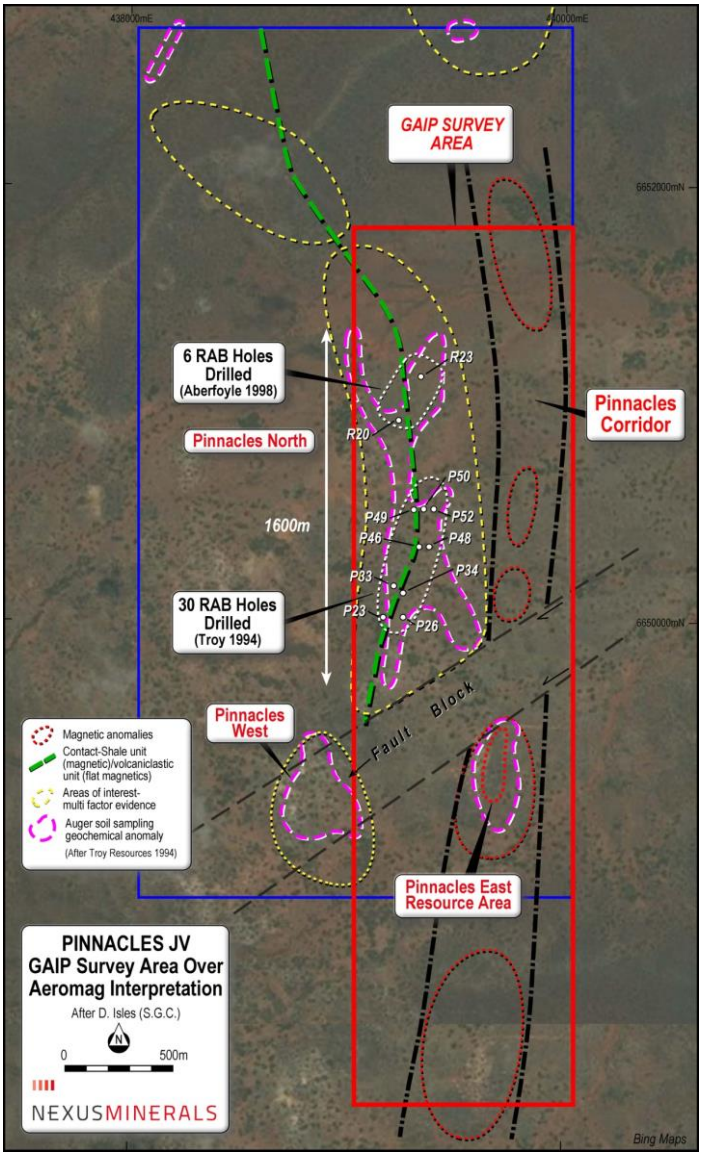

Figure 3. Pinnacles JV Tenement with GAIP Survey Area & Aeromagnetic anomalies.

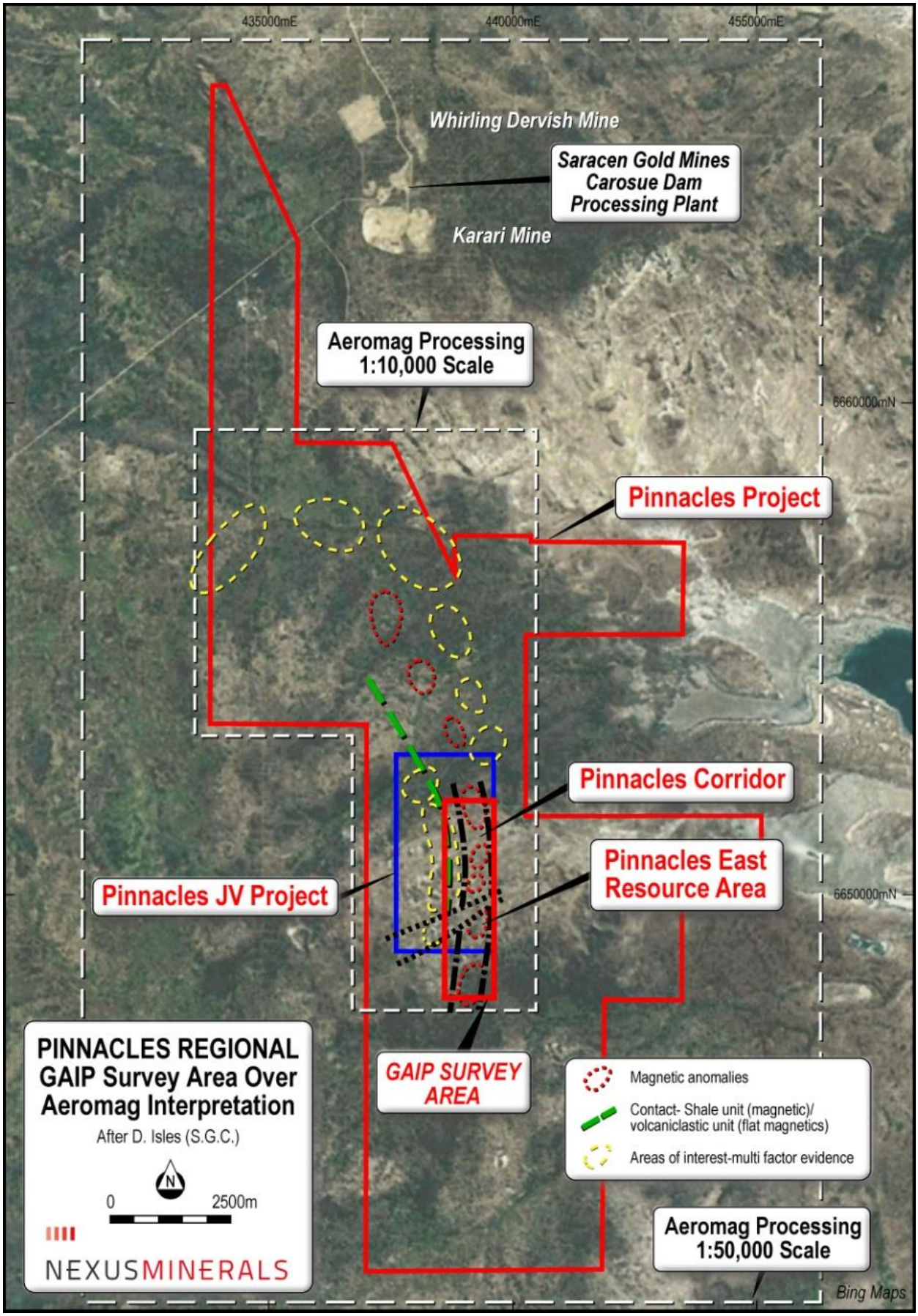

Figure 4. Pinnacles Regional Tenements with GAIP Survey Area & Aeromagnetic anomalies.

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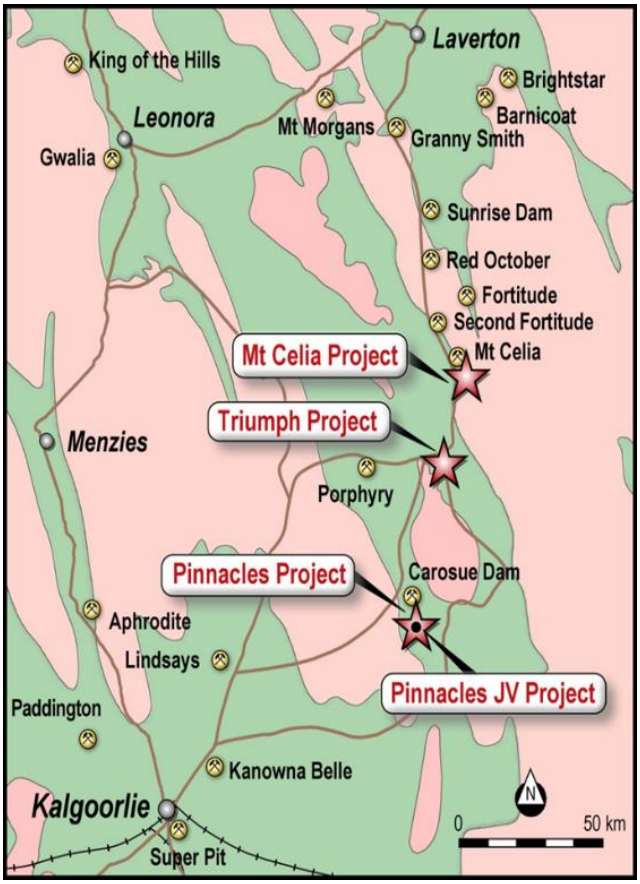

Figure 5: Nexus Project Locations – Eastern Goldfields, Western Australia.

About Nexus

Nexus 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 capable and 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.

- Ends -

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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, 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".

Nexus Minerals Limited confirms that it is not aware of any new information or data that materially affects the information included in the market announcements of 5/5/2016 and 8/6/2016.

Mr Tudor consents to the inclusion of the matters presented in the announcement in the form and context in which they appear.

Appendix A

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *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.*	Gradient Array IP Geophysical survey only. No drilling. Line spacing 200m and 100m. Receiver spacing 25m, 50m, 100m. Total area covered 4km x 1km for 23 line km's.
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).*	Gradient Array IP Geophysical survey only. No drilling.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *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.*	Gradient Array IP Geophysical survey only. No drilling.

Criteria	JORC Code explanation	Commentary
Logging	*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.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	Gradient Array IP Geophysical survey only. No drilling.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *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.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Gradient Array IP Geophysical survey only. No drilling.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *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.* *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.*	Gradient Array IP Geophysical survey only. No drilling.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	Gradient Array IP Geophysical survey only. No drilling.
Location of data points	*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.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Lines were positioned using a handheld GPS, with an accuracy of 5m. Grid projection is GDA94 Zone51.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *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.* *Whether sample compositing has been applied.*	Line spacing 200m and 100m. Receiver stations 25, 50, 100m.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *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.*	GAIP lines were considered to be sub-perpendicular to the strike of the geology and regional structures. Not applicable.
Sample security	*The measures taken to ensure sample security.*	Gradient Array IP Geophysical survey only. No drilling.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Data corrections and validation was undertaken daily by the IP survey contractor.

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	*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.* *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.*	GAIP Survey was undertaken on tenement M28/243. Nexus is the manager of a Farm-In & JV Agreement with Saracen Mineral Holdings Limited (as detailed in ASX release 17/09/2015). There are no other known material issues with the tenements. The tenements are in good standing with the Western Australian Mines Department (DMP).

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The tenements were subject to minor mining activities in the early 1900's (2 shafts) and modern exploration activities since the mid 1980's. A number of companies explored the tenement between 1982 and 2014. Saracen Gold Mines Pty Ltd obtained the tenement in 2006 and has completed a number of drilling campaigns over the main Pinnacles project area. This work resulted in Saracen Gold Mines Pty Ltd releasing a JORC 2012 compliant resource of 413,000t @ 2.1g/t gold for 28,000 ounces.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Pinnacles Project area covers part of a highly deformed Archaean greenstone sequence of basalts, dolerites, and comagmatic 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. Gold mineralisation occurs within a sub-vertical shear zone hosted within the sediments. It is associated with quartz veining (1-10cm) and sheared altered host rocks.
Drill hole Information	*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:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* *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.*	Gradient Array IP Geophysical survey only. No drilling. .

Criteria	JORC Code explanation	Commentary
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.* *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.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Not applicable. Not applicable. Not applicable.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *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').*	Gradient Array IP Geophysical survey only. No drilling.
Diagrams	*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.*	Refer to the maps and sections included in the text.
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.*	Not applicable.
Other substantive exploration data	*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.*	Gradient Array IP Geophysical survey only. No drilling.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Post full assessment of recent GAIP survey results and integration with existing data sets, future work programs may include further RC and/or Diamond drilling to follow up on the results received from this, and other integrated exploration programs.