

# IP survey defines drill targets at Cairn Hill

## Highlights

- **Cairn Hill induced polarisation (IP) survey completed**
- **IP survey extends strike potential of resistive zone associated with high grade mineralisation (20m @ 29g/t gold from 30 metres)<sup>1</sup> by 600 metres and demonstrates depth potential**
- **Program of works approval received from DME for initial diamond drilling at Cairn Hill which is expected to commence in October 2016**
- **Successful listing on the ASX, well-funded and tight capital structure**

### Fast Facts

Shares on Issue: 32.67M  
Market Cap: \$8.3M @ \$0.255  
Cash in Bank: \$3.5M

### Board and Management

Michael Bohm, Non Exec Chairman  
Paul Payne, Non-Exec Director  
Justin Tremain, Non-Exec Director

Ben Cairns, Chief Executive Officer  
Melanie Li, Company Secretary

### Company Highlights

- Earning 70% of the Cairn Hill project 40km WNW of Paraburdoo. Significant gold intersections include 20m @ 29g/t Au from 30m<sup>1</sup>
- 100% owned Mt Clement Project (under application) prospective for gold and base metals 35km SW of Paulsens Gold Mine
- 100% owned Capricorn Li Project (under application) Historic exploration has identified Li anomalism in lag sampling over an area 18km x 4km

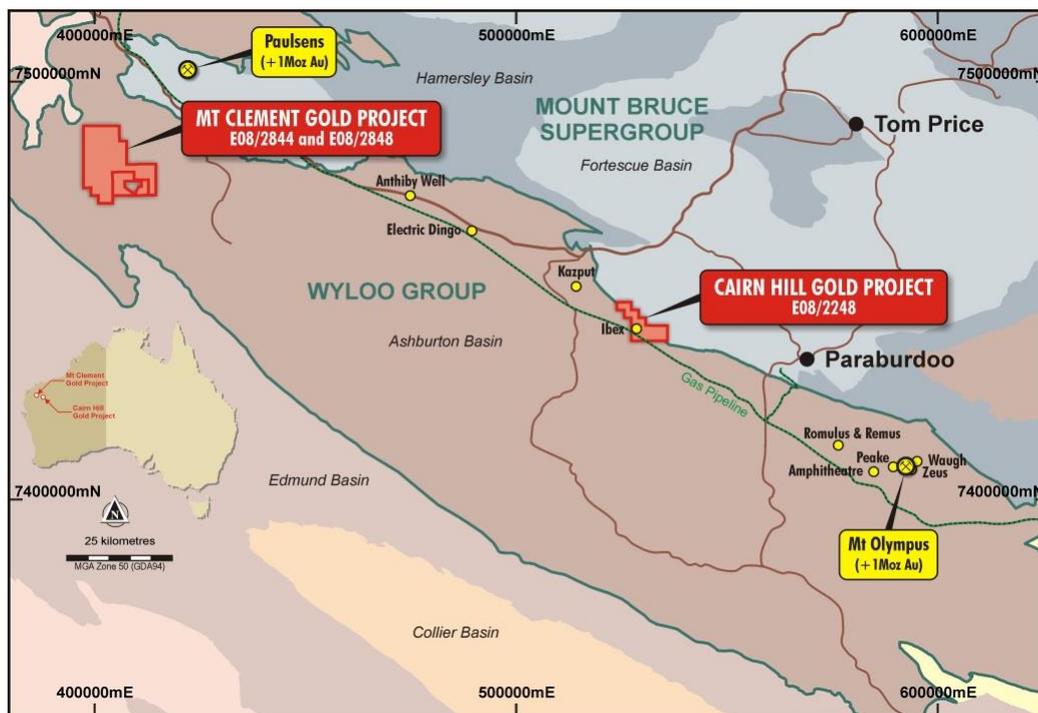


Figure 1 | Berkut Minerals Project locations

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## Cairn Hill

Berkut Minerals Limited (Berkut) is pleased to announce the completion of an induced polarisation (IP) survey at the Cairn Hill Project. The Cairn Hill Project has not previously been the subject of electrical survey techniques and given the extensive alluvial and colluvial cover the company viewed the potential to see through the surface material as a key to advancing the exploration potential of the Project. Berkut has completed a 2km by 1km gradient array induced polarisation (GAIP) survey centred on historic drilling along with two dipole-dipole (DDIP) survey lines over significant historic drill intersections to test the depth response in areas of known mineralisation. The IP survey was designed to:

- Define the resistivity / chargeability associated with known mineralisation;
- Define potential targets for mineralisation;
- Define geology and structures largely hidden by alluvium and colluvium; and
- Facilitate a rapid evaluation of the Cairn Hill Project.

The IP survey was undertaken by Vortex Geophysics and supervised by Southern Geoscience Consultants (SGC).

Within the survey area, SGC identified 17 geophysical features that require further examination. Of these, Berkut has identified four priority targets of which the most significant are associated with anomalous results identified by the historic drilling.

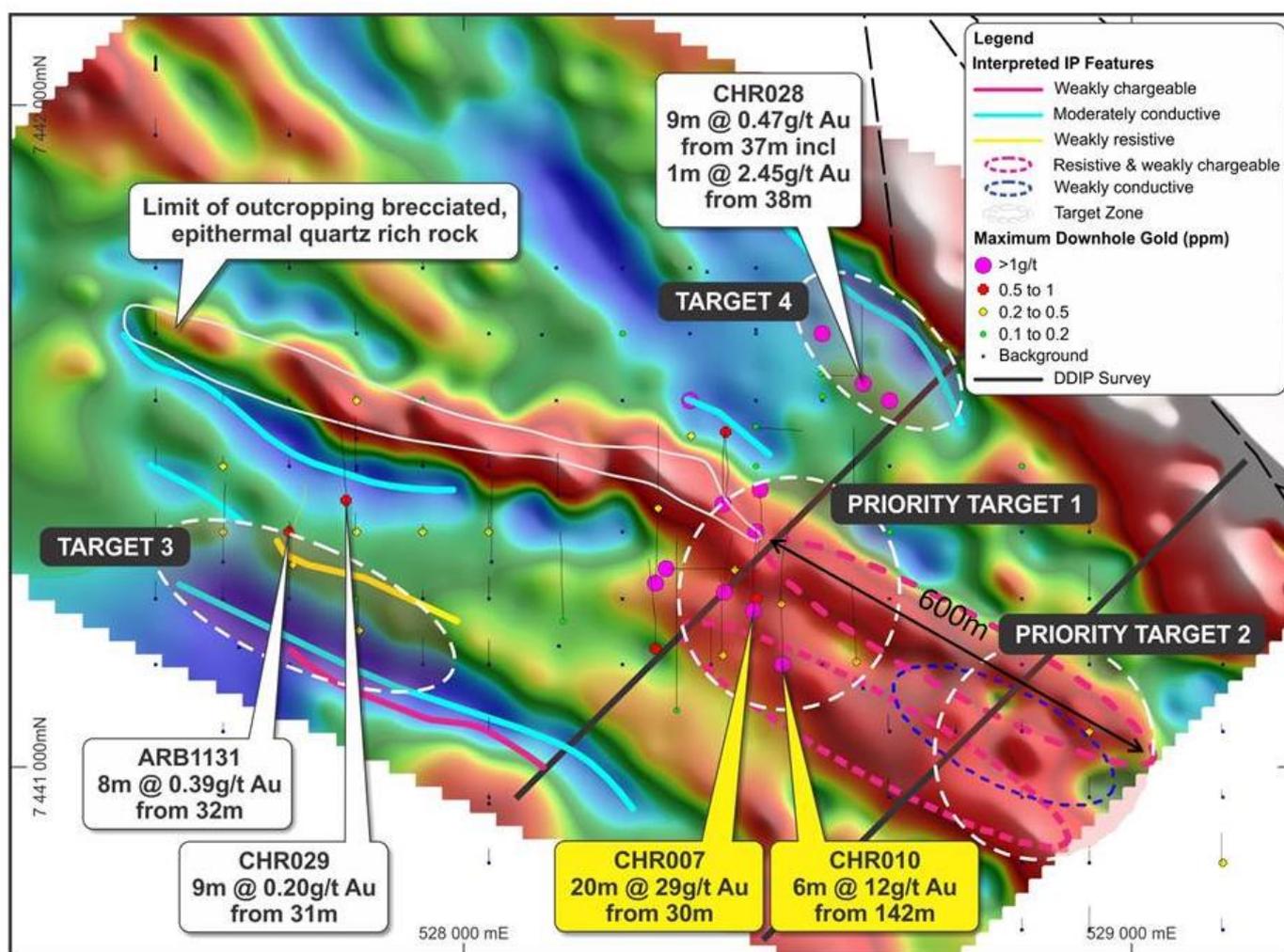


Figure 2 | GAIP resistivity image NE shade with historic drill locations

### Priority Target 1

Historic drilling (CHR007 20m @ 29g/t Au from 30m)<sup>1</sup> identified mineralisation in association with a south-east trending brecciated, quartz carbonate (sulphide poor) vein with epithermal textures. Outcrop of this vein is limited due to extensive colluvial cover which has been an impediment to exploration in the past. The GAIP survey has identified a large resistive and weakly chargeable anomaly coincident with the outcropping quartz vein which importantly extends the strike of this zone by +600 metres to the south east under colluvium where it appears to widen (Refer to Figure 2). This strike extension has been the subject of shallow RAB drilling only, typically less than ~30m and remains largely untested.

A DDIP survey line over the collar of CHR007 identified a chargeability anomaly at depth below the mineralised intersection in CHR007. Mineralisation in CHR007 is oxide and not chargeable and the presence of a chargeability anomaly below it presents an exciting target.

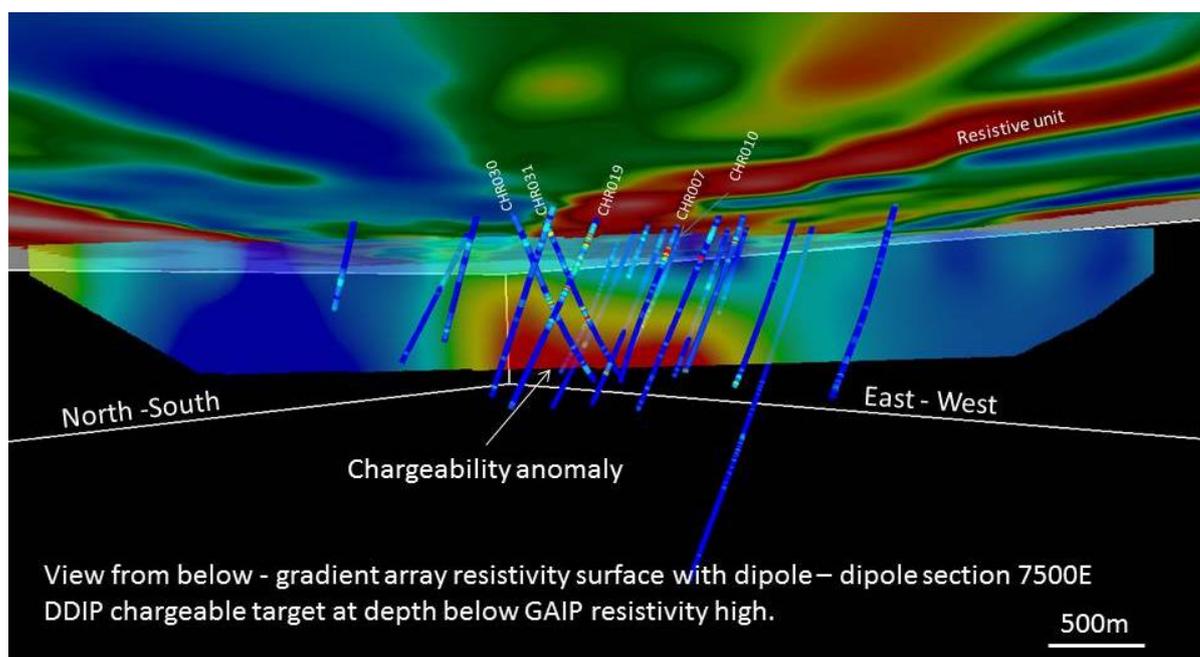


Figure 3 | View from below GAIP resistivity with modelled dipole - dipole line 7500mE

### Priority Target 2

A weakly chargeable response in the centre of the GAIP resistivity anomaly identified as Priority Target 2 is noted at the eastern edge of the survey grid and may indicate the presence of sulphide mineralogy at depth within the quartz vein. The second DDIP line, completed 400m east of line 1, confirmed this weakly chargeable GAIP anomaly at depth. This area has been subject to shallow RAB drilling only and remains largely untested.

### Target 3

A series of moderately resistive and weakly chargeable anomalies can be seen in the data, subparallel to and south of, the main quartz vein in a zone of extensive colluvium. Historic RAB drilling identified anomalous gold values to 0.54g/t Au (ARB1131) and this area requires further dill testing.

## Target 4

A weakly chargeable feature in the north-east of the IP survey grid adjacent to the contact with the Mt McGrath Formation is coincident with a number of anomalous gold in drill results and requires further drill testing.

The IP survey details are tabulated below.

Surveyed By	Vortex Geophysics Pty. Ltd.
Survey Date	26 <sup>th</sup> July - 10 <sup>th</sup> August, 2016
Survey Type	Gradient Array and Dipole-Dipole
Transmitter	Vortex VIP-30 (15kVA)
Base Frequency	0.125Hz (2sec ON / 2sec OFF)
Rx-Tx Dipole Spacing	50m (overlapped to 25m stations for gradient array)
Current	14-18 Amps
Receiver	GDD 16 channel
DDIP - Max Effective N Level	8 - 10
Integration Time	1000 - 1960ms

## Proposed work program

The proposed work program for the Cairn Hill Project will include a drilling program to commence during October 2016 which will be in two parts. Initially diamond drilling will be undertaken in the area of the significant intersections identified in historic drill holes CHR007 (20m @ 29g/t gold from 30m) and CHR010 (6m @12g/t gold from 142m)<sup>1</sup> to provide physical sample for further geophysical and geological characterisation work and to verify historic work.

The second part of the program will be to use RC drilling to test a number of the targets identified by the GAIP survey. In the first instance Targets 1 and 2 as defined above, and then with consideration of the geophysical and geological characteristics defined from the core drilling, test the remaining GAIP targets as ranked by the results from the test work.

## About Cairn Hill

The Cairn Hill Project (E08/2248) is located approximately 40km WNW of Paraburdoo in the Ashburton Region of Western Australia. Berkut has entered into a farm-in agreement to acquire 70% of the project. The project area was most intensively explored over the period 1998 to 2006 by JV between Newcrest Sipa and Bacome. Subsequent work has for the most part been limited to desktop studies. Significant gold intersections from historic drilling have not been fully explained or tested and Berkut believes the project has the potential to host economic gold mineralisation.

## Mt Clement / Capricorn Projects

The 100% owned Mt Clement and Capricorn Projects remain as tenement applications and are moving through the grant process. Berkut plans to undertake preliminary geological mapping and hammer prospecting at Mt Clement in October with a reconnaissance field trip planned to the Capricorn Project in November.

### Competent Persons Statement

The information in this document that relates to exploration results is based upon information compiled by Mr Ben Cairns, a full-time employee and shareholder of Berkut Minerals Limited. Mr Cairns is a Member of the Australian Institute of Geoscientists (AIG) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Cairns consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

Geophysical information in this report is based on data compiled by Ms Karen Gilgallon who is employed by Southern Geoscience Consultants (SGC) which provides consulting services to the Company. Ms Gilgallon is a member of the Australian Society of Exploration Geophysicists and of the Australian Institute of Geoscientists with sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results. Ms Gilgallon consents to the inclusion in the report of matters based on information in the form and context in which it appears.

Notes

<sup>1</sup> For full details of exploration results refer to ASX announcement on 29 August 2016 (Berkut Minerals Limited Prospectus). Berkut Minerals is not aware of any new information or data that materially affects this information.

## Appendix One | JORC Code, 2012 Edition | Table 1 report template

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Gradient array and Dipole-dipole IP survey both used GDD 16 channel receiver, Vortex VIP-30 (15kVA) transmitter.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Gradient array and Dipole-dipole IP survey both used GDD 16 channel receiver, Vortex VIP-30 (15kVA) transmitter. Integration time of 1000-1960 was used for chargeability results.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Survey stations were located using a handheld GPS system the accuracy is sufficient for 50m dipole readings.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The gradient array IP survey 25m stations (overlapped 50m dipoles) and 100m line spacing.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The survey grid was orientated such that survey lines were approximately perpendicular to the regional geological trend.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>IP data was emailed daily and is securely archived.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The geophysical survey was undertaken by Vortex Geophysics and supervised by Southern Geoscience Consultants (SGC). SGC was responsible for daily QC of the survey data and provided a final report and interpretation of the collected survey data which was incorporated into the Berkut interpretation.</li> </ul>

## 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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>The survey was completed within E08/2248. Berkut Minerals has entered into a farm-in agreement with the registered holders of the tenement, Coccinella Pty Ltd.</li> <li>The tenement is in good standing and there are no known impediments to exploration.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration within the project area has been conducted initially from 1982-1998 by Billiton Australia and Esso in various joint ventures and 1998 – 2006 through a JV between Newcrest, Sipa and Bacome</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The project lies on the northern margin of the Ashburton Basin in contact with the Fortescue Basin. The company is targeting Carlin Style, Epithermal Gold and Intrusion Related Gold mineralisation</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Diagrams	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Not applicable for a surface geophysical survey</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The survey is largely covered by alluvium and colluvium, restricting geological interpretation. Previous drilling activity has largely been reverse circulation and limited information can be gleaned from this.</li> </ul>
Further work	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The company proposes to follow up the targets identified with drilling and mapping programs to be initiated in the next quarterly period.</li> </ul>