

Berinka Pine Creek Gold Project – Drill Core and Rock Chip Results

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ASX Code: MAN

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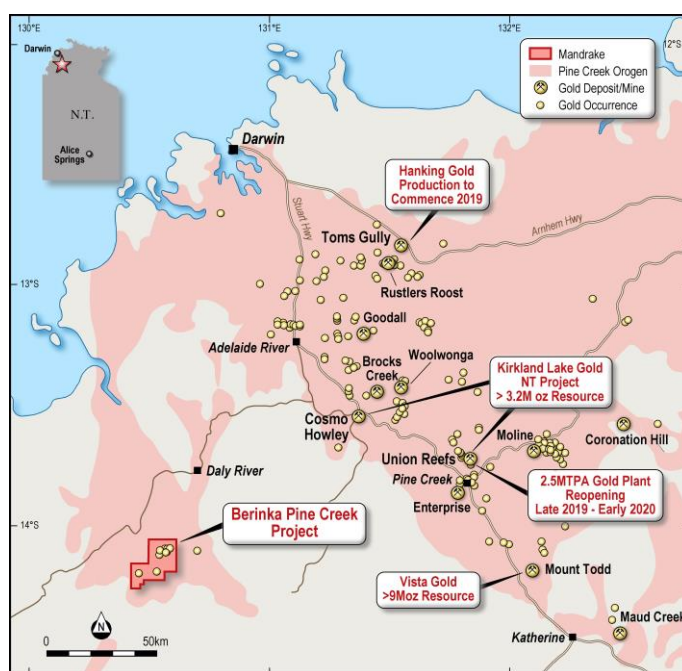
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Highlights

- Assay results received from four diamond holes (drilled by previous operator) and recent rock chip sampling conducted by Mandrake.
- Assay results from the diamond core include:
 - Hole ZK1701: 1m @ 0.75g/t Au (from 133m)
 - Hole ZK7801: 6m @ 0.1g/t Au (from 24m)
 - Hole ZK8801: 5m @ 0.13g/t Au (from 418m)
- Rock chip sample grading 15.7g/t Au collected from veining hosted in a dolerite unit at the undrilled and under-explored Bubbles Creek Prospect.
- Brecciated granite stockwork rock chip sample grading 1.9g/t Au sampled collected from the Terry's A Prospect area.
- Follow-up work to target identified gold mineralisation is well advanced.



Location of Berinka Pine Creek Project

Exploration Activities - Berinka Pine Creek Project

Assay of Drill Core

Investigations into previous exploration work conducted at the project revealed the existence of 4 diamond drill holes (ZK1701, ZK1702, ZK7801 and ZK8801) drilled by China Australia Land Resources.

The NQ2 diamond core totals approximately 1,161m with zones prospective for mineralisation totaling approximately 189m submitted for assay.



Processing of Diamond Drill Core Derived from Terrys Prospect

Diamond drill hole ZK1701 returned the following intercept:

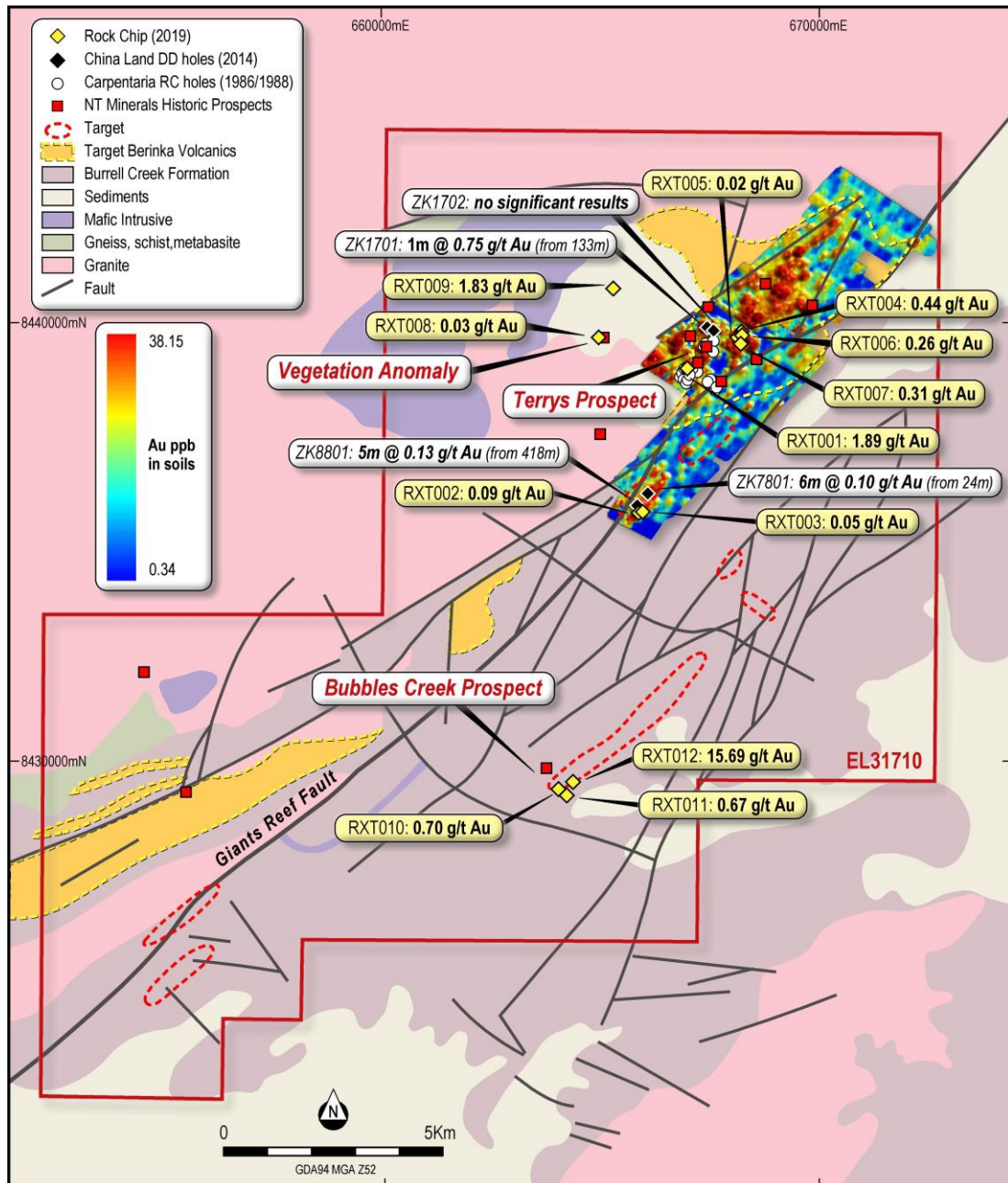
1m @ 0.75g/t Au (from 133m)

Diamond drill hole ZK7801 returned the following intercept:

6m @ 0.1g/t Au (from 24m)

Diamond drill hole ZK8801 returned the following intercept:

5m @ 0.13g/t Au (from 418m)



Berinka Pine Creek – Rock Chip and Core Assay Results with Historical Geochem

The identification of the core derived from the Terrys Prospect is fortuitous for Mandrake as it has provided, at very low cost to the Company, the opportunity to sample and assay various zones prospective for mineralisation as well as providing important structural and lithological information.

Field Work – Rock Chip Results

A detailed site visit was undertaken at the Berinka Project in October 2019 targeting the Terrys Prospect as well as several other prospects in the vicinity including the Vegetation Anomaly (identified by Carpentaria Exploration Company (CEC) in the mid-1980s). The primary objectives were to establish access and conduct geological mapping and rock chip sampling.

Field work was also undertaken at the Bubbles Creek Prospect, discovered by CEC in 1986. Historic CEC reports describe anomalous gold values in rock (exposed veins) and float within the Burrell Creek Sediments along a 1.3km belt in the valley of Bubbles Creek.



Recent Slumping near the Location of RXT0012 (15.7g/t Au) Obscuring Mineralised Veins Hosted in Dolerite

The remote location of Bubbles Creek necessitates use of a helicopter for access. It is believed that only very limited historic work has been done at the Bubbles Creek Prospect.

Three rock chip samples were collected at the Bubbles Creek Prospect with RXT0012 targeting a dolerite unit exposed in the creek bank overlain by an alluvial terrace. A set of steep south east dipping grey quartz-FeO veins was located in the dolerite, spaced some 2-3m apart with individual veins up to 10cm in width. The vein material was sampled returning a high grade gold value of 15.7g/t Au. Recent slumping has obscured the dolerite-hosted veins along the bank of Bubbles Creek and further investigation is required given the gold grade evident at this location.

As reported in the ASX release of 14 November 2019, a new, previously undocumented vein was identified (designated 'Bubbles Site 7') which comprises a zone of strong quartz breccia veining, with minor scorodite and limonite staining.

The zone appears prospective, is 2-3m wide and is anomalous for gold, returning results of 0.7g/t Au.

At the Terrys Prospect, the weathered stockwork veined brecciated granite that potentially forms part of the gold lode was sampled returning a gold grade of 1.9g/t Au, indicating continuity along strike from RC holes drilled by CEC at The Terry's A Prospect.

RXT009, collected from a gossanous quartz vein approximately 0.6m wide returned a gold value of 1.8g/t Au. This is unique in that the gossanous vein is hosted in the Sandy Creek Mafics which historically have not been recognised as hosting gold mineralisation. This result requires further investigation.

Follow-up work targeting the gold mineralisation identified in the initial phase of work detailed above is well advanced.

An application to undertake drilling at the Berinka Pine Creek Project, known as a Mining Management Plan (MMP), was submitted to the Northern Territory Department of Primary Industry and Resources (DPIR) in August 2019.

This announcement has been authorised by the Board of Mandrake Resources Limited.

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Berinka Pine Creek Project - Background

Gold mineralisation at the project is associated with >10km strike of poorly tested structurally controlled igneous units of the Proterozoic Pine Creek Orogen. Previous reverse circulation (RC) drilling has intersected gold mineralisation associated with sulphide rich veins and is open at depth and along strike at the Terrys prospect with a best intersection of 4m @ 6.56g/t from 32m (TRP-018). A complete list of all historic drill intercepts is contained in the Mandrake Resources prospectus lodged with the ASX on 24 May 2019.

About Mandrake Resources

Mandrake is a junior exploration company established with the purpose of exploring and developing gold, nickel, copper and other mineral opportunities. The Company owns a mineral exploration project located in the prolific Pine Creek Orogen of the Northern Territory and is focussed primarily on gold exploration.

For further information visit www.mandrakeresources.com.au

Competent Persons Statement

The technical information in this announcement complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Mr Harry Mees, consulting geologist to Mandrake Resources. Mr Mees is a Member of the Australian Institute of Geoscientists. He 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 JORC Code. Mr Mees consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Table 1: Rock Chip Results

Sample ID	Prospect	Easting*	Northing*	Au g/t	Description
RXT001	Terry A	667017	8438934	1.889	Weathered stockwork veined Fe & As rich brecciated granite, lode, west end of Terry's A
RXT002	AP-Au6	665877	8435702	0.092	Silicified breccia, major zone- Giants Reef, ridgetop above ZK8801. NW strike
RXT003	AP-Au6	665875	8435704	0.054	Silicified breccia, as before, slightly more ferruginous
RXT004	CALR SOIL	668220	8439786	0.437	Qtz veined, brecciated (tension) sericitised Berinka Volcanics, trending 085, 1m width x 30m
RXT005	CALR SOIL	668195	8439728	0.023	Quartz vein/silicified breccia, tension, sericitised Berinka Volcanics, trend 105, 1.5m width x 50m
RXT006	CALR SOIL	668250	8439642	0.26	Quartz vein/silicified breccia, tension, sericitised Berinka Volcanics, 85 to 302, 0.6m x 30m
RXT007	CALR SOIL	668146	8439530	0.313	Silica-pyrite vein, selected sample of sulphide rich un-oxidised patch, trend 000
RXT008	Vegetation	665082	8439727	0.03	Sheeted Quartz veining/fracturing in chlorite-silica altered granite, crustiform, open space, 60° to 156°, 2 to 20cm wide. 20% vein in sample
RXT009	Sandy Creek	665296	8440781	1.826	Gossanous iron-oxide-quartz vein, boxwork textured FeO after sulphide-quartz. Trending 165, approximately 0.6m x 40m exposed as boulders/rubble
RXT010	Bubbles	664050	8429347	0.703	Qz breccia veining, traces of scorodite, arsenopyrite, 3mx15m exposed, dipping 70 to 115
RXT011	Bubbles	664233	8429241	0.666	Irregular grey qz-feo veining, 1-10cm wide, discontinuous
RXT012	Bubbles	664383	8429533	15.691	5-10cm wide grey qz veining in dolerite, dip 70 to 148

* - Coordinates are in GDA94, MGA Z52

Table 2: Summary of the China Australia Land Resources Drill Collars – Berinka Project

Drill Hole ID	Drill Type	Total Depth	Datum	Easting	Northing	RL (m)	Azimuth (deg)	Dip (deg)
ZK1701	DD	188.8	Zone 52 (GDA94)	667449.8	8439914	89	303	-70
ZK1702	DD	261.4	Zone 52 (GDA94)	667599.1	8439816	105	303	-70
ZK7801	DD	260.6	Zone 52 (GDA94)	666082.2	8436107	125	115	-55
ZK8801	DD	450.2	Zone 52 (GDA94)	665843	8435852	110	120	-50

Table 3: Significant Intersections of china Land Resources Drilling – Berinka Project

Drill Hole ID	From	To	Interval (m)	Au (g/t)
ZK1701	133	134	1	0.75
ZK1702	No Significant Results			
ZK7801	24	30	6	0.1
ZK8801	418	423	5	0.13

- **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"> • <i>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.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Four diamond drill holes drilled in 2013 by China Australia Land Resources were measured, marked up, geologically logged, cut and sampled by Mandrake Resources Ltd. • The diamond core was drilled in NQ2. • Core was cut in half with a diamond saw and half core was submitted for analysis, except for duplicate sample pairs which were submitted as quarter core. • Duplicate sample pairs were collected every 30 samples. • Half core samples were taken in regular 1 metre intervals or as determined by geological boundaries. Minimum and maximum sample intervals of 0.3 and 1.3m respectively were applied. • Half core samples were submitted to Intertek Genalysis for sorting, drying, crushing to 10mm and pulverization to 75um. Analysis for gold was by 50g charge fire assay and analysis of a 48 element suite by four acid digest with MS finish.
Drilling techniques	<ul style="list-style-type: none"> • <i>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).</i> 	<ul style="list-style-type: none"> • The holes were drilled as oriented NQ2 diamond core from surface. Core was oriented using an Ace Reflex digital orienting device, with the orientation marked on each run by the driller.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<ul style="list-style-type: none"> • The core was fully measured and marked up by a geologist using the driller’s core blocks as a reference. • Recoveries were measured for the entire hole. Recoveries over sampled intervals were generally in the range 90-100%, with most

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>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.</i> 	recoveries in un-weathered rock measured at 100%.
Logging	<ul style="list-style-type: none"> <i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> The core was fully logged for lithology, alteration, mineralization, structure, weathering, rock strength, fracture frequency and RQD. The core was photographed after marking up. Logging was both qualitative and quantitative. All holes were logged in full.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> The core was half cored for sampling, with quarter core taken every 30 samples as duplicates. The samples were sent to an accredited laboratory for sample preparation and analysis. All samples were sorted, dried, crushed and pulverized to -75um to produce a homogeneous 50g subsample for analysis. A grind quality target of 85% passing - 75um was established. Quality control procedures included the collection of field duplicates every 30 samples. Intertek Genalysis' internal QAQC procedures included insertion of certified standards, blanks, check replicates and testing for grind fineness of 85% passing -75um.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>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</i> 	<ul style="list-style-type: none"> The analytical technique used a 50g charge fire assay and is considered appropriate to detect gold mineralization. Fire assaying is considered a total assay. The 4 acid digest 48 element analytical technique is considered a total assay for Ag, As, Bi, Ca, Cd, Ce, Co, Cs, Cu, Ga, Ge, In, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Rb, Re, S, Se, Sr, Te, Tl, Zn. It

Criteria	JORC Code explanation	Commentary
	<i>derivation, etc.</i> <ul style="list-style-type: none"> 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. 	<p>is considered near total for Al, Ba, Be, Cr, Fe, Nb, Sb, Sc, Sn, Ta, Th, Ti, U, V, W, Y. It is a partial technique for Hf and Zr.</p> <ul style="list-style-type: none"> Mandrake Resources inserted duplicates every 30 samples
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The company used industry standard techniques for sampling and used an independent laboratory. Primary geological and sampling data were recorded digitally.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drillhole collars were located using hand held GPS with accuracy of +-3m. The holes were down-hole surveyed by the driller at 50m intervals using an electronic tool. The grid system used is MGA GDA94 Zone 52 Collar pick-up was by handheld GPS which is considered adequate for broad spaced regional exploration holes.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill density is not adequate to comment on geological and grade continuity or to allow classification as a Mineral Resource. No sample compositing has been applied
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Drilling was carried out across the strike of regional geological structures. Drilling was angled at -55° towards 303° or -70° to 120°. Drilling in some holes may have been subparallel to the dip of key structure. Insufficient information is available to assess the impact if any of this.

Criteria	JORC Code explanation	Commentary
	<i>sampling bias, this should be assessed and reported if material.</i>	
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Core had been stored in a secure sea-container for several years post-drilling. During marking up and logging the core was verified as being in its correct place and orientation After selection of intervals for assaying, the core was immediately cut, placed in systematically numbered calico bags which were verified against a cutting list. Calico's were placed in poly-weave sacks and secured. All samples were delivered by Mandrake Resources personnel to the assay laboratory.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits/reviews have been undertaken to date.

- 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"> 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. 	<ul style="list-style-type: none"> The diamond drill holes were located on EL31710 which is held 100% by Mandrake Resources Limited The tenement is in good standing and no known impediments exist.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Gold mineralization on EL31710 was discovered by Carpentaria Gold, who carried out intensive exploration work culminating in RC drilling of 36 short holes at the Terry's prospects. China Australia Land Resources (CALR) carried out geochemical

Criteria	JORC Code explanation	Commentary
		surveys defining gold anomalism and drilled 4 diamond holes. These diamond holes were apparently not marked up or geologically logged and only partly sampled prior to CALR relinquishing their tenement.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> Terry's Prospects are Proterozoic orogenic lode gold deposits. They are hosted by Berinka Volcanics and Ti-Tree Granophyre proximal to the major regional Giants Reef Fault zone in the Pine Creek Orogen.
Drill hole Information	<ul style="list-style-type: none"> <i>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:</i> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i> 	<ul style="list-style-type: none"> Refer to Table 2 above.
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values</i> 	<ul style="list-style-type: none"> In reported exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval assay grade), divided by sum of interval lengths and rounded to one decimal place. No top cuts have been considered in reporting of grade results, nor was it deemed necessary for the reporting of significant intersections.

Criteria	JORC Code explanation	Commentary
	<i>should be clearly stated.</i>	<ul style="list-style-type: none"> No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i> 	<ul style="list-style-type: none"> The geometry of the mineralization is still inconclusive. All downhole intervals are measured in downhole metres.
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Refer to figures in announcement. A plan view of reported significant intersection drill holes is included.
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> It is not practical to report all exploration results as such unmineralised intervals. Low or nonmaterial grades have not been reported, however a full list of drill hole coordinate and orientation details is stated above. All drill hole locations are reported and a table of significant intervals is provided in the announcement.
Other substantive exploration data	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Available data from historic or previous exploration parties includes some surface mapping, surface geochemical surveys and geophysical surveys. Where possible, historic exploration data has been supported by selected sampling and geological mapping undertaken by Mandrake Resources.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Potential work across the Berinka project may include further verification drilling, sampling, assaying and QA/QC. Other further work may also include mapping, surface sampling, ground or airborne geophysics as well as in-fill or exploratory drilling