Carnaby

ASX Announcement

29 December 2021

MAJOR COPPER GOLD DISCOVERY
41m @ 4.1% COPPER,
INCLUDING 9m @ 10.3% COPPER
AT GREATER DUCHESS PROJECT

Carnaby Resources Limited (ASX: CNB) (**Carnaby** or the **Company**) is pleased to confirm a major copper gold discovery at the Nil Desperandum Prospect within the Greater Duchess Copper Gold Project in Mt Isa, Queensland.

Highlights

- Assay results have been received for **NLDD044** outlining an extremely high-grade copper gold discovery at Nil Desperandum. Results are;

  41m @ 4.1% copper, 0.5 g/t gold from 247m

  Incl. 24m @ 6.5% copper, 0.7g/t gold from 251m

  Incl. 9m @ 10.3% copper, 1.2g/t gold from 264m

- NLDD044 is the first drill hole to test the NLIP4 Induced Polarisation (IP) chargeability inversion anomaly (Figure 1 & 2). The IP anomaly is almost certainly attributable to copper sulphide mineralisation.
- The high-grade copper intersection in NLDD044 remains completely open at depth and along strike to the southwest where the plunge of the mineralisation appears to be flattening (Figure 2).
- Results are pending from a further RC/diamond hole drilled 80m to the northeast of NLDD044, which intersected an 80m downhole zone of copper sulphide mineralisation (See ASX release 21 December 2021).
- Results from numerous other holes drilled at Nil Desperandum, Lady Fanny and Burke & Wills prospects are also awaited.
- Follow up exploration is being rapidly escalated with extensive IP surveys and multiple drill rigs locked in to commence in January 2022.

The Company's Managing Director, Rob Watkins commented:

"Nil Desperandum is shaping up as a major Iron Oxide Copper Gold discovery which is rapidly getting bigger and better at depth. The scale of the mineralised system we are seeing is exceptional. We look forward to 2022 as being an incredible ride for Carnaby shareholders as we escalate the exploration at the Greater Duchess Copper Gold Project to a whole new level."

Fast Facts

Shares on Issue 118.1M

Market Cap (@ 73.5 cents) $86.8M

Cash $5.6M[1]

[1]As of 31 September 2021

Board and Management

Peter Bowler, Non-Exec Chairman

Rob Watkins, Managing Director

Greg Barrett, Non-Exec Director & Company Secretary

Paul Payne, Non-Exec Director

Company Highlights

- Proven and highly credentialed management team
- Tight capital structure and strong cash position
- Projects near to De Grey's Hemi gold discovery on 442 km^2 of highly prospective tenure
- Greater Duchess Copper Gold Project, numerous camp scale IOCG deposits over 323 km^2 of tenure
- 100% ownership of the Tick Hill Gold Project (granted ML's) in Qld, historically one of Australia highest grade and most profitable gold mines
- Past production of 511 koz at 22 g/t gold
- Indicated and Inferred Mineral Resource of 207,000 t @ 6.71 g/t gold for 44,600 ounces
- Proven and Probable Ore Reserves of 48,600 t @ 6.53 g/t gold for 10,200 ounces

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GREATER DUCHESS COPPER GOLD PROJECT

NIL DESPERANDUM PROSPECT (CARNABY 82.5%)

An RC / diamond hole, NLDD044 has intersected an exceptionally broad and high-grade copper gold intersection outlining a major discovery at Nil Desperandum. The results announced today eclipse the visual copper sulphide estimates released last week (See ASX release 21 December 2021). The tenor of the results is amongst the highest copper drill hole grades and widths reported in Australia since the Degrussa copper gold deposit was discovered by Sandfire Resources Ltd in 2009. Drill hole details and individual 1m assay results from NLDD044 are presented in Appendix 1, Table 2 & 3. Drill results from NLDD044 are summarised as;

NLDD044

41m @ 4.1% copper, 0.5 g/t gold from 247m

Including 24m @ 6.5% copper, 0.7 g/t gold from 251m

Including 9m @ 10.3% copper, 1.2 g/t gold from 264m

NLDD044 was extended with a diamond tail to a total depth of 364m, intersecting minor copper sulphide in the diamond core tail, results pending.

NLDD044 was designed to target an IP chargeability inversion anomaly coincident with the predicted plunge of the Nil Desperandum main shoot breccia zone. The results from NLDD044 have confirmed that the IP chargeability anomaly is almost certainly caused by the high-grade copper sulphide mineralisation intersected in NLDD044 (Figure 1). The mineralisation in NLDD044 is completely open at depth to where the IP chargeability anomaly is getting stronger (Figure 1) and completely open to the southwest along strike and down plunge, where no drilling or geophysics has yet been completed (Figure 2).

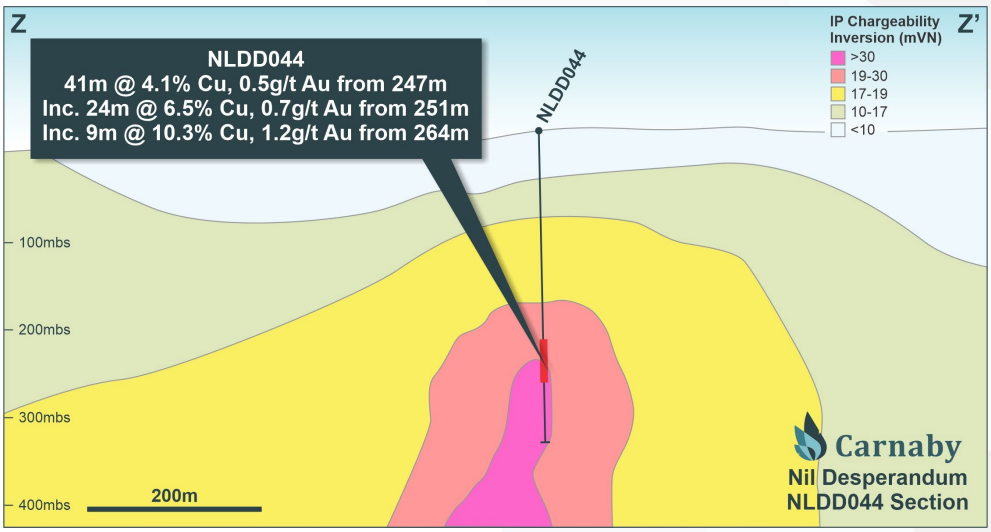

Figure 1. Drill Section showing NLDD044 and the NLIP4 IP chargeability anomaly.

NLDD044 is approximately 80 to 100m along strike from the nearest drilling which includes NLDD042, which intersected an **80m downhole zone of copper sulphide mineralisation from 235m to 315.7m (results pending)** (see ASX release 21 December 2021). The high-grade copper gold mineralisation at Nil Desperandum appears to be getting bigger and better at depth and the plunge flattening considerably to the southwest with the result in NLDD044. An alternative interpretation is that the result in NLDD044 represents a completely new shoot opening up, with the other known main copper mineralisation plunging untested beneath the NLDD044 intersection. Either way, both interpretations are extremely positive for the economic implications of this high-grade discovery.

Continuous high-grade copper mineralisation hosted in a wide **(~40m true width)** tabular southeast dipping and southwest plunging breccia shoot has now been defined over 500m and remains completely open to the southwest and at depth from the new intersection in NLDD044.

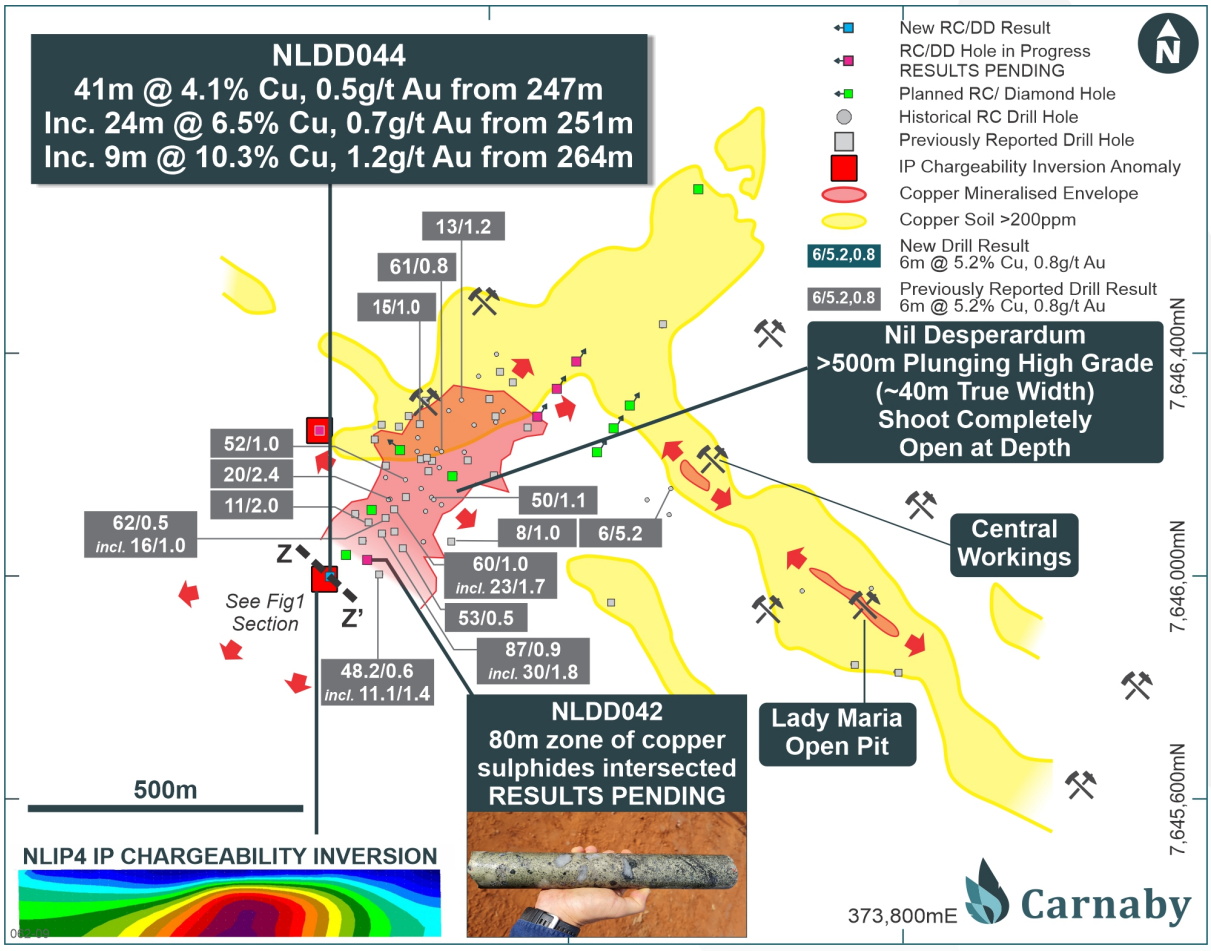

Figure 2. Plan of Nil Desperandum Showing location of NLDD044 and IP anomaly.

Extensional and infill drilling is now required to confirm the orientation and true width of the high-grade copper gold mineralisation intersected in NLDD044 and the magnitude of this discovery.

Results remain outstanding from numerous new RC drill holes from Nil Desperandum, Lady Fanny and Burke & Wills where significant copper sulphides have been observed in drill chips (See ASX release 21 December 2021).

Exploration at the Greater Duchess Copper Gold Project is being rapidly escalated in response to the high-grade Nil Desperandum copper gold discovery. Extensive new IP geophysical surveys will commence in mid-January targeting extensions of the NLIP4 IP anomaly to the southwest of NLDD044, where no previous IP surveys or drilling have been completed. Multiple drill rigs are being contracted, with one RC/DD rig commencing in the second half of January and a second rig to commence in early February 2022.

Further information regarding the Company can be found on the Company's website www.carnabyresources.com.au

For further information please contact:
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Competent Person Statement

The information in this document that relates to exploration results is based upon information compiled by Mr Robert Watkins. Mr Watkins is a Director of the Company and a Member of the AUSIMM. Mr Watkins consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears. Mr Watkins has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is undertaken 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).

Disclaimer

References may have been made in this announcement to certain ASX announcements, including references regarding exploration results, mineral resources and ore reserves. For full details, refer to said announcement on said date. The Company is not aware of any new information or data that materially affects this information. Other than as specified in this announcement and the mentioned announcements, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, Exploration Target(s) or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. 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 market announcement.

Previously released ASX Material References that relates to announcement include:

CNB: Re-release of ASX Announcement dated 17 December, 21 December 2021

CNB: Re-release of ASX Announcement dated 13 December, 21 December 2021

Exploration Update – Significant Copper Intersected, 13 December 2021

Exploration Update – 10,000m of Drilling Underway, 25 November 2021

Greater Duchess Copper Gold Project Grows, 25 October 2021

Mineralisation Extended Greater Duchess Copper-Gold Project, 16 September 2021

60m @ 1% copper at Greater Duchess, 13 August 2021

Further Broad Zones of Copper Sulphides at Greater Duchess, 22 July 2021

Greater Duchess Copper Project Continues to Grow, 5 July 2021

Outstanding Drill Results at Nil Desperandum, 24 June 2021

Quality Results At Mt Birnie, Sulphides Hit Nil Desperandum, 10 June 2021

Nil Desperandum Strong IP Conductors, 7 May 2021

Greater Duchess Copper Gold Project Update, 17 February 2021

APPENDIX ONE

Details regarding the specific information for the drilling discussed in this news release are included below in Table 2 and Table 3.

Table 2. Drill Hole Details

Hole ID	Easting	Northing	RL	Azimuth	Dip	Hole Depth (m)
NLDD044	372779	7646002	405	0	-90	364

Table 3. Assay Results from NLDD044.

Hole_ID	From (m)	To (m)	Copper %	Gold g/t
NLDD044	247	248	0.319	-0.01
NLDD044	248	249	0.337	0.04
NLDD044	249	250	**1.455**	0.27
NLDD044	250	251	0.08	0.02
NLDD044	251	252	**13.55**	0.78
NLDD044	252	253	**12.8**	**1.52**
NLDD044	253	254	0.854	0.15
NLDD044	254	255	0.424	0.02
NLDD044	255	256	**2.12**	0.13
NLDD044	256	257	**5.69**	1.02
NLDD044	257	258	**3.35**	0.31
NLDD044	258	259	**3.39**	0.59
NLDD044	259	260	**2.92**	0.33
NLDD044	260	261	0.605	0.14
NLDD044	261	262	0.888	0.16
NLDD044	262	263	**4.82**	0.74
NLDD044	263	264	**5.55**	0.44
NLDD044	264	265	**12.75**	0.16
NLDD044	265	266	**15.9**	0.76
NLDD044	266	267	**10.7**	0.78
NLDD044	267	268	**6.03**	0.39
NLDD044	268	269	**4.73**	0.88
NLDD044	269	270	**9.62**	**1.42**
NLDD044	270	271	**9.98**	**3.84**
NLDD044	271	272	**12.6**	**1.48**

Hole_ID	From (m)	To (m)	Copper %	Gold g/t
NLDD044	272	273	**10.75**	0.75
NLDD044	273	274	1.20	0.23
NLDD044	274	275	**3.85**	0.66
NLDD044	275	276	0.331	0.12
NLDD044	276	277	0.689	0.11
NLDD044	277	278	0.587	0.08
NLDD044	278	279	1.47	0.42
NLDD044	279	280	1.875	0.36
NLDD044	280	281	2.35	0.42
NLDD044	281	282	1.145	0.11
NLDD044	282	283	1.565	0.27
NLDD044	283	284	0.809	0.1
NLDD044	284	285	0.751	0.14
NLDD044	285	290	0.168	0.02
NLDD044	290	294	0.07	0.01
NLDD044	294	295	0.529	0.08

APPENDIX Two
JORC Code, 2012 Edition | 'Table 1' Report

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	• Recent RC samples were collected via a cone splitter mounted below the cyclone. A 2-3kg sample was collected from each 1m interval. • RC, diamond and dump/old working channel samples were pulverised to obtain a 30g charge for aqua regia digest and AAS analysis of Gold. Total Copper analysis was undertaken using a 0.4g/t sample was digested by aqua regia acid digest and analysed by ICP or AAS to ore grade detection level. • Sampling from diamond core was from selected geological intervals of varying length, mostly 1m within the mineralisation. Core was half core sampled within the mineralised zones and quarter core sampled over 2m intervals in the non-mineralised intervals.

Criteria	JORC Code explanation	Commentary
	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.	
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).	• All recent RC holes were completed using a 5.5'' face sampling bit.
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.	• For recent RC drilling, no significant recovery issues for samples were observed.
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.	• Historical drill holes were logged geologically. • Recent hand samples were given a geological description • RC holes have been logged for lithology, weathering, mineralisation, veining, structure and alteration. • All chips have been stored in chip trays on 1m intervals and logged in the field. • Drill core has been logged in the field for lithology, weathering, mineralisation, veining, structure and alteration. Core was orientated and structural measurements taken. All core was photographed prior to cutting.
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.	• All RC samples are cone split at the cyclone to create a 1m sample of 2-3kg. The remaining sample is retained in a plastic bag at the drill site. • For mineralised zones, the 1m cone split sample is taken for analysis. For non-mineralised zones a 5m composite spear sample is collected and the individual 1m cone split samples over the same interval retained for later analysis if positive results are returned.
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	• The recent RC programme has used ore grade standards for both gold and copper. Blanks are inserted by Carnaby staff at the start of every hole and standards (CRMs) are inserted every 50 samples. The selection of standards used are within the gold and copper ranges known at Nil Desperandum and Lady Fanny. Standard CRM identification was removed prior to submitting to the external lab. • Results of the standards and blanks were checked against the CRM reference sheets to check they were within tolerance.

Criteria	JORC Code explanation	Commentary
	laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
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.	• Historic production data has been collated from government open file reports. • A Maxgeo SQL database is currently used in house for all historic and new records. Recent results have been reported directly from lab reports and sample sheets collated in excel. • Results reported below the detection limit have been stored in the database at half the detection limit – eg <0.001ppm stored as 0.0005ppm
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.	• The recent campaign hole locations were obtained using a Garmin GPS in UTM MGA94. All previous campaign drill holes by Carnaby were surveyed using a Trimble SP60 GNSS GPS in UTM MGA 94. Current RC holes were downhole surveyed by Reflex True North seeking gyro.
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.	• Further extensional and infill drilling is required to confirm the orientation and true width of the copper mineralisation intersected in NLDD044.
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.	• Further extensional and infill drilling is required to confirm the orientation and true width of the copper mineralisation intersected in NLDD044.
Sample security	• The measures taken to ensure sample security.	• Recent RC drilling has had all samples immediately taken following drilling and submitted for assay by supervising Carnaby geology personnel.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Not conducted

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section).

Criteria	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.	• The Nil Desperandum Prospect is located on EPM14366 (82.5% interest acquired from Discovex). • Discovex retain a 17.5% free carried interest in the project through to a Decision To Mine. • At a Decision to Mine, Carnaby has the first right of refusal to acquire the remaining interest for fair market value.

Criteria	Explanation	Commentary
Acknowledgment and appraisal of exploration by other parties.	• Acknowledgment and appraisal of exploration by other parties.	• There has been exploration work conducted over the Queensland project regions for over a century by previous explorers. The project comes with significant geoscientific information which covers the tenements and general region, including: a compiled database of 6658 drill hole (exploration and near-mine), 60,300 drilling assays and over 50,000 soils and stream sediment geochemistry results. This previous exploration is understood to have been undertaken to an industry accepted standard and will be assessed in further detail as the projects are developed.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Greater Duchess Project area is located in the Mary Kathleen domain of the eastern Fold Belt, Mount Isa Inlier. The Eastern Fold Belt is well known for copper, gold and copper-gold deposits; generally considered variants of IOCG deposits. The region hosts several long-lived mines and numerous historical workings. Deposits are structurally controlled, forming proximal to district-scale structures which are observable in mapped geology and geophysical images. Local controls on the distribution of mineralisation at the prospect scale can be more variable and is understood to be dependent on lithological domains present at the local-scale, and orientation with respect to structures and the stress-field during D3/D4 deformation, associated with mineralisation. • Consolidation of the ground position around the mining centres of Tick Hill and Duchess and planned structural geology analysis enables Carnaby to effectively explore the area for gold and copper-gold deposits.
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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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.	• Included in report Refer to the report and Table 1.
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.	• Significant RC intercepts above nominal 0.2 % Cu lower cutoff have been reported with higher grade internal intercepts also reported. • Metal equivalents have not been used. • At Nil Desperandum, inclusion of up to a maximum of 6m of lower grade mineralisation has been applied to the broader plus 0.2% intercepts.

Criteria	Explanation	Commentary
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').	• All intervals reported are downhole. • Further extensional and infill drilling is required to confirm the orientation and true width of the copper mineralisation intersected in NLDD044.
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.	• See the body of the announcement.
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.	• The exploration results should be considered indicative of mineralisation styles in the region.
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.	• As discussed in the announcement
Further work	• The nature and scale of planned further work (e.g. 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.	• Planned exploration works are detailed in the announcement.