Great Northern Minerals

ASX ANNOUNCEMENT

12 December 2019

High grade drill intercepts of 7m @ 7.49g/t and 9m @ 4.72g/t Au returned from the Golden Cup Project, North Queensland

Great Northern Minerals Limited (ASX:GNM, "Great Northern Minerals" or the "Company") is pleased to announce the receipt of assay results from the first two Reverse Circulation ('RC') drill holes at the Company's Golden Cup Gold Project in Northern Queensland (Figure 1).

Highlights:

- Intersections of 7m @ 7.49 g/t Au from 38m (hole GCRC074) and 9m @ 4.72 g/t Au from 35m (hole GCRC078) received from the Golden Cup Project;
- Assay results from the remaining 6 RC drill holes are awaited and expected to be received in the next 10 days.

Golden Cup

Assay results from the first 2 RC drill holes at the Golden Cup Project have now been received. Hole GCRC074, drilled beneath Open Pit 3, returned an intersection of 7m @ 7.49 g/t Au from 38 - 45 metres downhole (Table 1, Figures 2 & 3). Hole GCRC078, drilled beneath Open Pit 1, returned an intersection of 9m @ 4.72 g/t Au from 35 – 44m downhole (Figure 4). A total of 8 RC drill holes for 639 metres were completed at the project in early December and the assay results from the remaining 6 drill holes are awaited. The mineralised intercepts correspond to logged intervals of quartz veining and elevated amounts of visual arsenopyrite and pyrite. The assay results received correspond in tenor to nearby drill holes completed by previous holders of the project. Gold assays were all by Fire Assay and multi-element assays are awaited and are expected to be received in the next 10 days.

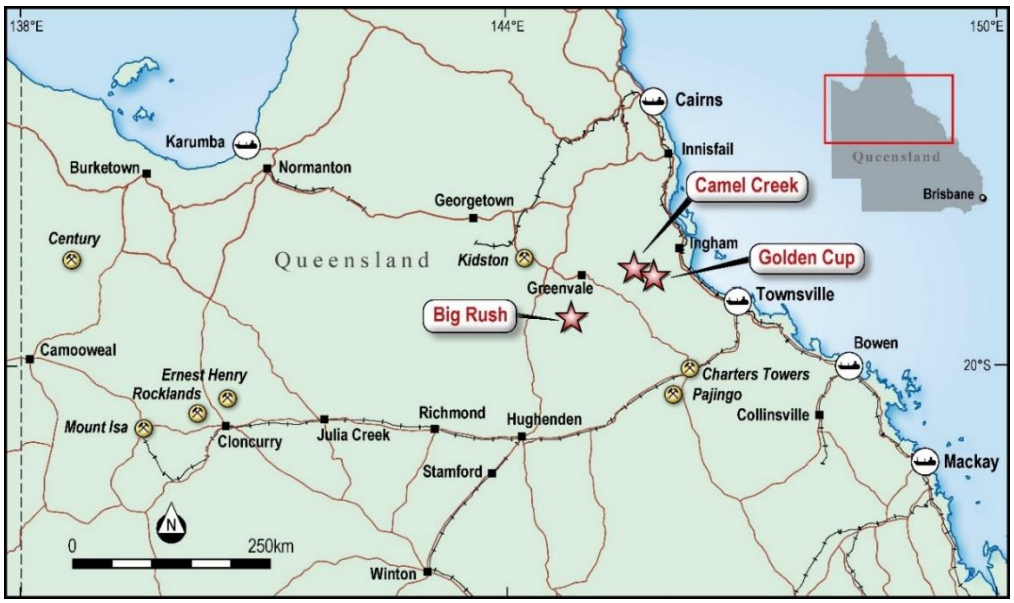

Figure 1: Location of the Company's gold projects in Northern Queensland

Table 1: Initial drill hole assay results, Golden Cup Gold Project (> 1 g/t Au)

Hole ID	Easting	Northing	Dip	Azimuth	EOH	From	To	Width	Grade (g/t Au)
GCRC074	358856	7908949	-60	315	64	30	31	1	2.57
GCRC074						38	45	7	7.49
GCRC074					including	40	41	1	43.18
GCRC075	358958	7909086	-55	315	71		Assays	Awaited	
GCRC076	359095	7909218	-50	315	83		Assays	Awaited	
GCRC077	359127	7909272	-50	315	65		Assays	Awaited	
GCRC078	359029	7909663	-60	315	65	35	44	9	4.72
					including	41	44	3	11.48
GCRC079	359063	7909627	-60	315	101		Assays	Awaited	
GCRC080	359067	7909642	-60	315	89		Assays	Awaited	
GCRC081	359090	7909653	-60	315	101		Assays	Awaited	

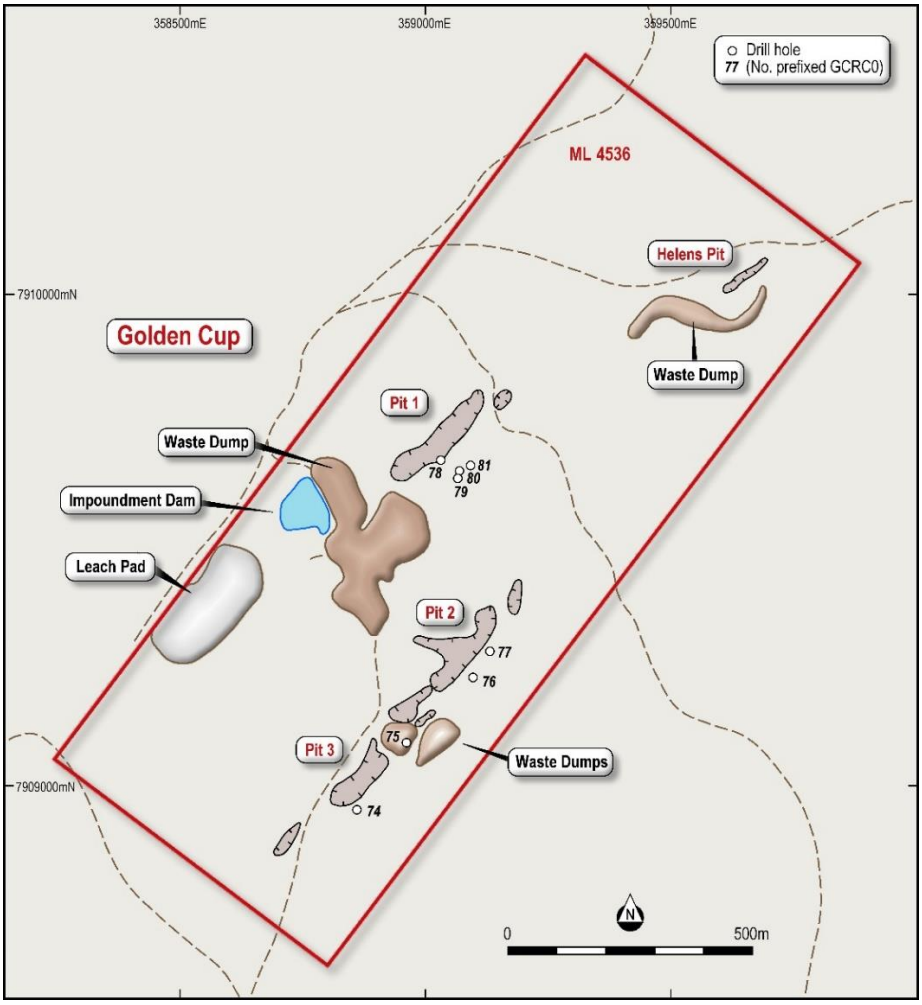

Figure 2: Location plan of the Golden Cup Project showing recently completed drill holes, open pit mines, waste dumps and heap leach pad

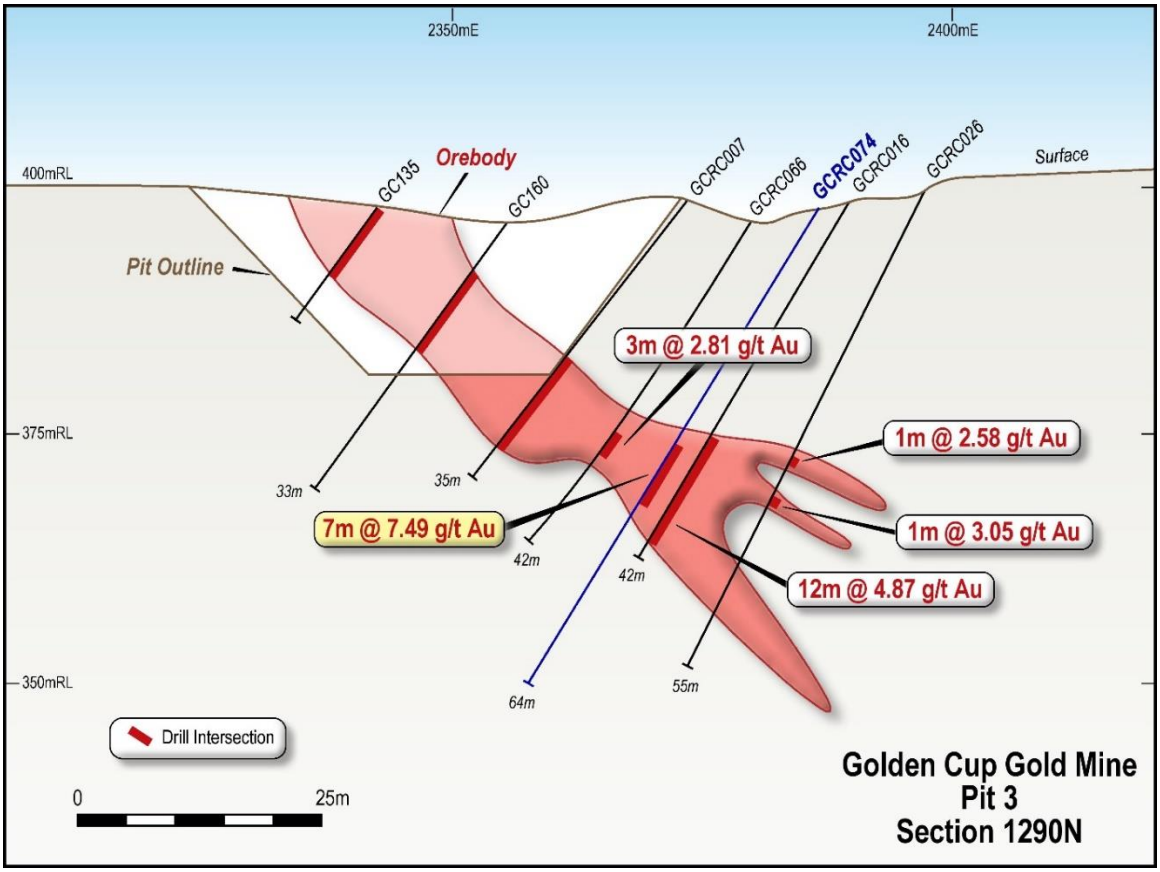

Figure 3: Cross section 1290N (Local Grid) showing drill hole GCRC074, Golden Cup Project

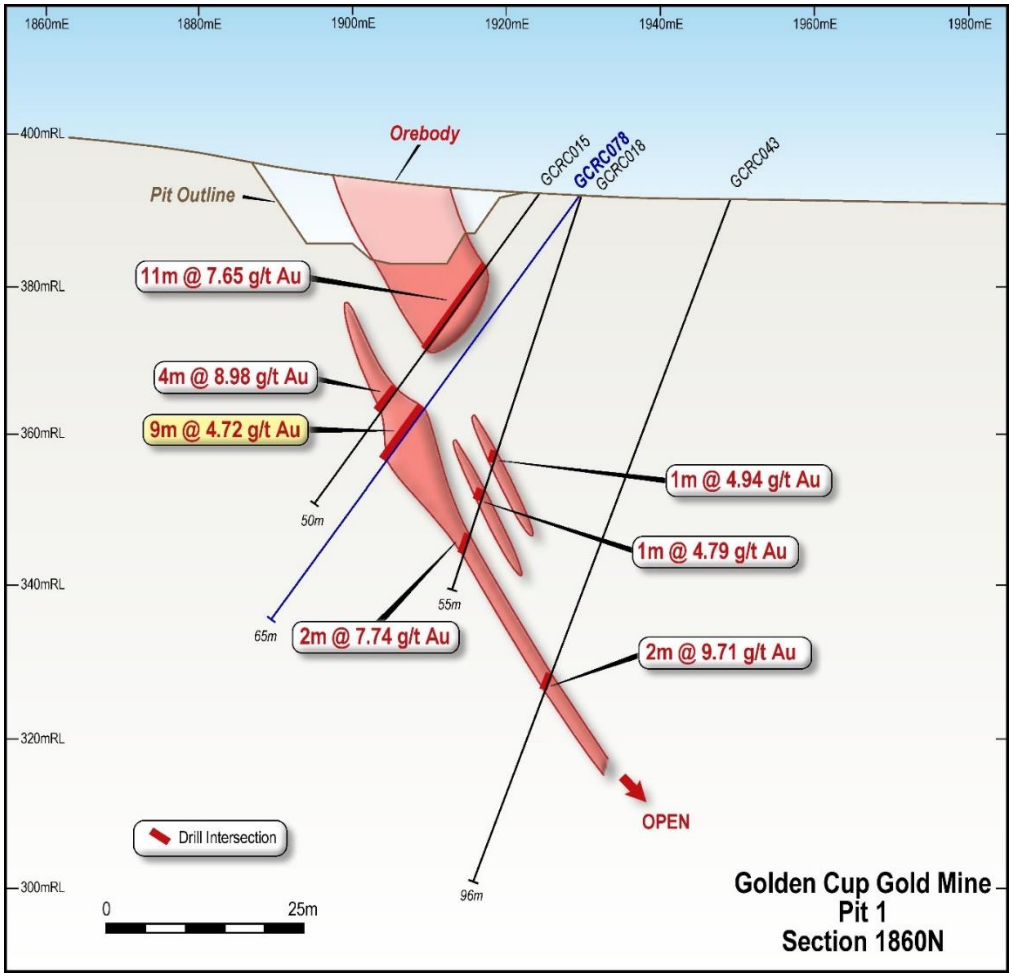

Figure 4: Cross section 1860N (Local Grid) showing drill hole GCRC078, Golden Cup Project

Big Rush

The Company is also pleased to announce that RC drilling has now been completed at the Big Rush Project (refer Figure 1). A total of 8 holes for 1,042 metres were drilled and a total of 794 samples submitted for gold and multi-element analysis.

The Company will continue to update the market as new information becomes available.

*****ENDS*****

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About Great Northern Minerals Limited

Great Northern Minerals Limited is an ASX-listed gold focussed explorer. The Company's projects include the Golden Cup, Camel Creek and Big Rush Gold Mines in Queensland.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled under the supervision of Andrew Jones, an employee of Great Northern Minerals Limited. Mr Jones is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Jones consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

Great Northern Minerals

Section 1 JORC Code, 2012 Edition - Sampling Techniques and Data

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.*	• Drilling reported is angled Reverse Circulation (RC) drilling. • Sampling consists of one metre cone split samples. • Sample weights were approximately 3kg of material. The full sample was pulverised. Fire Assaying was completed using a 50 g charge. Multi-element assaying was done using ICP following a four acid digest with mult-element assay results awaited. • Assaying was completed at Intertek Ltd's assay laboratory in Townsville.
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 drilling at Golden Cup was angled Reverse Circulation drilling using a face sampling hammer.
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.*	• Sample recoveries were assessed visually and appeared to be consistent throughout drill holes. • All samples were dry. • No measures needed to be taken. • No sample bias believed to occur.
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.*	• Geological logging of colour, weathering, lithology, alteration and mineralisation has been undertaken. • RC is considered both qualitative and quantitative in nature. • The total length of the RC holes were logged.

Criteria	JORC Code explanation	Commentary
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.*	• Drilling was RC not core drilling. • 1m samples were collected straight from the drill rig cyclone and splitter. • Sampling is considered representative. • Internal laboratory standards used. • No duplicates taken at this stage. • 3kg sample size considered appropriate for the grain size of the sedimentary rock units sampled.
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.*	• The assaying work was Fire Assay (50g) which is industry standard assay technique for gold mineralisation and ICP for multi-elements with a four acid digest. Both considered total techniques. Multi-element assays awaited. • No instruments reported. • Laboratory standards utilised.
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 drill holes within 10m also recorded gold mineralisation although thickness and grade varies yet this is believed to represent the changing nature of this style of mineralisation. • Some of these holes twinned historic drill holes. • Data was collected on paper and entered into an Excel Worksheet. • No adjustments to assay results.
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.*	• Coordinates located by hand held Garmin GPS. • Co-ordinates are recorded in GDA94 zone 55. • Control considered to be good.
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*	• As this drilling program was a small drilling program there was considerable variation in the drill spacings. • Only 8 holes drilled over a 1 km strike length.

Criteria	JORC Code explanation	Commentary
	appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	• One metre samples and composited samples were taken. Assay results reported are all 1 m samples.
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.*	• The attitude of the lithological units is predominantly believed to be NE striking and dipping at a moderate angle towards the southeast. Drilling was generally perpendicular to the considered lithology orientation with holes drilled at azimuths of 315 degrees at dip angles between -50 to -60 degrees. Due to locally varying intersection angles between drillholes and lithological units all results will be defined as downhole widths. • No drilling orientation and sampling bias has been recognised at this time and it is not considered to have introduced a sampling bias.
Sample security	• *The measures taken to ensure sample security.*	• Samples taken by qualified staff and delivered to assay laboratory by company representatives.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews completed.

Section 2 JORC Code, 2012 Edition - Reporting of Exploration Results

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.*	• Mining Lease ML 4536 is held by Golden Ant Mining Pty Ltd. • Great Northern Minerals Limited has exercised an option agreement to purchase up to 100% of the Mining Lease listed above from Q-Generate Pty Ltd the owner of Golden Ant Mining Pty Ltd. • The Mining Lease is granted.
Exploration by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Golden Cup Gold Mine has been the subject of substantial previous exploration, resource definition drilling and mining operations. • Lynch Mining first recognized gold mineralization in the Golden Cup area in 1987 whilst they were mining the nearby Camel Creek deposit. Lynch Mining drilled the GC series of holes (GC01 – GC216) between 1988 and 1993. • Lynch Mining excavated several small pits at Golden Cup between 1989 and 1992. Oxide ore was mined and treated via a heap leach operation. • Wiluna Gold Mines Ltd entered into a Joint Venture with Lynch Mining and

Criteria	JORC Code explanation	Commentary
		drilled the CCRC series of holes (CCRC1 – CCRC17) in 1994. • Ownership returned to Lynch mining in 1995 and Curtain Brothers entered into a Joint Venture that eventually saw them gain complete ownership in 2009. Curtain Brothers drilled a total of 73 RC holes (GCRC01 – GCRC73) and two diamond holes (GCD01 and GCD02) between 2009 and 2014. • Great Northern Minerals Ltd (previously Greenpower Energy Ltd purchased the project in August 2019.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The gold mineralisation at Golden Cup is located within the generally tightly folded sediments of the early Devonian age Kangaroo Hills Formation which is characterised by a varying assemblage comprising sandstone, mudstone and lesser tuff. The area is traversed by a major north west/south east structural corridor paralleling the Sybil Graben, with many of the numerous basaltic, andesitic and rhyolitic dykes of the region sharing a similar trend. The region has undergone three significant periods of deformation with gold mineralisation introduced during at least four different phases, resulting in a complex mineralogical history. Gold is strongly associated with quartz veining. Historical mining has removed the auriferous oxide ore that was amenable to extraction by cyanide leaching. The primary mineralisation that remains is refractory with gold associated with arsenopyrite and antimony. Metallurgical test work to date has demonstrated that concentrates can be produced with Au recoveries of between 77 and 87%.
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*	• Refer to Table 1 of this ASX Announcement which provides easting and northing of the drill collars, dip, azimuth and end of hole depths.

Criteria	JORC Code explanation	Commentary
	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.	
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.*	• The drill intercepts reported in Table 1 are on a length weighted basis. No high-grade cuts have been applied to the tabled intersections. • Lengths of low-grade material (no more than 3m) have been incorporated where the adjacent higher grades are sufficient such that the weighted average remains above the 1 g/t Au lower cut-off grade. • No metal equivalents are used or presented.
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').*	• Drilling is generally perpendicular to the structure by angled RC at 50º to 65º into structures dipping between 30º and 60º. Some of the reported intersections are very close to true width. • Due to locally varying intersection angles between drill holes and lithological units all results will be defined as downhole widths.
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.*	• Maps and sections are presented in 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 accompanying document is considered to represent a balanced report.
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.*	• The Golden Cup Gold Project has been the subject of substantial previous exploration, resource definition drilling and mining operations. • On the 10 December 2019 Great Northern Minerals announced to the ASX a maiden inferred gold resource at the project.

Criteria	JORC Code explanation	Commentary
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.*	• Further work will include; Drill testing for extensions to the known mineralization, mostly down dip. Additional metallurgical test work to determine the most appropriate process route for gold recovery. Complete an initial Scoping Study on the economics of developing a gold producing operation at Golden Cup.