ASX ANNOUNCEMENT

16 September 2020

Initial drill results at Big Rush Gold Project outlines potential for significant gold system

HIGHLIGHTS:

- **First assays from the Big Rush Gold Project drill program have returned high grade results including:**
  - **24m @ 3.90 g/t Au** (BRRC1013) including **8m @ 10.57 g/t Au** from 140 metres
  - **32m @ 3.89 g/t Au** (BRRC1014) including **4m @ 18.97 g/t Au** from 76 metres
  - **32m @ 1.72 g/t Au** (BRRC1015) from 132 metres
  - **28m @ 1.93 g/t Au** (BRRC1019) from 112 metres
  - **24m @ 1.51 g/t Au** (BRRC1025) from 132 metres
  - **28m @ 1.71 g/t Au** (BRRC1026) from 148 metres
- **22 RC drill holes for 3,634 metres at the 100% owned Big Rush Gold Project**
  - **16 drill holes discussed in this announcement**
  - **6 drill holes are pending at the laboratory**
- **21 large diameter drill holes completed over historical stockpile located alongside Big Rush Gold Project**
  - **Large stockpile from historical mining operations in the 1990's**
  - **Estimated to contain approximately 900,000 tonnes of remnant ore**
  - **Assays due within the next 2 weeks**
  - **Company notes recent sales of similar stockpiles by other ASX-listed companies**
- **Drill program unlocks potential for a large gold resource at Big Rush with gold mineralisation confirmed by this program**

Great Northern Minerals Limited ("Great Northern Minerals" or the **"Company") (ASX: GNM)** is pleased to announce the receipt of the initial four metre composite results from the Reverse Circulation ('RC') drilling programme at the Company's Big Rush Gold Project in Northern Queensland (Figure 1).

The drilling at Big Rush totalled 22 RC holes (BRRC1012 to BRRC1033) for 3,634 metres spread over approximately 900 metres of strike underneath the southern, central and northern previously mined shallow open pits. Drill hole depths ranged from 110 to 250 metres depth and averaged 165 metres. This ASX release documents the 4 metre composite results from the first 16 RC holes (BRRC1012 to BRRC1027), with the remaining results for BRRC1028 to BRRC1033 due in the next 2 weeks.

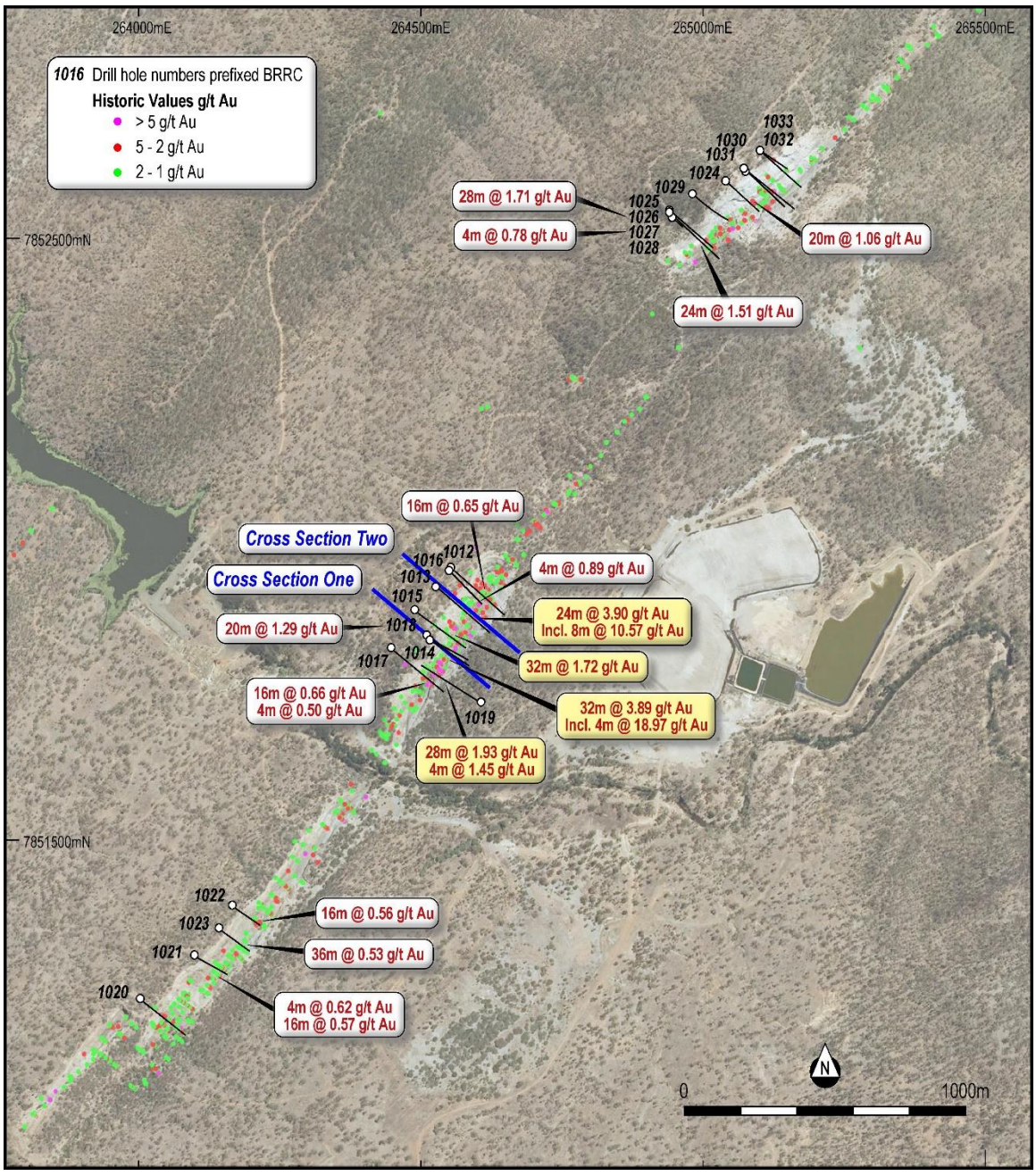

Figure 1: Location plan of the Big Rush Drilliing on Aerial Imagery

GNM Managing director commented on the announcement: ***"This drill program has opened up the potential at Big Rush for the delineation of a large gold resource. Anomalous gold mineralisation is now documented to occur over at least one kilometre of strike and so far appears to continue at depth well into the primary ore zones."***

An additional 21 large diameter aircore holes for 239 metres were drilled over a large stockpile of material previously mined in the 1990's. The stockpile is located alongside the Big Rush Gold Project. The drilling was completed on a systematic pattern to assess potential economic mineralisation in the large stockpile, estimated to contain approximately 900,000 tonnes of remnant material, which was

previously mined and heap leached in the early 1990s. Results from this aircore drilling is due within the next 2 weeks and at that stage some large metallurgical samples will be collected with planned beneficiation and screening testwork to determine the potential of this large resource.

Big Rush Gold Project

Four metre composite assay results from the first 16 RC holes at Big Rush have been returned. The original one metre samples collected have been picked up in the field and submitted to the laboratory for final multielement analysis to accurately define and document the intersections indicated from the four metre composite results. The vast majority of the anomalous intersections are associated with a strong zone of silicification (+/- quartz veining) and associated increases in sulphides (arsenopyrite, pyrite and stibnite) focused on lithological contacts within a sedimentary sequence of sandstones, shales and siltstones.

True thickness of the mineralised zones ranged from 2 to 14 metres in width and are interpreted to all be open at depth and along strike, providing plenty of resource development potential. Total strike length of the mineralisation at Big Rush based on the previously mined open pits and plus 1.0 g/t Au assays (See Figure 1) extends over 2.3 kilometres of known strike. This current program has tested approximately one kilometre of strike with continuity and high grade zones outlined and confirmed.

Gold assays for the four metre composite samples provide an indicative distribution of the grades, and all anomalous one metre assays will now be analysed for multi-element assays and gold. This will provide greater clarity as to the distribution and calibre of the gold and identify any relevant trends in the multi-element analytical data. A full listing of the anomalous intersections (all greater than 0.5 g/t Au) is documented in the following table.

Table 1: Initial 4 metre composite results, Big Rush Gold Project (>0.5 g/t Au)

Hole	MGA_East	MGA_North	RL_(dtm)	Dip	Azimuth	Final Depth	From	To	Intersection
BRRC1012	264554	7851951	597	-55	125	179	116	128	16m @ 0.65 g/t Au
BRRC1013	264529	7851920	594	-55	125	179	124	148	24m @ 3.90 g/t Au
BRRC1013							140	148	incl 8m @ 10.57 g/t Au
BRRC1014	264514	7851838	587	-60	125	143	60	92	32m @ 3.89 g/t Au
BRRC1014							76	80	incl 4m @ 18.97 g/t Au
BRRC1015	264490	7851882	582	-60	125	179	132	164	32m @ 1.72 g/t Au
BRRC1016	264506	7851987	576	-65	125	250	240	244	4m @ 0.89 g/t Au
BRRC1017	264447	7851821	557	-65	125	185	144	160	16m @ 0.66 g/t Au
BRRC1017							176	180	4m @ 0.50 g/t Au
BRRC1018	264511	7851841	587	-70	125	160	100	120	20m @ 1.29 g/t Au
BRRC1019	264603	7851731	541	-60	305	180	112	140	28m @ 1.93 g/t Au
BRRC1019							164	168	4m @ 1.45 g/t Au
BRRC1020	264002	7851235	592	-60	125	140			NSR
BRRC1021	264097	7851308	593	-60	120	107	56	60	4m @ 0.62 g/t Au
BRRC1021							72	88	16m @ 0.72 g/t Au
BRRC1022	264165	7851391	573	-60	125	119	60	76	16m @ 0.56 g/t Au
BRRC1023	264141	7851353	580	-60	125	107	52	88	36m @ 0.53 g/t Au
BRRC1024	265044	7852596	636	-60	128	140	108	128	20m @ 1.06 g/t Au
BRRC1025	264944	7852541	592	-60	130	173	132	156	24m @ 1.51 g/t Au
BRRC1026	264941	7852546	594	-70	130	209	148	176	28m @ 1.71 g/t Au
BRRC1027	264947	7852537	593	-50	130	148	92	96	4m @ 0.78 g/t Au
Notes:									
Intersections reported at a nominal minimum of 0.5 g/t Au									
Max Internal dilution 8 m @ < 0.5 g/t Au									

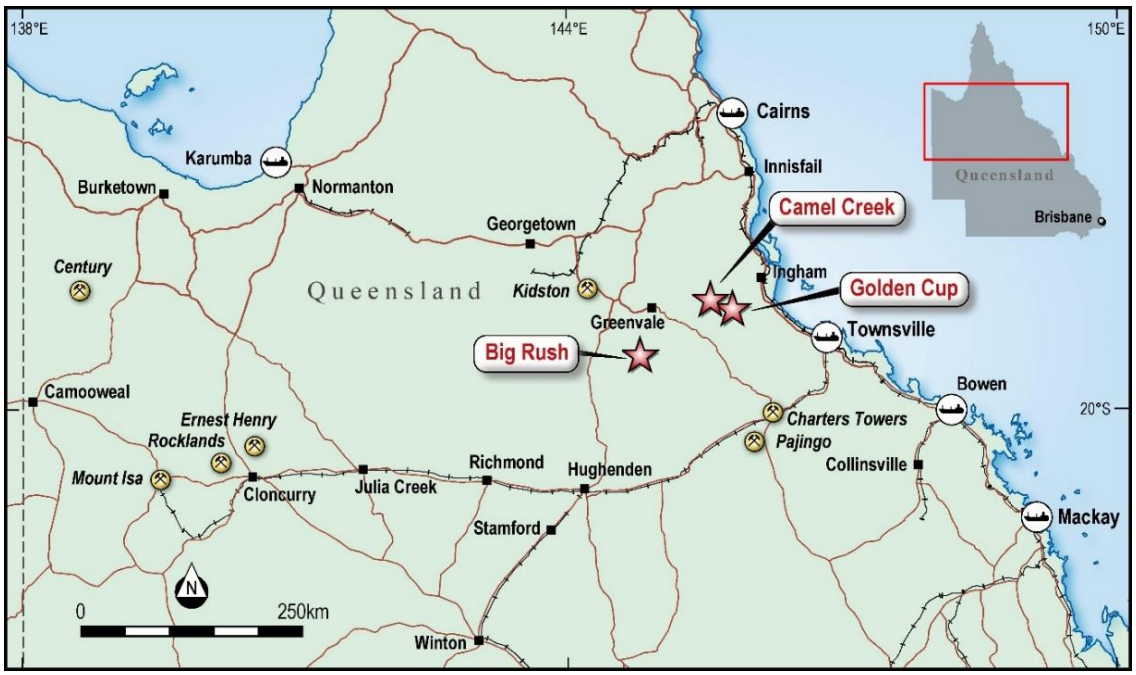

Figure 2: Location of the Company's gold projects in Northern Queensland

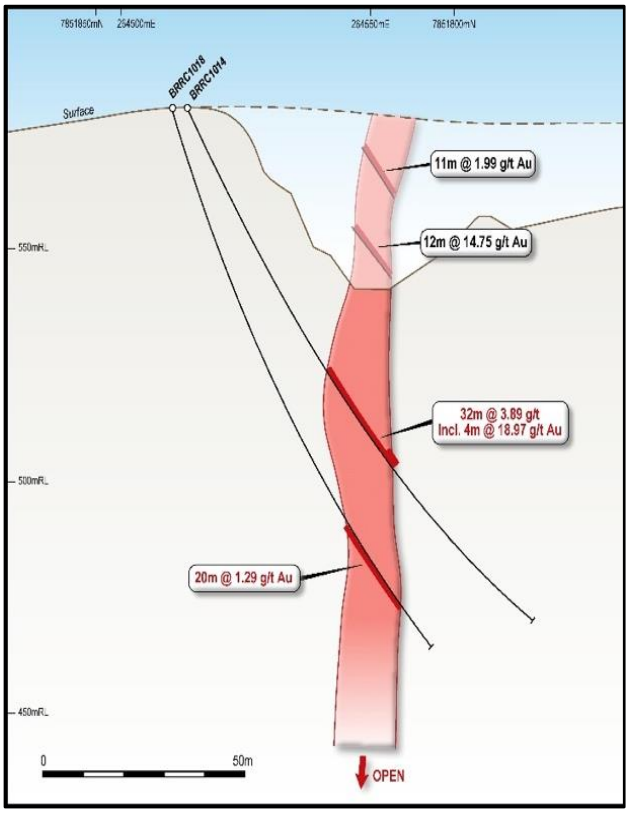

Figure 3: Cross Section Two Big Rush Drilling

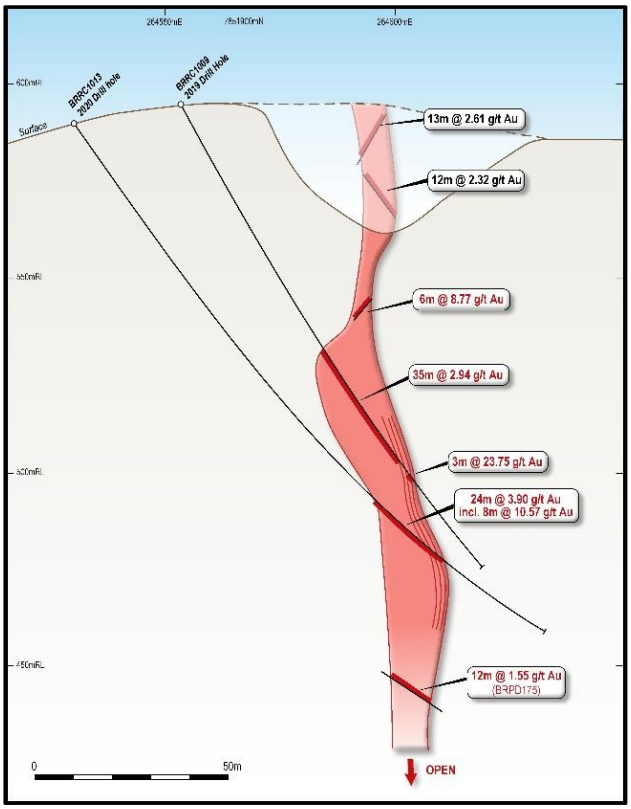

Figure 4: Cross Section One Big Rush Drilling

This announcement has been authorised for release by the Board of Great Northern Minerals Limited.

*****ENDS*****

For more information please contact:

Managing Director
Cameron McLean
+61 8 6214 0148
info@greatnorthernminerals.com.au

Investor Relations
Peter Taylor, NWR Communications
+61 412 036 231

About Great Northern Minerals Limited

Great Northern Minerals Limited is an ASX-listed gold focused explorer. The Company's key North Queensland Gold Projects include the Golden Cup, Camel Creek and Big Rush Gold Mines in North Queensland. The historic mines ceased operation in the 1990's after production of over 150,000 oz at an average grade of 1.91g/t Au. Great Northern Minerals aims to extend known mineralisation and develop a new gold camp in North Queensland.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled under the supervision of Simon Coxhell, the Technical Director of Great Northern Minerals Limited. Mr Coxhell 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 Coxhell consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

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 four metre composite split samples. • Sample weights were approximately 3kg of material. The full sample was pulverised. Fire Assaying (gold only) was completed using a 50 g charge. One metre samples related to the anomalous 4 metre results will now be individually analysed for a multielement suite, via ICP. • 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 Big Rush was angled Reverse Circulation drilling using a face sampling hammer. (150mm).
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 was 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. • Representative 4 metre composite samples were collected by a standard systematic quantity from every individual metre samole and composited. • 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. • 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 mining within 40m also recorded gold mineralisation although thickness and grade varies yet this is believed to represent the changing nature of this style of mineralisation. • No twin holes were drilled, however holes nearny showed similar levels of mineralisation. • 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.(+/- 2 metres)
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the*	• Drilling was on nominal 40 metre centres. • 22 holes drilled over a 1.0 km strike length.

Criteria	JORC Code explanation	Commentary
	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.*	• One metre samples and composited samples were taken. Assay results reported are all 4 metre composite 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. True widths of the mineralised zones are interpreted as between 2-14 metres true thickness • 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 Leases MLs 10168, 10175 & 10192 are held by Alphadale Pty Ltd.. • Great Northern Minerals Limited has purchased 100% of the Mining Leases listed above from Q-Generate Pty Ltd the owner of Golden Ant Mining Pty Ltd. • The Mining Leases are granted.
Exploration by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Big Rush Gold Mine has been the subject of substantial previous exploration, resource definition drilling and mining operations. • Gold mineralization in the Big Rush area was first recognized in 1987. • Previous exploration and mining activities have been undertaken by Werrie Gold, Alphadale Pty Ltd, Lynch Mining Pty Ltd and Curtain Bros Pty Ltd. • The project database contains 261 Reverse Circulation (RC) drill holes, 11 RC drill holes with diamond tails, 5 diamond holes and

Criteria	JORC Code explanation	Commentary
		data from 195 blast holes and 179 trenches. The RC and diamond drilling completed had an average depth of 63m and the deepest drill hole in the database is 240.50 metres deep. The majority of exploration was completed between 1990 – 1997 just before and whilst mining was underway. Three RC holes totalling 396m were drilled by Curtain Bros Pty Ltd in 2010 but that is the only drilling recorded since mining activities stopped in 1998. Deeper drilling has largely been restricted to beneath the Central Pit with only limited drilling being completed beneath the Northern, Southern and Sergei Pits.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Big Rush Gold Mine is located in the Broken River Mineral Field. • Quartz vein hosted gold mineralization within sedimentary rock units occurs within the project area and has been mined previously.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Refer to Table 1 of this ASX Announcement which provides easting and northing of the drill collars, dip, azimuth and end of hole depths.
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 5m) have been incorporated where the adjacent higher grades are sufficient such that the weighted average remains above the 0.5 g/t Au lower cut-off grade. • No metal equivalents are used or presented.

Criteria	JORC Code 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').*	• 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 Big Rush Gold Mine has been the subject of substantial previous exploration, resource definition drilling and mining operations.
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 Big Rush.