

Drill Results at Big Rush Gold Project continue to confirm a significant gold system

HIGHLIGHTS:

- All one metre individual resplits returned from Big Rush confirming high grades and significant widths over 900 metres of strike length with a deeper diamond drilling program to further test these zones at depth due to commence in the second week of October;
- High grade results include:
 - o **19m @ 5.11 g/t Au** (BRRC1014) including **3m @ 21.73 g/t Au** from 77 metres
 - **32m @ 1.32 g/t Au** (BRRC1015) from 132 metres
 - **28m @ 1.27 g/t Au** (BRRC1018) from 91 metres
 - o **26m @ 1.99 g/t Au** (BRRC1019) including 2**m @ 17.56 g/t Au** from 119 metres
 - o 20m @ 1.28 g/t Au (BRRC1024) from 106 metres
 - o 11m @ 3.27 g/t Au (BRRC1025) from 144 metres
 - o 37m @ 2.28 g/t Au (BRRC1026) from 148 metres
 - o 8m @ 4.40 g/t Au (BRRC1030) from 155 metres
- Drill program unlocks potential for a large gold resource at Big Rush with gold mineralisation confirmed and extended by this program;
- Diamond program due to commence shortly to evaluate and follow up at depth some of the more significant intersections.

Great Northern Minerals Limited ("Great Northern Minerals" or the **"Company") (ASX: GNM)** is pleased to announce the receipt of all of the final one metre resplit samples (BRRC1012 to BRRC1033) from the Reverse Circulation ('RC') drilling programme at the Company's Big Rush Gold Project in Northern Queensland (Figure 1).

The total recent drilling at Big Rush comprised 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 all of the one metre resplit samples from RC holes BRRC1012 to BRRC1033, with previous 4 metre composite results previously released to the ASX on the 16 and 17 Seprtember 2020.

The one metre results have highlighted the higher grade gold zones lying within a number of the larger lower grade mineralised zones and provides a clear focus for targeted deeper diamond drilling designed to test at depth these higher grade intersections.



GNM Managing Director, Cameron Mclean commented on the announcement: "The one metre results have confirmed the potential for very high grades to extend to significant vertical depth, particulary underneath the Central Pit. Results from underneath the Northern Pit are pointing to excellent further potential in this area and the planned deeper diamond drilling program which is about to commence is designed to test for extensions of the higher grade gold results. Anomalous gold mineralisation at Big Rush is now documented to occur over at least one kilometre of strike, with additional strike extensions apparent."



Figure 1: Location plan of the Big Rush Drilliing on Aerial Imagery; One Metre Sample Results

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Big Rush Gold Project

Great Northern has now completed phase one of the drilling program at Big Rush, which totaled 22 RC drillholes for 3634 metres. All final one metre resplits have been returned and compiled. A number of high grade gold results have been returned including **1m @ 81.68 g/t Au**, **3m @ 21.73 g/t Au** and **2m @ 17.16 g/t Au**, all located within larger lower grade mineralised zones which are planned to be followed up with a diamond drilling program due to commence shortly. A summary of all the one metre results are presented in Table 1.

Hole	MGA_East	MGA_North	RL_(dtm)	Dip	Azimuth	Final Depth	From	То	Intersection	Area
BRRC1012	264554	7851951	597	-55	125	179	116	129	13m @ 0.93 g/t Au	Central Pit
BRRC1012						including	116	119	3m @ 2.33 g/t Au	
BRRC1012							139	146	7m @ 1.40 g/t Au	
BRRC1013	264529	7851920	594	-55	125	179	124	131	7m @ 1.05 g/t Au	Central Pit
BRRC1013							142	146	4m @ 20.73 g/t Au	
BRRC1013						including	144	145	1m @ 81.88 g/t Au	
BRRC1014	264514	7851838	587	-60	125	143	62	81	19m @ 5.11 g/t Au	Central Pit
BRRC1014						including	77	80	incl 3m @ 21.73 g/t Au	
BRRC1014							105	107	2m @ 1.00 g/t Au	
BRRC1014							113	115	2m @ 0.91 g/t Au	
BRRC1014							122	124	2m @ 0.74 g/t Au	
BRRC1015	264490	7851882	582	-60	125	179	132	164	32m @ 1.32 g/t Au	Central Pit
BRRC1017	264447	7851821	557	-65	125	185	142	161	19m @ 0.52 g/t Au	Central Pit
BRRC1018	264511	7851841	587	-70	125	160	91	121	30m @ 1.27 g/t Au	Central Pit
BRRC1019	264603	7851731	541	-60	305	180	114	140	26m @ 1.99 g/t Au	Central Pit
BRRC1019						including	119	121	2m @ 17.56 g/t Au	
BRRC1019							165	167	2m @ 1.74 g/t Au	
BRRC1020	264002	7851235	592	-60	125	140	60	61	1m @ 0.69 g/t Au	Southern Pit
BRRC1020							108	109	1m @ 0.93 g/t Au	
BRRC1021	264097	7851308	593	-60	120	107	39	41	2m @ 0.59 g/t Au	Southern Pit
BRRC1021							59	60	1m @ 0.80 g/t Au	
BRRC1022	264165	7851391	573	-60	125	119	63	73	10m @ 0.70 g/t Au	Southern Pit
BRRC1022							87	99	12m @ 0.67 g/t Au	
BRRC1023	264141	7851353	580	-60	125	107	55	57	2m @ 0.65 g/t Au	Southern Pit
BRRC1023							79	88	9m @ 0.94 g/t Au	
BRRC1023							98	100	2m @ 2.00 g/t Au	
BRRC1024	265044	7852596	636	-60	128	140	106	126	20m @ 1.28 g/t Au	Northern Pit
						including	112	126	14m @ 1.56 g/t Au	
BRRC1025	264944	7852541	592	-60	130	173	144	155	11m @ 3.27 g/t Au	Northern Pit
BRRC1026	264941	7852546	594	-70	130	209	148	181	37m @ 2.28 g/t Au	Northern Pit
BRRC1027	264947	7852537	586	-50	130	148	89	98	9m @ 0.69 g/t Au	Northern Pit
BRRC1028	264906	7852580	587	-68	130	179	Diamond Pre	collar		Northern Pit
BRRC1029	264981	7852576	614	-60	130	171	144	151	7m @ 2.23 g/t Au	Northern Pit
BRRC1030	265042	7852598	630	-70	130	221	119	123	4m @ 2.66 g/t Au	Northern Pit
BRRC1030							155	163	8m @ 4.40 g/t Au	
BRRC1031	265071	7852617	632	-60	130	161	108	115	7m @ 0.63 g/t Au	Northern Pit
BRRC1031							130	141	11m @ 1.22 g/t Au	
BRRC1032	265099	7852649	633	-60	130	161	119	159	40m @ 0.89 g/t Au	Northern Pit
BRRC1032						including	139	148	9m @ 1.85 g/t Au	
BRRC1033	265101	7852651	633	-70	130	143	Diamond Pre	ecollar		Northern Pit

Table 1: (One Metre	Results:	BRRC1012-	\rightarrow BRRC1033
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All of the results have highlighted and extended the known gold mineralisation particularly underneath the northern pit, with a number of significant intersections being returned in this area including 7m @ 2.23 g/t Au, 8m @ 4.40 g/t Au and 40m @ 0.89 g/t Au. These results have significantly extended the known mineralisation to greater than 150 metres vertical depth with the strike extent under the northern pit now confirmed in excess over 250 metres.



This is highly encouraging as previously the more significant gold intersections had only been returned at depth under the Central pit and these results confirm the potential along the entire strike length of the previously mined pits and extensions of these.

Planning for a deeper diamond program is well underway and due to commence in the second week of October. Initially four diamond holes (and precollars) to an approximate depth of 260 metres are planned underneath the central pit and one diamond hole to a similar depth is planned underneath the northern pit. This will allow detailed interpretation of the diamond core, provide representative samples for metallurgical testwork and allow for greater knowledge leading to an updated JORC 2012 estimate for the Big Rush gold deposit early in 2021.

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. The very high grade result from BRRC1013 (**1m @ 81.88 g/t Au**) was associated with visible gold within a late stage interpreted silica rich overprint zone. Visible gold at Big Rush has been recognised in the past and this more detailed drilling allows the company to focus in on a possible late stage higher grade mineralisation event and associated vectors.

True thickness of the mineralised zones ranged from 1 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.



Figure 2: Cross Section One: Big Rush Drilling



Figure 3: Cross Section Two: Big Rush Drilling

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Figure 4: Location of the Company's gold projects in Northern Queensland

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

ENDS

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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.

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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 individual 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 on the samples. One metre samples were individually analysed for a multielement suite, including gold, 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.



Sub- sampling techniques and sample preparation	 If core, whether cut or quarter, half or all core tak If non-core, whether riffled split, etc and whether sam For all sample types, the appropriateness of the technique. Quality control procedure. sampling stages to maxin samples. Measures taken to ensure representative of the in-spincluding for instance duplicate/second-half sam Whether sample sizes an grain size of the material k
Quality of assay data and laboratory tests	 The nature, quality and a assaying and laboratory p whether the technique is total. For geophysical tools, spe XRF instruments, etc, the determining the analysis make and model, reading factors applied and their of Network of graphic applied.
	 Nature of quality control (eg standards, blanks, laboratory checks) and levels of accuracy (ie lack have been established.
Verification of sampling and assaying	 The verification of signifi either independent or personnel. The use of twinned holes. Documentation of prima procedures, data verific (physical and electronic) p Discuss any adjustment to
Location of data points	 Accuracy and quality of s drill holes (collar and trenches, mine workings used in Mineral Resource Specification of the grid sy Quality and adequacy of the
Data spacing and distribution	 Data spacing for repo Results. Whether the data spacir sufficient to establish the

oling niques sample aration •	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 cone splitter. Sampling is considered representative. Internal laboratory standards used. Duplicates, standards and blanks were collected and inserted during the one metre resplit samples at approximately 1: 40. 3kg sample size considered appropriate for the grain size of the sedimentary rock units sampled.
ity of • y data atory •	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. Multielement and gold analysis via FA50 and ICP (4A MS) was carried out on the one metre cone split samples No instruments reported. Laboratory standards and industry satandards and blanks utilised.
ication • mpling ying • •	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. No twin holes were drilled, however holes nearny showed similar levels of mineralisation. Data was collected on paper and entered into an Excel Worksheet. PXRF completed on the one metre field samples to guide geological continuity and interpretation, Not reported. No adjustments to assay results.
tion of • 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)
•	vata spacing for reporting of Exploration	 Drilling was on nominal 40 metre centres.

· 22 holes drilled over a 1.0 km strike ng and distribution is length. degree of geological • One metre samples and composited samples were taken. Assay results reported are all 4 metre composite and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. samples. Whether sample compositing has been applied. ٠

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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 tc -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 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
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8



Criteria	JORC Code explanation	Commentary
		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 and Table 2 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 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 4m) 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.
Relationship between mineralisatio n 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 	 Drilling is generally perpendicular to the structure by angled RC at 50° to 65° into structures dipping between 30° and 60°. 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

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statement to this effect (eg 'down hole

length, true width not known').



Criteria		
Diagrams	•	App and incl rep limi
Balanced reporting	•	Wh Exp rep grad avo Res
Other substantive exploration data	•	Oth mate not geo surv rest geo pote sub
Further work	•	The (eg Dia pos geo area con

Criteria	JORC Code explanation	Commentary
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 eporting	 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.