

## **ASX ANNOUNCEMENT**

18 August 2020

# Maiden drill program delivers high grade shallow intercepts including 24m @ 3.26 g/t Au from 56 metres

#### **HIGHLIGHTS**:

- High grade four metre composite results at the Camel Creek Gold Project include:
  - o 52m @ 1.90 g/t Au (CCRC12) including 24m @ 3.26 g/t Au from 56 metres
  - 20m @ 2.26 g/t Au (CCRC17) from 76 metres
  - o 12m @ 4.07 g/t Au (CCRC15) from 108 metres
  - o 12m @ 2.06 g/t Au (CCRC07) from 144 metres
  - 8m @ 2.10 g/t Au (CCRC05) from 60 metres
  - o 8m @ 2.67 g/t Au (CCR06) from 88 metres
  - o 8m @ 2.91 g/t Au (CCRC16) from 108 metres
  - o 4m @ 4.10 g/t Au (CCR06) from 88 metres
- Gold encountered in every hole establishing strike continuity over 700 metres
- Drilling has now commenced at the Big Rush Gold Project

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 maiden Reverse Circulation ('RC') drilling programme at the Company's Camel Creek Gold Project in Northern Queensland (Figure 1). A total of 18 holes for 2516 metres were drilled at Camel Creek testing on nominal 40 metre spacing along approximately 700 metres of previous mined areas at Camel Creek, which had been previously mined to an average depth of approximately 25-30 metres. The new holes, the majority of which will require follow up drilling, were all drilled into the primary zone below the base of oxidation with hole depths ranging from 65 to 197 metres, with an average depth of 140 metres.

GNM Managing Director, Cameron McLean commented on the announcement: "This drill program represents the first modern deeper exploration ever undertaken at Camel Creek. GNM tested 700 metres of over 4km of mineralisation and the results are very encouraging, especially the continuity of the intercepts over the areas tested. As a result we have a number of targets to follow up on."

## **Camel Creek**

Four metre composite assay results from the Camel Creek reverse circulation program totalling 18 holes for 2516 metres have been returned. The original one metre samples collected have now 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 mylonite zone trending north east and in places up to 8 metres in width and extending along strike over the entire area tested. Two parrarel zones were intersected in a number of holes highlighting multiple opportunities for further testing. An increase in quartz veining and sulphide content in general accompanies the anomalous intersections. A follow up RC drilling program is in the planning stages.



No deep drilling has ever been completed at Camel Creek previously and this systematic program has highlighted the continuity of the mineralisation underneath the previously mined shallow open pits and demonstrated considerable additional potential. Gold assays for the four metre composite samples provide an indiciative distribution of the grades, and all anomalous one metre assays will now be anlaysed 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 multielelement analytical data. A full listing of the anomalous intersections (all greater then 0.2 g/t Au) is documented in the following table. Interpretation of the initial four metre composite results has suggested the prescence of an untested target, termed the "Hinge Zone, where a number of the parallel structures coalesce. No previous mining has been conducted in this area and a plunging ore shoot is interpreted. The location coincides with a contact zone between sandstone and the siltstone/shale mylonite zone and is in the vicinity (to the south) of the higher grades returned. This represents a new target of future drill testing. (See Figure 2).

Table 1: Initial 4 metre composite results, Camel Creek Gold Project (>0.2 g/t Au)

rabie 1:									
Hole	MGA_East	MGA_North	RL_(dtm)	Dip	Azimuth	Final Depth	From	То	Intersection
CCRC01	348652	7918461	471	-55	305	78	4	8	4 m @ 0.21 g/t Au
CCRC01							48	52	4 m @ 4.75g/t Au
CCRC01							52	56	4 m @ 0.23 g/t Au
CCRC02	348617	7918433	468	-55	303	80	36	40	4 m @ 3.32 g/t Au
CCRC03	348590	7918276	478	-55	320	160	48	52	4 m @ 1.00 g/t Au
CCRC03							140	144	4 m @ 0.34 g/t Au
CCRC04	348556	7918250	482	-55	320	155	52	56	4 m @ 0.25 g/t Au
CCRC04							136	140	4 m @ 0.61 g/t Au
CCRC05	348538	7918234	487	-50	332	173	60	68	8 m @ 2.10 g/t Au
CCRC06	348484	7918202	491	-55	320	167	68	72	4 m @ 4.10 g/t Au
CCRC06							88	96	8 m @ 2.67 g/t Au
CCRC07	348458	7918183	492	-55	320	167	68	72	4 m @ 2.10 g/t Au
CCRC07							80	84	4 m @ 4.38 g/t Au
CCRC07							96	104	8 m @ 0.65 g/t Au
CCRC07							144	156	12 m @ 2.06 g/t Au
CCRC08	348428	7918163	494	-55	320	167	76	92	16 m @ 0.43 g/t Au
CCRC08							100	104	4 m @ 0.48 g/t Au
CCRC08							144	156	12 m @ 0.65 g/t Au
CCRC09	348300	7918128	480	-55	320	125	44	48	4 m @ 0.21 g/t Au
CCRC09							60	64	4 m @ 0.89 g/t Au
CCRC10	348263	7918124	478	-55	320	107	32	52	20 m @ 0.69 g/t Au
CCRC11	348221	7918106	481	-55	320	65	36	44	8 m @ 0.48 g/t Au
CCRC12	348223	7918103	481	-80	320	125	56	108	52 m @ 1.90 g/t Au
CCRC12									including
CCRC12							56	80	24 m @ 3.26 g/t Au
CCRC13	348271	7918239	476	-50	140	191	92	96	4 m @ 0.93 g/t Au
CCRC13							164	172	8 m @ 0.82 g/t Au
CCRC14	348303	7918265	474	-50	140	197	88	92	4 m @ 0.48 g/t Au
CCRC14							168	176	8 m @ 2.02 g/t Au
CCRC15	348172	7918160	477	-55	140	137	88	96	8 m @ 1.95 g/t Au
CCRC15							100	104	4 m @ 0.29 g/t Au
CCRC15							108	120	12 m @ 4.07 g/t Au
CCRC16	348133	7918122	480	-55	140	131	68	80	12 m @ 1.63 g/t Au
CCRC16							108	116	8 m @ 2.91 g/t Au
CCRC17	348087	7918096	484	-55	140	149	76	96	20 m @ 2.26 g/t Au
CCRC18	347675	7917619	484	-50	320	143	100	104	4 m @ 0.45 g/t Au
Notes:									
Intersecti	ons reported a	at a nominal mini	imum of 0.2 g/t	Au					

Max Internal dilution 4 m @ < 0.2 g/t Au **Great Northern Minerals Limited** ABN 22 000 002 111

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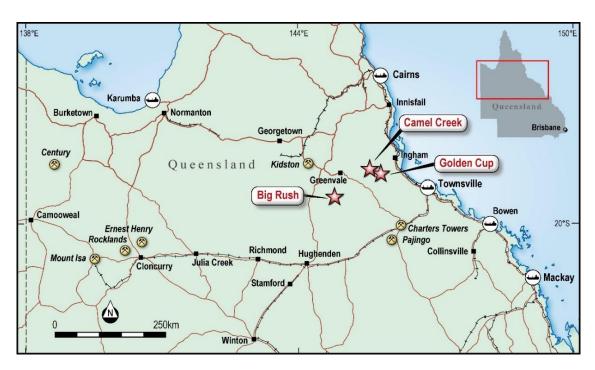


Figure 1: Location of the Company's gold projects in Northern Queensland

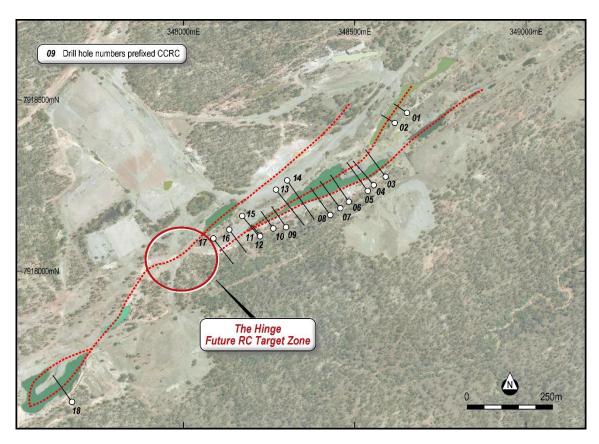


Figure 2: Location plan of the Camel Creek Drilliing on Aerial Imagery



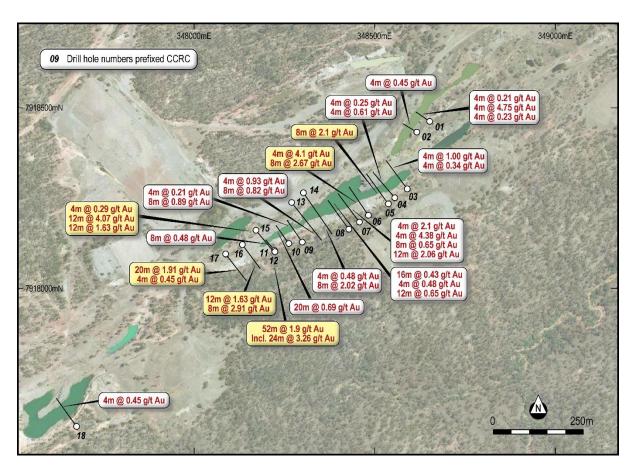


Figure 3: Plan display and 4 metre composite results

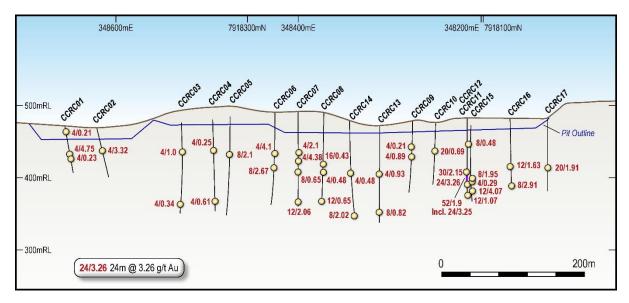


Figure 4: Long Section display 4 metre composite results



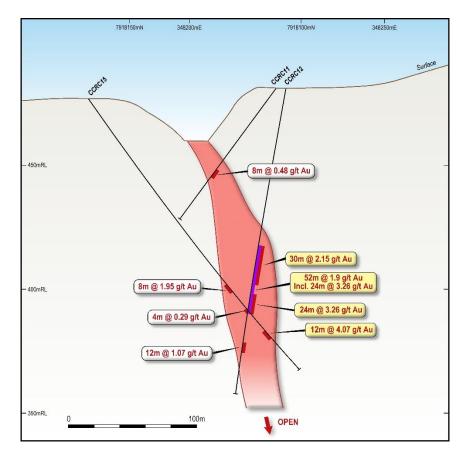


Figure 5: Cross section CCRC011, CCRC012 and CCRC015

# **Big Rush**

The Company is also pleased to announce that RC drilling has now commenced at the Big Rush Gold Project (refer Figure 1), where a minimum of 18 holes for 2400 metres is planned and also a number of systematic holes to evaluate the remant heap leach pad at Big Rush.

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

This announcement has been authorised by the Board or Directors of the Company.

#### \*\*\*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.



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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Drilling reported is angled Reverse Circulation (RC) drilling.</li> <li>Sampling consists of four metre composite split samples.</li> <li>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 anlaysed for a multielement suite, via ICP.</li> <li>Assaying was completed at Intertek Ltd's assay laboratory in Townsville.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	All drilling at Camel Creek was angled Reverse Circulation drilling using a face sampling hammer. (150mm)
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Sample recoveries were assessed visually and appeared to be consistent throughout drill holes.</li> <li>All samples were dry.</li> <li>No measures needed to be taken.</li> <li>No sample bias believed to occur.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logging of colour, weathering, lithology, alteration and mineralisation has been undertaken.</li> <li>RC is considered both qualitative and quantitative in nature.</li> <li>The total length of the RC holes were logged.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Drilling was RC not core drilling.</li> <li>1m samples were collected straight from the drill rig cyclone and splitter.</li> <li>Representative 4 metre composite samples were collected by a standard systematic quantity from every individual metre samole and composited.</li> <li>Sampling is considered representative.</li> <li>Internal laboratory standards used.</li> <li>No duplicates taken at this stage.</li> <li>3kg sample size considered appropriate for the grain size of the sedimentary rock units sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The assaying work was Fire Assay (50g) which is industry standard assay technique for gold mineralisation.</li> <li>No instruments reported.</li> <li>Laboratory standards utilised.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>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.</li> <li>No twin holes were driled, All previous drilling in shallow zones</li> <li>Data was collected on paper and entered into an Excel Worksheet.</li> <li>No adjustments to assay results.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Coordinates located by hand held Garmin GPS.</li> <li>Co-ordinates are recorded in GDA94 zone 55.</li> <li>Control considered to be good.(+/- 2 metres)</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</li> </ul>	<ul> <li>Drilling was on nominal 40 metre centres.</li> <li>Only 18 holes drilled over a 1.4 km strike length.</li> <li>One metre samples and composited samples were taken. Assay results reported are all 4 metre composite samples.</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<ul> <li>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>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 mineralsied zones are interpreted as between 2-8 metres true thickness</li> <li>No drilling orientation and sampling bias has been recognised at this time and it is not considered to have introduced a sampling bias.</li> </ul>
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Samples taken by qualified staff and delivered to assay laboratory by company representatives.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Mining Leases are held by Golden Ant Mining Pty Ltd.</li> <li>Great Northern Minerals Limited has purchased 100% of the Mining Lease listed above from Q-Generate Pty Ltd the owner of Golden Ant Mining Pty Ltd.</li> <li>The Mining Lease is granted.</li> </ul>
Exploration by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The Camel Creek Gold Mine has been the subject of substantial previous exploration, shallow resource definition drilling and mining operations.</li> <li>Lynch Mining first recognized gold mineralization in the Camel Creek area in 1986 and mined the shallow oxide portion of the deposit and treated via a heap leach operation.</li> <li>Great Northern Minerals Ltd (previously Greenpower Energy Ltd purchased the final interest in the project in August 2020.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The gold mineralisation at Camel Creek is located within the generally tightly folded

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Criteria	JORC Code explanation	Commentary
		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:  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  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	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>The drill intercepts reported in Table 1 are on a length weighted basis. No high-grade cuts have been applied to the tabled intersections.</li> <li>Based on the 4 metre composite results, all anomalous results greater than 0.2 g/t Au have been reported</li> <li>No metal equivalents are used or presented.</li> </ul>

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Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>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.</li> <li>Due to locally varying intersection angles between drill holes and lithological units all results will be defined as downhole widths.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Maps and sections are presented in the announcement.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>The accompanying document is considered to represent a balanced report.</li> </ul>
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.	<ul> <li>The Camel Creek Gold Project has been the subject of substantial previous exploration, resource definition drilling and mining operations.</li> <li>Anomalous antimony and arsenic vales have been indicated from portable XRF results, and metallurgical test work is planned.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	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.