ASX Release
23 January 2020

CEL Identifies Broad Zones of Porphyry and Intrusive Breccia Hosted Mineralisation in Colorado V Drill Core

Highlights

- **Logging of the historical drill core from the Colorado V concession continues to make good progress**
- **CEL has located 56 historical drill holes for a total of 21,472 metres of drilling**
- **All holes reviewed and logged contain overlooked porphyry and/or intrusive breccia hosted mineralisation**
- **Logging of hole ZK1-3 has identified a zone of over 300 metres of intrusive breccia hosted mineralisation and over 150 metres of similar mineralisation has been logged in hole ZK1-5.**
- **5,237 metres of core moved to El Guayabo for logging with the balance to be transported after the core trays are replaced due to poor condition**
- **Core from 6 of 56 holes has now been reviewed with three of these logged in detail**
- **Sampling of core and submission of samples for assay to start by the end of this week**

Challenger Exploration Limited (**ASX: CEL**) ("**CEL**" or the "**Company**") is pleased to announce that it is making notable progress on its review of the historical exploration data on the Colorado V tenement in Ecuador. Core from 6 of the 56 historical drill holes on the concession have been reviewed with 3 of these drill holes logged in detail.

Encouraging intervals of over 300 metres in drill hole ZK1-3 and 150 metres in ZK1-5 that exhibit intrusive breccia-hosted, hydrothermal mineralisation containing pyrite, pyrrhotite and lesser chalcopyrite. Additionally, hole ZK1-6 which contained disseminated pyrite, porphyry-style A and D type veins, and breccias all of which are interpreted as the potential outer halo of a gold-copper porphyry system.

CEL announced an agreement to farm-in to the Colorado V tenement in Ecuador on 8 January 2020. The Colorado V tenement covers 2,331 hectares (23.3 sq. kms) and is located on the northern and eastern margins of the El Guaybo Tenement (Figure 1). The farm-in is subject to approval by CEL shareholders in accordance with ASX Listing Rule 11. CEL intends to call a shareholders meeting to approve this farm-in as soon as practical. Under the terms of the farm-in agreement, CEL will fund all exploration for the first 5 years to earn up to a 50% interest in any discovery it makes on the tenement. CEL and the current owner will then jointly fund a Definitive Feasibility Study and the ongoing development.

Commenting on the farm-in, CEL Managing Director, Mr Kris Knauer, said

"It is early days yet however we are excited by what we are seeing in the drill core from the Colorado V concession. Having completed an initial look at only 6 of the 56 holes, already these holes appear to contain large zones of bulk mineralisation that will need to be assayed.

At the very least, what we are seeing in the drill core indicates that the historical drilling has intersected the halo of a mineralised porphyry system and it is a case of vectoring into the core of the system to test if it contains economic grades of gold and copper."

Photo 1- Showing drill core stored on site at the Colorado V Concession

HISTORICAL CORE LOGGING PROGRAM - COLORADO V TENEMENT

CEL has confirmed core from 56 historical drill holes for a total of 21,472 metres of drilling is available on the Colorado V concession. Of this a total of 5,237 metres of core has now been moved to El Guayabo for logging. At this stage the core is being logged on the basis of availability as the remaining core boxes will need to be replaced before the balance of the core can be transported to El Guayabo for logging. It is anticipated new core boxes will be available on site in the next 1-2 weeks. Once all core has been transported to El Guayabo, core logging will prioritise those intervals where Goldking Geologists had indicated porphyry mineralisation was overlooked.

The status of core logging and assaying is shown in Table 1. Detailed core logging of drill holes ZK1-3 ZK1-5 has been completed with logging of ZK1-6 in progress as well as spot examination of core from drill holes ZK13-1, ZK0-1 and ZK2-1 (undertaken during checking to determine which core needed to be re-boxed prior to transport to El Guayabo for logging).

Spot sampling of holes ZK13-1, ZK0-1 and ZK2-1 confirmed the presence of various zones of porphyry-style mineralisation and intrusive breccia with examples illustrated in Photos 2-4. Alteration and mineralisation included potassic alteration (with phyllic overprinting) and disseminated pyrite, pyrrhotite, chalcopyrite +/- molybdenite +magnetite with porphyry-style A, B, and D veins observed.

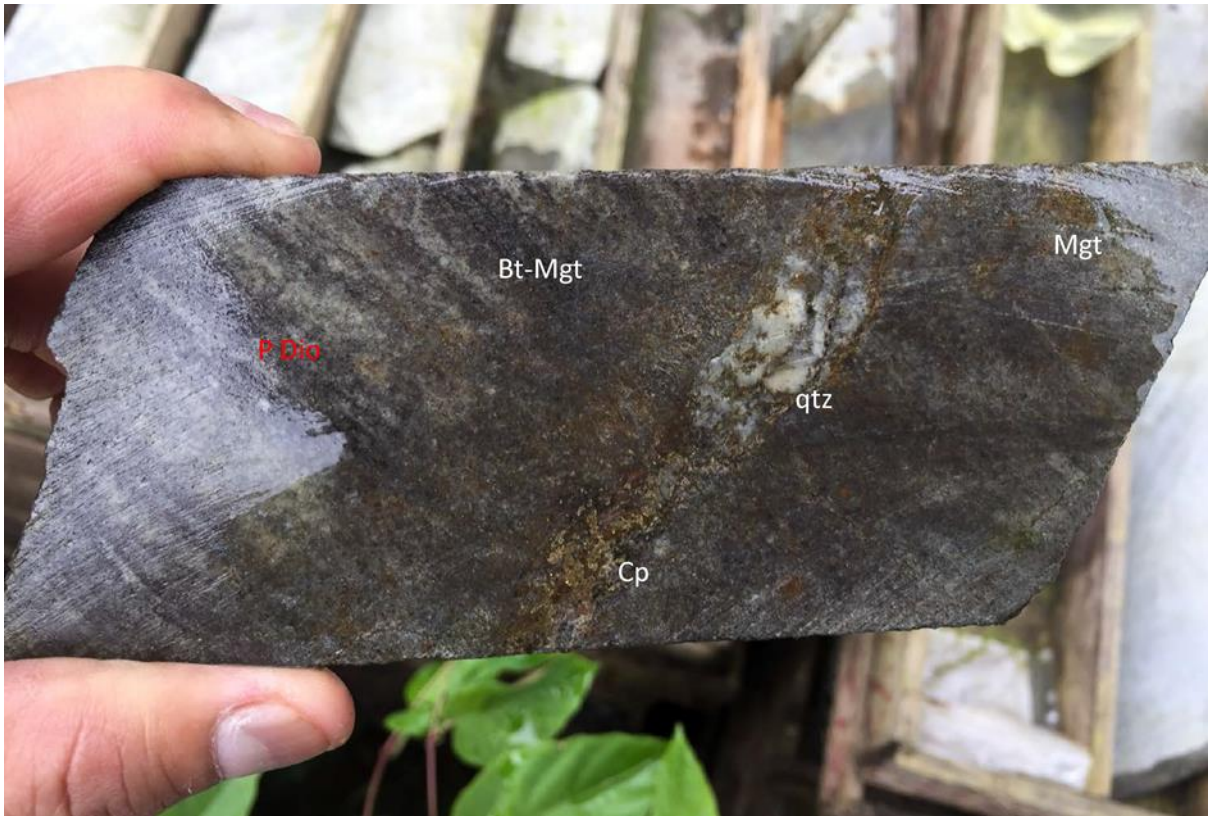

Photo 2 - Drill hole ZK13-1 showing mineralised (chalcopyrite) Porphyry B vein in schist

In drill hole ZK1-3 logging indicated an interval of over 300 metres of intrusive breccia hosted mineralisation containing disseminated pyrite, pyrrhotite and lesser chalcopyrite. Logging of drill hole ZK1-5 indicated an interval of approximately 150 metres of mineralised intrusive breccia albeit with more abundant sulphides. These intrusive breccias look similar to the mineralised intrusive breccias encountered in drill hole GY- 02 ***(156m at 2.6 g/t gold, 9.7 g/t silver, 0.2% copper[#1])*** and JDH-13 ***(64m at 1.4 g/t gold, 2.8 g/t silver, 0.1% copper)*** at El Guayabo which have a porphyry source. The ZK1-3 and ZK1-5 mineralised zones will be sampled for assaying as a priority to determine if they contain potentially economic gold and copper mineralisation. **-Ends-**

#1 - refer to ASX Release 25 February 2019 and JORC Table 1 of this release for a full list of drill results

This ASX announcement was approved and authorised by the Board.

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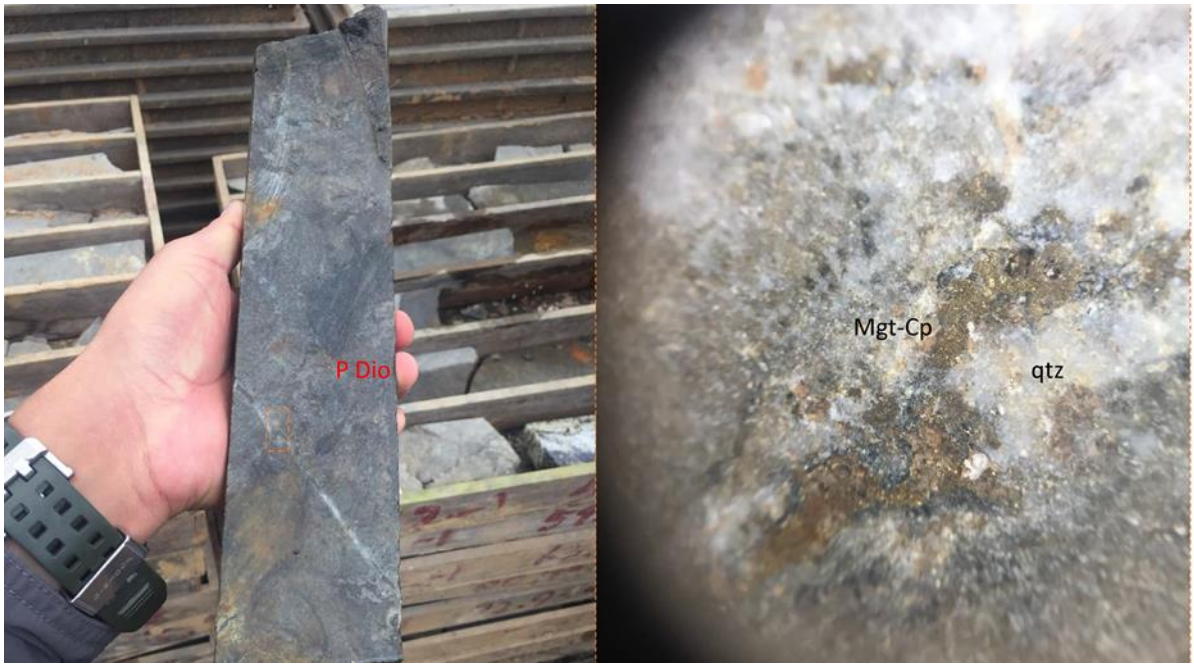

Photo 3 - Drill hole ZK0-1 showing visible chalcopyrite mineralisation

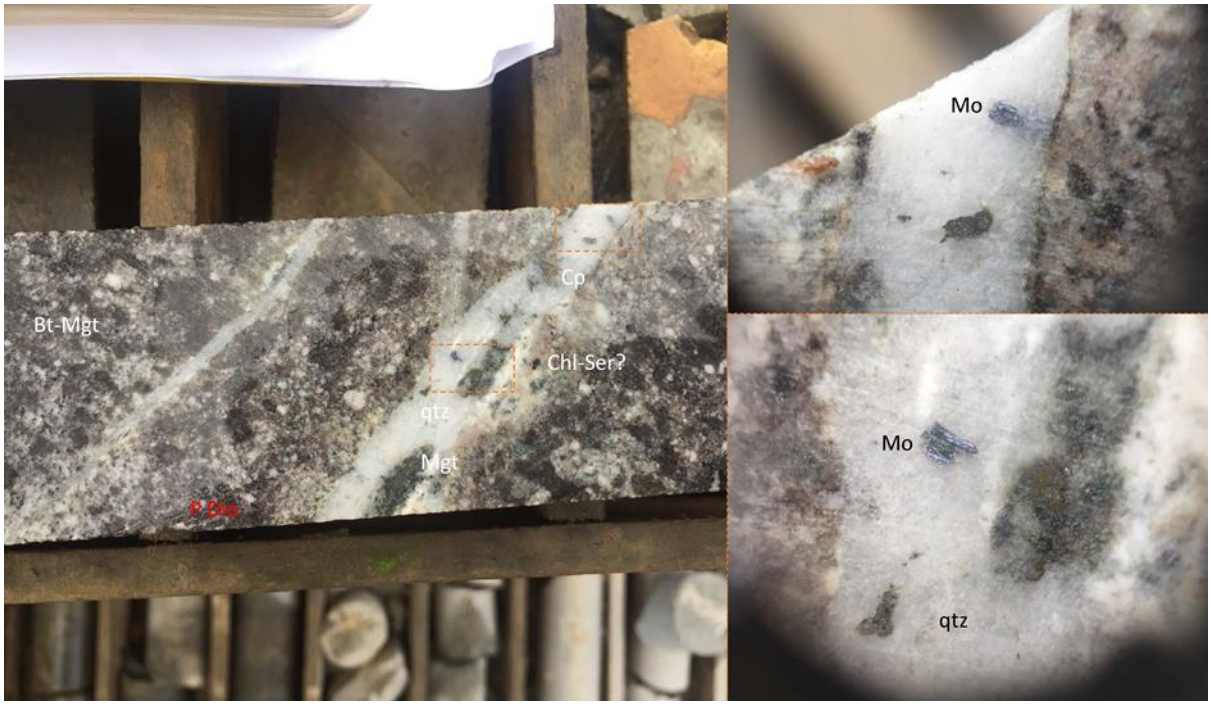

Photo 4 - Drill hole ZK2-1 showing visible molybdenum mineralisation

Hole ID	Depth (m)	Spot checked	Moved to El Guayabo	Logging Status	Mineralisation Identified
ZK0-1	413.6	Yes	Yes		Yes
ZK0-2	581.6		Yes		
ZK205-1	346		Yes		
ZK1-2	403.1		Yes		
ZK1-3	424.5		Yes	complete	Yes
ZK1-4	379.5		Yes		
ZK1-5	415		Yes	complete	Yes
ZK1-6	607		Yes	In progress	Yes
CK2-1	121.64		Yes		
CK3-1	185.09		Yes		
CK3-2	21.75		Yes		
ZK19-1	548.6	Yes			Yes
ZK2-1	395.5	Yes			Yes
ZK13-1	394	Yes			Yes
Sub-Total	**5,237**				
42 holes	16,235				
Total	**21,472**				

Table 1 - Core logging status

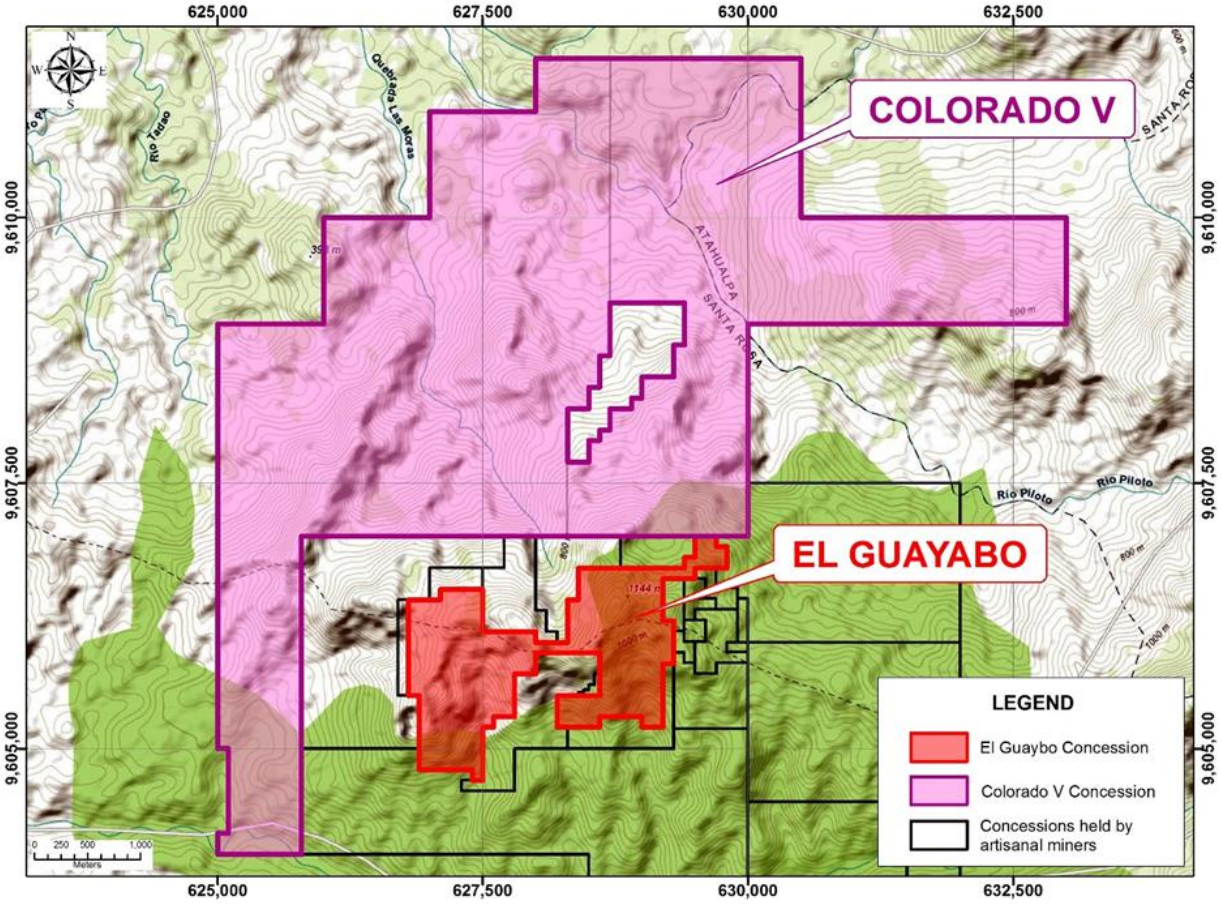

Figure 1 - Showing Location of the El Guayabo and the Colorado V tenements

About Challenger Exploration

Challenger Exploration Limited (ASX: CEL) is developing two key gold/copper projects in South America.

1. **Hualilan Project**, located in San Juan Province Argentina, is a near term development opportunity. It has extensive historical drilling with over 150 drill-holes and a Non-JORC historical resource [(1)] of 627,000 Oz @ 13.7 g/t gold which remains open in most directions. In the 15 years prior to being acquired by CEL the project was dormant. CEL's focus over the coming 12 months will be to redefine the scope of the Hualilan Project to better determine the best means of development to seek to achieve early cash-flows.
2. **El Guayabo Project** covers 26,000 Ha[(2)] and was last drilled by Newmont Mining in 1995 and 1997 targeting gold in hydrothermal breccias. Historical drilling has demonstrated potential to host significant copper and associated gold and silver mineralisation. Historical drilling has returned a number of intersections of plus 100m of intrusion related breccia and vein hosted mineralisation. The Project has multiple targets including breccia hosted mineralization, an extensive flat lying late stage vein system and an underlying porphyry system target neither of which has been drill tested.
3. **Karoo Basin** provides a wildcard exposure to 1 million acres shale gas application in the world class Karoo Basin in South Africa in which Shell is the largest application holder in the basin.

[(1)] For details of the foreign non-JORC compliant resource and to ensure compliance with LR 5.12 please refer to the Company's ASX Release dated 25 February 2019. These estimates are foreign estimates and not reported in accordance with the JORC Code. A competent person has not done sufficient work to clarify the foreign estimates as a mineral resource in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the foreign estimate will be able to be reported as a mineral resource. The company is not in possession of any new information or data relating to the foreign estimates that materially impact on the reliability of the estimates that materially impacts on the reliability of the estimates or CEL's ability to verify the foreign estimates estimate as minimal resources in accordance with Appendix 5A (JORC Code). The company confirms that the supporting information provided in the initial market announcement on February 25 2019 continues to apply and is not materially changed.

[(2)] Including the recently announced farmin to the adjoining Colorado V tenement

Competent Person Statement – Exploration results

The information in this release provided under ASX Listing Rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the material mining project. The information that relates to sampling techniques and data, exploration results and geological interpretation has been compiled by Mr John King who is a full-time employee of JRK Consulting Pty Ltd. Mr King is a member of the Mining and Metallurgical Society of America and a senior fellow of the Society for Economic Geologists in the USA. This is a Recognised Professional Organisation (RPO) under the Joint Ore Reserves Committee (JORC) Code.

Mr King has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr King consents to the inclusion in this report of the matters based on information in the form and context in which it appears. The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	- *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* - *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* - *Aspects of the determination of mineralisation that are Material to the Public Report.* - *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In 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.*	**El Guayabo:** • Newmont Mining Corp (NYSE: NEM) ("**Newmont**") and Odin Mining and Exploration Ltd (TSX: ODN) ("**Odin**") core drilled the property between February 1995 and November 1996 across two drilling campaigns. • The sampling techniques were reviewed as part of a 43-101 Technical report on Cangrejos Property which also included the early results of the El Joven joint venture between Odin and Newmont, under which the work on the El Guayabo project was undertaken. This report is dated 27 May 2004 and found the sampling techniques and intervals to be appropriate with adequate QA/QC and custody procedures, core recoveries generally 100%, and appropriate duplicates and blanks use for determining assay precision and accuracy**.** • Duplicates were prepared by the Laboratory (Bonder Cleg) which used internal standards. Newmont also inserted its own standards at 25 sample intervals as a control on analytical quality • Diamond drilling produced core that was sawed in half with one half sent to the laboratory for assaying per industry standards and the remaining core retained on site. • Cu assays above 2% were not re-assayed using a technique calibrated to higher value Cu results hence the maximum reported assay for copper is 2%. • All core samples were analysed using a standard fire assay with atomic absorption finish on a 30 g charge (30 g FAA). Because of concerns about possible reproducibility problems in the gold values resulting from the presence of coarse gold, the coarse crusher rejects for all samples with results greater than 0.5 g/t were re-assayed using the "blaster" technique - a screen type fire analysis based on a pulverized sample with a mass of about 5 kg. Samples from most of these intersections were also analysed for Cu, Mo, Pb, Zn and Ag. **Colorado V:** • Soil sampling: A database of 4,495 soil analyses has been provided by Goldking Mining Company S.A. (GK) which has yet to be fully evaluated. No information has been provided on the method of sample collection or assay technique. The soil analyses include replicate samples and second split analyses. • Selected intervals of drill core have been cut longitudinally and half core has been submitted for

Criteria	JORC Code explanation	Commentary
		gold determination at GK's on-site laboratory.
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).*	**El Guayabo:** • Diamond core drilling HQ size from surface and reducing to NQ size as necessary. The historical records do not indicate if the core was oriented **Colorado V:** • Diamond drilling was done using a rig owned by GK. Core size collected includes HQ, NQ2 and NQ3. There is no indication that oriented core was recovered.
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.*	• In a majority of cases core recovery was 100%. • In the historical drill logs where core recoveries were less than 100% the percentage core recovery was noted. • No documentation on the methods to maximise sample recovery was reported in historical reports however inspection of the available core and historical drilling logs indicate that core recoveries were generally 100% with the exception of the top few metres of each drill hole. • No material bias has presently been recognised in core. • Observation of the core from various drill holes indicate that the rock is generally fairly solid even where it has been subjected to intense, pervasive hydrothermal alteration and core recoveries are generally 100%. Consequently, it is expected that the samples obtained were not unduly biased by significant core losses either during the drilling or cutting processes
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.*	**El Guayabo:** • Geological logging was completed at 1-3 m intervals which is appropriate given the exploration was reconnaissance in nature. • All core was logged qualitatively at 1 to 3 m intervals depending on geology intercepted and core was photographed. • Inspections of core and logging have concluded that the logging was representative. • 100% of all core including all relevant intersections were logged **Colorado V:** • Sorting, re-boxing and re-logging of available drill core is in progress. Core is being logged for lithology, alteration, mineralisation and structure. Where possible, logging will be quantitative. • Geological logging was completed at 1-3 m intervals which is appropriate given the exploration was reconnaissance in nature. • All core was logged qualitatively at 1 to 3 m intervals depending on geology intercepted and core was photographed. • Inspections of core and logging have concluded that the logging was representative. • 100% of all core including all relevant intersections 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.*	**El Guayabo:** • Core was cut with diamond saw and half core was taken • All drilling was core drilling as such this is not relevant • Sample preparation was appropriate and of good quality. Each 1-3 m sample of half core was dried, crushed to a nominal – 10 mesh (ca 2mm), then 250 g of chips were split out and pulverized. A sub-sample of the pulp was then sent for analysis for gold by standard fire assay on a 30 g charge with an atomic absorption finish with a nominal 5 ppb Au detection limit. • Measures taken to ensure that the sampling is representative of the in situ material collected is not outlined in the historical documentation however a program of re-assaying was undertaken by Odin which demonstrated the repeatability of original assay results • The use of a 1-3 m sample length is appropriate for deposits of finely disseminated mineralisation where long mineralised intersections are to be expected. **Colorado V:** • No information is available on the method/s that have been used to collect the soil samples. • Selected intervals of drill core have been cut longitudinally using a diamond saw and ½ core has been sampled. Sample intervals range from 0.1m to 4.5m with an average length of 1.35m. The size of the samples is appropriate for the mineralisation observed in the core.
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.*	**El Guayabo:** • The nature, quality and appropriateness of the assaying and laboratory procedures used by Newmont and Odin are still in line with industry best practice with appropriate QA/QC and chain of custody and are considered appropriate. • Available historical data does not mention details of geophysical tools as such it is believed a geophysical campaign was not completed in parallel with the drilling campaign. • Duplicates were prepared by the Laboratory (Bonder Cleg) which used internal standards. Newmont also inserted its own standards at 25 sample intervals as a control on analytical quality. Later Odin undertook a re-assaying program of the majority of the higher grade sections which confirmed the repeatability. • Given the above, it is considered acceptable levels of accuracy and precision have been established **Colorado V:** • No information is available on the methods used to analyse the soil or drill core samples. Assay results are not provided in this report. Soil samples have been analysed by GK for Au, Cu, Ag, Zn, Pb, As, Mn, Ni, Cr, Mo, Sn, V, Ti, Co, B, Ba, Sb, Bi and Hg.

Criteria	JORC Code explanation	Commentary
		• Drill core was partially assayed for gold only with assays undertaken by Goldking's on site laboratory
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.*	**El Guayabo:** • All intersections with results greater than 0.5 g/t were re-assayed using the "blaster" technique - a screen type fire analysis based on a pulverised sample with a mass of about 5 kg. Additionally Odin re-assayed the many of the higher grade sections with re-assay results demonstrating repeatability of the original results. • Neither Newmont nor Odin attempted to verify intercepts with twinned holes • Data was sourced from scanned copies of original drill logs and in some cases original paper copies of assay sheets are available. This data is currently stored in a drop box data base with the originals held on site. • No adjustments to assay data were made. **Colorado V:** • There is no information available on the verification of sample and assay results. No assay data is provided in this report. Soil replicate samples and second split assay results have been provided but not fully analysed at this stage. • Of the 4,495 soil samples in the GK database, 166 are replicate samples and 140 are second split re-analyses. 37 samples have no co-ordinates in the database. The remaining 4,152 have analyses for all 19 elements indicated above.
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.*	**El Guayabo:** • Newmont undertook survey to located drill holes in accordance with best practice at the time. No formal check surveying has been undertaken to verify drill collar locations at this stage • Coordinate System: PSAD 1956 UTM Zone 17S Projection: Transverse Mercator Datum: Provisional S American 1956 • Quality of topographic control appears to be+ - 1 meter which is sufficient for the exploration activities undertaken. **Colorado V:** • Coordinate System: PSAD 1956 UTM Zone 17S Projection: Transverse Mercator Datum: Provisional S American 1956 • No information is available on the collar and down-hole survey techniques used on the Colorado V concession.
Data spacing and distribution	- *Data spacing for reporting of Exploration Results.* - *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications*	• Drilling on both concessions is exploration based and a grid was not considered appropriate at that time. • A JORC compliant Mineral Resource has not been estimated • Sample compositing was not used

Criteria	JORC Code explanation	Commentary
	applied. - *Whether sample compositing has been applied.*	
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.*	• A sampling bias is not evident.
Sample security	- *The measures taken to ensure sample security.*	**El Guayabo:** • Newmont sent all its field samples to the Bondar Clegg sample preparation facility in Quito for preparation. From there, approximately 100 grams of pulp for each sample was air freighted to the Bondar Clegg laboratory (now absorbed by ALS-Chemex) in Vancouver, for analysis. There is no record of any special steps to monitor the security of the samples during transport either between the field and Quito, or between Quito and Vancouver. However, Newmont did insert its own standards at 25 sample intervals as a control on analytical quality. **Colorado V:** • GK analysed samples in an on-site laboratory. It is understood that the samples have remained on site at all times.
Audits or reviews	- *The results of any audits or reviews of sampling techniques and data.*	**El Guayabo:** • The sampling techniques were reviewed as part of a 43-101 Technical report on Cangrejos Property which also included the early results of the El Joven joint venture between Odin and Newmont, under which the work on the El Guayabo project was undertaken. This report is dated 27 May 2004 and found the sampling techniques and intervals to be appropriate with adequate QA/QC and custody procedures, core recoveries generally 100%, and appropriate duplicates and blanks use for determining assay precision and accuracy**.** **Colorado V:** • No audits or reviews of sampling techniques and data is known. Goldking did twin two earlier holes with results still being compiled.

Section 2 Reporting of Exploration Results

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

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.*	- The El Guayabo (Code. 225) mining concession is located within El Oro Province. The concession is held by Torata Mining Resources S.A (TMR S.A) and was granted in compliance with the Mining Act ("MA") in on April 27, 2010. There are no overriding royalties on the project other than normal Ecuadorian government royalties. - The property has no historical sites, wilderness or national park issues. - The mining title grants the owner an exclusive right to perform mining activities, including, exploration, exploitation and processing of minerals over the area covered by the prior title for a period of 25 years, renewable for a further 25 years. Under its option agreement, the owner has been granted a negative pledge (which is broadly equivalent to a fixed and floating charge) over the concession. In addition a duly notarized Irrevocable Promise to Transfer executed by TMR S.A in favor of AEP has been lodged with the Ecuador Mines Department. - The Colorado V mining concession (Code No. 3363.1) located in Bellamaria, Santa Rosa, El Oro, Ecuador was granted in compliance with the Mining Act ("MA") in on July 17, 2001. It is adjacent to El Guayabo concession to the north. The concession is held by Goldking Mining Company S.A. There are no overriding royalties on the project other than normal Ecuadorian government royalties. - The concession has no historical sites, wilderness or national park issues.
Exploration done by other parties	- *Acknowledgment and appraisal of exploration by other parties.*	**El Guayabo:** - Previous exploration on the project has been undertaken by Newmont and Odin from 1994 to 1997. This included surface pit and rock chip geochemistry, followed by the drilling of 33 drill holes for a total of 7605.52 meters) to evaluate the larger geochemical anomalies. - The collection of all exploration data by Newmont and Odin was of a high standard and had appropriate sampling techniques and intervals, adequate QA/QC and custody procedures, and appropriate duplicates and blanks used for determining assay precision and accuracy. - The geological interpretation of this data, including core logging and follow up geology was designed and directed by in-country inexperienced geologists. It appears to have been focused almost exclusively for gold targeting surface gold anomalies or the depth extensions of higher-grade gold zones being exploited by the artisanal miners. The geologic logs for all drill holes did not record details that would have been typical, industry standards for porphyry copper exploration at that time. A number of holes which ended in economic mineralisation have never

Criteria	JORC Code explanation	Commentary
		been followed up. - In short, important details which would have allowed the type of target to be better explored were missed which in turn presents an opportunity to the current owner. **Colorado V:** - All exploration known has been completed by GK. Drilling has been done from 2016 to 2019. 56 drill holes, totaling 21,471.83m have been completed by GK.
Geology	- *Deposit type, geological setting and style of mineralisation.*	- It is believed that the El Guayabo and Colorado V concessions contain is a "Low Sulfide" porphyry gold copper system. The host rocks for the intrusive complex is metamorphic basement and Oligocene – Mid-Miocene volcanic rocks. This suggests the intrusions are of a similar age to the host volcanic sequence, which also suggests an evolving basement magmatic system. Intrusions are described in the core logs as quartz diorite and dacite. Mineralisation has been recognized in: – Steeply plunging breccia bodies and in the metamorphic host rock adjacent to the breccia (up to 200 m in diameter) – Quartz veins and veinlets – Disseminated pyrite and pyrrhotite in the intrusions and in the metamorphic host rock near the intrusions.
Drill hole Information	- *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* - *If the exclusion of this information is justified on the basis that the*	El Guayabo Drill results provided below. Location data for the Colorado V drilling is provided below. Colorado V drill results are currently being compiled. No summary of data is available at this time, and no drill hole assay results have been reported.

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.

Drillhole (#)		Mineralised Inte From	To	Total (m)	Gold (g/t)	Ag (g/t)	Cu (%)	Au Equiv (g/t)	Azimuth (deg)	Incl (deg)	TD (m)
JDH-001	from	183	190.6	**7.6 m @ 0.3 g/t Au +**	**not assayed**			n/a	280	-60	236.9
JDH-002	from	7.6	152.9	**145.3 m @ 0.4 g/t Au +**	**not assayed**			n/a	280	-45	257.5
	and	199	243	**44.0 m @ 0.4 g/t Au +**	**not assayed**			n/a			
JDH-003	from	35.95	71.6	**35.7 m @ 0.5 g/t Au +**	**not assayed**			n/a	280	-45	261
	and	120.4	254.6	**134.2 m @ 0.4 g/t Au +**	**not assayed**			n/a			
	inc	146.81	224.08	**77.3 m @ 0.5 g/t Au +**	**not assayed**			n/a			
JDH-004	from	3.96	21.95	**18.0 m @ 0.4 g/t Au +**	**not assayed**			n/a	280	-45	219
	and	79.74	120.42	**40.7 m @ 0.4 g/t Au +**	**not assayed**			n/a			
	and	150.9	203.7	**52.8 m @ 0.7 g/t Au +**	**not assayed**			n/a			
JDH-005	from	5.2	81.4	**76.2 m @ 0.4 g/t Au +**	**not assayed**			n/a	280	-45	210.4
	and	169.7	208.5	**38.8 m @ 0.2 g/t Au +**	**not assayed**			n/a			
JDH-006	from	17.99	89.6	**71.6 m @ 0.2 g/t Au +**	**2.0 g/t Ag +**	**0.10 % Cu**		0.42	150	-45	302.7
	and	164.8	281	**116.2 m @ 0.6 g/t Au +**	**8.9 g/t Ag +**	**0.40 % Cu**		1.37			
	inc	227.8	281.09	**53.3 m @ 1.2 g/t Au +**	**13.2 g/t Ag +**	**0.62 % Cu**		2.39			
JDH-007	from	39.7	84.45	**44.8 m @ 0.3 g/t Au +**	**1.4 g/t Ag +**	**0.04 % Cu**		0.38	150	-75	105.8
JDH-008	from	104.7	136.7	**32.0 m @ 0.1 g/t Au +**	**3.6 g/t Ag +**	**0.13 % Cu**		0.41	150	-60	352.7
	and	249.08	316.15	**67.1 m @ 0.2 g/t Au +**	**5.7 g/t Ag +**	**0.21 % Cu**		0.62			
	and	291.76	316.15	**24.4 m @ 0.5 g/t Au +**	**9.2 g/t Ag +**	**0.34 % Cu**		1.13			
JDH-009	from	10.3	122.03	**111.7 m @ 0.7 g/t Au +**	**14.6 g/t Ag +**	**0.58 % Cu**		1.85	150	-45	256.7
	inc	34.6	91.54	**56.9 m @ 0.2 g/t Au +**	**19.1 g/t Ag +**	**0.82 % Cu**		1.80			
	and	201.4	205.4	**4.0 m @ 11.4 g/t Au +**	**9.7 g/t Ag +**	**0.01 % Cu**		11.54			
	and	255.1	eoh	**1.5 m @ 0.7 g/t Au +**	**1.5 g/t Ag +**	**0.02 % Cu**		0.75			
JDH-10	from	1.5	50.9	**49.4 m @ 0.5 g/t Au +**	**2.5 g/t Ag +**	**0.09 % Cu**		0.68	270	-45	221.6
	and	90.54	119	**28.5 m @ 0.2 g/t Au +**	**3.0 g/t Ag +**	**0.10 % Cu**		0.40			
	and	140	203	**81.6 m @ 0.4 g/t Au +**	**1.3 g/t Ag +**	**0.07 % Cu**		0.53			
JDH-011	from	100.7	218	**117.3 m @ 0.4 g/t Au +**	**4.6 g/t Ag +**	**0.10 % Cu**		0.62	270	-45	218.0
JDH-012	from	12.2	53.96	**41.8 m @ 0.6 g/t Au +**	**6.5 g/t Ag +**	**0.02 % Cu**		0.67	150	-60	124.1
JDH-013	from	53.35	69.6	**16.3 m @ 0.5 g/t Au +**	**1.2 g/t Ag +**	**0.01 % Cu**		0.48	150	-60	239.3
	and	89.9	154.9	**65.0 m @ 1.4 g/t Au +**	**2.8 g/t Ag +**	**0.06 % Cu**		1.53			
	inc	114.32	142.76	**28.4 m @ 2.8 g/t Au +**	**4.9 g/t Ag +**	**0.10 % Cu**		3.03			
JDH-014	from	26.96	75.69	**48.7 m @ 0.4 g/t Au +**	**5.2 g/t Ag +**	**0.10 % Cu**		0.63	90	-60	239.4
	and	85.84	116.32	**30.5 m @ 0.2 g/t Au +**	**4.2 g/t Ag +**	**0.1 % Cu**		0.42			
	and	128.52	175.3	**46.8 m @ 0.5 g/t Au +**	**3.3 g/t Ag +**	**0.08 % Cu**		0.63			
	and	179.35	217.98	**38.6 m @ 0.1 g/t Au +**	**2.5 g/t Ag +**	**0.08 % Cu**		0.26			

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Drillhole (#)		Mineralised Inte From	To	Total (m)		Gold (g/t)		Ag (g/t)		Cu (%)		Au Equiv (g/t)	Azimuth (deg)	Incl (deg)	TD (m)
GGY-001	from	10	69	**59.0**	**m @**	**0.2**	**g/t Au +**	**2.8**	**g/t Ag +**	**0.07**	**% Cu**	0.35	360	-90	249.2
	and	139	249.2	**110.2**	**m @**	**0.4**	**g/t Au +**	**1.1**	**g/t Ag +**	**0.06**	**% Cu**	0.51			
	inc	141	174	**33.0**	**m @**	**0.6**	**g/t Au +**	**2.0**	**g/t Ag +**	**0.08**	**% Cu**	0.76			
GGY-002	from	9.7	166	**156.3**	**m @**	**2.6**	**g/t Au +**	**9.7**	**g/t Ag +**	**0.16**	**% Cu**	2.99	360	-90	272.9
	inc	27	102	**75.0**	**m @**	**4.6**	**g/t Au +**	**19.1**	**g/t Ag +**	**0.22**	**% Cu**	5.21			
	and	114	166	**52.0**	**m @**	**1.3**	**g/t Au +**	**3.3**	**g/t Ag +**	**0.18**	**% Cu**	1.64			
	plus	244	272.9	**28.9**	**m @**	**0.3**	**g/t Au +**	**2.4**	**g/t Ag +**	**0.04**	**% Cu**	0.37			
GGY-003	from	40	260.75	**220.8**	**m @**	**0.2**	**g/t Au +**	**2.9**	**g/t Ag +**	**0.06**	**% Cu**	0.36	305	-60	295.9
GGY-004	from	1	42	**41.0**	**m @**	**0.5**	**g/t Au +**	**2.3**	**g/t Ag +**	**0.03**	**% Cu**	0.56	125	-60	172.2
GGY-005	from	12	162	**150.0**	**m @**	**0.4**	**g/t Au +**	**11.0**	**g/t Ag +**	**0.30**	**% Cu**	0.99	145	-60	258.3
	inc	14	54	**40.0**	**m @**	**0.6**	**g/t Au +**	**25.5**	**g/t Ag +**	**0.60**	**% Cu**	1.95			
	and	180	194	**14.0**	**m @**	**0.2**	**g/t Au +**	**6.1**	**g/t Ag +**	**0.22**	**% Cu**	0.64			
GGY-006	from	72	101.9	**49.0**	**m @**	**0.4**	**g/t Au +**	**2.3**	**g/t Ag +**	**0.03**	**% Cu**	0.45	305	-60	101.9
GGY-007	from	0.9	41	**40.1**	**m @**	**1.1**	**g/t Au +**	**2.6**	**g/t Ag +**	**0.04**	**% Cu**	1.20	305	-75	127
	inc	110	127	**17.0**	**m @**	**0.9**	**g/t Au +**	**1.2**	**g/t Ag +**	**0.04**	**% Cu**	0.98			
GGY-008	from	16	271	**255.0**	**m @**	**0.1**	**g/t Au +**	**6.5**	**g/t Ag +**	**0.24**	**% Cu**	0.62	145	-75	312.3
	inc	235	271	**36.0**	**m @**	**0.4**	**g/t Au +**	**11.5**	**g/t Ag +**	**0.50**	**% Cu**	1.32			
GGY-009	from	1.65	45	**43.4**	**m @**	**1.7**	**g/t Au +**	**3.0**	**g/t Ag +**	**0.06**	**% Cu**	1.80	45	-75	166.2
GGY-010	from	0	69	**69.0**	**m @**	**1.6**	**g/t Au +**	**2.3**	**g/t Ag +**	**0.03**	**% Cu**	1.67	225	-75	194.5
	inc	21	50	**29.0**	**m @**	**2.9**	**g/t Au +**	**2.7**	**g/t Ag +**	**0.03**	**% Cu**	2.98			
	and	75	95	**20.0**	**m @**	**0.3**	**g/t Au +**	**0.8**	**g/t Ag +**	**0.01**	**% Cu**	0.33			
GGY-011	from	14	229	**215.0**	**m @**	**0.2**	**g/t Au +**	**9.6**	**g/t Ag +**	**0.36**	**% Cu**	0.89	160	-60	241.6
	inc	14	97	**83.0**	**m @**	**0.2**	**g/t Au +**	**14.9**	**g/t Ag +**	**0.50**	**% Cu**	1.24			
	inc	202	229	**27.0**	**m @**	**0.4**	**g/t Au +**	**15.2**	**g/t Ag +**	**0.80**	**% Cu**	1.90			
GGY-012	from	57	192	**135.0**	**m @**	**0.3**	**g/t Au +**	**2.0**	**g/t Ag +**	**0.06**	**% Cu**	0.39	125	-60	256
	and	156	192	**36.0**	**m @**	**0.2**	**g/t Au +**	**3.3**	**g/t Ag +**	**0.13**	**% Cu**	0.44			
GGY-013	from	229.7	280	**50.3**	**m @**	**0.2**	**g/t Au +**	**2.2**	**g/t Ag +**	**0.05**	**% Cu**	0.31	320	-65	340.9
GGY-014				**nsi**								0.00	320	-75	309.1
GGY-015	from	110	132.4	**22.4**	**m @**	**0.4**	**g/t Au +**	**0.5**	**g/t Ag +**	**0.03**	**% Cu**	0.41	320	-60	251.1
	and	157	225.5	**68.5**	**m @**	**0.3**	**g/t Au +**	**1.5**	**g/t Ag +**	**0.10**	**% Cu**	0.45			
GGY-016	from	8	30	**22.0**	**m @**	**0.2**	**g/t Au +**	**0.7**	**g/t Ag +**	**0.01**	**% Cu**	0.26	320	-60	195.7
	and	42	57	**15.0**	**m @**	**0.3**	**g/t Au +**	**0.5**	**g/t Ag +**	**0.02**	**% Cu**	0.34			
	and	105	118	**13.0**	**m @**	**0.2**	**g/t Au +**	**0.7**	**g/t Ag +**	**0.01**	**% Cu**	0.26			
	and	185	188	**3.0**	**m @**	**1.0**	**g/t Au +**	**0.8**	**g/t Ag +**	**0.02**	**% Cu**	1.04			
GGY-017	from	0	24	**24.0**	**m @**	**0.5**	**g/t Au +**	**1.3**	**g/t Ag +**	**0.01**	**% Cu**	0.49	125	-82	280.4
	and	69	184	**115.0**	**m @**	**0.5**	**g/t Au +**	**2.1**	**g/t Ag +**	**0.03**	**% Cu**	0.53			
	inc	125	147	**22.0**	**m @**	**1.2**	**g/t Au +**	**2.0**	**g/t Ag +**	**0.05**	**% Cu**	0.29			
	and	206	241	**35.0**	**m @**	**0.3**	**g/t Au +**	**1.7**	**g/t Ag +**	**0.05**	**% Cu**	0.41			
	and	254	277	**23.0**	**m @**	**0.6**	**g/t Au +**	**1.2**	**g/t Ag +**	**0.04**	**% Cu**	0.63			
GGY-018	from	81	136	**55.0**	**m @**	**0.2**	**g/t Au +**	**3.5**	**g/t Ag +**	**0.06**	**% Cu**	0.34	140	-60	160.4
GGY-019	from	89	155	**66.0**	**m @**	**0.3**	**g/t Au +**	**2.0**	**g/t Ag +**	**0.03**	**% Cu**	0.36	45	-53	175.4

Challenger Exploration Limited
ACN 123 591 382
ASX: CEL

Issued Capital
470.1m shares
94.6m options
120m perf shares
16m perf rights

Australian Registered Office
Level 1
1205 Hay Street
West Perth WA 6005

Directors
Mr Kris Knauer, MD and CEO
Mr Scott Funston, Finance Director
Mr Fletcher Quinn, Chairman

Contact
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Criteria	JORC Code explanation	Commentary
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DRILLHOLE CODE	EAST (X)	NORTH (N)	ELEVATION (m.a.s.l)	AZIMUTH (°)	DIP (°)	FINAL DEPTHP	DRILLED BY
DDHGY01	628928.09	9605517.20	839.01	360	-90.0	249.20	Odin
DDHGY02	629171.15	9606025.55	983.16	360.0	-90.0	272.90	Odin
DDHGY03	629041.84	9606312.81	1063.37	305.0	-60.0	295.94	Odin
DDHGY04	629171.68	9606025.18	983.2	125.0	-60.0	172.21	Odin
DDHGY05	628509.21	9606405.29	989.87	145.0	-60.0	258.27	Odin
DDHGY06	629170.56	9606025.97	983.11	305.0	-60.0	101.94	Odin
DDHGY07	629170.81	9606025.80	983.16	305.0	-75.0	127.00	Odin
DDHGY08	628508.95	9606405.74	989.86	145.0	-75.0	312.32	Odin
DDHGY09	629171.22	9606025.88	983.22	45.0	-75.0	166.25	Odin
DDHGY10	629170.77	9606025.24	983.12	225.0	-75.0	194.47	Odin
DDHGY11	628507.97	9606405.33	989.83	160.0	-60.0	241.57	Odin
DDHGY12	629087.18	9606035.53	996.98	125.0	-60.0	255.7	Odin
DDHGY13	629242.46	9605975.42	997.292	320.0	-65.0	340.86	Odin
DDHGY14	629242.27	9605975.64	997.285	320.0	-75.0	309.14	Odin
DDHGY15	629194.67	9605912.35	977.001	320.0	-60.0	251.07	Odin
DDHGY16	629285.92	9606044.44	1036.920	320.0	-60.0	195.73	Odin
DDHGY17	629122.31	9606058.64	1021.053	125.0	-82.0	280.04	Odin
DDHGY18	628993.10	9606035.45	977.215	140.0	-60.0	160.35	Odin
DDHGY19	629087.23	9606034.98	997.332	45.0	-53.0	175.41	Odin

Criteria	JORC Code explanation	Commentary

DRILLHOLE CODE	EAST (X)	NORTH (N)	ELEVATION (m.a.s.l)	AZIMUTH (°)	DIP (°)	FINAL DEPTHP	DRILLED BY
JDH01	627185.78	9606463.27	933.47	280.0	-60.0	236.89	Newmont
JDH02	627260.37	9606353.12	921.56	280.0	-45.0	257.62	Newmont
JDH03	627191.61	9606200.35	952.82	280.0	-45.0	260.97	Newmont
JDH04	627429.81	9606324.00	933.80	280.0	-45.0	219.00	Newmont
JDH05	627755.97	9606248.70	1066.24	280.0	-45.0	210.37	Newmont
JDH06	628356.37	9606416.13	911.58	150.0	-45.0	302.74	Newmont
JDH07	628356.37	9606416.13	911.58	150.0	-75.0	105.79	Newmont
JDH08	628356.37	9606416.13	911.58	150.0	-60.0	352.74	Newmont
JDH09	628507.01	9606408.43	990.18	150.0	-45.0	256.70	Newmont
JDH10	628897.96	9606813.62	985.60	270.0	-45.0	221.64	Newmont
JDH11	628878.64	9606674.39	1081.96	270.0	-45.0	217.99	Newmont
JDH12	629684.61	9606765.31	993.45	150.0	-60.0	124.08	Newmont
JDH13	629122.61	9606058.49	1020.98	125.0	-60.0	239.33	Newmont
JDH14	628897.15	9605562.77	852.59	90.0	-45.0	239.32	Newmont

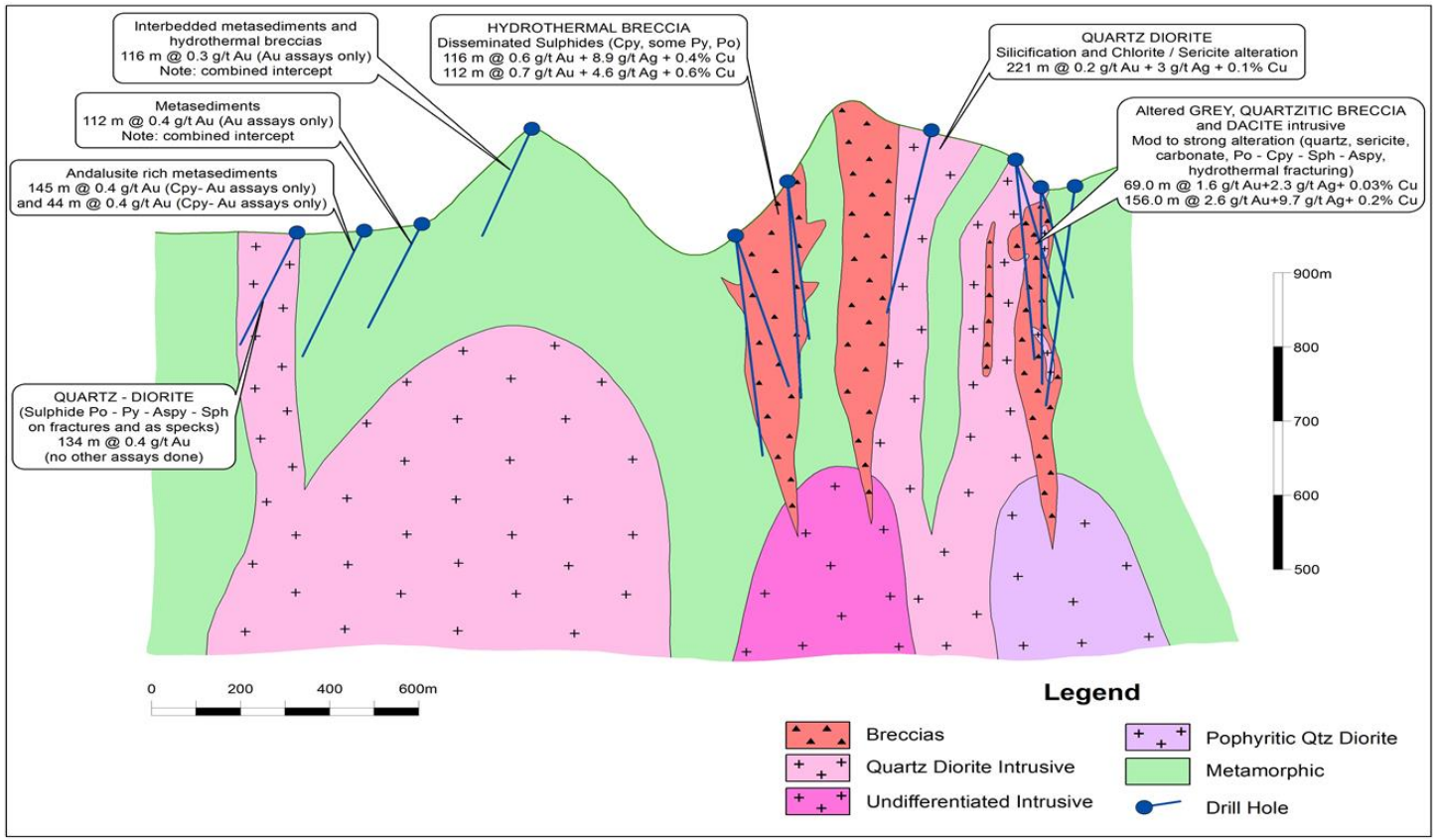
El Guayabo Drill hole information

Colorado V drill hole information:

hole ID	East (m)	North (m)	Elevation	Azimuth (°)	Dip (°)	final depth	Driller
ZK0-1	626378.705	9608992.99	204.452	221	-60	413.6	Shandong Zhaojin Geological Exploration Co Ltd
ZK0-2	626378.705	9608992.99	204.452	221	-82	581.6	Shandong Zhaojin Geological Exploration Co Ltd
ZK5-1	626377.846	9608790.388	273.43	221	-78	321.9	Shandong Zhaojin Geological Exploration Co Ltd
ZK5-2	626377.539	9608793.769	273.542	041	-78	319	Shandong Zhaojin Geological Exploration Co Ltd
ZK5-3	626383.556	9608800.999	273.622	330	-70	446.5	Shandong Zhaojin Geological Exploration Co Ltd
ZK5-4	626383.556	9608800.999	273.622	330	-78	508	Shandong Zhaojin Geological Exploration Co Ltd
ZK5-5	626432.795	9608847.735	242.572	061	-70	532	Shandong Zhaojin Geological Exploration Co Ltd
ZK11-1	626446.263	9608705.238	290.028	221	-78	237.5	Shandong Zhaojin Geological Exploration Co Ltd
ZK205-1	626257.123	9608795.904	243.297	160	-70	346	Shandong Zhaojin Geological Exploration Co Ltd
ZK1-1	626310.629	9608865.923	226.385	061	-70	514.6	Shandong Zhaojin Geological Exploration Co Ltd
ZK1-2	626313.901	9608867.727	226.494	150	-70	403.1	Shandong Zhaojin Geological Exploration Co Ltd
ZK1-3	626382.401	9608894.404	229.272	061	-70	424.5	Shandong Zhaojin Geological Exploration Co Ltd
ZK6-1	626230.28	9609020.202	260.652	221	-70	552.6	Shandong Zhaojin Geological Exploration Co Ltd
ZK6-2	626165.623	9608991.594	271.928	221	-70	531	Shandong Zhaojin Geological Exploration Co Ltd
ZK12-1	626088.326	9609034.197	314.552	221	-70	531.5	Shandong Zhaojin Geological Exploration Co Ltd
ZK12-2	626019.538	9608961.409	294.649	221	-70	510.6	Shandong Zhaojin Geological Exploration Co Ltd
ZK1-4	626502.206	9608982.539	227.333	061	-70	379.5	Shandong Zhaojin Geological Exploration Co Ltd
ZK1-5	626497.992	9608979.449	227.241	241	-70	415	Shandong Zhaojin Geological Exploration Co Ltd

Criteria	JORC Code explanation	Commentary						
		ZK1-6	626500.813	9608979.367	227.315	180	-70	607	Shandong Zhaojin Geological Exploration Co Ltd
		CK2-1	626328.573	9609000.856	216.798	221	-45	121.64	Shandong Zhaojin Geological Exploration Co Ltd
		CK2-2	626328.573	9609000.856	216.798	251	-45	171.85	Shandong Zhaojin Geological Exploration Co Ltd
		CK2-3	626328.573	9609000.856	216.798	191	-45	116.4	Shandong Zhaojin Geological Exploration Co Ltd
		CK2-4	626328.573	9609000.856	216.798	221	-70	146.12	Shandong Zhaojin Geological Exploration Co Ltd
		ZK1-7	626498.548	9608979.541	227.28	241	-82	456.49	Shandong Zhaojin Geological Exploration Co Ltd
		ZK1-8	626501.094	9608980.929	227.208	061	-85	556	Shandong Zhaojin Geological Exploration Co Ltd
		CK3-1	626359.641	9608859.373	205.96	020	-15	185.09	Shandong Zhaojin Geological Exploration Co Ltd
		CK3-2	626359.641	9608859.373	205.96	163	-00	21.75	Shandong Zhaojin Geological Exploration Co Ltd
		CK3-3	626359.641	9608859.373	205.96	050	-15	138.02	Shandong Zhaojin Geological Exploration Co Ltd
		ZK19-1	626753.271	9608802.634	386.627	221	-70	548.6	Shandong Zhaojin Geological Exploration Co Ltd
		ZK0-3	626475.236	9609095.444	197.421	221	-75	463	Shandong Zhaojin Geological Exploration Co Ltd
		ZK0-4	626476.119	9609098.075	197.225	221	-90	458	Shandong Zhaojin Geological Exploration Co Ltd
		ZK0-5	626475.372	9609100.909	197.17	300	-70	624.5	Shandong Zhaojin Geological Exploration Co Ltd
		ZK2-1	626329.859	9609005.863	213.226	221	-90	395.5	Shandong Zhaojin Geological Exploration Co Ltd
		SAZK0-1A	627477.062	9609865.618	217.992	180	-70	569.1	Shandong Zhaojin Geological Exploration Co Ltd
		SAZK0-2A	627468.807	9609805.054	213.63	180	-70	403.75	Shandong Zhaojin Geological Exploration Co Ltd
		ZK13-1	627763.877	9609906.484	197.899	180	-70	394	Shandong Zhaojin Geological Exploration Co Ltd
		ZK18-1	627123.327	9609846.268	142.465	180	-70	410.5	Shandong Zhaojin Geological Exploration Co Ltd
		zk13-2	627757.925	9609713.788	234.34	000	-70	194.8	Shandong Zhaojin Geological Exploration Co Ltd
		ZK4-1	626281.066	9609038.75	224.176	221	-90	434	Shandong Zhaojin Geological Exploration Co Ltd
		ZK4-2	626281.066	9609038.75	224.176	221	-70	390.5	Shandong Zhaojin Geological Exploration Co Ltd
		ZK4-3	626386.498	9609186.951	225.517	221	-70	650.66	Shandong Zhaojin Geological Exploration Co Ltd
		ZK100-1	626170.882	9608923.778	251.177	131	-70	415	Shandong Zhaojin Geological Exploration Co Ltd
		ZK3-1	626416.4	9609040.6	202.416	179	-29	295.52	Lee Mining
		ZK1-9	626416.4	9609040.6	202.416	203	-23	218.3	Lee Mining
		SAZK2-1	627330.0126	9609556.466	201.145	076	-05	430.89	Lee Mining
		SAZK2-2	627330.0126	9609556.466	201.145	062	-05	354.47	Lee Mining
		CK5-2	626457.0999	96089.8.4999	202.126	251	-69	273.11	Lee Mining
		CK5-1	626460.1233	9608906.592	202.124	194	-74	273.56	Lee Mining
		ZK10-1	626700.8538	9609675.002	126.617	221	-53	450.99	Lee Mining
		ZK103-1	628203.1453	9607944.85	535.324	215	-53	524.21	Lee Mining
		CK13-1	626610.0642	9608838.445	202.556	41	-05	227.1	Lee Mining
		CK2-5	626254.4315	9608931.693	190.593	342	-05	357.56	Lee Mining
		CK13-2	626610.0642	9608838.445	202.556	041	-40	231.16	Lee Mining
		CK13-3	626605.2307	9608833.471	202.556	221	-59	197.06	Lee Mining
		CK2-6	626298.1066	9608961.819	203.231	332	-18	392.56	Lee Mining
		ZK105-1	628172.5923	9607826.055	541.244	183	-54	404.57	Lee Mining
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.*	**El Guayabo:** No weighted averaging techniques or maximum grade truncations were used. • Minimum cut of grade of 0.2 g/t Au Equivalent was used for determining intercepts.							

Criteria	JORC Code explanation	Commentary
	- *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.*	- Aggregate intercepts have been reported with higher grade inclusions to demonstrate the impact of aggregation. A bottom cut of 0.5 g/t Au Equiv has been used to determine the higher-grade inclusions. Given the generally consistent nature of the mineralisation the impact of the aggregation of high-grade results and longer lengths of low-grade results does not have a large impact. For example, in the intercept of 156m @ 2.6 g.t Au in hole GGY-02: – over half of the intercept comprises gold grades in excess of 1 g/t Au – only 20% of the intercept includes grades between 0.2 and 0.5 g/t Au – over one third includes gold grades in excess of 2 g/t Au. **Colorado V:** No assay results reported here
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').*	- The owner cautions that the geometry of the breccia hosted mineralisation appears to be predominantly vertical pipes while the geometry of the intrusive hosted mineralisation is not yet clear. The owner cautions that only and only the down hole lengths are reported and the true width of mineralisation is not known. - The preliminary interpretation is that the breccia hosted mineralisation occurs in near vertical breccia pipes. Thus, intersections in steeply inclined holes may not be representative of the true width of this breccia hosted mineralisation. The relationship between the drilling orientation and some of the key mineralised structures and possible reporting bias in terms of true width is illustrated in the figure below.

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.*		See section above
Balanced reporting - *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high*		- The reporting is fair and representative of what is currently understood of the geology of the project.

Criteria	JORC Code explanation	Commentary
	grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
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.*	**El Guayabo:** Quantec Geophysical services conducted a SPARTAN Broadband Magnetotelluric and TITAN IP/EMAP surveys completed February 3rd to April 1st, 2019 over the El Guayabo property by Quantec Geoscience Ltd. on behalf of AAR Resources. The survey covered 16 square kilometersa with data collected on 300m 3D spacing on a gride oriented at 10 degerees and 100 degerees. The grid was moved 10 degrees so the survey could be orineted perpendicu;lar to the main geological srtuctures. The survey involved a total of 205 Magnetotelluric (MT) sites and 2 test TITAN IP/EMAP profiles were surveyed The final survey results to which will be delivered will consist of : • Inversion 2D products ・ 2D model sections (for each line) of the: ・ DC resistivity model; ・ IP chargeability model using the DC resistivity model as a reference; ・ IP chargeability model using a half-space resistivity model as a reference; ・ MT(EMAP) resistivity model; ・ Joint MT+DC resistivity model; IP chargeability model using the MT+DC resistivity model; • Inversion 3D products ・ 3D MT model; ・ Cross-sections and Elevation Plan maps of the 3D MT models; Figures showing Survey Locations and Results are included in the boidy of this release **DCIP INVERSION PROCEDURES** DCIP is an electrical method that uses the injection of current and the measurement of voltage difference along with its rate of decay to determine subsurface resistivity and chargeability respectively. Depth of investigation is mainly controlled by the array geometry but may also be limited by the received signal (dependent on transmitted current) and ground resistivity. Chargeability is particularly susceptible to data with a low signal-to-noise ratio. The differences in penetration depth between DC resistivity and chargeability are a function of relative property contrasts and relative signal-to-noise levels between the two measurements. A detailed introduction to DCIP is given in Telford, et al. (1976). The primary tool for evaluating data is through the inversion of the data in two or three dimensions. An inversion model depends not only on the data collected, but also on the associated data errors in the reading and the “model norm”. Inversion models are not unique and may contain “artefacts” from the inversion process. The inversion model may not accurately reflect all the information apparent in the

Criteria	JORC Code explanation	Commentary
		actual data. Inversion models must be reviewed in context with the observed data, model fit, and with an understanding of the model norm used. The DC and IP inversions use the same mesh. The horizontal mesh is set as 2 cells between electrodes. The vertical mesh is designed with a cell thickness starting from 20 m for the first hundred metres to accommodate the topographic variation along the profiles, and then increases logarithmically with depth. The inversions were generally run for a maximum of 50 iterations. The DC data is inverted using an unconstrained 2D inversion with a homogenous half-space of average input data as starting model. For IP inversions, the apparent chargeability ⍰ is computed by carrying out two DC resistivity forward models with conductivity distributions $\boldsymbol{\sigma(xi,zj)}$ and $\boldsymbol{(1-\eta)\sigma(xi,zj)}$ (Oldenburg and Li, 1994), where $\boldsymbol{(xi,zj)}$ specifies the location in a 2D mesh. The conductivity distributions used in IP inversions can be the inverted DC model or a half space of uniform conductivity. Two IP inversions are then calculated from the same data set and parameters using different reference models. The first inversion of the IP data uses the previously calculated DC model as the reference model and is labelled the IP dcref model. The second IP inversion uses a homogeneous half-space resistivity model as the reference model and is labelled IP hsref model. This model is included to test the validity of chargeability anomalies, and to limit the possibility of inversion artefacts in the IP model due to the use of the DC model as a reference. The results of this second IP inversion are presented on the digital archived attached to this report. **MAGNETOTELLURIC INVERSIONS** The Magnetotelluric (MT) method is a natural source EM method that measures the variation of both the electric (E) and magnetic (H) field on the surface of the earth to determine the distribution at depth of the resistivity of the underlying rocks. A complete review of the method is presented in Vozoff (1972) and Orange (1989). The measured MT impedance Z, defined by the ratio between the E and H fields, is a tensor of complex numbers. This tensor is generally represented by an apparent resistivity (a parameter proportional to the modulus of Z) and a phase (argument of Z). The variation of those parameters with frequency relates the variations of the resistivity with depth, the high frequencies sampling the sub-surface and the low frequencies the deeper part of the earth. However, the apparent resistivity and the phase have an opposite behaviour. An increase of the phase indicates a more conductive zone than the host rocks and is associated with a decrease in apparent resistivity. The objective of the inversion of MT data is to compute a distribution of the resistivity of the surface that explains the variations of the MT parameters, i.e. the response of the model that fits the observed data. The solution however is not unique and different inversions must be performed (different programs, different conditions) to test and compare solutions for artefacts versus a target anomaly. An additional parameter acquired during MT survey is the Tipper. Tipper parameters Tzx and Tzy (complex numbers) represent the transfer function between the vertical magnetic field and the horizontal X (Tzx), and Y (Tzy) magnetic fields respectively (as the impedance Z represent the transfer function between the electric and magnetic fields). This tipper is a 'local' effect, mainly defined by the lateral contrast of the resistivity. Consequently, the tipper can be used to estimate the geological strike

Criteria	JORC Code explanation	Commentary
		direction. Another important use of the tipper is to display its components as vectors, named induction vectors. The induction vectors (defined by the real components of Tzx and Tzy) plotted following the Parkinson-Real-Reverse-Angle convention will point to conductive zones. The tipper is then a good mapping tool to delineate more conductive zones. The depth of investigation is determined primarily by the frequency content of the measurement. Depth estimates from any individual sounding may easily exceed 20 km. However, the data can only be confidently interpreted when the aperture of the array is comparable to the depth of investigation. The inversion model is dependent on the data, but also on the associated data errors and the model norm. The inversion models are not unique, may contain artefacts of the inversion process and may not therefore accurately reflect all the information apparent in the actual data. Inversion models need to be reviewed in context with the observed data, model fit. The user must understand the model norm used and evaluate whether the model is geologically plausible. For this project, 2D inversions were performed on the TITAN/EMAP profiles data. For each profile, we assume the strike direction is perpendicular to the profile for all sites: the TM mode is then defined by the inline E-field (and cross line H-field); no TE mode (crossline E-field) were used in the 2D inversions. The 2D inversions were performed using the TM-mode resistivity and phase data interpolated at 6 frequencies per decade, assuming 10% and 5% error for the resistivity and phase respectively, which is equivalent to 5% error on the impedance component Z. No static shift of the data has been applied on the data. The 3D inversion was carried out using the CGG RLM-3D inversion code. The 3D inversions of the MT data were completed over an area of approximately 5km x 3.5km. All MT sites from this current survey were used for the 3D inversion. The 3D inversion was completed using a sub sample of the MT data with a maximum of 24 frequencies at each site covering the measured data from 10 kHz to 0.01 Hz with a nominal 4 frequencies per decade. At each site, the complete MT complex impedance tensors (Zxx, Zxy, Zyx, and Zyy) were used as input data with an associated error set to 5% on each parameter. The measured tipper data (Tzx, Tzy) were also used as input data with an associated error set to 0.02 on each parameter. A homogenous half space with resistivity of 100 Ohm-m was used as the starting model for this 3D MT inversion. A uniform mesh with 75 m x 75 m cell size was used in horizontal directions in the resistivity model. The vertical mesh was defined to cover the first 4 km. Padding cells were added in each direction to accommodate the inversion for boundary conditions. The 3D inversion was run for a maximum of 50 iterations. In addition a total of 129 samples distributed along 12 holes were analysed to measure the resistivity (Rho (Ohm*m) and chargeability properties (Chargeability M and Susceptibility (SCPT 0.001 SI) . The equipment used for the analyses was the Sample Core IP Tester, manufactured by Instrumentation GDD Inc. It should be noted that these measures should be taken only as first order estimate, and not as “absolute” (true) value as readings by the field crew were not repeated and potentially subject to some errors (i.e. wrong size of the core entered in the equipment). **Colorado V:**

Criteria	JORC Code explanation	Commentary
		No additional substantive work is known.
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.*	**El Guaybo Project** - Re-logging and re-assaying core including SWIR/alteration mapping to better vector on the porphyry and breccia targets – available assays 6 elements only, no SWIR, and not logged by porphyry experts. The Company understands that this is complete with assays being waited on. - Channel sampling of the adit and artisanal workings - > 1km of underground exposure of the system which has never been systematically mapped or sampled. - Sampling of additional breccia bodies – only 2 of the 10 known breccias have been systematically defined and properly sampled. - Complete interpretation of the 3D MT survey (with IP lines) covering 16 sq. This will include integration of all the geological data and constrained inversion modelling - MMI soil survey covering 16 sq. kms - The aim of the program above is to define targets for a drilling program **Colorado V Project** - Re-logging and re-assaying core only partial gold assays are available assays - Channel sampling of mineralized exposures in the adits and underground workings. - Surface mapping and sampling - Compile and integrate existing soil survey data with CEL's MMI soil survey covering 16 sq. kms - The aim of the program above is to define targets for a drilling program -