

# **TABAKOROLE MINERAL RESOURCE GROWS TO 910KOZ AT 1.2 G/T GOLD**54% increase in ounces + 20% increase in grade

**Marvel Gold Limited** (ASX: MVL) (**Marvel** or the **Company**) is pleased to announce the JORC Mineral Resource Estimate for the Tabakorole Gold Project (**Tabakorole** or the **Project**).

#### HIGHLIGHTS

- Marvel confirms its successful transition to a Mali-focused gold explorer, delivering a JORC 2012 Mineral Resource of **910,000oz grading 1.2 g/t gold** (at a 0.6 g/t cut-off) (Table 1).
- The upgraded Mineral Resource represents a 54% increase in ounces and a 20% increase in grade from the 2007 resource estimate (NI 43-101) with a total combined Mineral Resource of 23.9 million tonnes at 1.2 g/t for 910,000 ounces, 32% of which is classified as Indicated.
- 43% of the Mineral Resource (390koz) sits within 100m of surface, increasing confidence for an openpittable production scenario.
- Since acquiring the project interest, Marvel has completed 1,544m of diamond drilling which, in combination with the 2010-2014 drilling, has been included in the current Resource estimate.
- Numerous opportunities for resource expansion, with 600m of aircore delineated strike to the northwest (6m at 6.2 g/t gold)<sup>1</sup> remaining open.
- Mineralisation also remains open to the south-east and at depth with resource expansion drilling expected to commence in Q4 2020.
- The Mineral Resource has been estimated by a leading consultant, with significant experience in resource estimation at gold projects located in West Africa.
- The Mineral Resource was estimated using Multiple Indicator Kriging (MIK) incorporating a change of support analysis – a method which factors in mining dilution and can be considered a recoverable resources estimate.

<sup>1</sup>ASX announcement 6 August 2020

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	Indicated		Inferred		Total				
	Mt	Au (g/t)	koz (Au)	Mt	Au (g/t)	koz (Au)	Mt	Au (g/t)	koz (Au)
Oxide	1.0	1.3	40	1.5	1.3	60	2.4	1.3	100
Fresh	6.3	1.2	250	15.1	1.2	560	21.5	1.2	810
Total	7.3	1.2	290	16.6	1.2	620	23.9	1.2	910

#### Table 1: Tabakorole Mineral Resource Estimate (JORC 2012)

Note: Reported at a cut-off grade of 0.6 g/t Au, differences may occur due to rounding.

#### Managing Director Phil Hoskins, commenting on the Tabakorole MRE:

"This is a significant improvement in the Mineral Resource for Tabakorole. A 54% increase in ounces combined with a 20% improvement in grade is an excellent outcome that has exceeded our own expectations. From the outset, we firmly believed that a revised approach to resource modelling, together with the incorporation of results of both our recent drilling and historic drilling, presented an opportunity to grow the Tabakorole Mineral Resource. To have delivered the maiden JORC resource of almost one million ounces of gold is an exceptional result that has validated our approach and confirmed the opportunity at Tabakorole.

"We have known mineralised strike extensions to follow up whilst the deposit remains open at depth. Combined with recent transactions that have increased our landholding at Tabakorole to 375km<sup>2</sup> and the demonstrated regional prospectivity, we are confident that further resource growth can be achieved. We look forward to starting Stage Two drilling in the December Quarter."

The Tabakorole MRE is defined over a 2.9km strike length with 43% of the resource (390koz) within approximately 100m of surface. The deposit demonstrates consistently thick zones which indicate the potential for a relatively low mining strip ratio. Figure 1 shows the Tabakorole MRE in long section by estimated grades.



#### Figure 1: Tabakorole Mineral Resource Estimate (showing estimated grades)

#### **Reporting Cut-off Grades**

The resource is considered amenable to open cut mining and is reported at a cut-off grade of 0.6g/t Au, which is both statistically robust and consistent with economic cut-off grades applied at other operations in the region. The final cut-off determination will be dependent on the scale of any potential future operation and the prevailing gold price. A range of other cut-offs presented in Table 2 demonstrates the grade vs cut-off relationships.

		Indicated			Inferred			Total	
Cutoff	Mt	Au (g/t)	koz (Au)	Mt	Au (g/t)	koz (Au)	Mt	Au (g/t)	koz (Au)
0.3	12.6	0.9	370	25.6	0.9	750	38.2	0.9	1,120
0.4	10.7	1.0	350	22.4	1.0	710	33.2	1.0	1,060
0.5	8.9	1.1	320	19.4	1.1	670	28.3	1.1	990
0.6	7.3	1.2	290	16.6	1.2	620	23.9	1.2	910
0.7	5.9	1.4	260	13.8	1.3	560	19.8	1.3	830
0.8	4.9	1.5	240	11.4	1.4	500	16.3	1.4	740
0.9	4.1	1.6	210	9.2	1.5	440	13.2	1.5	660
1.0	3.4	1.8	200	7.4	1.6	390	10.9	1.7	590

#### Table 2: Tabakorole Mineral Resource Grade-Tonnage

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#### **Opportunities for resource growth**

There are numerous opportunities for growing the Tabakorole MRE, including:

- Recent aircore drilling has confirmed that gold mineralisation continues at least 600m along strike to the north-west (including **6m at 6.2 g/t gold**)<sup>2</sup>.
- The deposit remains open along strike to the south-east as well as at depth, including several areas throughout the existing resource that are constrained by lack of drilling.

The south-eastern portion of the deposit is more consistent and of a higher tenor than the north-western zone and hence represents an outstanding opportunity for the Company to build on the existing Resource. The consistency and predictability of this zone provides confidence of a very high conversion of ounces from Inferred into Indicated when infill drilling is conducted. The Company will commence resource expansion drilling during the December Quarter to test some of the above opportunities.

Furthermore, following the recently announced increase from 100km<sup>2</sup> to 375km<sup>2</sup> in the Tabakorole landholding<sup>3</sup>, the Company intends to advance regional exploration targets where little to no exploration has been previously conducted. During October, the Company will detail its exploration plans for the upcoming field season including obtaining multi-element soil geochemistry and ground magnetics as baseline datasets for regional exploration ahead of further drilling.

The Company will maintain an exploration focus at Tabakorole and defer infill drilling and economic studies until the scale of the resource is better known. As previously announced, the Company will be undertaking preliminary metallurgical testwork consisting of cyanide bottle rolls to establish the applicability of conventional cyanide extraction of gold. The results of this work are expected in the December quarter.

<sup>&</sup>lt;sup>2</sup> ASX announcement 6 August 2020

<sup>&</sup>lt;sup>3</sup> ASX announcement 9 September 2020



#### **MINERAL RESOURCE ESTIMATE – TECHNICAL**

#### **Project Location and Ownership**

The Tabakorole Gold Project is located in southern Mali, approximately 230km south of the capital city of Bamako (Figure 2). The Project comprises 375km<sup>2</sup> of tenure that is accessed via sealed road from Bamako to Bougouni (170km) followed by an unsealed laterite road from Bougouni to the Project (60km). Mali is a world-class gold jurisdiction and is the third largest gold producer in Africa.



#### Figure 2: Location of Tabakorole Gold Project

The Project is subject to a joint venture with UK and TSX-listed Altus Strategies plc (**TSX-V: ALTS**), with the Company earning up to an 80% interest in the Project by sole funding expenditure through to completion of a definitive feasibility study (**DFS**)<sup>4</sup>. Completion of the Tabakorole MRE and satisfies the requirements for the Company to earn its initial 33% interest under the joint venture.

#### **Regional Geology**

The project is located within the Baoulé-Mossi domain of southern Mali. This domain is separated into 3 lithostratigraphic units; the North-South striking Birimian volcano-sedimentary series forming the Yanfolila, Morila and Syama belts, a suite of granitic to monzonitic units which intrude the Birimian volcano-sedimentary units and late intrusives which occur as plugs and dykes.

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The Tabakorole project is located on what has been known as the Morila belt. The Morila belt occurs within the major granitic complex of the Bougouni region. The Birimian rocks are comprised of basaltic units interbedded with volcano-sedimentary units, all of which have undergone amphibolite grade metamorphism. The major controlling structure in this region is the Bannifin Shear Zone which separates the Morila belt in the west from the Syama belt in the east and the Tabakorole deposit is interpreted to sit within a 10km wide, north-west trending structural corridor which is interpreted to represent a splay or splays off the Bannifin Shear Zone.



#### Figure 3: Regional Geological Setting of Tabakorole Gold Project (Map adapted from Parra-Avila et al. 2015)

#### Local Geology and Mineralisation

The Tabakorole gold project is underlain by Birimian volcanoclastic sedimentary rocks crosscut by a northwest-trending deformation zone which hosts the mineralised resource. The sedimentary rock units comprise mostly interbedded dark-grey to greenish-grey fine grained to coarse grained siltstone, wacke and sandstone units. The units are generally quartz-rich with a matrix composed of fine-grained hydrothermal alteration minerals such as sericite, chlorite and carbonate. The sedimentary rocks are crosscut by minor mafic and felsic intrusive rocks. Mafic intrusions are represented by dykes composed of medium to coarse grained, chloritised amphibole and sericitised plagioclase. The felsic porphyry intrusive unit, which occurs mainly on the southern portion of the Tabakorole permit, is pale grey in colour and composed of porphyritic plagioclase within a fine grained siliceous and sericite matrix. The felsic porphyry contains a penetrative foliation and intense silica, dolomite and sericite hydrothermal alteration.



Mineralised zones at Tabakorole are associated with deformation corridors enriched in sulphides that formed during the various deformation phases. The gold mineralisation consists of disseminated sulphides and attendant hydrothermal alteration developed in highly strained sedimentary rocks. The mineralisation typically consists of three to five percent disseminated sulphides; pyrrhotite, pyrite and arsenopyrite with local chalcopyrite and visible gold. The sulphides are generally fine grained and transposed along the main fabric with the intensity of deformation being the most valuable cue to mineralisation. The typical alteration assemblage associated with the auriferous zones is composed of silica, biotite, muscovite and sericite.

#### **Tabakorole Work History**

Exploration at Tabakorole dates back to the early 1990s when BHP carried out follow-up soil sampling based on the preliminary UNDP regional soil sampling program. The project was relinquished by BHP following this soil sampling program with no further work.

Ashanti Gold Corporation (AGC) undertook further soil sampling during 2001 and completed a 96 hole, 2,182m Rotary Air Blast (RAB) drilling program before relinquishing the property in 2002.

North Atlantic Resources (NAC) acquired the property in July 2003 and undertook an initial drilling program with the aim of confirming the RAB drilling results obtained by AGC in 2001. A total of fourteen reverse circulation (RC) drill holes were completed on the southern soil anomalies amounting to 1,261m.

In 2004, NAC completed a soil geochemistry and pitting program as well as a follow-up drilling program comprised of 75 Aircore (AC) holes and three RC holes for a total of 2,885m and 310m respectively.

NAC commenced the 2005 drilling program with the objective of delineating gold bearing structures below the newly outlined soil geochemical anomalies. An initial shallow, thirty-metre deep, AC drilling program was undertaken from January to February. A follow-up RC drilling campaign commenced in May and continued until August, leading to the initial core drilling program. The drilling program was continuous until the end of 2005 and a total of 429 AC holes (10,241.5m), 160 RC holes (16,237m) and twenty-six core holes (6,244.3m) were drilled.

The 2006 drilling program was continuous from January to August, and a NI43-101 Technical Report was published based on RC and diamond drillholes only up to the end of 2006.

Subsequent to the NI43-101 report, Legend Gold (Legend) assumed control of the licences and three campaigns of drilling were undertaken by Legend. The first in 2010, consisted of 72 RC holes (6,824m) and 3 diamond drill holes (290m), in 2011 consisting of 48 RC holes for 4,407m and finally in 2014 consisting of 15 RC holes (714m) for a total of 12,230m of drilling that had not been fed into an updated Resource statement.

The exploration database used for Resource Estimation comprises 331 RC boreholes (approximately 32,000m) and 117 diamond drill holes (approximately 30,550m). A total of 96 rotary air blast (RAB) boreholes and 913 AC holes were included in the database but were not considered for resource estimation other than to aid in the construction of wireframes used for domaining.

Since acquiring its project interest, Marvel has completed an initial 1,544m diamond drill program which, in combination with the 2010-2014 drilling, has resulted in the current Resource estimate.



#### **Drilling Summary**

The orebody can be split into a south-eastern half and a north-western half, with the two separated by a cross-cutting structure and a zone of lower grade material. In principle, drilling has been conducted on 50m spaced lines with drill holes spaced 50m apart with the east-west striking portion of the orebody having received the largest quantum and deepest drilling to date and hence representing the majority of the material currently classified as Indicated (Figure 4). The deepest drilling in the north-west reached a total down hole depth of 486m, however the average in this part of the deposit is around 250m. In the south-eastern portion of the deposit, the average down hole depth of drilling is around 120m with the deepest hole achieving a maximum down hole depth of 380m.

In the north-western portion of the deposit, earlier phases of drilling were oriented east-west which is essentially along the strike of the deposit in this area, however these holes represent the minority of the drilling metres. Most drilling is oriented towards the north-east, roughly perpendicular to strike (azimuth of 045 and dip of between 50-60 degrees).

In the south-eastern portion of the deposit, drilling has mostly been oriented towards the south-west to better intersect the known dip of the deposit. The south-eastern portion of the deposit is more consistent and of a higher tenor than the north-western zone and hence represents an outstanding opportunity for the Company to build on the existing Resource. Furthermore, due to the consistency and predictability of this zone, the Company is confident of a very high conversion of ounces from Inferred into Indicated when infill drilling is conducted.



#### Figure 4: Tabakorole Mineral Resource Estimate (showing Indicated and Inferred classifications)

#### Sampling, sub-sampling and assay methodology

The sampling protocols at Tabakorole are generally well established and depend on the type of drilling being conducted. Diamond drill core samples are generally 1m in length in mineralised material and up to 3m in unmineralized rocks, with the actual sample length selected taking into account both structural and



lithological breaks as recorded by the geologist. RC samples are more uniformly 1m in mineralised material and 3m in unmineralized material.

Diamond core is sawn using a diamond blade and half core submitted to the laboratory whilst RC samples are collected in full and then riffle split through a 3-tier riffle splitter yielding approximately 1/8<sup>th</sup> of the sample mass collected at the cyclone. Weights of both sample types are routinely recorded and recovery of diamond core is estimated by measuring the length of core collected divided by the run length recorded by the driller. Ground conditions at Tabakorole are generally good and hence core recovery and RC recovery weights are usually good.

Sample preparation consists of crushing to -3mm before splitting to achieve a sample weight of 4-500g for pulverisation. This sample is pulverised to achieve a grind of 95% passing 75µm. A 50g pulp sample is then taken for analysis by Fire assay with atomic absorption spectrometry (AAS) finish.

QAQC material has routinely been submitted and includes Certified Reference Material, Blanks and Duplicates with a total volume of around 10% of total samples submitted. QAQC data is regularly reviewed as a function of the Company database management procedure.

#### **Geological Modelling**

The geological interpretation for the mineralised area was compiled by analysing all available relevant data, including geological logging, lithology and structure and gold assay, as well as interpretation of aeromagnetic, EM and IP geophysical data.

Mineralisation at the project is associated with a shear zone and is hosted within a banded gneiss sequence. Proximal to the gneissic sequence are occurrences of small mafic dykes and felsic veins and these are mostly difficult to correlate between adjacent drillholes. Gabbro may also be locally well developed as is a diorite unit. There are no outcrops of bedrock locally and saprolite is well developed to a depth of 15m to 30m. A laterite hard cap is locally well developed.

The geological model was utilised as a guide in the construction of wireframes in Vulcan three-dimensional modelling software as input to the resource modelling.

#### **Mineral Resource Estimation**

A summary of the material information used to estimate the mineral resource is presented in accordance with JORC 2012 requirements.

The Mineral Resources reported here represent Mineral Resources that were estimated for the Tabakorole gold deposit using the methodology as described below and in Appendix 1. Indicated and Inferred categories of mineralisation have been defined and are reported here as Mineral Resources.

#### **Estimation Methodology**

Multiple Indicator Kriging (MIK) with change of support was selected as the most appropriate method for estimating Au for the Tabakorole deposit. A total of two grade estimate domains have been developed within the mineralised zones and based on the geological description in the previous sections and an approximate lower cut-off grade of 0.3 g/t Au.

A block size of 20mE x 25mN x 10mRL was selected as an appropriate block size for estimation based on the drill spacing (50m strike spacing or better), geometry of mineralisation and the likely potential future selective mining unit or SMU (i.e. appropriate for potential open pit mining). An SMU dimension of



5mE x 12.5mN x 5mRL was selected as appropriate for support correction investigation. An indirect lognormal support correction was applied to emulate mining selectivity for the above SMU dimension.

The MIK grade estimates consist of a series of proportions and grades above the pre-defined cut-off grades estimated into a 'panel' or large blocks. The proportions and grades are derived from a targeted SMU block size via change of support process. As such, while the proportions and grades at a certain cut-off for any given panel may be known, its position within the panel is not. To assist with a more intuitive presentation of the model grades, the MIK grade estimates have been localised to SMU dimension blocks using a process identical to that of Localised Uniform Conditioning. The SMU sized blocks have been assigned a single grade so that the panel MIK grade estimate grade tonnage curve has been replicated.

#### Drill Hole Flagging, Compositing, Top Cuts and Variography

Raw sample intervals from the drill hole database were flagged by the estimation domains and composited to 2m downhole intervals for the purposes of equalising sample support and as an input to grade estimation.

The impact of higher-grade gold outliers was examined on composite data using log probability plots and cumulative statistics. This is particularly relevant in the case where extreme grade values may exist, however MIK estimation as implemented at Tabakorole is independent of top cutting and was therefore not applied to the final grade estimate.

Grade and indicator variography were developed based on the downhole composites. Indicator variography was input to the MIK estimates while grade variography was used for the change of support analysis applied to the MIK estimates.

#### Mining and Metallurgical Parameters and Other Material Modifying Factors

The proposed development scenario for the deposit is as an open cut (pit) mine. No additional mining dilution has been applied to the reported estimate.

Very limited metallurgical test work has been done and this was only completed on oxide material. The test work was carried out by Peacocke and Simpson in Zimbabwe in October 2015 on a 100kg sample collected using auger drilling over an area of 20 x 25m centred around hole 06TKDDH-059. This unoptimized test work yielded a total of 90.6% recovery using a conventional cyanidation process. Due to the limited coverage and selective nature of sampling, the results from this test work are not considered representative of the deposit. The Company plans to complete a preliminary program of metallurgical test work using material collected from drill core in the future.

No other additional modifying factors have been considered as part of this Resource estimate.

#### **Mineral Resource Constraints**

The Mineral Resource at Tabakorole represents a global resource and has not been constrained by an optimised pit shell or similar. This is considered appropriate for the current level of understanding and development of the Mineral Resource.



#### Classification

Resource classification was based on geological confidence and a spatial review of estimation result parameters which reflected the quality of the estimate for each block. At the Tabakorole deposit, areas that had high confidence estimate values, had sufficient drilling density (≤50m section spaced drilling) or were proximal to 50m spaced drill lines were classified as Indicated Resources. The remainder was classified as Inferred.

Figure 5: Tabakorole Mineral Resource Estimate (showing Indicated and Inferred Classifications)



This announcement has been approved for release by the Board.

PHed .

PHIL HOSKINS Managing Director

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For more information, visit <u>www.marvelgold.com.au</u>.



#### **Competent Person's Statement**

The information in this report that relates to the Mineral Resources is based on information compiled by Mr Brian Wolfe, Principal Consultant of International Resource Solutions Pty Ltd which provides consulting services to the Company. Mr. Wolfe is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been undertaken 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 (JORC Code). An entity associated with Mr Wolfe has a minor shareholding in the company. Mr. Wolfe consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to exploration results at Tabakorole is based on information compiled by the Company and reviewed by Mr Chris van Wijk, in his capacity as an Executive Director and Exploration Manager of Marvel Gold Limited. Mr. van Wijk is a Member of the AUSIMM and has sufficient experience which is relevant to the style 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 JORC Code. Mr. van Wijk consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears



#### **About Marvel Gold**

Marvel Gold Limited is an Australian resources company listed on the Australian Securities Exchange under stock code MVL. Marvel Gold is a Mali-focused gold explorer with advanced gold exploration projects and extensive landholdings in South and West Mali.

The Tabakorole Gold Project has a large existing resource with opportunities to expand along strike and via regional exploration. The Lakanfla Gold Project is a major untested gold target 6km from the Sadiola gold mine. Marvel Gold has an experienced board and management team with specific skills, and extensive experience, in African based exploration, project development and mining.



#### Figure 6: Marvel Gold, Mali Projects Location

#### **Reference to previous ASX announcements**

The information in this announcement that relates to previously reported exploration results at Tabakorole was announced on the 17<sup>th</sup> of June 2020, 6<sup>th</sup> of August 2020 and 17<sup>th</sup> of August 2020. Marvel confirms that it is not aware of any new information or data that materially affects the information included in those announcements.

#### JORC TABLE 1 REPORTING

#### Section 1. Sampling Techniques and Data

Criteria	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.	Core assay samples were collected on half core sawed lengthwise with a diamond saw. Sampling intervals were marked by an appropriately qualified geologist depending on geology. Sampling intervals vary between 0.3 and 5 metres in length with an average of 1 metre in mineralisation. Reverse circulation samples are collected directly from the drill rig cyclone at 1 metre intervals and composited into 2 metre samples. Each sample is split with a mechanical rifle splitter to yield an assay sample of approximately five kilograms in weight. The sub-sample is marked and bagged on site.
	Aspects of the determination of mineralisation that are Material to the Public Report.	Core samples are selected based on geological criteria (presence of quartz veining and sulphide mineralisation). Sample lengths are between 0.3 and 1.2m in mineralisation and may be up to 3m in unmineralised material. Core samples are crushed to -3mm, split and a 250g sub-sample is pulverised with gold determined by fire assay/AAS based on a 30g charge.
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).	RC drilling was completed using a face sampling bit to drill a hole of 125mm in diameter. Holes were drilled with a dip of between 45 and 60 degrees and oriented roughly perpendicular to mineralisation where possible. Diamond drilling was conducted using HQ (63mm in diameter) in weathered material and then reduced to NQ (40mm in diameter) in fresh rock. Holes were drilled with a dip of between 45 and 60 degrees and oriented roughly perpendicular to mineralisation. 2020 Diamond drill core was oriented using a Reflex ACT II core orientation tool.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Drill hole recoveries were recorded during logging by measuring the length of core recovered per 3m core run. Core recovery was calculated as a percentage recovery of actual core length divided by expected core length. RC weights have been collected to monitor recovery but no recovery calculations for RC drilling have been calculated.
	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.	Core recovery was routinely measured and monitored and RC sample weights were recorded and monitored in order to calculate sample recoveries. There is no known relationship between recovery and grade.
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.	All recovered geological material (RC chips and drill core) is logged onsite by geologists 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.	Logging of drill core is qualitative and records colour, grain size, texture, lithology, weathering, structure, strain intensity, alteration, veining and sulphides. Geotechnical logging records core recovery, RQD, fracture counts and fracture sets. Density measurements are recorded for each core box using standard dry/wet

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Criteria	Explanation	Commentary
		weight techniques. All drill core is digitally photographed wet, and where possible dry.
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full.
Sub-Sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Core samples are selected at intervals typically between 0.3-1.2m in length. Core samples are labelled with a sample tag and aluminium tag recording the hole number, depth and sample number. Core samples are cut in half using a rock saw, with half of the sample retained in the core box and half inserted into a plastic sample bag.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are riffle split at the drill rig. Samples are typically dry when split.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation consisted of jaw crushing to -3mm, splitting 500 grams and pulverizing to 95% passing 75µ. A sub-sample of 150-200g (pulp sample) is retained for analysis. The sample preparation procedures carried out are considered acceptable.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Both Core and RC sample duplicates were submitted to monitor bias and ensure representivity of sampling.
	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.	Duplicates, Blanks and Standards (Certified Reference Material) were used to ensure assay quality and representativeness of sampling.
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.	Samples analysed prior to 2020 were assayed for gold by fire-assay with AAS finish by either SGS Analabs Mali (Morila Mine for material from Tabakorole) or Abilab Afrique de l'Ouest SARL laboratory in Bamako, Mali. 2020 Diamond drilling samples were assayed for gold by fire-assay with AAS finish by MSA Labs in Yamassoukro, Côte d'Ivoire. This is considered to be a total analysis for Gold.
	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.	Not Applicable, no such work carried out.
	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.	Industry best practice procedures were followed by North Atlantic and included submitting blanks at a rate of 1:20 samples, field duplicates at a rate of 1:20 samples, the use of OREAS Certified Reference Material at a rate of 1:20 samples and a program of check assays analysed at ALS-Chemex in Vancouver. 2020 drilling also followed industry best practice and included submitting blanks at a rate of 1:30 samples, field duplicates at a rate of 1:30 samples, the use of OREAS Certified Reference Material at a rate of 1:30 samples.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All assays are reviewed by the Competent Person and significant intercepts are calculated as composites >0 5g/t Au with a minimum width of 3m and up to 3m internal dilution.
	The use of twinned holes.	No twin holes have been drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All drill hole logging was completed on paper logging sheets and entered into spreadsheets. Historical logging data has been uploaded into a central database with no modification.
Location of data points	Discuss any adjustment to assay data. 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.	No assay data was adjusted, and no averaging was employed. Drill hole collars were located using handheld GPS with 3-5m accuracy and initial Dip and Azimuth determined using a handheld compass. For 2020 drilling a Reflex EZ Shot downhole survey tool was used to record drill hole deviation at intervals of 50m.
	Specification of the grid system used	Drill hole collars are recorded in WGS84 UTM Zone 29



Criteria	Explanation	Commentary
	Quality and adequacy of topographic control	Topographic control has been through a combination of SRTM topography and drill hole collars recorded using handheld GPS. This is considered adequate for the current purpose.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing is variable depending on the location within the deposit but is generally around 50m in areas within the MRE.
	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 applied.	The drill hole spacing is considered sufficient to establish the required degree of geological and grade continuity for the estimation of mineral resources.
	Whether sample compositing has been applied.	For the purposes of public reporting of downhole assay intervals, samples have been composited to produce a weighted grade interval using a cut off 0.5g/t Au, minimum width of 3m and maximum of 3m internal dilution.
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.	Drill holes are generally oriented perpendicular to the strike of geology and shallow dips of drilling are used to intersect the structures at a high angle.
	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.	As drill holes were generally drilled perpendicular to the strike of mineralisation it is not believed that there has been any sampling bias introduced based on the current understanding of the structural orientations and the dip and strike of mineralisation.
Sample Security	The measures taken to ensure sample security.	Drill samples were collected by Company personnel directly from the drilling rig and transported to the exploration camp for processing. Prepared samples were then transported directly to the laboratory by road by representatives of the company. Other than sub sampling in the form of riffle splitting or core cutting, no sample preparation was conducted by the company.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Several audits and reviews of data were completed both as part of and prior to the publication of the historical MRE and all concluded that historical work conducted by North Atlantic was completed to a high standard, consistent with industry best practice at the time. Current practices have been reviewed by the Competent Person.

# Section 2. Reporting of Exploration Results

Criteria	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.	Legend Gold Mali SARL is the 100% owner of the Tabakorole licence. The Tabakorole permit was granted under Arrêté N°2015-1823 on the 25 <sup>th</sup> of June 2015 and renewed on the under Arrêté N°2018-3538 on the 8 <sup>th</sup> of October 2018 (First renewal). The permit is currently undergoing it's second renewal which was lodged with the DNGM on 25 <sup>th</sup> of February 2020. The Company expects that the second renewal of this license will be granted in due course.
	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 Tabakorole licence was confirmed to be in good standing as of the 20 <sup>th</sup> of September 2019 via letter of Attestation from the Malian DNGM. Subsequent due diligence carried out on behalf of Marvel Gold by independent specialists engaged by the Company confirmed that the licence has been maintained in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Tabakorole project was initially covered by regional geochemical sampling by BRGM in the 1950's, however the first mining company to carry out work on the license area was BHP in 1993. The first drilling was conducted by Ashanti Gold Company in 2001. Subsequent drilling programs have been detailed in this



Criteria	Explanation	Commentary
	•	announcement.
		The majority of the work carried out subsequently has been by Legend Gold.
		Other historical work is summarised in this announcement.
Geology	Deposit type, geological setting and style of mineralisation	The Tabakorole ore deposit as it is currently recognised is an orogenic, hydrothermal gold deposit with much in common with other volcano-sedimentary hosted Birimian style orogenic gold deposits throughout the region.
Drill hole information	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	All relevant drill hole details for drilling used in the current MRE have been published as per announcements on the 17th of June 2020 and 17th of August 2020.
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.	Drill holes have been reported with a Significant Intercepts defined above a 0.5g/t Au cutoff grade with minimum 3m intercept and no more than 3m of internal dilution. No top cuts have been applied.
	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.	As above.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are reported.
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 only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	All intercepts reported as downhole lengths. True widths of mineralisation have not yet been determined.

Criteria	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 body of announcement for diagrams.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Due to the high volume of data on hand, only drill holes with significant intercepts meeting the criteria detailed above have been reported. All drill holes with significant intercepts as defined have been reported as per announcements dated the 17th of June 2020 and 17th of August 2020.
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.	Not applicable, no other substantive exploration data reported.
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 drilling to extend the strike and depth extents of the current resource at Tabakorole is planned for the 4 <sup>th</sup> quarter of 2020. This work shall be comprised of a minimum of 2,500m of drilling, in keeping with the current joint-venture commitments.

# Section 3. Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database Integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	MVL have a central Maxwell Datashed database, administered by RockSolid Data Consultants. All historical data has been loaded into this system and verified against raw assay certificates and raw logging data. Fixed data entry templates have been emplaced with lookup tables and fixed formats are used for logging, spatial and sampling data. Data transfer is electronic via e-mail. Sample numbers are unique and pre-numbered bags are used. Project geologists also regularly validate assays returned, back to RC chips & drill core intercepts and hard copy results.
		Data was further validated on import into Vulcan <sup>™</sup> mining software. Random checks of assay data from drill hole to database were completed.
Site Visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person (CP) for the resource estimate, Mr Brian Wolfe, has not yet visited the project site area due to travel restrictions relating to the COVID 19 pandemic. A site visit will be arranged at the earliest possible opportunity for the purpose of inspection of drilling, drill sites, viewing local surface geology, and a review of available drill core





Criteria	JORC Code explanation	Commentary			
Geological Interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geological interpretation was based on geological information obtained from MVL and its predecessors RC and diamond drilling programs. This included lithological, alteration, veining and structural data.</li> <li>The mineralised shear hosted mineralisation can be traced on mostly 50m spaced sections over approximately 2.9km in total. The mineralisation interpretation utilised an approximate 0.3g/t Au edge cut off for overall shear zone mineralisation.</li> <li>Additional mineralisation exists peripheral to the main shear zone hosted mineralisation but is of a less continuous nature and requires further drilling to determine its overall continuity.</li> <li>A 3D geological model of the major lithologies, structures and weathering profile were used to assist in guiding the mineralisation interpretation</li> <li>The interpretation was developed by of MVL technical staff and reviewed and refined by the CP.</li> <li>No alternate interpretations were considered as the model developed is thought to represent the best fit of the current geological understanding of the deposit and is supported by surface mapping.</li> <li>In the CP's opinion there is sufficient information available from drilling/mapping to build a reliable geological interpretation that is of appropriate confidence for the classification of the resource (Indicated/Inferred).</li> </ul>			
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>Known mineralisation consists of multiple lenses of variably distributed gold mineralisation within an overall well-defined shear zone envelope. The shear zone extends along strike for approximately 2.9km and up to 300m in vertical depth below surface. The shear zone is between 20m to 50m in thickness and variably pinches and swells. The shear zone hosted mineralisation is considered to be open in all directions and similar mineralisation has been encountered in aircore drilling 600m to the NW which lies outside the current MRE. (Announcement 6/8/20)</li> </ul>			
Estimation and Modelling Techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of byproducts.</li> <li>Estimation of deleterious elements or other non-</li> </ul>	<ul> <li>Geological and mineralisation constraints were constructed in cross section in Vulcan. Saprock and laterite interpretation was also generated via a sectional interpretation. The constraints thus developed were subsequently used in geostatistics, variography, block model domain coding and grade interpolation.</li> <li>Multiple Indicator Kriging was selected as the most appropriate method for estimating Au, the main element of economic significance. A change of support was applied to emulate mining selectivity at 5mE by 12.5mN by 5mRL dimensions.</li> <li>A block size of 20mE by 25mN by 10mRL was selected as an appropriate block size for MIK grade estimation given the drill spacing and the likely potential future selective mining unit (i.e. appropriate for potential open pit mining).</li> <li>Drillhole assay intersections were flagged by the mineralisation wireframes and subsequently composited to 2m downhole lengths to equalise sample support.</li> <li>Variography from the main domains indicated a moderate to high nugget of approximately 40%, with extended ranges of up to 180m (strike), intermediate range of (dip) to 140m and minor axis of 20m. Elliptical search neighbourhoods within domains were used orientated parallel to the orientation of the shear. Search ranges were based on the variograms and were typically 100m along strike, 100m down dip and 20m across strike. Un-estimated blocks in the first pass were estimated in a second pass with relaxed search parameters to allow all blocks to be estimated. Indicator variography was modelled for input to MIK grade estimates. 17 grade cut offs were chosen per domain and every third indicator variogram calculated and modelled. Intermediate indicator variograms.</li> </ul>			



Criteria	JORC Code explanation	Commentary
Moisture	<ul> <li>grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of data to drillone data to drillone data to drillone data to drillone data if available.</li> </ul>	<ul> <li>Wireframed mineralisation domains were used as "hard boundaries" for estimation. Oxide and transitional mineralisation were estimated together with the fresh/sulphide mineralisation.</li> <li>Typically, 24 samples were selected for the MIK estimates. A two-pass estimation strategy was devised whereby any blocks not estimated in the first pass were estimated in the second using relaxed estimation neighbourhood parameters.</li> <li>High grade cutting is not a necessary process in the context of MIK grade estimation, however high-grade cutting was undertaken prior to the experimental variogram calculations. High grade cuts were typically light (10g/t or 20g/t) and were considered to have a negligible effect on the overall mean grades. High grade cutting was used in the calculation of the conditional grade statistics as input to the change of support process.</li> <li>The block model estimates were validated by visual comparison of whole block grades (etype) to drill hole composites, comparison of composite and block model statistics, generating grade shells and visually assessing them and swath plots of composite versus whole block model grades.</li> <li>The tonnages in the estimate are for dry tonnage with no factoring for moisture.</li> </ul>
Cutoff Parameters	content. The basis of the adopted cutoff grade(s) or quality parameters applied.	<ul> <li>The proposed development scenario for the deposit is as an open cut (pit). Based on this assumption reporting cut offs of 0.3g/t Au and 1.0g/t Au are appropriate for the open pit portion with the cut off dependent on the scale of any potential future operation. The current preferred cut- off for reporting is 0.6g/t Au.</li> </ul>
Mining Factors or Assumptions Metallurgical	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>Open pit mining is assumed throughout, and this has been factored into the grade estimates. A selective mining unit dimension of 5mE by 12.5mN by 5mRL has been selected and this has been used as input to the change of support process for the MIK estimates only.</li> <li>No additional mining dilution has been applied to the reported estimate.</li> </ul>
Factors or Assumptions	predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual	announcement but has not been applied in any way to the current Resource estimate or classification.



Criteria	JORC Code explanation	Commentary
	economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental Factors or Assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	<ul> <li>The prospect is at early stage of assessment and no environmental factors have considered in this model estimate. These factors will be evaluated as part of a future scoping study</li> <li>It is the CP's understanding that no environmental factors have currently been identified which would impact the resource estimate reported here.</li> </ul>
Bulk Density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>The prospect area is moderately weathered / oxidised with the top of fresh rock over mineralised zones around 15 to 30 metres below surface over the mineralised zones.</li> <li>Bulk densities are based upon 1,393 density measurements over the Project area. All measures utilised industry standard immersion techniques.</li> <li>Bulk densities have been assigned to the model subdivided by oxidation states. An average bulk density of 2.74 g/cm3 has been applied to the fresh rock, 2.48 g/cm3 and 2.41 g/cm3 has been applied to the saprock and the laterite hardcap respectively. The bulk densities are considered reasonable and representative for the rock types and oxidation/weathering states present and are in line with other similar deposits in the region.</li> <li>All are dry densities and void spaces in core are understood to be negligible.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> </ul>	<ul> <li>The quality of estimate criteria was reviewed spatially and used to assist in resource classification. Areas at Rebecca that had high confidence estimate values, had sufficient drilling density (&lt;50m spaced drilling) or were proximal to 50m spaced drill lines were assigned as Indicated Resources. The remainder was classified as Inferred.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Based upon the drill spacing, quality of data, current confidence in the geological understanding of the deposit, continuity of mineralisation and grade it is the Competent Person's opinion that the resource estimate meets the JORC 2012 Guidelines criteria to be classified as an Indicated and Inferred Resource.</li> </ul>
Audits or Reviews	The results of any audits or reviews of Mineral Resource estimates.	Not applicable, no audits or review of the Mineral Resource estimate have been conducted
Discussion of Relative Accuracy / Confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The quality of estimate as used to assist in resource classification reflects the number of samples used to estimate a block, the distance a block is from a sample, slope of regression and the kriging error (for ordinary kriged estimates). Blocks which were assigned to the Indicated Category typically were informed by at least 4 drill holes, were less than 30m from the nearest composite, had low kriging errors and had drilling spacing of approximately 50m by 50m or better. The remainder was classified as Inferred.</li> <li>The relative accuracy of the estimate is reflected in the Resource Classification of deposit as per the JORC 2012 Code and is deemed appropriate by the CP.</li> <li>At this stage the bulk estimate is considered to be a global estimate.</li> <li>No production data exists for the project as no mining has taken place to date.</li> </ul>