

# Diamond Fields Resources Inc.

Labola Project 2021-10

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# **1** SUMMARY

This Technical Report describes the Labola Project, a gold exploration project located in the province of Comoé, in the country of Burkina Faso in West Africa.

The purposes of this NI43-101 Technical Report are to support the fundamental acquisition of Moydow Holdings Limited ("Moydow") by Diamond Fields Resources Inc., prepare a mineral resource estimate for the Labola project, provide an independent assessment of the historic and 2021 exploration work undertaken on the Labola property, document the exploration work undertaken and exploration data relating to the Labola property, provide assurance that activities were conducted with adherence to industry-standard exploration practices, and provide a recommended work program for the next phase of the Labola Project.

## 1.1 PROPERTY DESCRIPTION AND OWNERSHIP

The Labola Project is located in the Banfora greenstone belt within the Birimian Supergroup of West Africa. The project is situated in the southwest of Burkina Faso approximately 450 km west-southwest of the capital city, Ouagadougou and approximately 105 km north of the border with Côte d'Ivoire. The closest town is Banfora situated in Comoé Province approximately 30 km to the southwest of the project. Bobo-Dioulasso, the second largest city of Burkina Faso is located 85 km to the northwest of the project area.

The Labola Project comprises the principal permit, the Wuo Land Exploration Permit (Permis de Recherche), and two semimechanized exploitation permits (Permis d'Exploitation Semi-Mécanisée), Daramandougou 1 and Wuo Ne, which are located within the Wuo Land Exploration Permit area. The Wuo Land Exploration Permit is the main focus of this report.

Moydow acquired an option agreement over the Wuo Land Exploration Permit from AIM quoted Panthera Resources Plc in August 2020. A new option agreement over the Labola Project permits was entered in November 2020 under an agreement between Moydow Holdings Limited and the holders of the permits (the "Holders"), namely BOUDO Aristide Jean Clément and EXMA. The current Option Agreement was effective from June 2021 when Moydow Holdings Limited novated its rights and obligations under the November 2020 option agreement to its 100% subsidiary Moydow BF Limited. Moydow BF Limited has an option until 27 May 2024 to purchase 100% of the holders' interests in the Labola Project.

The Wuo Land Exploration Permit was originally granted on March 6, 2018 to BOUDO Aristide Jean Clément with the first renewal issued on 18 October 2021 for the second term of three years and valid until 4 March 2024. The Permis d'Exploitation Semi-Mécanisée were initially granted to EXMA, an "entreprise individuelle" of BOUDO Aristide Jean Clément, on 24 May 2011, renewed for a three-year term on 25 May 2016 with a further renewal issued on 27 February 2020. The Permis d'Exploitation Semi-Mécanisée are valid until 23 May 2022.

## 1.2 SUMMARY OF GEOLOGY AND MINERALISATION.

The West African Craton consists of the Archaean Kenema-Man domain (referred to as the Man Shield) in the west and the Palaeoproterozoic Birimian Baoule-Mossi domain in contact with and east of the Man Shield. The Paleoproterozoic Birimian terranes of West Africa include shear bounded, linear and arcuate volcano-sedimentary belts, younger sedimentary basins, and granitoid-dominated terranes.

The Birimian of West Africa constitutes the largest Paleoproterozoic gold-producing region for Orogenic style gold deposits within the world, and one of the world's leading gold provinces. It is reported to have an overall endowment of more than 460 million ounces including past production and 2017 Resource inventories (GoldFarb et al, 2017).

The Birimian of Burkina Faso consists of volcanic, volcano-sedimentary and sedimentary rocks located in linear and arcuate belts enveloped by granitoid bodies. These volcano-sedimentary terranes have been subject to strike-slip dominated deformation resulting in the formation of extensive N to NE trending structures.



The Southwest portion of Burkina Faso hosts three N to NNE trending greenstone belts (Boromo, Hounde, and Banfora) separated by voluminous granitoid domains. The Banfora belt consists of an eastern part of intercalated units of basalts, andesites, volcano-sediments and rhyolites, two to four kilometres thick, while the western part is composed exclusively of volcano-sediments and sedimentary units.

The Wuo Land permit area has limited outcrop and is characterised by low relief and a heavily lateritised terrane with surface gravels, saprolite and ferricrete plateau. The central portion of the permit has extensive artisanal mining activity covering an area up to one kilometre in width along a NNE trending zone with strike lengths of surface workings spanning over ten kilometres. Descriptions of the property geology are based on observations from historical exploration reports, the currently available diamond drill core, mapping of artisanal shafts and pits as well as reference to high resolution satellite imagery and airborne and ground geophysical data.

The principal Birimian lithologies within the permit area comprise greenschist facies, sericite-chlorite schists and subordinate greywacke which are both intercalated with graphitic shales which are often schistose, phyllite, siltstones, minor sandstone/quartzite and occasional gritstones and conglomerates. Oxidation including the laterite weathering process extends for about 50 m depth from surface. The metasediments were intruded by felsic intrusive rocks and several dolerite dykes and sills.

Three mineralised zones have been identified from historical and 2021 drilling programs and are referred to in this report as the West, Central and East zones. These are outlined by historical artisanal mining activity and from the various drilling campaigns.

Gold mineralisation at Labola is associated with quartz veining, silicification and disseminated sulphides (principally pyrite with accessory arsenopyrite, chalcopyrite and pyrrhotite). Relogging of previous diamond drill holes has indicated that higher grades are associated with zones of increased sulphide content, silica banding, silicification and quartz veining-veinlets principally parallel to foliation and located within areas of more intense shear deformation (brittle-ductile or ductile). The principal controlling factors for better gold mineralisation are the percentage of disseminated sulphides with or without strong silicification and quartz veining. In the East zone there is a foliation parallel, quartz vein which is associated with gold mineralisation. In the West and Central zones various stages of quartz veining and veinlets in sheeted or stockwork format are associated with strong deformation, sulphides and silicification.

## **1.3** SUMMARY OF EXPLORATION CONCEPT

This style of orogenic gold mineralisation is characterised by quartz-carbonate-sericite-sulphide alteration in structural settings and commonly associated with elevated arsenic grades and coarse gold. Whilst the use of arsenic as an indicator element in geochemistry is not always effective, the delineation of structural corridors using geophysics and mapping, and drilling across the mineralisation has been shown to be an effective way of exploration for this style of deposit, and for delineating the mineralisation.

#### 1.4 SUMMARY OF STATUS OF EXPLORATION, DEVELOPMENT AND OPERATIONS

Historical exploration on the tenements has mainly been by two companies: Taurus Gold Ltd and High River Gold Mines Ltd (High River Gold Mines Ltd, taken over by Nord Gold Plc).

High River Gold Mines Ltd explored the area between 2005 and 2013 under a 250 km<sup>2</sup> (reduced to 184 km<sup>2</sup>) Permis de Recherche (PDR - exploration permit equivalent). This work culminated in the drilling of 1,628 m RAB drilling in 48 drillholes, 34,280 m RC drilling in 317 drill holes and 4,640 m DD in 29 drill holes.

Taurus Gold Ltd explored three excised areas within the High River Gold Mines Ltd Permis de Recherche, the Daramandougou, Wuo Ne and Wuo Panga Permis d'Exploitation Semi-Mécanisée of 1.0 km<sup>2</sup> area each, between 2011 and 2012. The Taurus Gold Ltd exploration work principally focused on drill testing two areas of mineralisation in detail. They undertook 19,949 m of diamond drilling in 103 drill holes and 5,059 m of reverse circulation drilling in 44 drill holes. Structural studies were completed on the orientated core as well as detailed geological interpretation and wireframing. An internal resource estimate was prepared by the MSA group and a draft 43-101 technical report was completed, but this was never published.

Moydow has explored the area since August 2020 including acquisition and compilation of all previous data into a single database, interpretation of this data, target generation using the database and all of the acquired remote sensing



information, a small drilling program involving 23 twin holes and an additional six exploration and infill holes. The database of historical information has been audited, correctly coordinated and the twin drilling results demonstrate the validity of the previous data. The results of the Moydow drilling showed strong reproducability of the High River Gold Mines Ltd and Taurus Gold Ltd drill data in both terms of location of mineralisation and grade. Further, the brownfields exploration drilling showed good predictability of the location of mineralisation in extensional drilling to the mineral resource.

The High River Gold Mines Ltd, Taurus Gold Ltd and Moydow data was therefore taken as sufficiently accurate to be used in the estimation of mineral resources for Labola.

Aurum Consulting was involved with the planning and management of the 2021 drilling program which was supervised by Aurum Consulting and which is summarized in this Technical Report. This work recommended a pilot study involving a drilling program utilising LeachWELL bottle roll analysis as well as Fire Assay analysis of drill samples. The aim of the pilot study was twofold:

- 1. Provide validation of the historical High River Gold Mines Ltd and Taurus Gold Ltd drilling databases.
- 2. Assess the efficacy of the LeachWELL versus traditional Fire assay method in the context of a high coarse gold component to the Labola mineralisation.

The drilling program commenced on 22 May 2021 and concluded on 7 August 2021. An aggregate of 4,739 metres was drilled in 31 holes. 23 holes were twin holes, 2 were infill holes and 4 were step out exploration holes. Two were re-drilled. Each of the holes intersected zones of mineralisation which were either identified based on holes that the new hole twinned or were identified using fire assays for gold and assays showing elevated arsenic grades.

Results of the LeachWELL analyses show that fire assays in the range of 0.3 to 0.5 g/t Au increased on average by 23%, in the range of 0.5 to 1.0 g/t Au increased on average by 10%, and in the range of 1.0 to 2.0 g/t Au increased on average by 12%. Above 2 g/t Au, the average grade decreased. Whilst it was disappointing that the sample assays in the higher grades were lower, the average grade remained the same in the LeachWELL as for the fire assays of the same samples, and the variance was reduced in the LeachWELL from the fire assays.

Following completion of the drilling, Aurum Consulting was also contracted to undertake the estimation of the mineral resource that is documented in this report (Table 1.1).

The Labola area has a lateritic weathering profile, with weathering down to approximately 50 m underlain by an ill-defined, but thin transition zone overlaying the primary fresh rock. As such, one would expect high and generally uniform metallurgical recoveries from the oxide zone and lower and more variable recoveries from the underlying transition and primary material. Preliminary metallurgical results from a limited set of metallurgical samples, although well-supported by extensive LeachWELL data from drilling samples, suggest that gold is readily treatable by conventional cyanide leaching techniques after grinding to industry standard grind-sizes of approximately 80% passing 120 microns. Recoveries are suggested to be between 90% and 98% in the oxide zone and between 82% and 93% in the transition/sulphide zone.

In addition to the mineral resource, Moydow has compiled, integrated and assessed all of the available information and outlined future exploration targets based on each of the main data sets. Based on this, Moydow selected targets and ranked them based on their perceived prospectivity as summarised:

- Priority 1 Taurus Gold Ltd Resource Targets.
- Priority 2 High River Gold Mines Ltd Resource Targets.
- Priority 3 Mineralization Extensions.
- Priority 4 Untested Workings.
- Priority 5 Previous Drill Intercepts.
- Priority 6 Induced Polarization Targets.
- Priority 7 Mineralization Trends.
- Priority 8 Geochemical Targets.
- Priority 9 Electro-Magnetic targets.

The main targets are along the major interpreted central shear system but there is strong evidence that there are several sub-parallel structures that also host significant gold mineralisation as shown by artisanal workings. These targets can be considered as clearly defined with generally good to excellent potential. Many of the targets are resource expansion opportunities as they are obvious extensions to identified resources and include areas with only widely spaced historical drilling. Additional targets include untested zones with artisanal workings and new zones as defined by soil geochemistry



and/or Induced polarisation surveys. It is the authors opinion that Labola represents an advanced project with clearly defined drill targets that provide opportunities for exploration and resource expansion.

## 1.5 CONCLUSIONS AND RECOMMENDATIONS

It is the QP's opinion that the work completed by Taurus Gold Ltd and the 2021 work being completed by Moydow at the Labola Project is being completed to a good standard and in line with standard industry practices. However, the data provided for the High River Gold Mines Ltd drilling is incomplete. Moydow addressed this by twinning some 23 drillholes which showed excellent repeatability of the High River Gold Mines Ltd drill data in both terms of the location of the mineralisation and the grade of the mineralisation.

The QP concluded that the High River Gold Mines Ltd, Taurus Gold Ltd and Moydow data was sufficiently accurate to be used in the estimation of mineral resources for Labola.

Aurum Consulting, on behalf of Diamond Fields Resources Inc., has completed the estimation of a mineral resource as documented in this report (Table 1.1). Resource estimation was undertaken using ordinary kriging and standard estimation practices. Validation of the grade estimation showed good predictability of the model and generally good model validation. It is the QP's opinion that the Mineral Resource is robust and the confidence in the estimates is adequately reflected in the resource classification.

Table 1.1 Mineral Resource for the Labola Gold Project, 25 October 2021*	*
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Category	Mineralization (Mt)	Gold grade (g/t Au)	Contained gold (koz)
Indicated Resource	5.41	1.52	264
Inferred Resource^	6.93	1.67	371

1. \*\* Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues. The Mineral Resources in this note were reported using CIM (2014) Standards on Mineral Resources and Reserves, Definitions and Guidelines and adopted by CIM Council.

2. ^ The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define this Inferred Resource as an Indicated or Measured Mineral Resource. It is uncertain if further exploration will result in upgrading the Inferred Resource to an Indicated or Measured Mineral Resource American Resource category.

- 3. The Mineral Resource has been constrained by an open pit evaluation using a gold price of \$1900 per ounce, and then reported at a cut-off of 0.5 g/t Au.
- 4. Contained metal and tonnes figures in totals may differ due to rounding.

Moydow has estimated the amount of the resource that has been depleted by artisanal mining to be approximately 341,000 tonnes at 3 g/t Au. The quantity of mined material has been calculated from estimates of dump and leach pad volumes. The grade of the material mined has been estimated in the range of 1.5-3.0 g/t and is based on an evaluation of extensive rock chip, channel sampling of artisanal workings and selective sampling of adjacent dumps. The location of where the material has been mined from is not known with any degree of accuracy. As such, the artisanal mining has not been deducted from the Mineral Resource but noted here for reference.

Moydow has prepared a two-phase work program for the Labola project. In phase one, the primary objective is to drill test, at a reconnaissance level, a number of areas adjacent to current resource pit shells to look at immediate expansion opportunities.

The phase two program is designed to complete a full resource expansion program to find additional resources and achieve the requisite project size to develop a mining project. Supporting technical work will include variability metallurgical test work, geotechnical studies, base line environmental and social studies as well as supporting technical studies for the completion of a Preliminary Economic Assessment ("PEA").



Phase One Budget: US\$1.0 million. Reconnaissance drilling to test for immediate expansion opportunities adjacent to current pit shells to include:

- A planned program of 5 000 m of RC drilling. The primary objectives will be to expand the potentially economic, open pit, resource base through the drilling of extensions to known mineralisation adjacent to the pit shells as outlined in this study.
- Sampling will include fire assay and LeachWELL analysis.
- Updating of the geological wireframes and an assessment of extension opportunities.

Phase Two Budget: US\$10 million. Resource expansion and PEA to include:

- A planned drilling program which includes 50 000 m RC, 10 000 m DDH and 10 000 m RAB. The RC drilling program will focus on resource expansion opportunities and conversion of more resources to the Indicated category. The DDH program will focus on obtaining core for the variability metallurgical test work and geotechnical studies. The RAB drilling will be designed to test new, undrilled zones which can then be followed up with RC drilling.
- Metallurgical test work studies based on sample composites to review possible variability between the various mineralised areas (in both oxide and sulphide zones) culminating in a recommended process design. The studies will include CIL and gravity recoveries as well as a review of gold deportment.
- Initial capex and opex estimates for all relevant mine operations and infrastructure including tailings and plant.
- Social and environmental baseline studies within the Labola project area.
- Induced polarisation (IP) surveys will be conducted to expand the existing IP grid as high chargeability and high resistivity measurement have been very effective in defining mineralised zones. Mineralisation at Labola relates to disseminated sulphides and quartz veining plus silicification.
- Construction of a new exploration camp to accommodate an increased workforce in support of the accelerated exploration program.
- Undertake further geotechnical studies on each mineralised zone.
- Update of the resource estimate and Mineral Resource based on the new drilling results.
- Complete a PEA based on metallurgy, geotechnical studies, preliminary opex and capex estimates and pit optimisation work.



# 2 INTRODUCTION

Aurum Consulting ("Aurum") was retained by Diamond Fields Resources Inc. ("DFR") to prepare an independent Technical Report on the Labola Project located in Comoé Province, Burkina Faso.

On 25 August 2021, DFR announced it had entered a transaction which includes, inter alia, the acquisition of 80% of Moydow Holdings Limited ("Moydow"), upon closing of the transaction (the "Transaction"). Moydow, through its 100% subsidiary Moydow BF Limited ("MBF"), holds an exclusive Option Agreement, described in Section 4 of this report, granting MBF an option until 27 May 2024 to purchase 100% of the individual permit holders' interests in the Labola Project which comprises the Wuo Land Exploration Permit (Permis de Recherche) and two semi-mechanized exploitation permits (Permis d'Exploitation Semi-Mécanisée), namely Daramandougou 1 and Wuo Ne (the "PESMs").

DFR was incorporated under the Canada Business Corporations Act on 28 May 2000, and has continued as a company under the Business Corporations Act of British Columbia. The Company is listed on the TSX Venture Exchange, having the symbol DFR. DFR is a reporting issuer in British Columbia, Alberta, Saskatchewan and Ontario. DFR is a mine, exploration and development company holding an advanced high grade hard rock zircon exploration prospect in Madagascar and several offshore diamond mining licenses in Namibia.

Moydow is a privately owned, BVI registered, West African focused gold exploration business, which was formed in 2019 and subsequently in August 2020 acquired an option agreement over the Labola property from AIM quoted Panthera Resources Plc ("Panthera"). In November 2020 the August 2020 option agreement was varied and novated to MBF.

On closing of the Transaction Panthera would hold a 20% carried interest in Moydow and DFR would hold an 80% interest in Moydow to be maintained on the condition that DFR invests US\$18.0 m in the Labola Project by 30 September 2026. In addition, Panthera shall have the right to acquire an additional 10% holding in the Labola Project on the earlier of (i) 90 days following DFR completing an investment of US\$18 m in the Labola project; or (ii) 30 September 2026, by making a payment to DFR of up to US\$7.2 m, to be adjusted down based on DFR's actual investment in the Labola Project during the specified period. If DFR were to make no investments in the Labola Project during the specified period, subject to the exercise by Panthera of its buy back right, DFR's interest would decrease to no less than 60%.

The purposes of this NI43-101 Technical Report are to:

- Support the fundamental acquisition of Moydow by DFR, the issuer for the Transaction and the associated disclosure document required under the Transaction [as well as] and any other required regulatory filings;
- Prepare a mineral resource estimate for the Labola project;
- Provide an independent assessment of the historic and 2021 exploration work undertaken on the Labola property;
- Document the exploration work undertaken and exploration data relating to the Labola property; and
- Provide assurance that activities were conducted with adherence to industry-standard exploration practices.
- Provide a recommended work program for the next phase of the Labola Project.

This Technical Report is prepared by Aurum in accordance with the reporting requirements set forth in National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101), Companion Policy 43-101CP and Form 43-101F1.

The effective date of this Technical Report is 25 October 2021, and information in this Technical Report is current as of that date unless otherwise specified.

In September 2020 Moydow contracted Aurum and David Reading to review the Labola Project and consider various matters including a geology critique, mineral inventory, potential resources, QA\QC, exploration potential as well as paths the publication of a maiden resource estimate.

Aurum, David Reading and other consultants engaged by Moydow, including the Chief Operating Officer of Panthera, Antony Truelove, collated all of the acquired historic geological, geophysical and surface geochemical information from exploration activities as well as drilling undertaken at Labola by previous explorers including High River Gold Mines Limited ("HRG"), Taurus Gold Limited ("Taurus") and Panthera. This database was then used, in association with a topographic survey, to update and rework a basic geological interpretation that essentially outlined structural corridors. This re-interpretation led to the design of the confirmation and exploration drilling program in 2021. As principal of Aurum, Ivor Jones was involved with the planning and management of the 2021 drilling program which was supervised by Aurum and which is summarized in this Technical Report.

The Qualified Persons for preparation of the report are Mr Ivor Jones, Mr John Asafo-Akowuah and Mr Alan Riles (Table 2.1). Mr Asafo-Akowuah, on behalf of Aurum and under Aurum's direction, visited the project site in June during the Moydow drilling. Neither Mr Jones nor Mr Riles has made a current site visit because of the current security risk in Burkina Faso.



The responsibilities of each author, and dates of the site visit are provided in Table 2.1.

Table 2.1 Responsibilities of each co-author

Author	Site Visit	Responsible for section/s
Ivor W.O. Jones	Not visited	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.1, 12.2,
		12.4, 14, 23, 24, 25, 26 and parts of 27
John Asafo-Akowuah	8-13 June, 2021	12.3
Alan Riles	Not visited	13 and parts of 27

Unless otherwise stated, all currencies are expressed in [US dollars (\$)].



## **3** RELIANCE ON OTHER EXPERTS

The information, conclusions, opinions, and estimates contained herein are based on:

- Information and technical data provided by DFR, Moydow and Panthera and made available to Aurum at the time of preparation of this report;
- Observations made by Qualified Persons on site, and who are signing off on this report;
- Review and assessment of previous investigations.
- Assumptions, conditions, and qualifications as set forth in the report;
- Review and assessment of data, reports, and conclusions from other consulting organizations and previous property owners;
- The authors have made every possible effort to validate the data provided.

Aurum has not performed an independent verification of the land title and tenure information as summarized in section 4 of this report.

Aurum did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between third parties, but has relied on an independent legal opinion of mineral title undertaken by Maître Bobson COULIBALY of société d'avocats SCP YANOGO BOBSON, Ouagadougou, Burkina Faso for DFR dated 04 November 2021.

This report also includes details on the permitting requirements under Burkina Faso Mining Law and Regulations regarding the Wuo Land Exploration Permit extracted from a report completed in June 2020 by MH Intelligence (UK) LTD T/A "MineHutte", 2020). MineHutte is an independent research organisation focused on regulatory risk advice, ratings and analysis for the global mining industry, but does not offer a legal opinion.

Aurum has relied on DFR for guidance on permitting, applicable taxes, royalties, and other government levies or interests, applicable to the Labola Project. Aurum understands that the Burkina Faso fiscal regime is well understood by DFR and its legal and fiscal advisors in Burkina Faso and externally.

Aurum has reviewed documents provided by DFR and has accepted as accurate and correct the information contained in them.

In preparing this Technical Report, the authors have assumed that all of the information and technical documents reviewed and listed in the References Section are accurate and complete in all material aspects. While Aurum has carefully reviewed all of this information, Aurum has not completed any extensive independent investigation to verify their accuracy and completeness.

DFR has warranted that a full disclosure of all material information in its possession or control has been made to the authors.

DFR has reviewed draft copies of this report for factual errors. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this report.



# 4 **PROPERTY DESCRIPTION AND LOCATION**

## 4.1 LABOLA PROJECT PERMITS - LOCATION

The Labola Project is located in the Banfora greenstone belt within the Birimian Supergroup of West Africa. The project is situated in the southwest of Burkina Faso approximately 450km west-southwest of the capital city, Ouagadougou and approximately 105 km north of the border with Côte d'Ivoire. The closest town is Banfora situated in Comoé Province approximately 30 km to the southwest of the project. Bobo-Dioulasso, the second largest city of Burkina Faso located 85 km to the NW of the project area (see Figure 4.1).

The Labola Project comprises the principal permit, the Wuo Land Exploration Permit, and two semi-mechanized mining permits, Daramandougou 1 and Wuo Ne, which are located within the Wuo Land Exploration Permit area (see Figure 4.3). The Wuo Land Exploration Permit is the main focus of this report.

Mining operations in the vicinity of the Labola Project include the Wahgnion gold mine and Houndé mine, both owned and operated by Endeavour Mining Plc. The Wahgnion mine lies on a smaller Birimian greenstone belt, referred to as the Loumana-Senoufo belt (see section 7.1) extending into Côte d'Ivoire, approximately 100 km to the south-west of the Labola Project. The Houndé mine lies 130 km to the north-east of the Labola Project (Figure 4.2).



#### Figure 4.1 Labola Project Location

(Source: Map Provided by Moydow, 2021 )







(Source:Map Provided by Moydow, 2021)

The geographic bounding coordinates for the Wuo Land Exploration Permit and PESMs areas are shown in Table 4.1. The average elevation of the Wuo Land Exploration Permit is 312 m above mean sea level.

Table 4 1	Permits'	Bounding	Coordinates
1 able 4.1.	Permits	Dounding	Coordinates

Permit	Area	Bounding Coordinates
WUO LAND	61.6 km²	Min Longitude 4d 38 m W; Max Longitude 4d 33 m W
		Min Latitude 10d 41 m N; Max Latitude 10d 48 m N
Daramandougou I	1 km²	Min Longitude 4d 37 m W; Max Longitude 4d 34 m W
		Min Latitude 10d 45 m N; Max Latitude 10d 47 m N
WUO NE	1 km²	Min Longitude 4d 36 m W; Max Longitude 4d 35 m W
		Min Latitude 10d 44 m N; Max Latitude 10d 46 m N





#### Figure 4.3 Labola Project Location - Wuo Land Exploration Permit and the PESMs

(Source: Map Provided by Moydow, 2021)



## 4.2 ISSUER'S INTEREST

## 4.2.1 Permits' Tenure and Option Agreement

Moydow's interest in the Labola Project is held through its 100% subsidiary Moydow BF Limited ("MBF"), by way of an exclusive Option Agreement, described in this section of this report, with the owners of the permits which grants MBF an option until 27 May 2024 to purchase 100% of the holders' interests in the Labola Project (the "Option Agreement").

Moydow acquired an option agreement over the Labola property from AIM quoted Panthera Resources Plc ("Panthera") in August 2020. In November 2020, the August 2020 option agreement was varied and novated to MBF. The current Option Agreement was entered into in November 2020 between the individual permit holders, namely BOUDO Aristide Jean Clément and EXMA (the "Holders") and MBF. The Option Agreement sets out the terms under which the Wuo Land Exploration Permit and PESMs can be acquired and transferred to a locally established Moydow group company (the "Option Agreement"). The key terms of the Option Agreement are set out under the paragraph "Option Agreement" below.

The Wuo Land Exploration Permit was originally granted on 6 March 2018 to BOUDO Aristide Jean Clément with the first renewal issued on 18 October 2021 for the second validity term of three years until 5 March 2024. The PESMs were initially granted to EXMA, an "entreprise individuelle" of BOUDO Aristide Jean Clément, on 24 May 2011, renewed for a three-year term on 25 March 2016 and a further renewal was issued on 27 February 2020. The PESMs are valid as of the date hereof until 23 May 2022. The permits' tenure is summarized in Table 4.2.

Tenement Name	Permit Holder Name	Type / Area	Permit Expiry Date	Permit Status	Renewal/Duration	Land Registry Number
WUO LAND	Aristide Jean Clément BOUDO	Permis de recherche 61.6 km <sup>2</sup>	5 March 2024	Granted	Two renewals – each of an additional three (3) year term. Maximum Duration expiry: 5 March 2027	2021- 291/MEMC/S G/DGCM
Daramando ugou I	EXMA	Permis d'exploitation semi- mécanisée 1.0 km <sup>2</sup>	23 May 2022	Granted	Renewable for 3 year term	2020- 035/MMC/S G/DGCM
WUO NE	EXMA	Permis d'exploitation semi- mécanisée 1.0 km <sup>2</sup>	23 May 2022	Granted	Renewable for 3 year term	2020- 034/MMC/S G/DGCM

Table 4.2: Permits' Tenure Summary

#### 4.2.2 Option Agreement

The Wuo Land Exploration Permit and PESMs are the subject of the Option Agreement entered into by MBF and the Holders, effective from June 2021.

Under the Option Agreement:

- The Wuo Land Exploration Permit and PESMs can be acquired through the exercise of the option to acquire the Wuo Land Exploration Permit and PESMs with a concurrent one-off payment of US\$1.0 m to the Holders;
- Moydow can maintain its right to exercise its option at any time until 27 May 2024 through the payment of annual fees of US\$50,000 payable on 27 May 2022 and 27 May 2023;
- An additional payment of US\$1.0 m will be paid to the Holders upon the successful definition and reporting of a resource of at least 1,000,000 ounces of gold (under JORC guidelines), whether or not the option has been exercised;
- Where Moydow has exercised its option:
  - the annual payments would cease immediately; and



- Labola Gold Project 2021-10
- the Holders will retain a 1% net smelter return royalty ("NSR") on all gold produced up to a total aggregate payment of US\$2.0 m;
- MBF is responsible for all government fees and minimum exploration expenditure under the Mining Regulations to maintain the property in good standing.

In addition to the Option Agreement, MBF and the Holders have entered into an Escrow Agreement which further governs the process of transfer of the Wuo Land Exploration Permit and PESMs to MBF.

#### 4.2.3 Mining Regulations & Permit Information

The principal mining legislation in Burkina Faso is the Mining Code 2015 (Loi No. 036-2015/AN du 29 Octobre 2015 portant Code minier au Burkina Faso) (the "MC"); its implementing decree on the management of authorisations and titles (Decree No. 2017-0036); and other relevant legislation and general provisions of the MC include Decree No. 2017-0023 on mining tax and royalties, Decree No. 2017-0035 on the model mining convention, and various associated legal orders (altogether the "Mining Regulations").

Burkina Faso is a member of both the West African Economic and Monetary Union (UEMOA) and the Organisation for the Harmonisation of Business Law in Africa (OHADA). Various laws and regulations of these two organisations operate in Burkina Faso including the UEMOA Mining Code 2003 and OHADA's Uniform Act relating to Commercial Companies and Economic Interest Groups.

Exploration Permits (Permis de Recherche) in Burkina Faso are granted under decree by the Minister of Mines to natural or legal persons following the submission of an application which meets the requirements of the regulations (Art. 31, MC). Permits are issued on a first come / first served basis, though the granting of rights via competitive tender is permitted on an exceptional basis (Art. 1, Decree No. 2017-0036).

#### 4.2.4 Wuo Land Exploration Permit Conditions - General

Under the terms of the MC, an Exploration Permit grants the holder the exclusive right to conduct exploration for the mineral substances identified in the permit within the limits of its boundaries (both on and under the surface area) and to dispose of extracted mineral substances in accordance with the law (Art. 32, MC; see also Art. 38, MC). The Permit holder has the right to use the products and assays from exploration as long as such use is declared to the Ministry of Mines and exploitation activities are not undertaken. Exploration Permits are granted for a maximum surface area of 250 km<sup>2</sup> (Art. 35, MC; see also Art. 27, Decree No. 2017-0036).

Holders of Exploration Permits are required to:

- Respect the regulations relating to the protection of the environment, architectural and cultural sites; and
- Inform all local authorities of its arrival and departure in the permit area, as well as the nature of the works to be carried out (Art. 31, MC).

Key legal framework conditions and obligations relevant to the Wuo Land Exploration Permit are as per Table 4.3.

#### 4.2.5 Wuo Land Exploration Permit Renewal

The Wuo Land Exploration Permit was granted for an initial period of three years with the first renewal issued on 18 October 2021 for the second three year term expiring on 4 March 2024. The Exploration Permit can subsequently be renewed for a final three year term provided the Permit Holder has complied with the terms and conditions of the Exploration Permit and the general provisions of the Mining Regulations.



Table 4.3: Ex	ploration Permit Conditions - General
Conditions	Explanatory Notes
Work Program	A program of work for exploration must be submitted to the Mining Authority at the start of each year.
Work Requirements	Exploration Permit holders are required to commence work within six (6) months from the date of issue of the Permit and must pursue works with diligence.
Reporting	An annual report on exploration activities and results must be submitted in digital and hard copy.
Requirements	· · · · · · · · · · · · · · · · · · ·
Expenditure	Minimum expenditure requirements apply to Exploration Permits. To maintain the Exploration Permit, the
Conditions	minimum work expenditure requirements must be met, and the work program complied with
Surface Fees	Exploration Permit holders are required to pay annual surface fees based on the area and period for which the
	Permit has been held.
Domicile / Agent	An Exploration Permit holder which is not a citizen of Burkina Faso or a company incorporated in Burkina Faso
Requirements	must have election of domicile and notify the Mining Authority of the identity and qualifications of its Burkina Faso representative.
Customs and Tax Terms	Certain tax and customs breaks / exemptions apply during the exploration phase. The general provisions of Law N° 6-65/AN DU 26/05/1965, as amended (the "Tax Code"), apply to holders of mineral title, however the MC provides Certain tax and customs breaks / exemptions apply during the exploration phase
Transactions	Transactions relating to the Exploration Permits are permitted. All documents must be submitted to the Minister of Mines and the Tax Administration must be notified where a capital gain occurs as a result of any transaction.
Additional	The Permit holder must also provide: all mining information obtained under the Permit; a summary report of all
Information	work carried out at the end of each permit term; and all geological and minerals samples requested by the
	Administration of Mines.
Prohibitions and	Development / Exploitation activities are prohibited. Failure to comply with the Mining Regulations can result in
Sanctions	sanctions as provided for under the law and regulations, including the withdrawal of the Permit.
Renewal/Duration	The Exploration Permit is issued for an initial period of 3 years and is renewable by right for two subsequent 3-
	year periods provided the holder has complied with the terms and conditions of the Permit and the general
	provisions of the Mining Regulations. Litle remains valid during the renewal process. Renewal is deemed
Turnefer	accepted if after 90 days from the date of the renewal application the ministry has not notified the holder.
Postrictions	request approval by the Minister of Mines (Art. 106, MC) see also Art. 52, Desree No. 2017, 0026), including:
Restrictions	Works have been executed in accordance with the work program:
	The minimum expenditure requirements have been met:
	- Surface fees have been naid (Art 53 Decree No. 2017-0036); and
	- The transferee commits to meeting the same obligations as the transferor.
Transfer Costs and	The transfer of the Exploration Permit requires the payment of a fixed fee, as well as the payment of capital gains
Fees	tax on the transfer. Upon transfer, a new holder would be jointly liable for the payment of capital gains tax and
	a failure to make such payment may result in the revocation of title.
Exploitation Permit	An Exploration Permit confers on the holder the exclusive right to request an Exploitation Permit where a
Rights	discovery of one or more minerals reserves is made within the permit area, providing the obligations of the MC
	have been fulfilled (Art. 32, MC). Note that this right extends only to the request for an Exploitation Permit and
	does not guarantee the issuance of the Permit to the holder of exploration rights.
Land Access Rights	Pursuant to article 122 of the Mining Code, "The occupation of the land required for exploration activity,
	research or exploitation of minerals and related industries, inside as well as outside of the perimeter of the
	mining title or authorization and passing (access) on the land for the same purpose, is done in accordance with
	the provisions in force in the matter".
	In addition, under provisions of article 123 of the Mining Code, "the occupation of the land qualifies the
	landowner or occupier in any capacity whatsoever for a just and prior compensation whose terms and conditions
	are determined by regulation".
	Land access should be done in compliance with environmental preservation standards. It does not give right to
	compensation in no damage results therefrom (article 125 of the Minning Code).

#### 4.2.6 Exploration Permit Conditions - Fiscal

The next renewal fee applicable on second renewal of the Wuo Land Exploration Permit would be \$5,000,000 CFA Francs (approx. US\$9,000), Under the current first renewal term, the surface tax is 20,000 CFA Francs (US\$36) per km<sup>2</sup> per year.

The fee on transfer of the Wuo Land Exploration Permit, should MBF exercise the option under the Option Agreement, would be 10,000,000 CFA Francs (approx. US\$18,000).

A holder of an Exploration Permit may, at the end of the initial 3 by 3-year terms, apply for an exceptional extension for the Exploration Permit. The Minister of Mines has ultimate discretion in the assessment and granting of such an extension, but



the applications are typically assessed on the basis of compliance by the applicant with the mining regulations and progress of the exploration work done on the exploration permit. An exceptional extension is typically granted for a single 3-year term.

The fees and taxes apply to Exploration Permits are listed in Table 4.4.

#### Table 4.4: Exploration Permit Conditions - Fiscal

Category	Amount (CFA Francs/US\$ figures are approximate)			
Expenditure Requirements	270,000 CFA per km <sup>2</sup> per year			
Surface Tax	Year 1 – 3 10,000 CFA (US\$18) per km <sup>2</sup> per year			
	Year 4 - 6	20,000 CFA (US\$36) per km <sup>2</sup> per year		
	Year 7 - 9	30,000 CFA (US\$54) per km² per year		
	Exceptional Renewal	100,000 CFA (US\$180) per km <sup>2</sup> per year		
Permit Fees	Initial Grant	2,000,000 CFA (US\$3,600)		
	First Renewal	3,000,000 CFA (US\$5,400)		
	Second Renewal	5,000,000 CFA (US\$9,000)		
	Exceptional Renewal	50,000,000 CFA (US\$90,000)		

#### 4.2.7 PESMs Summary

The Daramandougou I PESM and the Wuo Ne PESM, each of 1.0 km<sup>2</sup> area were both initially granted on 24 May 2011, renewed for a three year term on 25 May 2016, and a further renewal was issued on 27 February 2020. The PESMs are valid until 23 May 2022.

Under the Option Agreement, the Holders shall not acquire or renew any artisanal or semi-mechanized mineral right, including any autorisation d'exploitation artisanale traditionnelle or permis d'exploitation semi-mécanisée, within the Wuo Land Exploration Permit area without the written consent of the MBF.

[The renewal or relinquishment of the PESMs has no bearing on the Company's ability to complete its work program in respect of the Wuo Land Exploration Permit.]

A summary of relevant permit conditions is provided in Table 4.5.

#### Table 4.5 PESM Conditions

Conditions	Explanatory Notes
Reporting Requirements	Quarterly and annual activities reports must be submitted in digital and hard copy.
Surface Fees	PESM holders are required to pay annual surface fees.
Domicile / Agent	PESM holders who are not a citizen of Burkina Faso or a company incorporated in Burkina Faso
Requirements	must have election of domicile and notify the Mining Authority of the identity and qualifications
	of its Burkina Faso representative.
Royalties	The government of Burkina Faso assesses a gross revenue royalty on gold projects, with the
	royalty rate varying according to the world gold price.
Transactions/	Transactions relating to the PESMs are permitted. Transfer of the PESMs is as of right providing
Transfers	the conditions of the Mining Regulations have been met, including payment of surface fees, and
	subject to transfer request approval by the Minister of Mines (Art. 106, MC). The Tax
	Administration must be notified where a capital gain occurs as a result of any transaction. Upon
	transfer, a new holder would be jointly liable for the payment of capital gains tax and a failure
	to make such payment may result in the revocation of title.
	The fee on any transfer of the each PESM, for example on exercise of the option under the
	Option Agreement, would be 6,000,000 CFA Francs (approx. US\$10,800).
Grant/Renewal/Duration	PESMs are granted by the Minister of Mines for a five-year initial period, based on a satisfactory
	operating plan and Environmental and Social Assessment. Operations are expected to
	commence within six months of the grant date save by exception allowing for a limited delay.
	The holder of a PESM is required to contribute to a preservation and rehabilitation fund with
	such contributions based on the expected production from operations.
	Holders are required to mine mineral substance within the perimeter rationally, observing
	public nealth, work safety, environmental, and product marketing standards. Permit holders are
	farmers.
	Renewal of the PESMs is by right for 3-year periods provided the holder has complied with the
	terms and conditions of the permit, including conformity with the operating plan, and the
	general provisions of the Mining Regulations. Title remains valid during the renewal process.



Renewal is deemed accepted if after 90 days from the date of the renewal application the ministry has not notified the holder.

A renewal fee of 5,000,000 CFA Francs (approx. US\$9,000) applies to each PESM. The surface tax for each PESM is 1,000,000 CFA Francs (approx. US\$1,800) per km<sup>2</sup> per year in the first year of the 3-year period rising to 2,000,000 CFA Francs (approx. US\$3,600) per km<sup>2</sup> per year in the second and third years.

## 4.3 RIGHTS, PAYMENTS, AGREEMENTS, ENCUMBRANCES

#### 4.3.1 Nord Gold Plc Royalty

As consideration for the purchase by Moydow of exploration data, Moydow has granted to Nord Gold Plc ("Nordgold") a 0.5% NSR up to a total aggregate payment of US\$3.0 m. The exploration data comprises previous drilling, geological, geochemical and geophysical data collected by High River Gold Mines Limited ("HRG"), taken over by Nordgold, on its larger "Labola" property.

#### 4.3.2 Other Agreements/Encumbrances

To the extent known, and other than disclosed in this report, the Wuo Land Exploration Permit and the PESMs are not subject any other royalties, back-in rights, payments, or other agreements and encumbrances.

#### 4.4 ENVIRONMENTAL LIABILITIES

To the extent known, the Labola Project is not subject to any current environmental liabilities.

An environmental management plan is a pre-condition to any future application for an Exploitation Permit.

## 4.5 PERMITS

The Wuo Land Exploration Permit is the key permit required to conduct the proposed work program. Certain other routine work permits need be obtained as and when required, for example for airborne surveys.

## 4.6 OTHER SIGNIFICANT FACTORS

To the extent known, and other than disclosed herein, the Labola Project is not affected by any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Labola project.

#### 4.6.1 Artisanal Mining

The Labola Property is associated with extensive artisanal gold mining activity over a distance of 10 km along strike. Artisanal operations are focused on individual quartz veins within the sheeted to stockwork system.

The artisanal mining is generally shallow at between 5 m and 20 m depth but vertical shafts occasionally reach from 50 m to 110 m in specific areas with some horizontal galleries and cross drives. Operations include well organised semimechanized mining, including water pumping machinery, notably to the north of Daramandougou.

The Company has commenced a liaison program with the local community which will continue during the wet season with plans to engage a Community and Social Relations consultant.

The current planned program includes initial preparation of a community and social requirement plan including liaison with provincial and local authorities, religious leaders and community representatives to consider inter alia:

• Establishing community consultation committees;



- Compensation and resettlement;
- Land access; and
- Effects of operations on community e.g. crops, farmland, dust.

An evaluation of the production from artisanal mining is reported in Section 6.4.

#### Figure 4.4: Artisanal Workings at Daramandougou



(Source:Provided by Moydow, 2021)



# 5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

## 5.1 ACCESS AND INFRASTRUCTURE

The Labola Project is accessible from Ouagadougou by a well-maintained National Highway (N1) to Banfora. At the crossroads of Beregadougou, just about 15 km before reaching the town of Banfora, a 15 km all-weather gravel road on the left allow to access to the southern part of the property.

Banfora can be accessed by a one-hour charter flight from the capital, landing on an airstrip located 5 km from Banfora.

The paved road and the railway line from Abidjan in Ivory Coast to Ouagadougou connect Banfora and Bobo-Dioulasso to the two major commercial cities. The 1,000 mm gauge railway line runs for 517 km from Abidjan to Ouagadougou and extends a further 105 km from Ouagadougou to Kaya. The Abidjan – Ouagadougou railway line caters for both cargo and passengers. A project to construct a railway line of approximately 1,102 Km from Ouagadougou to the port of Tema in Ghana is currently well advanced and construction work is expected to start in the first quarter of 2022.

Banfora town has six commercial banks, six fuel stations, five pharmacies, a provincial hospital, internet services, hotels, telephone services and electricity. The Banfora airstrip is 1,200 m long and is paved with gravel.

The town of Bobo-Dioulasso has additional services including an international airport.

#### 5.1.1 Local Resources

The electrical power generation and supply of Burkina Faso is managed and owned by Société Nationale d'électricité du Burkina Faso (SONABEL). SONABEL has several thermal power facilities in the capital Ouagadougou and in other urban areas which generate approximately 70% of Burkina Faso's capacity of 78 MW. The remaining 30% is produced from hydropower and by industrial groups which generate their own thermal power.

Growing demands for power have prompted Burkina Faso to import electricity from neighbouring Ivory Coast. A 250 kVA transmission network connects the city of Ferkessedougou in northern Ivory Coast with Bobo-Dioulasso and Ouagadougou. This transmission power-line passes through Banfora. From a sub-station in Bobo- Dioulasso, electricity is wired back to Banfora through a 33 kVA distribution power-line.

From 2011 Burkina Faso started to benefit from a new and improved energy infrastructure which is expected to dramatically improve the lives of all its citizens. Burkina Faso recently received a US\$38 million loan from the African Development Bank (AfDB) to improve access to electricity for nearly 800 000 people. With the help of the AfDB and a cooperative agreement known as the West African Power Pool, the country's electrical grid was connected to the grids of neighbouring countries Ghana and Ivory Coast.

The Electricity Infrastructure Strengthening and Rural Electrification Project is funded by the AfDB loan and comes at a critical time for Burkina Faso's growing population. The AfDB estimated that electricity demand in the country is growing at an annual rate of 10%.

The Office National De L'eau et de L'assainissement (ONEA) is mandated to supply drinking water to the town of Banfora. The water is pumped from the Moussodougou dam which is situated 15 km northwest of Banfora. The Moussodougou, Lobi and Toussiana dams meet the irrigation water demands at the SN SOSUCO sugar plantation. These sources of water and the water pipelines are managed by SN SOSUCO which must legally maintain a stipulated optimum flow rate of 150 l/s, mainly to preserve water supply to the Banfora Cascade waterfalls (a tourist attraction) which are further down-stream.

Banfora has an estimated population of about 117 200 people (2019 counting) who rely mainly on subsistence farming as the formal sector is not well developed. SN SOSUCO employs about 3 000 workers including 800 permanent staff, 1 800 day workers and 400 seasonal contract workers.

Institutions of higher education in Burkina Faso include the University Joseph KI-ZERBO (Ex University of Ouagadougou), the University Thomas Sankara (Ouagadougou), the University Norbert Zongo (Ex University of Koudougou), the University Nazi Boni (Ex polytechnical University of Bobo Dioulasso), the University of Dedougou, the University of Ouahigouya and several Polytechnical University Centers including the one of Banfora.

Several students graduate each year from the local universities in disciplines including arts and humanities, business and social sciences, medicine and health, engineering, science and technology.



#### 5.1.2 The sufficiency of surface rights, infrastructure and personnel for future needs

There appear to be no issues with the sufficiency of surface rights for mining operations. This includes ample locations for potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites.

Burkina Faso's infrastructure has not been evaluated for the availability and sources of power and water for any potential mining operations. Mining is, however, a developing industry in Burkina Faso, and these are resources the company will need to evaluate further if the company develops a mining operation. Mining personnel, on the other hand, are highly mobile, and because of the established mines in Burkina Faso and the access to trained personnel in nearby countries including Ghana and Mali, the access to these personnel is not considered to be a major risk to the project.

## 5.2 TOPOGRAPHY, ELEVATION AND VEGETATION

The entire Banfora region is well known for its sandstone plateaus bordered by a southward-facing escarpment with a drop of about 150 m. The region to the southeast of the escarpment, including the vicinity of the Labola Project, is generally flat and incised by several seasonal streams and a few perennial rivers which flow due south and merge into the Comoé River (Figure 5.1).

The vegetation within the Banfora-Labola area is predominantly savannah woodland, sparsely distributed thorny shrubs, baobab and coconut trees (Figure 5.1). Agriculture is generally limited to subsistence farming of cotton, beans, rice, yam and cassava.

#### Figure 5.1 Photos of typical terrane in Wuo Ne prospect area.



(Source: Photos Provided by Moydow, 2021)

## 5.3 CLIMATE AND LENGTH OF OPERATING SEASON

The climate of Burkina Faso is semi-arid and characterised by a dry season lasting between five and nine months and a three to seven month rainy season, both of which are very distinct.

The climate around Banfora is tropical with maximum temperature of 37°C to 41°C and minimum temperature between 17°C and 26°C. The winter (dry) season is from November to March and is followed by a dry hot period during which the harmattan, blowing off the Sahara Desert, is prevalent. Occasional light rain is recorded between April and May during the dry hot period. The peak rainy season is between June and October and is associated with annual rainfall of 1 000 mm to 1 200 mm.

Figure 5.2 Average temperature Banfora, Burkina Faso.





(Source: Weather Atlas: https://www.weather-atlas.com)





(Source: Weather Atlas: https://www.weather-atlas.com)

Exploration activities are best completed in the dryer months, but with proper planning and development of all weather roads, exploration can continue year round.



# 6 HISTORY

### 6.1 PRIOR OWNERSHIP AND WORK COMPLETED PRE-2005

Exploration for diamonds in the region was commissioned in 1960 by the then Voltaic Bureau of Geology and Mines (BUVOGMI). From 1965 to 1967 the United Nations Development Program (UNDP) carried out initial diamond exploration in the Comoé basin situated close to Banfora. The first geochemical survey was conducted in the Banfora region during the mid-1990s.

Towards the end of 2002 sporadic artisanal gold mining activities were observed in the northern parts of the Banfora region. In June 2003 artisanal mining activities intensified in Daramandougou, Wuo Ne and Wuo Panga. Mr. Aristide Boudo acquired artisanal permits for the three areas during the same year.

In 2004 under the project PRECAGEME, work to quantify the economic potential of the gold mineralisation in the Daramandougou tenements was initiated with a view to justify the installation of a GEOMAN milling plant. The assessment of the economic potential of the three tenements by Mr. Aristide Boudo involved collection of rock chip samples from the mineralised quartz-veins and the adjacent host rocks. A total of 114 samples each averaging two kilograms in weight were collected and analysed for gold. The analytical results reported maximum gold concentrations of 26.4 g/t and 19.1 g/t in the quartz- veins and the adjacent host rocks, respectively. These grades were not produced by an accredited laboratory and are not representative of the entire deposit. However, they did contribute at the time to the decision to undertake further work.

## 6.2 POST-2005 WORK

High River Gold Mines Limited was granted an exploration permit (250 km<sup>2</sup>) over the Labola area in 2004 and commenced exploration programs from 2005 up until when the permit expired in 2013 following all renewal periods (Table 6.1).

Exploration work was also undertaken on the semimechanized artisanal permits of Daramadougou, Wuo Ne and Wuo Panga covering three,1 km<sup>2</sup> areas and locating within the larger Labola permit area. Work in these smaller areas was undertaken through JV and option agreements with Exma SARL (Exma), a company incorporated in Burkina Faso in November 2007 and owned by Mr. Aristide Boudo. Central African Mining and Exploration Company (CAMEC) undertook work in 2007-2008 and Taurus Gold Limited ("Taurus") from 2011 to 2012.

A total of 65,556 m involving 541 holes have been drilled on the 2021 permit area since 2006 by HRG and Taurus as outlined in Figure 6.1.

#### 6.2.1 High River Gold Mines Limited (HRG) exploration work, 2005-2013

HRG undertook extensive exploration programs over an eight-year period within their Labola permit of 250 km<sup>2</sup> (later reduced to 184 km<sup>2</sup>). The following key programs are summarized:

- Geological and artisanal mapping at various scales accompanied by rock chip and grab sampling, trenching, and pitting
- Soil sampling programs at regional (400 m x 400 m) and detailed scales (100 m x 100 m)
- Airborne magnetic, radiometric and electromagnetic geophysical surveys
- Ground geophysics for magnetics and Induced polarisation
- Lidar survey for a detailed Digital Elevation Model (DEM)
- 40.5 km of exploration drilling which includes 34,250 m (317 holes) of Reverse Circulation ("RC"), 4,640 m (29 holes) of Diamond Drilling ("DD") and 1,628 m (48 holes) Rotary Air Blast ("RAB"). Drilling was principally focused on the 11 km strike length along the West, Central and East gold zones as outlined by historical artisanal gold activity.



#### Figure 6.1: Previous drilling on the Labola Project.



(Source: Moydow, 2021)



Table 6.1 Summar	y of Historica	<b>Exploration</b>	carried out	on the	Labola	Permit Area
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Year	Company	Licence Area	Survey	Number	Comments
2004	HRG	Labola 250 km <sup>2</sup>	Licence Granted		Licence acquired: Arrêté no 2004-00/117/MCE/SG/DGMGC
2005	HRG	Labola 250 km <sup>2</sup>	Lithogeochemistr Y	625 samples	Au analysis for all, ICP for 298 rocks
2005	HRG	Labola 250 km <sup>2</sup>	IP Gradient Array	11 km	Test Survey
2005	HRG	Labola 250 km <sup>2</sup>	Ground magnetics	11 km	Test survey
2005	HRG	Labola 250 km <sup>2</sup>	RAB drilling	1628 m/48 holes	One profile, 8181 samples
2005	HRG	Labola 250 km <sup>2</sup>	RC Drilling	1604 m/18 holes	
2005	HRG	Labola 250 km <sup>2</sup>	Geology mapping	45 km <sup>2</sup>	1:10k for 30 km <sup>2</sup> ; 1:2k for 15 km <sup>2</sup> covering Orpaillage trend
2006	HRG	Labola 250 Km <sup>2</sup>	Regional airborne Geophysics	250 km²	Purchase and interpretation of BF Government airborne data (Fugro)
2006	HRG	Labola 250 Km <sup>2</sup>	Line cutting	189 km	Base line and cross lines for IP survey
2007	HRG	Labola 250 km <sup>2</sup>	IP Gradient Array	233 km	Extensive IP survey covering 11km gold trend
2007	HRG	Labola 250 Km <sup>2</sup>	Soil Geochemistry	2176 samples	100 m x 100 m grid
2007	HRG	Labola 250 km <sup>2</sup>	Lithogeochemistr y	21 samples	Au only
2007	HRG	Labola 250 km <sup>2</sup>	Geology Mapping	3 km <sup>2</sup>	Extensions N and S, 1:10k
2007	HRG	Labola 250 km <sup>2</sup>	Licence Renewal		Licence Renewed: Arrêté no 2007-07-170/MCE/SG/ DGMGC) of 29 Oct 2007
2007- 2008	CAMEC	Artisanal Licences held by Mr A Boudo	Geology Mapping	5 km²	Mapping Artisanal shafts and taking grab samples (15 - laboratory not specified)
2007- 2008	CAMEC	Artisanal Licences held by Mr A Boudo	IP Dipole-Dipole	12.4 km	Survey focused on Daramandougou 1 and Wuo Ne artisanal areas
2008	HRG		Channel sampling	84 samples	Sampled 63 Orpaillage shafts
2008	HRG		Diamond Drilling	3618 m/24 holes	DDH holes located below previous best RC intercepts
2010	HRG		RC Drilling	2590 m/23 holes	
2010	HRG		ASTER photosat data	250 km <sup>2</sup>	Images for vegetation, lithology, alteration ratio of Silica, FeO, FeOH, Kaoline-alunite and Sericite.
2010	HRG	Labola 184 km <sup>2</sup>	Second Renewal		Second Renewal: Arrêté no 2010-10-131/MCE/SG/ DGMGC) of 23 Aug 2010
2011	HRG	Labola 184 km <sup>2</sup>	Airborne Geophysics	184 km²	Entire licence area flown for EM, Magnetic and radiometric data
2011	HRG	Labola 184 km <sup>2</sup>	Lidar & Ortho-	184 km²	Lidar Resolution = 15 cm
2011	HRG	Labola 184 km <sup>2</sup>	Geology mapping	134 km <sup>2</sup>	1:20K map
			Lithochemistry	124 km²	Au Only
			Soil Geochemistry	516samples	400 m x 400 m
			RC Drilling	30056 m/276	Covering West, Central and East?far east zones in the licence
			Diamond Drilling	holes 1022 m/5	
			0	holes	Ontion Agreement on three 1 km <sup>2</sup> comi mechanized articanal
2011	Taurus	EXMA licences = 3km <sup>2</sup>			licences held by Exma SARL - covering Daramandougou and Wuo Ne Targets
2011				19948	
2011-	Taurus		Diamond Drilling	m/103	Focused on Central zones at Daramadougou and East and Central
2012				holes	
2011-	Taurus		RC Drilling	5059 m/44	
2012	Taurus		DEM survev	3 km <sup>2</sup>	Digital Elevation model using a Leica 805

(Source: Data provided by Moydow, 2021)

#### 6.2.2 CAMEC 2007-2008

In 2007 Mr. Aristide Boudo entered into a joint ventured with Central African Mining and Exploration Company (CAMEC). The CAMEC work was mainly undertaken at a reconnaissance level and included mapping of artisanal shafts and sampling of quartz veins.



In May 2008 CAMEC commissioned Terratec to undertake a high resolution induced polarisation (IP) survey covering the Daramandougou and Wuo Ne tenements in order to identify favourable structures that might be related to gold mineralisation. The Dipole-Dipole survey was conducted over 13 profile lines each 950 m in length.

The CAMEC report recommended a low budget follow-up exploration program on the basis that the surficial host structures had already been "delineated" by the artisanal activities (Figure 6.2). The proposed follow-up program envisaged a soil geochemistry survey (outside the tailings area), trenching and an induced polarisation survey (dipole- dipole method). The geophysical survey was aimed at identifying potential disseminated gold mineralization to depths of up to 300 m below surface.

#### 6.2.3 Exma 2011

In May 2011 Mr. Aristide Boudo registered Exma SARL (Exma) and the Daramandougou 1 and Wuo Ne tenements acquired semi-mechanized status. During the same year Exma entered into an option agreement with Taurus.

Construction of a new milling facility commenced in October 2011 .

#### 6.2.4 Taurus Gold Mining 2011-2012

In 2011 Taurus Gold Limited (Taurus) entered into an option agreement to acquire some or all of the Mineral Rights owned by Exma based on the success of an exploration program undertaken from August 2011. Taurus exploration work principally focused on drill testing the Central and Western zones in the Daramandougou and Wuo Ne permits. Taurus undertook approximately 25 km of drilling comprised of 19,949 m of diamond drill holes (n=103) and 5059 m of RC holes (n=44). Structural studies were completed on the orientated core as well as detailed geological interpretation and wireframing. An internal resource estimate was prepared by the MSA group and a draft 43-101 technical report but this was never published.

#### 6.2.5 Panthera Resources Plc 2019-2020

Panthera had access to a significant drilling database which included data from both Taurus Gold and HRG and which, as subsequent work demonstrated, represented the majority but not all of the historical drilling data. Panthera collated geology information from the Taurus and HRG projects from report available to it at the time. Panthera carried out an in-house back of the envelope resource estimations based on that database. In the first quarter of 2019 Panthera completed a limited drill core sample re-sampling program comprising an aggregate total of 102 samples collected from quartered HQ core samples from Taurus Gold drillholes from the Daramandougou (intersections from three drillholes) and Wuo Ne (intersections form five drillholes) target areas. The program generally confirmed and validated the Taurus results. Panthera considered the project to have the potential for between 0.5 Moz and 1.0 Moz gold to a depth of around 200 m below surface and noted the potential for higher grade underground mineable resources. In May 2019 Panthera competed a security risk assessment of the property.

#### 6.3 HISTORICAL MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

Historical Mineral Resource estimates have been completed by both MSA (2012) on behalf of Taurus, and Wardell Armstrong (2012) on behalf of HRG. Whilst these estimates have been recorded and documented to some extent, the QP has not been able to sufficiently verify the estimates given the information provided, or the estimates were not reported publicly. The estimates have therefore not been reported here.

## 6.4 **PRODUCTION HISTORY**

There has been no formal large scale mining completed at Labola.

#### 6.4.1 Artisanal Workings

One of the key features of the Labola property is the profusion of artisanal mining activity along the 10 km strike length of the principal mineralised zones. The majority of these excavations are shallow but on the Wuo Ne and Daramandougou permits (PESM's) there are more extensive shafts and galleries and associated rock dumps. Mining in these areas included leased caterpillar excavators and loaders to stockpile, near surface, oxide material. Small scale milling and crushing facilities were installed at site previously in 2011.



Using a combination of the 2011 orthophoto and DTM/contours plus the 2021 Worldview satellite imagery and DTM/contours, all known artisanal mining activity has been digitised (Figure 6.2 and Figure 9.6). This includes:

- Pits
- Dumps
- Scrapings and large areas of shallow pits, generally eluvial and alluvial
- Leach pads and associated infrastructure
- Using this information, the surface area of the dumps and leach areas were measured:
- Total dump area: 507,687 m<sup>2</sup>
- Total leach area (incl. associated infrastructure): 532,121 m<sup>2</sup>

If it is assumed that the average height of dumps is 2 m (the company's observations are that the dumps average closer to 1 m height), and that the loose bulk density is 1.6 t/m<sup>3</sup>, this suggests total dump mass of approximately 1.6 million tonnes. It should also be noted that many of the dumps are well away from the main mineralization trends.

The artisanal mining includes hand-picking of ore from waste, so it is also assumed that for every tonne of dump material, about 0.5 tonne mineralisation is mined and processed. This gives us approximately 800,000 tonnes of mineralisation mined.

To cross-check this, the mass of tailings was estimated from the leach pads. If the average depth of the leach pads is assumed to be 1 m and the loose bulk density is 1.6 t/m<sup>3</sup> then the total amount of leached material is about 850,000t. This fits well with the estimated total amount of mined material noted above and assumes that material is crushed and gravity concentrated, with tails from this subsequently treated on the leach pads. However, much of this material may also be from the eluvial and alluvial mining and hence the above estimates are considered to be the maxima that would be derived from the target mineralization.

If only the areas that have currently had some drilling into them are considered, the following surface areas can be estimated for the digitised dumps (Table 6.2).

Dumps in the Daramandougou area appear to be somewhat higher than average and hence an average height of 2 m is assumed and the loose bulk density assumed to be 1.6. This gives tonnage estimates of about 190,000t at Daramandougou and 40,000t at Daramandougou east. Assuming the same ratio of dumps to material treated estimated above, this suggests 95,000t depletion of mineralisation at Daramandougou and 20,000t depletion at Daramandougou East.

Dumps in the Wuo Ne area are also somewhat higher than average, but not as high as at Daramandougou. However, to be conservative, a similar average height of 2 m is assumed and the same loose bulk density of 1.6 used. This gives tonnage estimates of 170,000t at Wuo Ne West and 103,000t at Wuo Ne East. Assuming the same ratio of dumps to material treated estimated above, this suggests 85,000t depletion of mineralisation at Wuo Ne West and 52,000t depletion at Wuo Ne East.






(Source: Map provided by Moydow, 2021)



Table 6.2 Surface Areas for digitized dumps by location

Location / Area	Surface area
Daramandougou	59,052 m <sup>2</sup>
Daramandougou East	12,611 m <sup>2</sup>
Wuo Ne East	32,261 m <sup>2</sup>
Wuo Ne West	52,703 m <sup>2</sup>
West Zone	17,542 m <sup>2</sup>
Southern Zone (south of Wuo Ne, main trend)	93,169 m <sup>2</sup>
TOTAL	267,338 m <sup>2</sup>

Dumps in the West Zone appear to have an average height of 1 m and the loose bulk density is assumed to be 1.6. This gives a total tonnage estimate of about 28,000t. Assuming the same ratio of dumps to material treated estimated above, this suggests around 14,000t depletion of mineralisation in this zone.

Dumps in the Southern Zone (all areas with any drilling between Wuo Ne and the southernmost drill hole) appear to have an average height of 1 m and the loose bulk density is assumed to be 1.6. This gives a total estimate of about 149,000 t. Assuming the same ratio of dumps to material treated estimated above, this suggests around 75,000t depletion of mineralisation in this zone.

In summary then, depletion in the areas drill tested to date can be estimated (Table 6.3).

Table 6.3 Estimated depletion in drill tested areas

Location / Area	Estimated depleted tonnage
Daramandougou	95,000 t
Daramandougou East	20,000 t
Wuo Ne East	85,000 t
Wuo Ne West	52,000 t
West Zone	14,000 t
Southern Zone (south of Wuo Ne, main trend)	75,000 t
TOTAL	341,000 t

The grade of material mined is difficult to establish and it has been seen that some very high grade material is mined in small pockets (up to 70 g/t Au). However this is not the average grade mined. In an attempt to estimate the average grade mined, the following has been considered:

- Average grade of all rock chip samples (over 800 samples) is 2.03 g/t Au
- A "high grade" sample purchased from the miners graded 2.91 g/t Au
- A "low grade" sample purchased from the miners graded 0.28 g/t Au
- Recent sampling of pits at Daramandougou (main mining area) averaged 2.73 g/t Au
- Channel samples of pits in 2008 gave an average of 0.85 m grading 1.46 g/t Au

Based on these results, the average grade mined is assumed to be between 1.5 and 3.0 g/t Au. If the upper estimate of 3.0 g/t Au is assumed, that means total depletion of 341,000 t @ 3.0 g/t Au containing about 33,000 oz gold can be assumed.

While there is considerable room for error in these estimates, these estimates have been completed as a "worst case scenario" with the information available and are considered to be reasonable first pass estimates. It is the QP's opinion that they are unlikely to be more than +/- 50% from what has actually been estimated here.

Recent dump sampling at Wuo Ne returned an average grade of 0.98 g/t Au and at Daramandougou an average grade of 1.28 g/t Au. Hence an average grade of 1.13 g/t Au would appear reasonable for material remaining in the dumps. A total of 682,000 tonnes of material remains in the artisanal dumps.



# 7 GEOLOGICAL SETTING AND MINERALISATION

The West African Craton consists of the Archaean Kenema-Man domain (referred to as the Man Shield) in the west and the Birimian Baoule-Mossi, Palaeoproterozoic, domain in contact with and east of the Man Shield (Figure 7.1). The Archaean Kenema- Man domain comprises granite-gneiss units associated with discrete greenstone belts and subject to greenschist to granulite facies metamorphism (Beziat et Al., 2008). The Archaean domain contains 3.26 to 2.85 Ga dated, tonalite-trondhjemite-granodiorite (TTG) gneisses. (Rollinson, 2016).





(Source: Provided by Moydow, 2021)

The Paleoproterozoic Birimian terranes of West Africa include shear bounded, linear and arcuate volcano-sedimentary belts ca. 2270-2150 Ma (Baratoux et al., 2011), younger sedimentary basins ca. 2135–2095 Ma (Taylor et al., 1992; Lebrun et al., 2016), and granitoid-dominated terranes ca.2190–2060 Ma (Hirdes et al., 1992; Parra-Avila et al., 2018). The volcano-sedimentary belts largely comprise lavas of tholeiitic and calc-alkaline affinity, volcaniclastic rocks, and epiclastic sedimentary rocks. The basins are filled with siliciclastic rocks, including arkoses, greywackes, argillites, arenites, and rare limestones and chemical sediments. Multiple suites of granitoid rocks intrude both the belts and the basins.

The following extract from Lambert et al., 2020, best describes the geological evolution of the Birimian terranes of West Africa. "The Paleoproterozoic terranes formed, accreted, and were deformed over ~200 m.y. (White et al., 2014; Parra-Avila et al., 2016; Grenholm et al., 2019) during the 2266–2140 Ma Eoeburnean and 2135–2050 Ma Eburnean periods (Allibone et al., 2002; Gueye et al., 2007; Hein, 2010; De Kock et al., 2011; Baratoux et al., 2011; Tshibubudze et al., 2015). Initial volcanism, granitoid emplacement, fold and thrust tectonics, and metamorphism took place during Eoeburnean crustal growth and accretion. The ages of the youngest detrital zircon populations indicate that the sedimentary basins developed from 2135 to 2095 Ma (Hirdes and Davis, 2002; Vidal et al., 2009; Lebrun et al., 2016). Emplacement of younger granitoid plutons (Masurel et al., 2017a; Parra-Avila et al., 2018), further contractional deformation and metamorphism, late strike-slip deformation, and widespread Au mineralization occurred during the subsequent Eburnean orogeny (Oberthür et al., 1998; Parra-Avila et al., 2017; Fougerouse et al., 2017; Masurel et al., 2017b). Greenschist facies mineral assemblages dominate in most Paleoproterozoic rocks across West Africa, but amphibolite and granulite facies assemblages are present locally within both the Eoeburnean belts and Eburnean sedimentary basins (White et al., 2014; MacFarlane et



al., 2019). Particularly low geothermal gradients of 10° to 12°C km<sup>-1</sup> are consistent with modern subduction processes during Eburnean time in some parts of the craton (Ganne et al., 2011; Block et al., 2015)".

The Birimian of West Africa constitutes the largest Paleoproterozoic gold-producing region for Orogenic style gold deposits within the world, and one of the world's leading Gold provinces. It has an overall endowment of more than 460 million ounces including past production and 2017 Resource inventories (GoldFarb et al, 2017).

# 7.1 REGIONAL GEOLOGY

The Birimian of Burkina Faso consists of volcanic, volcano-sedimentary and sedimentary rocks locating in linear and arcuate belts enveloped by granitoid bodies (Figure 7.2). Over half of the surface area of Burkina Faso is covered by granitoids of various ages spanning both the Eoeburnean and Eburnean periods. During the Eburnean period the volcano-sedimentary terranes were subject to strike slip dominated deformation resulting in the formation of extensive N to NE trending structures (Milesi et al., 1989; Feybesse and Milesi, 1994; Ledru et al., 1994; Lompo, 2010).

A brief description of these Volcano-sedimentary belts (Figure 7.3) from west to east is given below (Sattran et al., 2002). The Loumana belt lies in the extreme south-west of Burkina Faso and its northern portion is overlain by a Late Proterozoic sandstone unit observed around the Sindou area. The Loumana belt continues southwards into Ivory Coast where several ductile shear zones, including the South Boundiali lineament, have been mapped. The Wahgnion deposit of Endeavour Mining is hosted within the Loumana belt. More recently this has been renamed the Senoufo belt after its extensions into Cote d'Ivoire.

The Banfora belt which hosts the Wuo Ne permit is discussed in more detail in Section 7.2.



#### Figure 7.2 The Geology of Burkina Faso

(Source: Provided by Moydow, 2021)

The Hounde belt comprises sedimentary and volcanic units such as alternating basalt lavas, andesites, banded cinerites, crystal metatuffs, lapillistones, volcanic breccias, rhyolite and rhyodacite lava flows and dykes (Sattran et al., 2002).



Sedimentary units identified in the Hounde belt include graphitic schist, chert with sandstone and silt intercalations and manganese-bearing shales.

The Boromo belt comprises the detached Boromo and the Goren segments trending north-south to north-northeast – southsouthwest and west-northwest – east-southeast respectively. The former segment is dominated by basalts and rhyolites while the latter consists of volcano-sedimentary units notably basalt, dolerite, graphitic shale, sandstone, pelite and chert. Banded volcaniclastic units of rhyolitic composition occur between Tenado and Kaya and were intruded by an ultramafic layered complex (Sattran et al., 2002).

The Manga-Sebba belt also known as the Tera belt trends northeast and consists of diorites, gabbros rocks. The belt is characterised by irregular boundaries truncated by intermittent granite massifs and the identified shear zones extend into neighbouring Niger.

The Fada N'Gourma belt is situated in the northeast part of Burkina Faso and also extends into Niger. The volcanosedimentary belt trends northeast and comprises dacite, andesite, greywacke and sandy-pelitic sediments. The belt is intruded by ultrabasite, norite, gabbro and diorite.



#### Figure 7.3 The Volcano-sedimentary belts of Burkina Faso

(Source: Copied with permission from MSA (2012))

# 7.2 LOCAL GEOLOGY

Southwest Burkina Faso consists of three N to NNE trending greenstone belts (Boromo, Hounde, and Banfora) separated by voluminous granitoid domains (Baratoux et al., 2011). All three belts contain tholeiitic basalts (basal unit) followed by calcalkaline intermediate predominantly effusive volcanic, volcaniclastic and sedimentary suites (Figure 7.4). Geochemical studies indicate an immature, volcanic island arc environment for formation of the volcano-sedimentary sequences. The basal mafic unit probably corresponds to a juvenile arc crust or oceanic plateau. It contains unusual megacrystic tholeiitic basalts which have enabled correlation of the western margin of the Boromo belt with the eastern margin of the Hounde belt (Baratoux et al., 2011). These two Northerly trending, belt-parallel tholeiitic units are interpreted as limbs of the same,



crustal scale, anticline. The belts are intruded and partially obliterated by tonalite-trondhjemite-granodiorite (TTG) and younger, granite intrusions.

Figure 7.4: Revised Geology map of SW Burkina Faso. Age dates from various publications as outlined in Baratoux et al 2011. Labola locates in the Banfora belt.



<sup>(</sup>Source Baratoux et al 2011 after Metelka et al, 2011).

The Banfora belt consists of an eastern part of intercalated units of basalts, andesites, volcano-sediments and rhyolites, 2-4 km thick, while the western part is composed of exclusively of volcano-sediments and sedimentary units. Sattran (2002 et



al.) subdivided the Birimian sequences in the Boromo belt into the lower, exclusively volcanic, Diaoula series and the Upper, Tiefora series. A first order regional structure, known as the Greenville-Ferkessedougou-Bobo Dioulasso shear zone (GFBSZ) (Lemoine, 1988, 1990) straddles the contact between these stratigraphic series. This structural zone hosts several synkinematic granites. The GFBSZ is a NE-trending dextral shear zone and is clearly visible on the craton scale airborne magnetic data, running from Liberia in the south, crossing Ivory Coast and into the Banfora belt in Burkina Faso. It is therefore a major, first order structure.

As with the Hounde and Boromo belts, the basalts and andesites in the Banfora belt are considered to form the base of the stratigraphic sequence, with upward increasing volumes of strongly folded volcano-sediments and sediments. The Banfora belt continues into Ivory Coast under the form of the Katiola-Marabadiassa greenstone belt and Bandama volcano-sedimentary basin (Doumbia et al., 1998; Gasquet et al., 2003; Pouclet et al., 2006) also known as the Ferkessedougou domain (Vidal et al., 1996, 2009).

The granitoid domains of SW Burkina are composed of a significant number of 5-50 km (maximum dimension) granitoid bodies of variable composition, shape and age and locating predominantly between the greenstone belts but also injected within the belt sequences. This extensive plutonic activity covers multiple episodes and spans the whole, ~200 My period of formation, accretion and deformation of these Birimian belts. The older plutons have Calc-alkaline tonalite-trondhjemite-granodiorite (TTG) compositions and were formed contemporaneously with the Birimian mafic to intermediate volcanism. These bodies are elongate, host penetrative cleavage, pronounced mineral layering, compositional banding and were previously interpreted as basement within the literature due to their gneissic, amphibolitic or migmatitic appearance. Younger plutons include calc-alkaline, potassic granite-granodiorite intrusions, biotite bearing granites (sometimes meta-luminous), sporadic syenites and smaller diorite-gabbro bodies. The younger plutons are generally characterized by well-defined sub-circular or elliptical bodies, clearly transecting older lithologies and are mainly undeformed or affected by localised shear zones or mylonitic structures (sigmoid shaped rotation with deformed margins).

Three deformation events (D1-D3) can be distinguished in southwestern Burkina Faso. The first deformation phase (D1) operated under an E-W to WNW-oriented compression. Regional greenschist to lower amphibolite facies metamorphism and intense folding characterize these Eoeburnean deformation phases, during which time the crust was thickened by lateral shortening of volcanic island arcs and concomitant magma input. The crustal scale anti-form between the Boromo and Hounde belts is attributed to the D1 event. The D1 event is clearly visible in the volcano-sedimentary sequences and is characterized by a penetrative cleavage or foliation and fold axes trending N to NE. The D2 phase overprints D1 and is characterized by N to NE-trending transcurrent shear zones. This D2 event is generally recognised as driving the gold mineralization in the area with structural zones focusing gold bearing fluids into appropriate traps. The D1 event relates to accretion and is a pure shear dominated compressional regime. Deformation switched to simple shear dominated transpression during the subsequent D2 phase. The final D3 deformation, which is either late-Eburnean or perhaps even Pan-African in age, is characterized by shallow N or S dipping minor thrust faults or an E-W trending steeply dipping spaced crenulation cleavage and kink folds.

The Birimian rocks in this region are unconformably overlain by Taoudeni basin sandstone units which form a prominent escarpment in the NW portion of the region. Dolerite dykes and sills intruded the belts and basin at approximately 240 Ma.

# 7.3 PROPERTY GEOLOGY

The Wuo Land permit area has limited outcrop and is characterised by low relief and a heavily lateritised terrane with surface gravels, saprolite and ferricrete plateau (See Figure 7.5). The HRG RAB holes highlighted that the lateritic layer varied in thickness from 3.5 m to 9 m. The central portion of the permit has extensive artisanal mining activity covering up to one kilometre in width along a NNE trending zone with strike lengths of surface workings spanning over 10km. Descriptions of the property geology are therefore based on observations from historical exploration reports, the currently available diamond drill core, mapping of artisanal shafts and pits as well as reference to high resolution satellite imagery and airborne and ground geophysical data.

The principal Birimian lithologies within the permit area comprise greenschist facies, sericite-chlorite schists and subordinate greywacke which are both intercalated with graphitic shales which are often schistose, phyllite, siltstones, minor sandstone/quartzite and occasional gritstones and conglomerates. Oxidation extends for about 50 m depth from surface. The metasediments were intruded by felsic intrusive rocks and several dolerite dykes and sills.



In the NE portion of the permit the EM and magnetic data outline a probable granodiorite intrusion. Northwest of the permit area there is a prominent sandstone plateau which unconformably overlies the Birimian metasediments and is part of the Taoudeni basin. The southern edge of the plateau is marked by a NE-SW trending escarpment.

Three mineralised zones have been identified from historical and 2021 drilling programs and are referred to in this report as the West, Central and East zones. These are outlined by historical artisanal mining activity and from the various drilling campaigns.

### 7.3.1 Structural corridor

A steeply dipping regional foliation is well developed in the area and shows a north- northeast to south-southwest orientation. Individual rock formations are strongly sheared and folding, faulting and brecciation are locally developed.

The ground and airborne geophysical data outline a major structural corridor transecting the permit in a NNE direction (N10-N20) and hosting at least three mineralised zones (Figure 7.6 to Figure 7.8) This corridor has a strike length of 14km, and a width of +1.2 km based on IP chargeability and resistive anomalies and the EM data. The corridor is characterised by multiple shear planes which coincide with the mineralised zones. The structural corridor, for a considerable portion of its strike length is coincident with extensive, shallow artisanal activity as outlined in figure 7.4. The chargeability and resistivity anomalies from the historical IP data define the outline of the corridor well within the area where this ground geophysical survey was undertaken, and the regional EM data confirms continuation of the corridor to the NNE and SSW.

Based on the historical drilling, artisanal mining activity and ground IP data; at least three distinct mineralised zones can be distinguished by historical drilling and locate within this deformation corridor. These are referred to as the West, Central and Eastern zones. Previous drilling has outlined the western zone over a strike length of 4km, 8-9 km strike for the Central zone and the eastern zone is intermittently developed over a 4km strike length.

The IP geophysical survey highlights the coincidence between mineralised zones and high chargeability anomalies, related to sulphide content and high resistivity anomalies, related to quartz veining and silicification. This correlation is illustrated in figures 7.6 and 7.7





Figure 7.5 Regolith map of the project area highlighting the artisanal workings in red.

(Source: Map provided by Moydow, 2021)





### Figure 7.6: IP chargeability anomalies and artisanal workings

(Source: Map provided by Moydow, 2021)





### Figure 7.7: IP Resistivity anomalies and artisanal workings

(Source: Map provided by Moydow, 2021)





### Figure 7.8: EM 100 m depth slice with artisanal workings and main structural corridor

(Source: Map provided by Moydow, 2021)



### 7.3.2 Structures in orientated core

The DD database was filtered and 1032 complete and accurate alpha-beta pairs from previous core orientation measurements by Taurus were reviewed and analysed with respect to various structural planes. All of this data is from the Daramandougou and Wuo Ne artisanal sites. The filtered data were loaded as a table into the Mapinfo drilling database. In the Discover module, DIP and DIP DIRECTION fields were generated from the alpha and beta values in the Labola Drilling Structures table. The following structural planes were identified from the 1032 filtered data pairs:

Code	Туре	Number
BX	Breccia	3
СО	Contact	83
FO	Foliation	102
FR	Fracture Plane	27
FT	Fault Plane	21
TL	Joint Plane	33
SH	Schistosity	159
VN	Vein	46
VNL	Veinlet	558
Total Measured		1032

An analysis of the measured data conforms, in general, with the early mapping of artisanal sites, field observations and trends outlined within the various geophysical datasets. Historical work has noted that the steeply dipping regional foliation is well developed within the permit area and exhibits a north-northeast to south-southwest orientation. Most measurements within the orientated cores relating to schistosity, foliation and gold bearing veins fall within this dominant trend. The following points highlight the details:

• The dominant strike of schistosity measurements is NNE-SSW (005-035). Westerly dipping measurement outnumber easterly dipping by about two to one. Almost all schistosity readings whether westerly or easterly were steep, 70 to 80 degrees being the dominant range.



Figure 7.9 Rose diagrams of schistosity strike and dip directions.

Foliation trends, as expected are similar to schistosity and again outline a NNE-SSW direction

Quartz veining: The database records whether the veins were mineralised or non-mineralised. The diagrams below separate structural readings for the mineralised veins from the non-mineralised veins. The mineralised veins show a more pronounced



dominance of the 355-010 degrees strike range versus the non-mineralised veins. The latter group, while still having a dominant NNE trend, show a slightly higher percentage of readings in the 035-045 range. For both groups, the dominant dip direction is westerly.



Figure 7.10 Rose diagrams of strike and dip directions for Foliation Measurements.

<sup>(</sup>Source: Provided by Moydow, 2021)





(Source: Provided by Moydow, 2021)

Strike and dip direction for veins classified as unmineralized in the database

• Contacts: Orientation data were recorded for 83 contact planes in the database. The data is not split into different contact types here but again the majority fall within the 000 to 030 range and have a westerly dip.



• Faults: Relatively few (21) fault plane measurements were recorded and plotting rose diagrams for the data does not reveal clear patterns. NE-SW and NW-SE fault planes were recorded. Northerly dips are more prominent than southerly dipping planes.



Figure 7.12 Rose diagrams of strike and dip directions for mineralized veins as classified in the database

(Source: Provided by Moydow, 2021)

### 7.3.3 Mineralisation

Gold mineralisation (Figure 7.13 to Figure 7.16) at Labola is associated with quartz veining, silicification and disseminated sulphides (principally pyrite with accessory arsenopyrite, chalcopyrite and pyrrhotite). Relogging of previous diamond drill holes has indicated that higher grades are associated with zones of increased sulphide content, silica banding, silicification and quartz veining-veinlets principally parallel to foliation and locating within areas of more intense shear deformation (brittle-ductile or ductile). The principal controlling factors for better gold mineralisation are % disseminated sulphides with or without strong silicification and quartz veining. In the East zone there is a foliation parallel, quartz vein which is associated with gold mineralisation. In the West and Central zones various stages of quartz veining and veinlets in sheeted or stockwork format are associated with strong deformation, sulphides and silicification.

Quartz vein hosted gold mineralisation occurs in virtually all lithological units such as chlorite schist, sericite schist, graphitic schist, greywacke and felsic intrusive. Two types of white- to grey-coloured quartz vein systems can be distinguished with respect to gold mineralisation:

- Quartz veins parallel to foliation
- Quartz veins truncating foliation

Quartz veins within the Daramandougou area trend in a north-northeast to south- southwest direction and are generally sub-vertical and parallel to the foliation. Shallower dipping gold veins with dip angles of approximately 50° were occasionally observed.

There is a subset of quartz veins that are commonly boudinaged and also folded. The majority of quartz veins are mostly concordant with the trend of the regional foliation

Disseminated sulphide mineralisation, pyrite dominant, occurs in all the host lithologies in close proximity to the mineralised quartz-veins. This type of sulphide mineralisation is developed in strongly deformed zones mainly in graphitic schist, greywacke, and the suite of felsic intrusive. The latter rocks are generally more competent and show brittle deformation with unfolded quartz veins. Lithologies hosting disseminated sulphide-gold mineralisation can be strongly altered.

HRG completed 28 diamond drill holes in the various mineralised zones and noted the following common characteristics:



- 95% of gold intersections are associated with the presence of quartz veins at varying scale from millimetre to (rarely) metric. In addition,
- 15% of these mineralised intersections, with quartz veins, are also associated with meta-sediments that have undergone significant silicification.
- nearly all of the mineralised intersections show the presence of sulphides in the form of disseminated pyrite, pyrite in veins, pyrite in clusters, disseminated pyrite and some arsenopyrite in clusters.
- up to 7% disseminated pyrite, up to 4% venular pyrite and up to 5% disseminated arsenopyrite were recorded.

Visible gold was noted in eight holes LBLC08-001 (77.47 m), LBLC08-005 (106.5 m to 106.9 m), LBLC08-010 (91.25 m to 91.35 m), LBLC08-011 (122.15 m), LBLC08-013 (141.72 m), LBLC08-014 (123.95 m), LBLC08-020 (87.42 m to 87.50 m; 95.97 m) and LBLC08-021 (55.2 m to 55.4 m; 62.6 m to 62.75 m).

Tourmaline was observed in nine gold intersections from six different holes (LBLC08-004 to LBLC08-008 and LBLC08-010), all on the NW-Yarba zone.

#### Figure 7.13 Representative section of the mineralised zone at Wuo Ne with grade intercepts and wireframe in red

(Source: Section provided by Moydow, 2021)



Figure 7.14 Photo taken by Taurus showing sheeted mineralised quartz veins with boudinaged and lenticular morphologies



(Source: Photograph provided by Moydow, 2021)

Figure 7.15 Photograph taken by Taurus showing folded quartz vein enveloped by disseminated pyrite



(Source: Photograph provided by Moydow, 2021)

Figure 7.16 Photo taken by Taurus showing central quartz vein enveloped by disseminated pyrite.



(Source: Photograph provided by Moydow, 2021)



### 7.3.4 Alteration

In the mineralisation and associated deformation zones the principal alterations are silicification and sericitization.

At the Daramandougou site, two styles of silicification were observed. A pervasive silicification giving the rock a light pinkish color and a silicification expressed as an impregnation of the rock in silica. The impregnation style is composed of "whitish bands" looking like bedding. Silicification is also expressed as "grains of quartz" within the rock matrix. In both cases, pyrite follows the "banding" or develops on the "grains". Silicification also appears as veining filling joints. These veins are generally sheared or folded in various directions about foliation but can also be secondary veinlets within a barren massive white quartz. When mineralization is recorded within the massive quartz, it is generally within pyrite laminae inside the vein. Pervasive silicification and sulphidation is commonly observed in mineralised zones within greywacke units which are the principal hosts for this style of mineralisation and alteration.

Along quartz vein selvage there are variable envelopes of sericite, hematite, limonite and silica. Carbonate alteration, in the form of calcite and ankerite, is developed in some selvage zones. The quartz veins are commonly associated with carbonate and minor pyrite alteration. Visible gold is occasionally observed. Coarse- or fine-grained pyrite is generally more abundant towards the edges of the quartz veins. Pyrite and arsenopyrite are also present in the adjacent host rock and can persist over distances of several metres. Coarse-grained euhedral pyrite and arsenopyrite are a common feature in mineralised graphitic schist.

Weathered zones of mineralised quartz veins show evidence that sulphides have been oxidised or completely leached out. These zones are characterised by strong hematite alteration.

The descriptions of the wall-rock alteration mineral assemblages are exclusively based on visual assessments of the limited drill core material and the authors recommend that further studies are conducted during the next exploration phase involving multi-element work and thin section interpretation.



# 8 DEPOSIT TYPES

Gold mineralisation and gold orebodies within Birimian belts of West Africa have been classified as Orogenic gold deposits (Allibone et al., 2002a, b and 2020) and are similar in terms of style of mineralisation, structural controls and geological setting to the Archean auriferous belts of Western Australia, Canada, Brazil, Tanzania and Scandinavia. Orogenic gold deposits are often characterised as lode gold systems because of the abundance of quartz and carbonate veining in association with sulphides. These deposits typically occur in metamorphosed granite-greenstone terrains formed by accretional and collisional processes. The deposits are hosted within all rock types (volcanic-volcaniclastic-sedimentary and intrusive), have various discrete mineralisation styles and locate within structural traps. These are shear hosted deposits developed along strike-slip fault systems linked to late-stage, nonorthogonal, orogenic crustal growth (Groves et al., 1998, Hagemann and Cassidy, 2000). The general characteristics of orogenic gold deposits are summarized in Groves et al. (1998) and Ridley and Diamond (2000).

The Birimian of West Africa constitutes the largest Paleoproterozoic gold-producing region for Orogenic style gold deposits within the world. The West African Birimian has an overall endowment of more than 460 million ounces including past production and 2017 Resource inventories (GoldFarb et al, 2017). The ca. 2250 to 2000 Ma greenstone belts hosting the most important Birimian gold deposits are best recognized in southwest Ghana, northeast and westernmost Burkina Faso, southern Mali to northeast Guinea, and along the Senegal/Mali border. Goldfarb et al (2017) in reviewing the gold endowment of the Birimian, posed the question "What is special about West Africa"? Several features were distinguishing in relation to the setting and mineralisation in these greenstone belts. Favourable factors (Yardley and Cleverley, 2015; Goldfarb and Groves, 2015; Wyman et al., 2016; Groves et al., 2019) included the accretion of juvenile oceanic crust with basalts and abundant oceanic sediments (carbonaceous shales, evaporites etc); transpressional and transtensional movements along major crustal sutures for over a 100 My period; at least two but possible multiple gold mineralisation events during the Eburnean orogeny (2.1 Ga and 2.0 Ga), mineralisation which is coeval with extensive and overlapping intrusive magmatism; near neutral, low salinity, aqueous-carbonic (CO2 rich) fluids formed at 200-400C and 1-3 Kbar during metamorphic devolatilization of oceanic and near shore sediments; organic carbon and some evaporite components in the sedimentary package and finally possible magmatic fluid influence for those deposits spatially associated with coeval felsic intrusive (Lambert-Smith et al, 2020; Lawrence et al. 2013b; Masurel et al. (2017c) ).

The Birimian Belts of SW Burkina Faso (Senoufo, Banfora, Hounde and Boromo) host multiple, +2 million ounce deposits (see Table 8.1) formed at the onset of the shear dominated and transpressional, D2 event commencing around 2100 Ma (Baratoux et al, 2011). In most cases two styles of gold mineralisation dominate: quartz-carbonate lodes and disseminated sulphides (predominantly pyrite). The deposits are hosted in sedimentary or volcano-sedimentary sequences and adjacent granites. All of the deposits outlined in table 8.1.. have a strong structural control at regional and local scales leading to the development of first, second and third order structures. The locus of deposits includes fold hinges, dilation zones and lithological contacts within an array of anastomosing shear systems related to brittle-ductile deformation.

In summary, gold mineralisation in the Labola Project occurs as quartz vein type and disseminated mineralisation which is consistent with orogenic gold deposits reported from other Birimian belts in SW Burkina Faso.

### 8.1.1 Exploration Strategy

This style of mineralisation is characterised by quartz-carbonate-sericite alteration in structural settings and commonly associated with elevated arsenic grades and coarse gold. Whilst the use of arsenic as an indicator element in geochemistry is not always effective, the delineation of structural corridors using geophysics and mapping, and drilling across the mineralisation has been shown to be an effective way of exploration for this style of deposit, and for delineating the mineralisation.



### Table 8.1 Gold Deposits of SW Burkina Faso

Deposit	Resource Category - Previous production	Mt	Au (G/T)	Au (Koz)	Mineralisation style/s	Source
Wahgnion	Measured & Indicated	44.2	1.51	2152	SZ hosted with Qv lodes, pyrite veinlets and disseminated Py in Volcano-sedimentry sequences and in granites	Endeavour website data sheet, 2020, 18.3.21.
	Inferred	5.1	1.52	250		Endeavour website data sheet, 2020, 18.3.21.
	Prev Prod. Q4 20 - Q1 21			86		Endeavour website data sheet, 2020, 31.5.21
Hounde	Measured & Indicated	82	1.74	4581	Qv stockwork and Qv plus Dpy in SZ and brittle zones in volcanosedimentary units and felsic intrusive and at lithological contacts	Endeavour website data sheet. 2020. 18.3.21.
	Inferred	18.2	1.68	999		Endeavour website data sheet, 2020, 18.3.21.
	Prev. Prod. 2017-Q1 21			913		Endeavour website data sheet, 2020, 31.5.21
Mana	Measured & Indicated	45.2	2.07	3009	SZ hosted with Qv/silicification and disseminated sulphides in Volcansedimentary sequences and at graphic contacts	Endequour website data sheet 2020 18 3 21
	Inferred	10.2	2.14	701		Endeavour website data sheet, 2020, 18.3.21.
	Prev Prod 2008-01 2021	10.2	2.14	2451		Endeavour website 2020 and Semafo AIE from 2008
Konkera	Measured and Indicated	56.7	1.2	2133	SZ hosted, disseminated sulphide deposit within folded metasediments	Centamin Website 2020 Resources
	Inferred	2.8	1.1	100		Centamin Website 2020 Resources
Tankoro	Indicated	9.4	1.9	600	Qv and breccia bodies in subparrallel SZ with metasediments intruded by QFP bodies	Sarama Resources Website
	Inferred	43.6	1.4	1900		Sarama Resources Website
Bantou	Inferred	51.1	1.37	2245	Stratabound in BIF/chert with Py and magnetite bands. SZ hosted Qv in sediments and disseminated in felsic intrusive	Endeavour website data sheet, 2020, 18.3.21.

(Source: Information provided by Moydow, 2021)



# 9 **EXPLORATION**

Historical exploration on the tenements has mainly been by two companies: Taurus Gold Ltd (Taurus) and High River Gold Mines Ltd (HRG, taken over by Nordgold).

HRG explored the area between 2005 and 2013 under a 250 km<sup>2</sup> (reduced to 184 km<sup>2</sup>) Permis de Recherche (PDR - exploration permit equivalent). This work culminated in the drilling of 1,628 m RAB drilling in 48 drillholes, 34,280 m RC drilling in 317 drill holes and 4,640 m DD in 29 drill holes.

Taurus explored three excised areas within the HRG PDR, the Daramandougou, Wuo Ne and Wuo Panga Permis d'Exploitation Artisanale Semi-Mécanisée of 1.0 km<sup>2</sup> area each, between 2011 and 2012. The Taurus exploration work principally focused on drill testing two areas of mineralisation in detail. They undertook 19,949 m of DD in 103 drill holes and 5,059 m of RC drilling in 44 drill holes. Structural studies were completed on the orientated core as well as detailed geological interpretation and wireframing. An internal resource estimate was prepared by the MSA group and a draft 43-101 technical report was completed, but this was never published.

Moydow has explored the area since August 2020 including compilation of all previous data into a single database, interpretation of this data, target generation and the 2021 drilling program that is discussed in Section 10 of this report.

Details of all exploration, excluding drilling, are presented in the following sections.

# 9.1 TOPOGRAPHIC SURVEYS, GRIDS, DEM/DTM

#### 9.1.1 Historical

HRG constructed a grid of 19.89 km<sup>2</sup> area, consisting of an 18 km baseline oriented at N21°G (N25° Mag), and average 1.8 km long crosslines oriented at N111°G (N115° Mag) every 100 m over 11 km of strike in 2004/2005. This was subsequently rehabilitated and expanded in 2006 with 13 km of baseline and 202.9 km of crosslines as preparation for an IP survey.

Central African Mining and Exploration Company (CAMEC), in JV with Aristide Boudo, the permit holder, purchased a 60 cm resolution Quickbird satellite image in 2008 that shows the status of mining activity at that time. They subsequently set up a baseline trending 036° magnetic with 13 cross lines, each 950 m long, at 100 m intervals and pegs every 50 m along lines. These lines were subsequently used for a dipole-dipole IP survey.

Taurus constructed grids in the Wuo Ne tenement over 2000 m x 1000 m at 100 m x 50 m spacing. Grids were also set up over the Daramandougou and Wuo Panga tenements over an area of about 1,600 m x 800 m at 100 m x 50 m spacing.

An orthophoto and LIDAR survey was undertaken by the French company Sintegra on behalf of HRG in 2010/11 (Rapport Semestrial Permis De Recherche Labola 8 Septembre 2011 Au 7 Mars 2012, HRG) covering the entire tenement area of 250 km<sup>2</sup>. The orthophoto has 30 cm resolution and the LIDAR 15 cm resolution. This is excellent data and picks up most of the artisanal mining activity at that time, providing a good historical state of mining activity in the area. However, there appears to be a discrepancy between this topographic data and the Taurus data noted above. This has since been resolved by Moydow (see below).

Taurus also commissioned a topographic survey by Cometra in March 2012 (NI 43-101 Technical Report on the Daramandougou Gold Project, Burkina Faso, Prepared by The MSA Group on behalf of Taurus Gold Limited, May 2012), using a Leica Total station instrument giving a 2 cm X-Y level of accuracy and covering both permits. These point data were triangulated to make a topographic wireframe using Datamine but do not, however, appear to reflect the relatively small-scale mined-out volumes in the artisanal workings. The Taurus surveyed borehole collars are seen to correspond well with the resultant topographic surface.

#### 9.1.2 Moydow

Moydow compiled and assessed all the previous data and noted a difference of approximately 28 m in the topographic surfaces of Taurus and HRG. Moydow concluded that while both companies used the WGS84 Zone 30 datum for surveys different Vertical Datums were used for the respective surveys with Taurus expressing elevations using the WGS84 Ellipsoidal Height datum and HRG quoting elevations as Orthometric heights This resulted in the x and y co-ordinates being the same but the Taurus topography surface plotting 28.2 metres higher than the HRG surface. This Moydow interpretation was subsequently confirmed by the recently acquired Worldview 3 data which uses the WGS84 spheroid. All project data is now expressed consistently in WGS84 Zone 30N datum using the orthometric vertical datum for elevations.



Moydow also commissioned the new capture of WorldView 3 satellite imagery:

- Fresh Capture Stereo Ortho-Ready Standard Level 2A imagery
- 30 cm resolution panchromatic, 1.2 m resolution 4-band multispectral bundle
- 1 stereo swath acquired 12 February 2021

Processing using WGS84 UTM Zone 30 projection was undertaken by Geoimage in Brisbane, Australia during April 2021.

This included:

- Generation of a 50 cm resolution Digital Surface Model (DSM), generated using rational polynomial coefficients, combined with Moydow supplied control for XY control and the 30 m AW3D DSM for Z control.
- Translation of the DSM mosaic into a bare-earth model Digital Terrain Model (DTM) using semi-automated algorithms.
- DTM produced in 3 Tiles.
- Exporting the 50 cm DTM tiles to ER Mapper BIL and GeoTIFF formats.
- Exporting the 50 cm and 1 m tagged contours to Arc Shape and MapInfo Tab format.

A final accuracy assessment was performed on the DTM using Moydow supplied GPS points (16 sites), with the DTM found to have an LE90 of 25.6cm (LE90 is the 90th percentile linear error, meaning that a minimum of 90 percent of vertical errors fall within the stated LE90 value).

Subsequently, the following processing was undertaken: orthorectification of the panchromatic and multispectral imagery using rational polynomial coefficients, combined with Moydow supplied control for XY control and the 50 cm produced DTM for Z control; pan-sharpening of the multispectral imagery using the panchromatic imagery; contrast-enhanced image production of the pansharpened data prepared in GeoTIFF format:

- Natural Colour (NC) visible red, visible green and visible blue in RGB
- False Colour (FC) NIR, visible red and visible green in RGB
- Enhanced Natural Colour (ENC) visible red, visible green + NIR, and visible blue in RGB

This survey data was then used as the basis for all work going forward and provides the third snapshot in time for examining the artisanal mining activity.

Close ups of this imagery clearly show the artisanal pits, dumps and leach pad areas such as show on Figure 9.1 below with the subsequent mapping in Figure 9.2.



Figure 9.1 WorldView 3 (Feb 2021) Natural Colour 0.3 m Image with 0.5 m Contours, covering Wuo Ne West and Wuo Ne East Artisanal Workings



(Source: Provided by Moydow, 2021)



#### Figure 9.2 Digitised Artisanal Mining Activity, February 2021



<sup>(</sup>Source: Provided by Moydow, 2021)



# 9.2 GEOLOGICAL AND REGOLITH MAPPING & ARTISANAL MINING ACTIVITY

### 9.2.1 Historical

The area was initially mapped over the central part of the project, covering the main artisanal workings, during 2005, with a total of about 15 km<sup>2</sup> being covered at 1:2,000 scale and 30 km<sup>2</sup> at 1:10,000 scale.

These areas were shown to largely consist of transported laterite, lateritic gravel, and alluvium with minor areas of in-situ laterite, metasediment and saprolite (clay zones generally overlain by quartz and lateritic gravel/scree). Six zones of semicontinuous artisanal workings were mapped, each covering a strike of around 2 km. It was interpreted that these formed two lines of mineralisation, with the two northern zones being offset to the west.

A larger scale regolith mapping program was undertaken by HRG in 2011, covering an area of 134.1 km<sup>2</sup> at 1:20,000 scale. This excluded the area already mapped.

This mapping was added to the previous mapping but until now was never compiled into a single regolith/geological map.

#### 9.2.2 Moydow

Moydow combined the mapping information from the two previous episodes of artisanal mining review into a single digital map as shown on Figure 9.3 below.

This work shows that, apart from a few areas of erosional stripped profiles, the majority of the area is covered by transported laterite, low level ferricrete, laterite/quartz gravel and alluvium. This is a hindrance to effective use of soil/rock geochemistry as an exploration tool as will be discussed later on. The identification of lithologies in the deeply weathered outcrops is difficult but the majority of in-situ material has been confirmed as being weathered metasediments, possibly with some interbedded mafic volcanics.

### 9.3 Petrography

#### 9.3.1 Historical

Three samples from HRG's DD program were sent for petrological analysis in 2008. These were described as sheared or mylonitised metasediments.

### 9.4 SOIL GEOCHEMISTRY

# 9.4.1 Historical soil sampling by HRG (various grids; 100 x 100 and 400 x 400) Soil sampling has been conducted by HRG in two main phases:

- - 2007: 100 m x 100 m soils along the central grid area covering the main zone or artisanal workings. A total of 2,176 soil samples were collected and analysed for gold only.
  - 2011: 400 m x 400 m soils collected from the remainder of the tenement area. A total of 516 samples were analysed for gold only.

This information is collectively shown with artisanal mining activity overlaid on Figure 9.4. It can be seen that the higher grades in the soil sample results generally outline the known mineralisation, especially in the central area where the sample density is good. However, this may be due to contamination from the artisanal working and it is unclear from this data whether the mineralisation continues along strike into areas of transported laterite as suggested by geophysics and drilling activity.

Hence it is recommended that anomalies be treated as targets but that lack of anomalism should not be used to discount targets.





Figure 9.3 Labola Regolith Map – Combined Data from HRG 2005 & HRG 2011

(Source: Map Provided by Moydow, 2021)





Figure 9.4 Soil Sampling Results with Artisanal Mining Activity Overlaid

(Source: Provided by Moydow, 2021)



### 9.5 ROCK GEOCHEMISTRY

#### 9.5.1 Historical (see Figures 9.5 and 9.6)

HRG conducted several episodes of rock chip sampling over the artisanal workings area including:

- 2005: 625 samples analysed for fire assay gold, including 298 multielement ICP scans
- 2007: 21 samples analysed for gold only by fire assay
- 2008: Channel sampling of artisanal shafts, 63 shafts sampled, and 84 samples assayed for gold only by fire assay
- 2011: 124 samples analysed for gold only by fire assay

The 2005 sampling, mainly of dump material, showed that quartz vein material averages over 5 g/t Au whereas host rock is generally less than 1 g/t Au.

The average gold value in the 2005 ICP data was 2.38 g/t Au with a maximum of 59.8 g/t Au. Other elements were generally low with silver averaging 0.23 g/t Au (max 6.4 g/t Au), arsenic averaging 145 ppm (max 2503 ppm), copper averaging 44 ppm (max 277 ppm), molybdenum averaging 1 ppm (max 16 ppm), lead averaging 12 ppm (max 163 ppm) and zinc averaging 40 ppm (max 342 ppm). All rocks are described as being quartz or metasediments/schists. Sulphide alteration is common but the sulphides have been weathered to boxwork – hence sulphur is very low, averaging less than 0.01% (max 0.09%).

The channel sampling of shafts returned an average assay of 1.46 g/t Au over an average width of 85 cm and a maximum of 19.6 g/t Au over 80 cm. The descriptions suggest that the quartz veins being mined varied from 2 cm to 50 cm but averaged 10-20 cm in width.

The more regional 2011 sampling returned nine samples greater than 0.5 g/t Au, four greater than 1 g/t Au and a maximum of 9.06 g/t Au.

Gold assay results of all the rock chip sampling combined are shown on Figure 9.5 below. It can be seen that plus 1 g/t Au assays have been returned over about seven kilometres of strike, with the average grade of all rock chip samples being 2.03 g/t Au.







<sup>(</sup>Source: Provided by Moydow, 2021)



#### 9.5.2 Moydow

Moydow conducted dump sampling at the Daramandougou and Wuo Ne artisanal mining dump areas with a view to obtaining an estimate of the average grade of host rock material left behind by the artisanal miners. In addition, sampling of several pits in the Daramandougou area was undertaken in order to confirm the HRG results. Samples averaged two to three kilograms in weight and were assayed by the LeachWELL technique. Sample locations and LeachWELL gold assays are shown on Figure 9.6.

The following results were obtained:

- Wuo Ne Dumps: 15 samples collected, LeachWELL assays range from 0.19 g/t Au to 2.17 g/t Au and average 0.91 g/t Au; tails grade between 0.03 g/t Au and 0.19 g/t Au and average 0.07 g/t Au; hence total gold averages around 0.98 g/t Au. Samples consisted of weathered metasediment with boxwork after sulphides and quartz veinlets.
- Daramandougou Dumps: 40 samples collected, LeachWELL assays range from 0.06 g/t Au to 9.35 g/t Au and average 1.15 g/t Au; tails grade between 0.01 g/t Au and 1.20 g/t Au and average 0.13 g/t Au; hence total gold averages around 1.28 g/t Au. Samples consisted of weathered metasediment with boxwork after sulphides and quartz veinlets.
- Daramandougou Pits: 14 samples collected, LeachWELL assays range from 0.01 g/t Au to 20.6 g/t Au and average 2.59 g/t Au; tails grade between 0.01 g/t Au and 0.79 g/t Au and average 0.14 g/t Au; hence total gold averages around 2.73 g/t Au. Samples consisted of weathered metasediment with boxwork after sulphides and quartz veinlets.
- Two large samples were purchased from the artisanal miners:

o High Grade – 125kg, sheared quartz veins with limonite in fractures, Mn oxides, fine pyrite/limonite, sericite and weak hematite alteration. This returned a LeachWELL assay of 2.81 g/t Au and a tails assay of 0.06 g/t Au for total gold of 2.95 g/t Au.

o Low Grades – 48kg, deformed black metasediment intercalated with highly silicified unit with 1-2% fine to medium grained pyrite and limonite after pyrite. This returned a LeachWELL assay of 0.24g/t Au and a tails assay of 0.04 g/t Au for total gold of 0.28 g/t Au.







(Source: Provided by Moydow, 2021)



# 9.6 GEOPHYSICS

### 9.6.1 Historical

A significant amount of geophysical surveying has been undertaken historically over the Labola Project area. This includes:

#### 9.6.1.1 Magnetics & Radiometrics

An orientation ground magnetic survey was conducted by SAGAX in 2005 over 11-line kilometres in the central Daramandougou area. This was undertaken in conjunction with a test IP survey but did not show anything of interest, suggesting the mineralisation is associated with metasediments which have a low magnetic susceptibility. Additional ground magnetics were not pursued further.

Regional scale, country-wide magnetics and radiometrics flown by Fugro was purchased and data was subsequently processed by SAGAX and interpreted by Jerry Roth from consultants Strategex in 2006. This data consists of total magnetic field, analytical signal, vertical magnetic gradients, thorium, potassium, uranium and total count radiometrics. Data covering a total area of 250 km<sup>2</sup> was purchased from the Ministry of Mines. The survey was flown in 1999 at a 500 m line spacing and 100 m terrain clearance.

Figure 9.7 and Figure 9.8 show total magnetic intensity, analytical signal, vertical gradient and second vertical gradient respectively while Figure 9.9 shows total count and ternary radiometrics respectively.

The Strategex interpretation subdivided the region into 6 separate domains based on different magnetic and radiometric signatures and a major NE trending linear feature (Figure 9.10). These were each ascribed to different metasedimentary lithotypes or granitic basement.



#### Figure 9.7 TMI Magnetics(left) and b: Analytical Signal Magnetics (right)

(Source: Fugro, 2011 data imaged by Moydow)





Figure 9.8 First Vertical Gradient Magnetics (left) and b: Second Vertical Gradient Magnetics (right)

(Source: Fugro 2011 imaged by Moydow 2021

#### Figure 9.9 a: Total Count Radiometrics (left) b: Ternary Radiometrics (right).



(Source: Fugro 2011 imaged by Moydow 2021 Figure 9.10 SAGAX Interpretation on Analytical Signal Magnetics





(Source: Sagax, 2005)

HRG commissioned Fugro to fly a combined topographic, magnetic, radiometric and electromagnetic survey over all of their Burkina Faso projects in 2011. Survey specifications are not provided, but a review of the raw data shows lines were approximately 100 m apart and oriented north-south at a flying height of approximately 100 m. The total area covered was 184 km<sup>2</sup>. The topographic and electromagnetic data are discussed elsewhere in this report.

The magnetic data is more detailed than that of the 2005 survey as shown in Figure 9.11 below. However, it appears that flight lines were oriented north-south rather than east-west and the data appears to be very noisy due to this, as shown on the total magnetic intensity and analytical signal images on Figure 9.11.

As the 2005 magnetic data appears to be much less noisy and hence easier to interpret, this magnetic survey is not discussed in any more detail here.

The radiometrics data is again more detailed than the 2005 data (e.g. Figure 9.12) and this can be used to refine the regolith mapping.

Figure 9.11 a: Fugro 2011 Survey – TMI (left) and b: Analytical Signal (right)





(Source: Fugro, 2011)

Figure 9.12 Fugro 2011 Survey – Radiometrics (Thorium)



(Source: Fugro, 2011)



#### 9.6.1.2 Electromagnetics (EM)

An electromagnetic survey was flown over the Labola area by Fugro on behalf of HRG in 2011. Survey specifications are not provided but a review of the raw data shows lines were approximately 100 m apart and oriented north-south at a flying height of approximately 100 m. The total area covered was 184 km<sup>2</sup>.

The data appears to be good but there appears to be a considerable amount of interference from near surface features (water courses etc) in the near surface responses and a lack of data on the deeper responses, probably due to the near surface features dispersing the signal. Figure 9.13 shows the interpreted responses at 50 m below surface and 100 m below surface.



Figure 9.13 Fugro 2011 EM Survey – 50 m Depth Slice (left) and 100 m Depth Slice (right)

(Source: Fugro, 2011)

HRG's interpretation of the data from the EM survey along with the magnetics, radiometrics and topographic data resulted in the definition of four textural zones (potentially rock type variations due to different properties), three major shear zones and numerous lineaments (Figure 9.14).

The characteristics of the four textural zones are:

- Zone 3: Weakly magnetic with medium conductivity, interpreted as granodiorite with amphibolite lenses.
- Zone 4: Relatively low magnetism and conductivity values with low standard deviations, indicating a fairly uniform lithological unit, interpreted as volcanic sediments. There are, however, conductive areas in this unit, interpreted as shear areas.
- Zone 5: Very high conductivity values and is interpreted as a shale unit.
- Zone 7: Low magnetism and conductivity values, interpreted as sandstones.




#### Figure 9.14 HRG Interpretation of Airborne Survey data

(Source: HRG report - Rapport Annuel Permis De Recherche Labola 8 Septembre 2011 Au 7 Septembre 2012, HRG)

#### 9.6.1.3 HRG Induced Polarisation (IP)

A trial time domain gradient array IP survey of approximately 11 line kilometres was conducted by SAGAX on behalf of HRG over the main zone of workings at Daramandougou during 2005. This was very successful and demonstrated the close association of both chargeability highs and resistivity highs with the mineralisation outlined by the artisanal mining activity.

Based on this, a larger survey was undertaken during 2007 comprising approximately 233 line-kilometres.

This data again clearly shows a strong association between chargeability highs, resistivity highs and gold mineralisation (Figure 9.15 and Figure 9.16). This is interpreted as being due to the gold mineralisation being associated with quartz veining and silicification which are both characterised by resistivity highs, and also with sulphide alteration which is characterised by chargeability highs.

An interpretation of the data by SAGAX is shown on Figure 9.17.





Figure 9.15 IP Chargeability data reprocessed by Moydow (red = highs, blue = lows)

<sup>(</sup>Source: Provided by Moydow, 2021)





Figure 9.16 IP Resistivity data reprocessed by Moydow (red = highs, blue = lows)

(Source: Provided by Moydow, 2021)





# Distant Distant Distant Distant Distant Distant Distant 4,30.30 1155,006 10-00 10-073 10/05/01 1132068 11513008 1 MERICAN 11375000 LEGEND 1107-43715 Longer L 100001 11005008 10146-00 1102000W Résistivité forte NONCESS 10744.15 11077934 1 MODECON1 100.000 11252.00 1106-000 11002018 1100008 11050000 MORPHIA AND OLD LA KOPPELL R GOLD LTD. DE LABOLA PF GRILL IS DE LA LEVE DE POLARISATION PROVOQUEE -1272668 5274088

(Source: SAGAX interpretation for HRG)



#### 9.6.1.4 CAMEC Induced Polarisation Survey

During the period 2007-2008, the holder of the semi-mechanized exploitation permits within the Daramandougou and Wuo Ne area, Aristide Boudo, farmed these areas out under Joint Venture to UK (AIM) listed Central Africa Mining and Exploration Company (CAMEC). CAMEC commissioned geophysical contractors Terratec to conduct 12.4 line-kilometres (13 profiles, each 900 m long) of dipole-dipole IP across the main area of interest.

#### 9.6.2 Moydow

Moydow has not undertaken any new geophysical surveys but has collated and re-interpreted all existing data. The existing surveys show that geophysics works well in the project area. The main conclusions from the work completed so far are:

- 1. Magnetics: There is a very good correlation of gold mineralisation with the main NNE trending structure apparent in the data (Figure 9.8). This structure separates two distinct lithological sequences with different magnetic texture. It is interpreted that this is a major, crustal scale feature that has been the focus for fluid flow over a considerable period of time. Several sub-parallel structures are likely splays off the main structure or else separate structures related to the same stress regime and hence are also considered to be prospective for gold mineralisation.
- 2. Radiometrics: These are not very useful except for regolith interpretation showing a moderate association of high total count with laterite cuirasses and streams draining off them (Figure 9.9). This may be used to aid in regolith mapping.
- 3. Electromagnetics: The EM data is useful for mapping structural zones as shown in Figure 9.13. The 50 m depth slice shows two distinct trends, an ENE trend parallel to and in some places coincident with the artisanal workings (probably related to several sub-parallel structural zones) and a less well-defined NW trend that is probably related to drainage systems and the adjacent laterite plateaus (Figure 9.13). The 100 m depth slice minimises the near surface effects (although stream systems are still quite apparent) and more clearly highlights the ENE trends and especially the one associated with the majority of the artisanal workings (Figure 9.13). It is interesting to note that the main structural trend is a conductivity low with several internal conductivity highs. This is interpreted as being due to a large overall zone of silicification and quartz veining (that will have a low conductivity) within which, zones of more intense sulphide alteration are located (that will have a higher conductivity). The numerous sub-parallel zones are interesting. They may be due to graphitic schists within the sedimentary package but could also represent parallel shear zones that are potential drilling targets.
- 4. Induced Polarisation: The time domain, gradient array, IP data appears to be the most useful data for targeting exploration as there is a very good correlation between resistivity highs, chargeability highs and gold mineralisation. This is interpreted to be due to the association of gold with quartz veining and silicification (that generally has an associated resistivity high) and with sulphide alteration (that generally has an associated chargeability high). This can be clearly seen on Figure 9.19 and Figure 9.20. These figures also clearly show many similar but untested (by drilling or artisanal mining) zones of either resistivity highs, chargeability highs or both. These are all considered to be good drill targets. The dipole-dipole data is limited in extent but does show a similar correlation and also suggests that the mineralisation is likely to be depth continuous.







(Source: Provided by Moydow, 2021)







(Source: Provided by Moydow, 2021)







(Source: Provided by Moydow, 2021)



## 9.7 SATELLITE IMAGERY

#### 9.7.1 Historical

The topographic and photogrammetric data from satellite imagery is discussed in section 9.2 above. During 2010, HRG obtained ASTER satellite data over about 250 km<sup>2</sup> and produced various images using different spectral bands to highlight:

- Vegetation
- Lithology
- Quartz/Silica
- Kaolinite/Alunite
- Sericite
- Iron Hydroxides

These images were useful for mapping regolith on a regional scale (e.g. Figure 9.21) but do not appear to define alteration or mineralisation.



#### Figure 9.21 Aster Satellite Image – Lithology Highlighted

(Source: Provided by Moydow, 2021)



#### 9.7.2 Moydow

Moydow commissioned new stereo capture of 0.3 m resolution panchromatic Worldview 3 satellite imagery in 2021. Details of the capture are provided in section 9.1 above, along with topographic and cultural usage.

This satellite image also has limited multispectral capabilities, with 1.2 m resolution data reported in four bands – red, green, blue and near infrared.

The near infrared channel is useful for mapping vegetation as shown on Figure 9.22 where the data is shown as near infrared in the red band, visible red in the green band and visible green in the blue band. This also tends to highlight the artisanal workings – presumably because the vegetation has been stripped away.



Figure 9.22 Worldview 3 Data Captured 2021 – False Colour Image

(Source: Provided by Moydow, 2021)



## 9.8 TARGETS

#### 9.8.1 Historical Target Definition

HRG defined six targets for further exploration. The targets were defined using litho-structural interpretations based largely on the airborne magnetic, radiometric, topographic and electromagnetic data collected by Fugro in 2011.



#### Figure 9.23 HRG Exploration Targets

(Source:HRG)

The six targets are summarised in Table 9.1. HRG recommended that each of the areas of interest be investigated with ground geophysics and/or geochemistry and/or trenching and (based on the results of the ground work) profile drilling. It did not appear that this follow up work was initiated.



TARGET	Fault bend	Fault Splay or Intersection	Edge of Interpreted Intrusion	Magnetic Contrast	High k/Th Ratio	Interpreted Shear Zone	Decrease in Conductivity (Silicification)
1	Yes	Yes	Yes	Yes	Yes	Yes	
2		Yes	Yes	Yes	Yes	Yes	Yes
3	Yes	Yes	Yes		Yes	Yes	Yes
4	Yes	Yes	Yes		Yes	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	Yes	Yes		Yes	Yes	Yes	Yes

#### 9.8.2 Reinterpretation using the HRG and Taurus data

Moydow collated all of the available information and the final results of the HRG and Taurus drilling following Moydow's investment in the project. This database was then used, in association with a topographic survey, to update and rework a basic geological interpretation that essentially outlined structural corridors. This re-interpretation formed the basis of the Exploration Target documented in this report.

#### 9.8.3 Moydow Target Definition

Moydow has compiled, integrated and assessed all of the available information and has outlined targets based on each of the main data sets. These include:

- Drilling
- Artisanal Mining Activity
- Mapping and Rock Chip Sampling
- Soil Geochemistry
- Magnetics
- Radiometrics
- Electromagnetics (EM)
- Induced Polarisation (IP)

Based on this, Moydow selected targets and ranked them based on their perceived prospectivity (Figure 9.24) as indicated below:

- **Priority 1 Taurus Resource Targets:** These form the basis of the previous Taurus resource estimates (noncompliant) and only require twin drilling (underway) and minor infill drilling to obtain reportable resource estimates.
- Priority 2 HRG Resource Targets: These form the basis of previous HRG/Nordgold resource estimates (noncompliant). While twin drilling (underway) will enable some of these areas to be included in reportable resource estimates, much of the drilling is either too widely spaced or else has only a single drill-hole per drill line and hence some infill drilling should enable higher resource estimates. These are very good targets for quickly adding ounces.
- **Priority 3 Mineralisation Extensions:** Many areas of known mineralisation have not been closed off by drilling. These are obvious targets for resource extensions.
- **Priority 4 Untested Workings:** The newly acquired (February 2021) Worldview 3 satellite image shows many additional workings to those apparent in 2011 imagery. Most of these have not been drill tested and they represent obvious high order exploration targets.
- **Priority 5 Previous Drill Intercepts:** HRG partially tested several zones with broad spaced drilling (200-400 m line spacing) and these require infill drilling to ascertain their potential for additional resources. Even minor drill intercepts require follow-up at this spacing as "pods" of mineralisation 200-400 m in strike could have significant size potential.
- **Priority 6 IP Targets:** The majority of the known mineralisation (from drilling or artisanal workings) has an associated chargeability +/- resistivity high. This is due to the mineralisation being associated with sulphide alteration +/- silicification and quartz veining. Numerous combined chargeability and resistivity highs are known that have no previous drilling or artisanal mining activity (due to lack of outcropping mineralisation). These form high priority exploration targets.



- **Priority 7 Mineralisation Trends:** Several interpreted mineralisation trends have been identified by either trends of artisanal workings and/or open-ended IP anomalies. These are generally supported indirectly by EM, magnetic or geochemical data and form valid exploration targets. It is proposed that these are firmed up by additional IP surveys.
- **Priority 8 Geochemical Targets:** Most of the obvious geochemical targets have already been included in Priority 1 to 7 Targets noted above. A reasonably well-defined target is located in the western part of the tenement and this requires additional work to firm it up. Extensions to the existing IP survey are proposed.
- **Priority 9 EM targets:** A zone of high conductivity in airborne EM data is located to the south of the existing IP survey area and along strike from combined high chargeability and resistivity targets. This requires additional definition and it is proposed to extend the IP survey into this area.

The main targets are along the major interpreted central shear system (Figure 9.24) but there is strong evidence that there are several sub-parallel structures that also host significant gold mineralisation as shown by artisanal workings.

Priority 1 to 6 targets are all good walk-up drill targets whereas Priority 7 to 9 targets require additional definition prior to drilling. As IP appears to be the best direct targeting tool in the project area, it is suggested that the remainder of the tenement be surveyed using this method prior to drill testing any Priority 7 to 9 targets.

#### 9.8.4 Reverse Circulation and Diamond Drilling

In June 2021, Moydow commenced a drill program with two goals. The first goal was to twin existing drillholes and compare the results between the new data and the earlier data. This drilling is described in Section 10.

The second goal was to provide additional information for the estimation of a mineral resource by extensional drilling.

#### 9.8.5 Re-assaying using the LeachWELL method.

An issue in the work completed to-date was identified in that the coarse gold mineralisation had been ineffectively assayed by the 50 g fire assays. Typically, the coarser the gold, and the lower the average grade of the mineralisation, the higher the expected variability in the sample grades because the sample is too small to get a reasonable number of gold grains to make it a representative sample. This is typically balanced by taking and assaying larger samples in a technique like LeachWELL or Screen Fire Assaying.

At Labola, artisanal miners have been extracting visible gold (coarse gold) and relatively low grade. Aurum Consulting advised Moydow that some initial test work should be completed, and Moydow commenced a re-sample and re-assay program using two kilograms LeachWELL assays as described in Section 11.







(Source: Provided by Moydow, 2021)



# 10 DRILLING

Historical drilling is all drilling completed prior to Panthera acquiring the permits and the transaction with Moydow. Details of the historical drilling are summarised in Table 10.1 and Figure 10.1.

Several drilling campaigns were completed by HRG between 2005 and 2012 along a ten-kilometre strike length within the present day Moydow Wuo land permit area.

A significant drilling program was completed by Taurus Gold in 2011. This was focussed within two of the small-scale, semimechanized exploitation permits at Wuo Ne and Daramandougou which locate towards the centre of and fully enclosed by the HRG permit area.

In 2021 Moydow commenced a RC drilling program designed to validate historical drilling data and incorporating a LeachWELL pilot test study. The program consisted mostly of twin holes at the Daramandougou and Wuo Ne targets and some additional extension or infill drilling. In addition, exploration holes were drilled north of Daramandougou and in the drilling gap in the western zone as previous exploration work pointed to additional potential in this area.

 Table 10.1
 Summary of historical drilling for which Moydow has acquired downhole and assay data.

Company	RAB	RAB	RC Holes	RC	DD holes	DD	Total	Total
	Holes	metres		metres		metres	holes	metres
HRG	48	1,628	317	34,280	28	4,640	393	40,548
Taurus	-	-	44	5,059	103	19,949	147	25,008
Total	48	1,628	361	39,339	131	24,589	540	65,556

## **10.1 HRG DRILLING**

HRG carried out an extensive exploration program between 2005 and 2012. During that time, a total of 317 RC holes and 28 Diamond holes were completed in several drilling campaigns for an aggregate of 40,548 metres (Table 10.2).

Year	RAB holes	RAB metres	RC holes	RC metres	DD holes	DD metres	Total Holes	Total metres
2005	48	1,628	18	1,596	-	-	66	3,224
2007	-	-	-	-	-	-	-	-
2008	-	-	-	-	23	3,618	24	3,618
2009	-	-	-	-	-	-	-	-
2010	-	-	23	2,590	-	-	23	2,590
2011			276	30,056	5	1,022	281	31,078
Total	48	1,628	317	34,280	28	4,640	check394	40,548

Table 10.2 Summary of HRG drilling.

Table 10.3

Summary of sampling from all HRG drilling campaigns.

Campaign	Primary	Blanks	Standards	Duplicates	Total
	samples				Samples
2005 RAB	818	48	67	48	981
2005 RC	1,596	82	85	74	1,837
2008 DD	3,489	195	192	-	3,876
2010 RC	2,590	67	100	170	2,927
2011 RC	29,943	1,119	672	1,597	33,331





Figure 10.1 Drill plan showing collar locations for historical drilling and Moydow 2021 drilling on the Labola property.

(Source: Map provided by Moydow, 2021)

## 10.1.1 Overview of the HRG drilling

The first drilling carried out on the property was a combined RC and RAB reconnaissance program in 2005. The RC drilling was successful in intersecting high-grade quartz veins over a strike length of eight kilometres. Most of the holes were drilled at -45 degrees to an azimuth between 112 and 125 degrees.

A central mineralised corridor was delineated and in addition a notable intersection from a parallel structure some two kilometres east of the main mineralisation corridor was intersected in Hole LBR-016 (this zone was subsequently named by HRG as the Far East Target and is outside of Moydow's area of interest).

The relatively short RAB (Rotary Air Blast) drilling program in 2005 was aimed at proving continuity of the high-grade veins on a single section line across a zone towards the southern end of the as then delineated main mineralised zone where there were no artisanal workings. A total of 48 RAB holes were completed spaced 15 meters apart with an average depth of 34 meters and on line 3100N of the HRG local Labola Project grid. Holes had an azimuth of N111 degrees and at an inclination of -45 degrees. The RAB holes highlighted a lateritic layer varying in thickness from 3.5 m to 9 m. Sericite schists, chlorite schists and fine to coarse meta-sediments were intercepted under the laterite across the entire profile.



In the 2008 program HRG completed 24 diamond core holes to better understand the geology and more specifically the mineralization controls where the best assay results had been achieved from the 2005 RC program. Typically, one hole was drilled down-dip from a previous RC hole with two holes drilled 40 metres either side of the previous RC hole on each section. HRG reported 46 intersections with grades greater than 0.5 g/t Au and with a gram/metre value of greater than 2. An additional 54 intervals had grades greater than 0.5 g/t Au, but with gram/metre values less than 2.

The 2010 phase of drilling, completed at the same time as infill mapping and the production of a regional geological map led into the major follow-on drilling program conducted during 2010-2011.

The follow-on 2011-2012 HRG campaign was the main period of activity for HRG/Nordgold. And the RC drilling program was the largest drilling campaign to date on the project.

The combined drilling and mapping work completed between 2005 and 2012 allowed HRG to delineate a few zones as shown in Figure 10.2. These zones have subsequently been simplified by Moydow and described as the Western, Central, Eastern and Far East zones and cover a total strike length of 10 kilometres. The main geological/structural characteristics of each zone as reported by HRG are summarised in Table 10.4 below.

Figure 10.2 Map showing the target zones delineated by HRG between 2005 and 2012 in relation to the main zones within the 2021 Moydow project area. The maps show all drill collars in the Moydow historical drilling database.



(Source: Map provided by Moydow, 2021)

Table 10.4 Summary of geological characteristics of the target zones delineated by HRG between 2005 and 2012. The final column relates these targets to the 2021 target project target nomenclature adopted by Moydow.



HRG Zone	Strike	Dip	Strike	Typical	Mineralisation	Geology	Moydow
		·	Length	veinlet/vein	Widths		Zone
			-	widths			
Yarba Central	NNE-	75°W	1,700	0.1-2.0 m	1.0-5.0 m	Metasedimentary schists with	Central
	SSW					sandstones & siltstones	
Yarba West	NNE-	80°E	700	0.1-2.0 m	1.0-5.0 m	Metasedimentary schists with	Western
	SSW					minor mafic volcanic	
Yarba Nord	NNE-	80°W	1,300	0.1-2.0 m	1.0-5.0 m	Metasedimentary schists with	Western
	SSW					sandstones & siltstones	
Alkaida	NNE-	80°W	1,700	0.1-2.0 m	1.0-5.0 m	Metasedimentary schists with	Eastern
	SSW					sandstones & siltstones	
Alkaida SE	NNE-	75°E	500	0.01-2.0 m	1.0-5.0 m	Metasedimentary schists with	Eastern
	SSW					minor mafic volcanic	
Dessorpir	NNE-	Vertic	2,000	0.1-2.0 m	1.0-5.0 m	Metasedimentary schists with	Central
	SSW	al?				sandstones & siltstones	(South)
Geophysics	NNE-	75°E	2,000	0.1-2.0 m	1.0 m	Metasedimentary schists with	Eastern
Anomalie	SSW					minor mafic volcanic	
Far East	NNE-	-	-	-	-	-	Far East
	SSW						

Note: Far East falls outside of the 2021 Labola tenement

#### 10.1.2 HRG Collar Surveys

No information is available to Moydow on how the HRG collar surveys were collected. Field check surveys by Moydow in 2021 suggest that most of the collar easting and northing coordinates appear to have been surveyed with reasonably high precision. However, Moydow noted that collar elevations were less reliable (see Section 11.1).

#### 10.1.3 HRG Downhole Surveys

Moydow has imported any downhole survey data it could find in the acquired HRG dataset into its own drilling database. Downhole survey data is available for many of the holes. The 2010 and 2011 drilling programs had readings taken for the most part every 5 metres downhole with a Gyro style instrument. The earlier programs survey readings were typically recorded at either 30 metre or 50 metre intervals.

#### 10.1.4 HRG Core Orientation

Moydow does not have any information on core any orientation work which may have been done by HRG on the diamond drilling program completed in 2008.

#### 10.1.5 HRG Core Handling

Moydow has not had access to any documentation that catalogues HRG core handling procedures.

#### 10.1.6 HRG Core Photography

The database acquired by Moydow includes core photographs for five diamond drill holes from the 2011 campaign, LBC11-024 to LBC11-028 inclusive.

#### 10.1.7 HRG Density Measurements

A total of 2119 density measurements have been found in the HRG data but there is no documentation on the methodology used for measurments or the procedures adopted.

#### 10.1.8 HRG Geotechnical Logging

No Geotechnical data have been found in the HRG core logging data

#### 10.1.9 HRG RC Geological Logging

The HRG data compilations for each phase of drilling do include data on lithology, oxidation intensity, alteration, shearing intensity and quartz vein percentages and this information has been viewed and incorporated by Moydow for most of the holes.



# 10.2 TAURUS DRILLING

In 2011 Taurus Gold embarked on an exploration drilling program in the three PESM permit areas (1km<sup>2</sup> areas at Daramandougou 1, Wuo Ne and Wuo Panga) with the objective of delineating a maiden NI43-101 compliant Mineral Resource by mid-2012. Taurus completed 147 drill holes totalling 25,008 m drilled. The three permit areas, two of which were contiguous, cover a combined strike length of approximately seven kilometres and included parts of the Daramandougou and Wuo Ne target areas. Taurus referred to these three permits as constituting the Daramandougou Project.

The Taurus exploration program primarily targeted the two sub-parallel structures delineated by intense artisanal mining activities in these permit areas and now referred to by Moydow as the Central and Eastern zones.

#### 10.2.1 Taurus Diamond Drilling

Taurus commenced a DD program in the Daramandougou Project on 3 August 2011 and completed it on 18 March 2012. A total of 19,949.4 metres was drilled in 103 boreholes. The boreholes were drilled by two contractors namely Geodrill Limited (Geodrill) and Geotech reserves Ltd (Geotech). The location of all boreholes drilled by Taurus are illustrated in Figure 10.1 (orange circles).

The initial phase of DD consisted of 200 m spaced boreholes in Daramandougou 1 and Wuo Ne licences. A second phase of in-fill DD on an approximately 50 m by 50 m grid was aimed to systematically delineate the potentially auriferous structures within these areas. All boreholes were drilled at a nominal inclination of -50°. The boreholes were drilled with a HQ core diameter (63.5 mm) to hole lengths ranging from 100 m to 350 m

#### 10.2.2 Taurus Reverse Circulation Drilling

In 2011, Taurus also commissioned a RC drilling program in the Daramandougou Project. The stated aim of this program was to delineate and sterilise non-mineralised areas within the project areas. Forty-four RC holes and a total of 5,059 m were drilled (See Figure 10.1). All RC holes were collared with an azimuth of 110 degrees and an inclination of -50 degrees, and the holes were spaced at 75 m on each profile line. Several holes were aborted before attaining the planned depth of 120 m because of the ground water intersected, especially in the Daramandougou 1 area.

MSA (2012) reported that they did not directly witness the RC procedures but reported on these based on personal communications with the Taurus geologists.

#### 10.2.3 Taurus Collar Surveys

Drillhole collars were initially sited by Taurus geologists using a hand-held GPS (Garmin GPS60) and coordinate system UTM Zone 30 North and WGS 84 datum. PVC pipes were installed to mark collar positions with borehole numbers clearly marked on the pipes. In March 2012 all borehole collars were re-surveyed by Cometra using a Leica 805 with a nominal accuracy of  $\pm$  2 cm. The survey control point is the Geodetic BC No. 08091 marker situated approximately 15 km SSE of the project area.

#### 10.2.4 Taurus Core Orientation

The drill contractors used a Ballmark orientation tool for 90 of the 103 boreholes. The drilling of oriented core is best practice when exploring structurally controlled gold mineralisation as it allows for accurate logging of the orientation of structural elements.

#### 10.2.5 Taurus Downhole Surveys

Downhole surveys were undertaken by the two drilling contractors, who used different survey techniques.

Geotech surveyed a total of 80 holes using a Reflex Gyro instrument. Readings were taken at 10 m intervals. The Reflex Gyro is capable of producing high quality data in magnetic and non-magnetic environments. The survey was conducted after drilling operations were completed on each hole.

Geodrill used a Reflex EZ Trac and conducted single shot surveys on 67 holes. Geodrill took the first downhole survey measurement at a borehole depth of 6 m, the second measurement at 30 m and then successive measurements at 30 m intervals.

Taurus reported minimal deviation for all the boreholes.



Figure 10.3 Long sections along the Western and Eastern zones at Wuo Ne target from Taurus Gold showing significant mineralised drill intersection from diamond drilling. Note that the western zone reference of Taurus refers to the currently defined Central zone of Moydow.



(Source: Panthera Resources after Taurus Gold internal report, 2011)

## 10.2.6 Taurus Core Handling

Core handling procedures at the drilling site included core being directly transferred from the core barrel to a core holding facility close to the rig. The core was cleaned with water to remove all residual drill-related material that may have contributed to possible contamination. Core was arranged in the core box in such a way as to ensure that the core was consistently joined well by aligning features like bedding and foliation and by using the marked core orientation line. The core writer also marked all depths and recovered core lengths on the depth blocks.

Core boxes were then transported to the core yard in Banfora where depth block positions were recorded and checked for possible depths discrepancies. The orientation line was verified and the core metre-marked before photography and detailed logging commenced.

#### 10.2.7 Taurus Core Photography

Core photography was only conducted in direct sunlight. Digital photographs were downloaded, labelled with the hole identifier and depths intervals and the data was backed up in Taurus' central database located in Abidjan (Ivory Coast).

#### 10.2.8 Taurus Density Measurements

No density determinations were carried out whilst either MSA or the QP were on site. Consulting company Coffey Mining (Coffey) from Ghana conducted density measurements until November 2011 when their contract with Taurus was not renewed.

Coffey recorded a total of 2115 density determinations from core drilled in the Wuo Ne area and the Daramandougou area. Density determinations were made for approximately 10% of the database samples. The method used is thought to be the Archimedes principle (water displacement method) but had not been confirmed by the MSA audit because none were being undertaken at the time of their site visit.

#### 10.2.9 Taurus Geotechnical Logging

Taurus geotechnical staff recorded information such as core recovery, rock quality designation (RQD), number of fractures, joint condition, joint alteration, alpha and beta angles. The data was captured on customized geotechnical paper log sheets. Core recovery averaged 85% in weathered fractured material, and 98% in fresh solid rock.



When logging core, Taurus geologists recorded on paper log sheets geological information including rock type, alteration, mineralisation, structure together with the sample intervals. MSA (2012) concluded that Taurus adhered to an acceptable core logging procedure.

The logged data was captured into a customised Microsoft Excel spreadsheet. This spreadsheet was regularly emailed to the database manager in Abidjan for further validation and off-site storage.

MSA (2012) examined the paper log sheets for consistency in the geological logging and found the recorded information to be acceptable.

In the Taurus core database, there was some structural information recorded for 1,990 structures.

individual structures logged in core. Alpha and beta angle pairs were recorded for 1,032 of these structures, of which 604 were quartz veins or veinlets. This information and an interpretation of this data is summarized in chapter 7.

Moydow imported these 1032 alpha/beta pairs into its drilling database and converted the data to azimuth and dip readings for the structures. The data clearly demonstrate the dominant NE-SW orientation of quartz veins - 58% of veins recorded in core logging as mineralized fell within the 350-050-degree strike range. Notably 62% of those veins show a westerly dip versus 38% with a westerly dip (see also Section 7.3.2).

#### 10.2.10 Taurus RC Geological Logging

The Taurus field geologist logged all the drill chips at the drill site directly from the sample bag. A representative sample was scooped from the bottom to the top of the bag and washed to remove the very fine fraction. Representative rock chips were then selected and stored in plastic chip trays.

Geological logging of the rock chips involved identifying the rock types, gangue minerals, degree of alteration and weathering and type and size of sulphides if present. Geological information for each sample interval was recorded on paper log sheets.

MSA (2012) reported that the logging and handling of RC chips had been done to acceptable standards.

# 10.2.11 MSA Statement of Opinion on the Taurus Diamond and Reverse Circulation Drilling MSA (2012) concluded that:

- Collar surveys were performed using industry-standard instrumentation
- Downhole surveys were performed using industry-standard instrumentation
- Geological and geotechnical core logging meets industry standards for the targeted type of gold mineralisation
- Recovery data from core drill programs are acceptable
- Drill-hole configurations are generally appropriate for the sub-vertical auriferous structures and adequately tested the mineralisation
- No material issues were identified in the overall data collection process during the site inspection. Specific gravity determinations could not be verified or carried out because there was no appropriate instrument on site.
- MSA stated that it was of the opinion that the quantity and quality of the data are sufficient and could be used for a codecompliant Mineral Resource estimation. MSA noted that historic data (from the HRG 2008 drilling campaign) had been used by Taurus to define the limits of mineralisation and were not used to populate the grade block model generated by Taurus.

More detail on the review undertaken by MSA on the Taurus Gold drilling program can be found in Section 11 of this report

## 10.3 Synthesis of HRG and Taurus Drilling Results

Examples of significant intersections from the aggregate HRG and Taurus Gold drilling campaigns are shown in Figure 10.3. Numerous short high-grade intercepts are evident along the drilled strike length of the property, for example WNDD 015 2 metres at 130 g/t Au from 66 m to 68 m downhole. Significant wider mineralised intersections are particularly evident in the Daramandougou and Wuo Ne target areas, for example 46.5 metres at 1.95 g/t Au from 33.0 m to 79.5 m downhole in drillhole DRADD013.



# 10.4 MOYDOW DRILLING 2021

In September 2020 Moydow engaged consultants David Reading and Ivor Jones to carry out a comprehensive review of the Labola Project assessing previous work, QA\QC analysis, grade-tonnage evaluation, and recommendations for a path forward. This work recommended a pilot study involving a drilling program utilising LeachWELL bottle roll analysis as well as Fire Assay analysis of drill samples. The aim of the pilot study was twofold

- 1. Provide validation of the historical HRG and Taurus Gold drilling databases.
- 2. Assess the efficacy of the LeachWELL versus traditional Fire assay method in the context of a high coarse gold component to the Labola mineralisation.

Moydow undertook the recommended RC drilling program in 2021 and included additional exploration drilling on some of the obvious mineralisation extensions. A total of 23 holes were completed to twin historical drill holes, spilt between the Daramandougou and Wuo Ne targets.

In addition to the twin drilling element of the program, a few holes were drilled as infill and four holes were drilled in an area of sparser drilling to provide continuity of mineralisation.

The drilling program commenced on 22 May 2021 and concluded on 7 August 2021. An aggregate of 4,739 metres was drilled in 31 holes. 23 holes were twin holes, 2 were infill holes and 4 were step out exploration holes. Two were re-drilled (see Figure 10.5 and Figure 10.6). Table 10.5 below gives collar details for the actual drilled program.







(Source: Map provided by Panthera Resources, 2021)



#### Table 10.5 Collar details (UTM84-Z30) for the Twin and Exploration drilling undertaken by Moydow in 2021.

Hole ID	Easting (mE)	Northing (mN)	Elevation (mZ)	Depth (m)	Azimuth	Dip	Prospect	Туре	Parent Hole ID
WN-LW-21-001	326,286	1,188,771	345	130	105	-50	Wuo Ne	Twin	WNDD-022
WN-LW-21-002	326,229	1,188,800	342	193	105	-50	Wuo Ne	Twin	WNDD-042
WN-LW-21-003	326,303	1,188,807	346	133	105	-50	Wuo Ne	Twin	WNRC-013
WN-LW-21-004	326,255	1,188,838	343	128	105	-50	Wuo Ne	Twin	WNDD-055
WN-LW-21-005	326,298	1,188,834	346	130	111	-45	Wuo Ne	Twin	LBR11-234
WN-LW-21-004A	326,266	1,188,832	344	170	111	-45	Wuo Ne	Twin	WNDD-055
WN-LW-21-006	326,312	1,188,875	347	122	111	-45	Wuo Ne	Twin	LBLC08-021
WN-LW-21-007	326,286	1,188,898	349	180	106	-50	Wuo Ne	Twin	WNDD026
WN-LW-21-008	326,327	1,188,906	347	115	111	-45	Wuo Ne	Twin	LBR11-235
WN-LW-21-009	326,348	1,188,941	343	110	111	-45	Wuo Ne	Twin	LBR05-006
WN-LW-21-010	326,318	1,188,954	344	122	111	-45	Wuo Ne	Twin	LBLC08-020
WN-LW-21-011	326,409	1,189,060	335	110	111	-45	Wuo Ne	Infill	-
WN-LW-21-012	326,453	1,189,149	334	104	111	-45	Wuo Ne	Infill	-
DRA-LW-21-001	326,845	1,190,611	338	152	106	-50	Daramandougou	Twin	DRADD015
DRA-LW-21-002	326,854	1,190,703	340	218	112	-45	Daramandougou	Twin	LBLC08-023
DRA-LW-21-003	326,901	1,190,739	343	194	106	-50	Daramandougou	Twin	DRADD023
DRA-LW-21-004	326,926	1,190,786	345	182	106	-49	Daramandougou	Twin	DRADD012
DRA-LW-21-005	326,969	1,190,913	349	167	112	-45	Daramandougou	Twin	LBR11-191
DRA-LW-21-006	326,977	1,190,940	350	164	106	-49	Daramandougou	Twin	DRADD027
DRA-LW-21-007	326,998	1,190,966	350	142	112	-45	Daramandougou	Twin	LBR10-020
DRA-LW-21-008	327,039	1,191,008	351	152	112	-45	Daramandougou	Twin	LBR11-192
DRA-21-009	326,932	1,190,889	347	224	110	-50	Daramandougou	Twin	LBLC11-024
DRA-21-010	326,953	1,190,975	348	224	110	-50	Daramandougou	Twin	LBLC11-026
DRA-21-011	327,011	1,191,077	350	204	110	-45	Daramandougou	Twin	LBLC11-025
DRA-21-012	327,029	1,191,172	351	140	110	-50	Daramandougou	Twin	LBLC11-027
DRA-21-013	327,091	1,191,136	354	108	110	-50	Daramandougou	Twin	LBLC11-027
DRA-21-014	326,961	1,191,551	356	127	105	-60	Daramandougou	Expl	-
DRA-21-014A	326,960	1,191,542	356	162	105	-60	Daramandougou	Expl	-
DRA-21-015	327,001	1,191,617	357	156	105	-60	Daramandougou	Expl	-
DRA-21-016	327,221	1,191,443	359	126	105	-60	Daramandougou	Expl	-
DRA-21-017	327,248	1,191,546	360	150	105	-60	Daramandougou	Expl	-

(Source: Moydow, 2021)







(Source: Map provided by Moydow, 2021)

## 10.4.1 Moydow RC collar surveys

Two phases of collar survey were completed by Compagnie d 'Etudes et de Travaux (COMETRA). The first phase (28.2.21-7.3.21) was completed as part of the license survey program and the initial planned parent holes to be redrilled. The new referenced points would serve for future surveys. A total of 21 drill collar holes were surveyed at Wuo Ne (13 holes) and Daramandougou (8 holes). A 2cm-accuracy differential GPS was used, comprised of:

- A differential GPS
- A pair of RTK receptors,
- One mobile CHC NAV
- A tripod
- One GARMIN GPS MAP64
- A Base antenna unit
- A Base receiver





Figure 10.6 Collar plan for Moydow's 2021 drilling program at the Daramandougou target.

(Source: Moydow, 2021)

The second survey phase surveyed the collar positions for the recent 31 holes drilled (including one redrill at Wuo Ne and one redrill hole at Daramandougou) and was completed on 16 and 17 August 2021. A total station was used, with accuracy of 2 cm. Instruments used were:

- 02 Leica T705 total stations
- 02 light indicators
- 04 prism holder rods
- 02 pairs of walkie-talkies
- A pair of RTK receivers GNSS TRIMBLE RG
- 03 receivers GPS SOKKIA STRATUS
- 01 GARMIN GPS MAP76

#### 10.4.2 Moydow RC downhole surveying

Downhole single-shot surveys were completed by the contractor Minerex using an EZ-track reflex tool. Readings were taken every 6 m, then at 30 m intervals and eventually at the bottom of the hole. To avoid complications due to the ingress of water, readings below the water table were undertaken after the completion of holes. Readings were made inside a stainless



rod mounted on top of the hammer. However, after the loss of rods in hole DRA-LW-21-012, The Moydow team completed manual readings at the end of the program using a 50cm diameter, pvc rod attached to a rope.

#### 10.4.3 Moydow RC density measurements

There are various methodologies to determine density and in the 2021 program the pycnometer method was used. Measurements were undertaken at the SGS laboratory in Ouagadougou, using water as the liquid and RC chips as sample. The method employs Archimedes' principle of fluid displacement and Boyle's law of volume-pressure relationships, respectively, for liquid and gas. The key parameters measured are the mass and the volume of the samples. At SGS these parameters were determined following precise measurements of weight and volumes:

Firstly, the weight (m0) of the empty pycnometer is measured. Then, water is added to a given level and the weight of pycnometer plus water (m1) is determined. This allows the determination of the mass of water added. The weight of the pycnometer together with the sample (m2) is also measured. The mass of the sample can therefore be calculated. Finally, some water is added to the sample in the pycnometer to reach the initial level; the total weight of the pycnometer, water and sample is determined (m3). The relation above allows the determination of the sample volume and therefore the calculation of the density of the sample through the formula:

$$D = \frac{\mathrm{m2}}{\mathrm{m2} + (\mathrm{m1} - \mathrm{m0})}$$

A total of 177 samples from 25 Moydow RC holes were measured for pycnometer density determinations to provide verification and checking against the existing database of 4234 historical density samples.

#### 10.4.4 Moydow RC chip photography

All drilled meters were sieved and washed for logging purpose. The washed chips were laid on a 1 m-by-1 m chip trays and divided into 10cm-by-10cm squares. Photos were taken of both dry and wet chip trays to assist with geological logging. Washed chips are stored long term in plastic chip trays.

Figure 10.7 RC chips are logged and stored in plastic chip trays by the Moydow geologists ensuring an easily accessible record of the chips is available



(Source: Photograph courtesy of Moydow, 2021)



#### 10.4.5 Moydow Geological logging

The principal parameters recorded in the geological logs were level of oxidation, weathering profile, regolith intercepted at shallow levels, color, lithology, alteration, mineralization, and veining.

- Oxidation refers to overburden, saprolite, saprock or fresh rock
- Weathering related to the level of fabric destruction and varied from completely weathered (cover material), highly weathered (saprolite), moderately or slightly weathered (saprock) or fresh rock
- Regolith intersections above the fresh rock interface were classified as soil (Rso), colluvium (Rco), eluvium (Rel), saprolite (Rsa) or saprock (Rsp)
- Color referred to the color of the sample powder collected at the cyclone
- Lithology was the geological name given to the rock unit: examples would include fine grained sediment (Ssp), greywacke (Ssg), Felsic rock (F) etc.
- Alteration covers observations related to hydrothermal alteration versus the influence of meteoric groundwaters.
- Mineralization relates to type of sulfides and their percentage in the rock mass for every meter logged.
- The veining column recorded predominantly the presence of quartz veins or stringers-veinlets of quartz and occasionally carbonate of feldspar veins.

#### 10.4.6 Aurum Statement of Opinion on the Moydow Drilling.

Aurum has concluded that:

- Collar surveys were performed using industry-standard practices and instrumentation
- Downhole surveys were performed using industry-standard practices and instrumentation
- Geological core logging of RC drill samples meets industry standards for the targeted type of gold mineralisation
- Recovery data from the RC drill programs are acceptable
- Drill-hole orientations are generally appropriate for the sub-vertical auriferous structures and adequately tested the mineralisation
- No material issues were identified in the overall data collection process during the site inspection. Specific gravity
  determinations could not be verified because these were not undertaken at site but completed in Ouagadougou
  by SGS.

Based on the twin drilling and the verification work completed by Aurifer, Aurum and Moydow, Aurum is of the opinion that the quantity and quality of the data are sufficient and could be used for a code-compliant Mineral Resource estimation.



# 11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

# 11.1 HRG DRILLING SAMPLING

Information in this section on HRG sampling has been derived from various internal HRG exploration reports and available spreadsheets and laboratory certificates. During the period 2005-2012 HRG completed 40.5 km of exploration drilling which included 34,250 m (317 holes) of Reverse Circulation ("RC"), 4,640 m (29 holes) of Diamond Drilling ("DD") and 1,628 m (48 holes) Rotary Air Blast ("RAB"). Drilling was principally focused on the 11 km strike length along the West, Central and East gold zones as outlined by historical artisanal gold activity. In this section Moydow has made every effort to complie and assess all available sampling data was acquired from Nordgold, the latter acquired HRG in 2012.

#### 11.1.1 HRG Sampling procedures

Moydow does not have a lot of detailed information on sampling and assaying procedures employed by HRG on the project. However, photographs of drilling operations in several technical HRG reports on the project, suggest that sampling procedures were generally in line with industry practice.

Figure 11.1 Photograph from the HRG Annual report for 2010 on the Labola Project shows the careful preparation of a chip board for RC sample logging purposes.



(Source: Photograph courtesy of Moydow, 2021)

RC drilling samples weighing approximately two kilograms were systematically taken at one-meter intervals downhole. It is not clear how the two kilograms split was achieved. No information is available to Moydow on wet RC sampling. It is noted that on the adjacent Taurus Gold project occasional issues arose from groundwater causing termination of some holes.

No specific detailed information on HRG drill core handling procedure has been seen by the author.

#### 11.1.2 HRG Sample Analysis

All the samples were sent by HRG to either BUMIGEB and/or BIGS laboratories located in Ouagadougou for mechanical preparation and then sent to the assay laboratory (in most cases Abilabs in Ouagadougou) (HRG 2013). Abilabs analysed for gold by the fire assay on a 50 g assay charge and atomic absorption finish. At least one batch of samples from drillhole LBR10-019 were sent for check analysis at the SOMITA laboratory in Ouagadougou (see Section 11.1.3) but regular, independent laboratory assay checks were not undertaken. Abilabs were subsequently acquired by ALS.

Moydow has acquired only a small number of the original HRG assay certificate reports but has been able to access detailed HRG assay collations from the HRG database. The compilation files created by Moydow contain an abundance of QA/QC data.



#### 11.1.3 HRG QA/QC Samples

HRG reported that for its RC drilling programs each 100 samples QA/QC samples were inserted at random intervals as follows:

- three ordinary blanks,
- two field blanks,
- five ordinary duplicates (Field Duplicates),
- two reject duplicates (FR),
- three grind duplicates (DC),
- two spray duplicates (DP) and
- two standards (50 g) CRMs

A collation of all available assay compilation files acquired with the HRG database shows that the frequency of QA/QC sample insertion for the most part was consistent with this stated frequency for the RC program and the DD program followed a similar sampling protocol.

#### **HRG Duplicate Samples**

The Moydow drilling database has assay data for 1,843 primary drill sample/field duplicate assay pairs from the HRG drilling database. Data for the assay pairs are plotted in Figure 11.2. Pairs have been classified by the relative differences between primary and duplicate assays.

#### **HRG Blanks**

The Moydow drilling database has assay data for 1,547 individual Blank samples from HRG with a referenced assay report number. These data are plotted in Figure 11.3. Thresholds have been set at x3 detection limit (GOOD), x 5 detection limit (CAUTION) and x10 detection limit (CHECK) for Au ppm.

Table 11.1 gives a statistical summary of the lab performance for the QA/QC Blanks for RC, DD and RAB drill samples based on these thresholds

#### **HRG Standards**

The Moydow HRG database of HRG drilling data lists 1085 Sample IDs with a corresponding CRM ID. However, some of these Sample IDs had missing assay data or missing information with the CRM details. Where such data was incomplete, Aurum excluded these samples from its assessment of laboratory performance versus CRMs. Table 11.2 below lists a summary of assay statistics for the seven individual CRMs with the largest amount of reliable assay data from the reverse circulation drilling sampling program.

Summary	Count	Min	Max	Caution	Caution %	Check	Check %
RC	1283	0.005	0.650	230	17.9	40	3.1
DDH	216	0.005	0.081	16	7.4	7	3.2
RAB	48	0.005	0.090	4	8.3	2	4.2
Total	1547	0.005	0.650	250	16.2	49	3.2

 Table 11.1
 Summary of assay performance for Blank samples from the HRG drilling





#### Figure 11.2 Analysis of assay grades for duplicate samples versus original samples for all available HRG drilling data.







Standard	Best value (g/t Au)	No. of samples	No. in good range	No. in caution range	No. in check range	% Good	% Caution	% Check	Bias (%)
Standard C	0.57	136	102	34	0	75.0	25.0	0.0	-8
OXE86	0.613	47	40	7	0	85.1	14.9	0.0	0.2
OXE74	0.615	239	128	77	34	53.6	32.2	14.2	-3.1
Standard A	1.78	60	34	26	0	56.7	43.3	0.0	-7.7
OXI67	1.817	66	35	27	4	53.0	40.9	6.1	-0.2
OXK79	3.532	88	62	17	9	70.5	19.3	10.2	-0.8
OXK69	3.583	137	63	45	29	46.0	32.8	21.2	-3.2

Table 11.2Summary of laboratory performance for seven of the Certified Referce Material standards used by HRGin its QAQC program for RC drilling

Figure 11.4 Chart showing the laboratory performance for seven of the Certified Refence Material standards used by HRG in its sampling of RC drilling



HRG Standard Distribution (RC)

#### 11.1.4 HRG Check Sampling

HRG carried out a limited check sampling program with a second laboratory on 2010 when a batch of 19 samples from LBR10-019 was sent to SOMITA lab. Figure 11.5 and Table 11.3 show the comparison of the SOMITA results with the ALS results.

In that 2010 Annual report, HRG stated its view that the check sampling results demonstrated that the two laboratories were performing very well.

This is the only data on umpire sampling available for review by Aurum from the HRG drilling database that was acquired by Moydow.







(Source: HRG, Report Annuel Labola 2009-2010, November 2010)

Table 11.3	Assay data from ALS and SOMITA laboratories for the HRG independent check sampling

Hole_ID	From (m)	To (m)	Sample_ID	ALS Au ppm	SOMITA Au pm
LBR10-019	44	45	650051	1.410	1.760
LBR10-019	45	46	650052	0.370	0.234
LBR10-019	46	47	650053	0.200	0.304
LBR10-019	47	48	650054	1.940	2.470
LBR10-019	48	49	650055	0.280	0.174
LBR10-019	49	50	650056	0.420	0.481
LBR10-019	50	51	650057	0.060	0.080
LBR10-019	51	52	650058	0.030	0.056
LBR10-019	59	60	650067	0.005	0.047
LBR10-019	60	61	650068	0.010	0.041
LBR10-019	61	62	650069	1.280	1.434
LBR10-019	62	63	650071	0.280	0.230
LBR10-019	63	64	650072	0.020	0.057
LBR10-019	64	65	650073	0.010	0.046
LBR10-019	65	66	650074	0.010	0.041
LBR10-019	66	67	650076	0.050	0.086
LBR10-019	67	68	650077	0.100	0.178
LBR10-019	68	69	650078	0.090	0.150
LBR10-019	69	70	650079	3.890	

Source HRG, Report Annuel Labola 2009-2010, November 2010

#### 11.1.5 HRG Diamond Core Sampling

No specific information is available to Moydow on core handling and sampling procedures employed by HRG except for the QA/QC protocols mentioned above. In addition, some photographic evidence from HRG project reports does suggest professional core handling procedures were adopted.



#### 11.1.6 HRG Security Protocols

No information is available to Moydow in respect of security protocols employed by HRG at Labola in its work between 2005 and 2011.

#### 11.1.7 QP Comments on HRG QA\QC

The QA\QC analysis undertaken on the HRG data is based on spreadsheet information acquired by Moydow from HRG. There were very few original assay reports for HRG samples, either digital or hard copy in the acquired database. The frequency of sampling was adequate but there was considerable variance in data spreads for blanks, standards and duplicates compared to the equivalent Taurus data.

For Higher grade Standards a considerable portion of the sample pairs fall into the combined caution plus Check categories rather than the good category. Results for standard analysis have a low-grade bias

Only very limited data on umpire sampling was available in the HRG drilling database acquired by Moydow

Notwithstanding the above comments, 13 HRG holes were twinned during the 2021 Moydow drill program and the reproducibility of results were good with data clearly defining the same zones as outlined in the original data set with very similar grades (see section 12).

## 11.2 TAURUS DRILLING SAMPLING

The information below is largely gleaned from the 2012 MSA audit report on the Taurus Gold Labola/Daramandougou Project.

As part of its 2012 project audit MSA presented information obtained from the Standard Operating Procedures (SOP) prepared by on-site consultants Coffey Mining and verified by MSA during its on-site visit through interviews and discussions with Taurus' technical team.

Coffey Mining (Coffey) was involved in the planning and execution of all exploration programs until November 2011 when their contract with Taurus was not renewed.

Taurus submitted a total of 2,702 chip samples and 16 388 core samples from the RC and diamond core drilling campaigns to the Bureau Veritas Laboratory (BVL) in Abidjan, Ivory Coast, for gold analysis by fire assay with atomic absorption spectroscopy (AAS) finish.

During March 2012 Taurus submitted a further 2 640 core samples to ALS Chemex Laboratory (ALS) in Ouagadougou, Burkina Faso, for gold analysis by fire assays and AAS + gravimetric finish. The decision to use a second laboratory was made because the first laboratory repeatedly failed to report assay results within the stipulated turnaround time.

The MSA report covers assay results received as at 18 May 2012.

#### 11.2.1 Taurus RC Sampling Procedures (after MSA, 2012)

Prior to drilling all sampling equipment including cyclone, barrels, sample splitter and flexible hoses were confirmed to be clean and in good operational condition.

The contractor ensured that the cyclone chimney was long enough to prevent any spillage or loss of sample. Electric vibrators were mounted on the cyclone to prevent a build-up of material within the cyclone. The cyclone was adjusted to a height that ensured that the sample bag was well supported and not hanging from the outlet.

Sample bags were pre-numbered to eliminate "rush-hour" mistakes. Quality control samples were pre-selected and recorded in a customised sample register.

Taurus' technical team confirmed that sampling was carried out continuously with each sample representing one metre advance in the drill depth. The full sample bag was only removed from the cyclone and replaced by the next sample bag when the airflow had been completely cut-off. Hand signals between the sampler and the drill operator were employed to ensure accurate sample intervals.

At the end of each one metre sample interval, a "blow out" period was allowed to remove all remaining rock chips from the hole and hoses.



After collection of the sample from the cyclone the number of the sample and the physical condition of the sample (i.e., dry, wet, damp) was recorded on the sample sheet.

MSA noted that weighing of samples was not done during the drilling process.

The entire sample was run through a Jones splitter designed such that the two bins were large enough to accommodate the complete sample and the apertures were sufficiently wide for all rock fragments to pass. The riffle splitter was fed slowly and at a constant rate to ensure such that the entire width of the splitter was used.

Each RC sample was split repeatedly until one bin contained about two kilograms of sample material. The two kilograms sample was transferred into a labelled plastic bag and represents the assay sample. A manila tag with the number clearly written in waterproof ink, or a pre-printed label or aluminium tag was stapled on the inside of the bag. The opening of the bag was folded backwards twice and in such a way that the first fold will cover the number tag. The corresponding number was written on the outside of the bag with a waterproof marker pen to allow that sample numbers can be easily reconciled before sample submission and storage.

The remaining sample, or a representative split thereof, in the original bag represents reference material which is numbered and stored. MSA noticed that these reference samples were not adequately stored, and Taurus is addressing this issue. The large sample bags were lined up in numerical order.

A recommendation from the 2012 audit was that that wet or damp samples should not be riffle-split because these samples would not be representative and would clog the splitter, and potentially contaminate the next sample passed through the splitter.

MSA noted that Taurus on-site staff had confirmed that attempts were made in both the Daramandougou 1 and Wuo Ne areas to drill beyond the water table and several boreholes had to be aborted at depths ranging from 63 m to 100 m due to operational complications caused by the wet material.

MSA noted the Taurus' geologist's description of wet sampling as follows: Wet samples were split by cone and quartering. The sample was mixed thoroughly and then coned on a large plastic sheet. The cone was split into four portions from which portions 1 and 3 were returned into the original bag, while portions 2 and 4 were combined, mixed, and coned again. This process was repeated until a two kilograms sample was obtained. All excess material was returned into the original sample bag.

MSA recommended to Taurus that drilling beyond the water table not be continued because the finer material is partly lost and retained in the cyclone and hoses which invariably will result in non-representative samples. MSA further noted that wet sampling would impact negatively on any mineral resource confidence level.

#### 11.2.2 Taurus DD Sampling Procedures (after MSA, 2012)

Taurus selected core intervals for assaying based on a combination of geological criteria such as marker-horizons, lithology, presence of mineralisation and structurally favourable zones.

Taurus only selected core intervals with visually mineralised quartz-veins and sulphide-enriched zones for sampling. Core was removed from the core boxes and packed into a V-shaped, six-metre-long angle iron and arranged by using the core orientation line to ensure that bedding and foliation planes are aligned to the satisfaction of the responsible technician. In most cases the orientation line was accepted as the reference line along which the core was split.

The Taurus geologist determined the sample intervals concentrating on the various lithologies, quartz-veins, narrow shearzones, and sulphide-enriched zones. Sulphide-rich zones were sampled at one metre intervals while the minimum sample length in mineralised quartz-veins and narrow shear-zones was 20 cm.

Non-mineralised core was originally sampled at one metre intervals, but it is understood that a better understanding of the mineralisation prompted the decision to discontinue longer sampling of apparently barren intervals.

The mineralised zones selected for sampling were split into two halves using a core cutter equipped with a diamond-impregnated blade.

The upper half of each sample was removed from the core tray and placed in a plastic sample bag. A printed alpha-numeric sample number was stapled onto the top of the bag, before the bag was sealed, and the sample number written on the outside. The corresponding sample number was written with a permanent marker on the cut surface of the remaining core sample. The end depth of each sample was measured and written on the cut surface of the remaining core.

Sample numbers and depths were recorded on a sampling log sheet and subsequently captured on the site computer. The digital logs were regularly emailed to the database manager. The database manager performed initial validation routines in



Microsoft Excel and then imported the data into Explorer 3.6, a relational database management software capable of querying and validating data.

Batches of 15 samples were placed in a woven sack and the company name and the range of sample numbers were clearly written on the outside. The samples were secured at the back of a Taurus pick-up truck and were transported to Bureau Veritas Laboratory in Ivory Coast which was the primary laboratory for the Taurus project.

#### 11.2.3 Taurus Sample Analysis

Taurus submitted a total of 2,702 chip samples and 16,388 core samples from the RC and diamond core drilling campaigns to the Bureau Veritas Laboratory (BVL) in Abidjan, Ivory Coast, for gold analysis by fire assay with atomic absorption spectroscopy (AAS) finish.

During March 2012 Taurus submitted a further 2,640 core samples to ALS Chemex Laboratory (ALS) in Ouagadougou, Burkina Faso, for gold analysis by fire assays and AAS with gravimetric finish. The decision to use a second laboratory was made because BVL repeatedly failed to report assay results within the stipulated turnaround time.

The MSA report included assay results received as of 18 May 2012.

#### 11.2.4 Taurus QA/QC Sampling Protocols

In an audit of the Taurus project in February 2012 MSA (MSA, 2012) noted that up to February 2012 Taurus had inserted one standard reference material, one blank control sample and one duplicate for every fifty samples for both RC drill sampling and DDH drill sampling. This implemented protocol was found to be inadequate by the MSA geologist who recommended insertion of 5% standard reference material, 5% blank, 10% duplicate (combination of coarse field + pulp duplicates) and 5% submission of umpire samples going forward to comply with the requirements of public reporting on mineral resources.

#### 11.2.5 QA/QC data for the Taurus Drill Sampling Program

The general sample stream for the Taurus drill samples included 3 ordinary blanks, 2 local sample blanks, 5 duplicates, 2 reject duplicates, 3 crushing duplicates, 2 grinding duplicates, and 2 Certified Reference Samples per 50 samples submitted to the laboratory.

#### Taurus Standards

The Moydow drilling database has assay data for 397 individual CRM Standards samples from the Taurus drill assay program as tabulated in Table 11.4. Given the relatively small number of data points for the RC program this assessment of laboratory performance with respect to CRMs has been limited to the Taurus DD program.

CRM	Diamond Drilling	Reverse Circulation
G901-1	107	19
G901-7	101	16
G901-9	89	16
G905-5	6	-
G905-11	43	-
Total for Drilling	346	51

Table 11.4A summary of CRMs included in the analysis of laboratory performance in this report with respect toStandards inserted into the Taurus diamond drilling and reverse circulation.

In this assessment of the lab performance for the CRMs for DD drill sampling, assays thresholds have been set at x1 Standard Deviation Au ppm (GOOD), x2 Standard Deviation Au ppm (CAUTION) and x3 Standard Deviation Au ppm (CHECK)

Figure 11.6 summarises the lab performance for assays for four of the most frequently used CRMs based on these thresholds. Only the high-grade standard has some check assaying. All results had a lower grade bias of 1-3%.




#### Taurus Blanks

The Moydow drilling database has assay data for 469 individual Blank samples from the Taurus drill assay program with a referenced assay report number. These data are plotted in Figure 11.7. Thresholds have been set at x3 detection limit (GOOD), x 5 detection limit (CAUTION) and x10 detection limit (CHECK) for Au ppm.

Table 11.5 summarises the assay performance for the Taurus QA/QC Blanks for RC and DD drill samples based on these thresholds.



#### Figure 11.7 Laboratory performance for QA/QC Blanks for Taurus Gold RC and DD drilling programs at Labola

The chart shows an acceptably low level of contamination for most of the program. The apparent rise in contamination levels evident in the chart appears to be a function of a change in laboratory in for the latter part of the drilling program which reported results with a higher detection limit.

Table 11.5 Summary of laboratory performance for QA/QC Blanks for the Taurus drilling sampling



Summary	Count	Min	Max	CAUTION	CAUTION %	СНЕСК	CHECK %
RC	51	0.005	0.010	0	0	0	0
DDH	418	0.005	0.230	28	6.7	2	0.005
Total	469	0.005	0.230	28	6.0	2	0.004

#### **Taurus Duplicates**

The Moydow drilling database has assay data for 530 primary drill sample/field duplicate assay pairs from the Taurus drilling database. Data for the assay pairs are plotted in Figure 11.8. Thresholds have been set at one Standard Deviation Au ppm (GOOD), two Standard Deviations Au ppm (CAUTION) and three Standard Deviations (CHECK) Au ppm. The table within the figure classifies the assay performance for the Taurus QA/QC Blanks for RC and DD drill samples based on these thresholds. Apart from a high-grade outlier the duplicate assaying falls within acceptable limits for gold distributions.

#### **Taurus Independent Check Samples**

A total of 963 umpire samples were randomly selected by Taurus across the grade range from samples previously submitted to the BVL laboratory and submitted to ALS for check assays. This represents 5.5% of samples that had been submitted to BVL at that time.

The results are plotted in Figure 11.9. The mean assay value for the ALS umpire samples was 0.211ppm versus a mean 0.198 for the original BVL fire assays.



#### Figure 11.8 Primary gold assays versus Field Duplicate gold assays from the Taurus Gold drilling database



#### 11.2.6 Taurus Security Protocols

According to MSA (2012) Taurus implemented robust security protocols and procedures which followed industry-specific standards and provided an acceptable chain-of-custody.

The drill core intervals selected for sampling were split with a core cutter and placed into sample bags together with the sample tickets. The sample number was written on the outside of the sample bag after verifying that the correct sample ticket had been inserted into the bag. The sample bag was then rolled up and sealed with duct tape without obscuring the inserted sample ticket and the sample number written on the bag. The bags were placed in numerical order until the sampling was completed and verified by the geologist.

The samples were then packed into large woven bags, which were labelled and the number of samples in each bag recorded. The geologist completed a sample submission form, and each bag was closed with security cable ties. Taurus delivered the samples to the laboratories accompanied using their own personnel, with the drivers having been made aware of the sample delivery and submission procedures.

The Taurus geologist emailed a copy of the sample submission form to the respective laboratory. The form listed the date and number of bags submitted, sample numbers, analytical codes, and requirements, and to whom the assay results should be forwarded.



#### Figure 11.9 Taurus Umpire Laboratory Check assays

Summary	univaritate	e statistics	Pair mean relative	e differences
Statistic	Original	Umpire	Relative Difference	% of data
Number of data	961	961	± 1%	7.2%
Maximum	16.680	11.000	± 5%	10.1%
Minimum	0.005	0.005	± 10%	15.1%
Mean	0.198	0.211	± 20%	25.2%
First quartile	0.005	0.020	± 50%	57.4%
Median	0.010	0.040	± 75%	86.3%
Third quartile	0.050	0.080	± 100%	100%
Skewness	0.578	0.624		
Standard deviation	0.978	0.822		
Coeff. of variation	4,929	3.898		

11.2.7 MSA (2012) comment on the Taurus sample preparation



MSA (2012) undertook an audit of Taurus QA\QC and reported that it considered the sample preparation, security and analytical procedures employed to be appropriate and adequate for an exploration program of this nature. No aspect of the sample preparation or analysis was conducted by an employee, officer, director, or associate of Taurus.

Analysis of the CRM, blank and duplicate assay results indicate reasonable accuracy and precision, and insignificant contamination respectively by both BVL and ALS. This was supported by the ALS umpire results on samples previously analysed by BVL, representing most samples in the database. The lack of umpire assays for the ALS work slightly undermines confidence in the ALS primary results, although these comprise a minor proportion of total samples in the database.

#### 11.2.8 QP comments on Taurus QA\QC data

Moydow has acquired all the Laboratory assay reports for the Taurus work. The Taurus drilling database acquired by Moydow is a database where accuracy, contamination and precision all fall within acceptable performance levels.

A low bias is noted for one of the high-grade standards

Results from Umpire assaying, and resampling are reasonable. Very little additional work was required except some twinning. Moydow have twin drilled 10 previous Taurus holes with very good reproducibility (see section 12).

It is noted that diamond drilling samples have a higher coefficient of variance compared with RC samples. This is probably due to smaller sample size from spilt core versus the RC samples.

## 11.3 PANTHERA RESOURCES RESAMPLING OF TAURUS DRILLING

Panthera Resources carried out a limited drill core re-sampling program in 2019. An aggregate total of 102 samples was collected from core samples from the Daramandougou and Wuo Ne target areas.

The check sampling data are plotted in Figure 11.10.



Figure 11.10 HAD plot of assay data from resampling of drill core by Panthera at Daramandougou and Wuo Ne targets in 2019.

Table 11.6Summary statistics for the Panthera drill re-sampling exercise at Daramandougou and Wuo Ne.



Summary univa	ritate statistics	;	Summary bivariate Statistics	
Statistic	Original	Duplicate	Correlation	46.79%
Number of data	102	102	Slope	31.38%
Maximum	62.890	36.200	R <sup>2</sup>	21.90%
Minimum	0.005	0.030	Intercept	1.1139
Mean	2.859	2.011	Mean Abs Diff %	65.6%
First quartile	0.220	0.178	Average diff %	-20.1%
Median	0.875	0.540	Relative Std Dev %	78.7%
Third quartile	1.850	1.383	95% Rel Conf.	154.3%
Skewness	0.790	0.874	Pair mean relative	differences
Standard deviation	7.532	5.051	Relative Difference	% of data
Coeff. of variation	2.634	2.512	± 1%	2.0%
			± 5%	9.8%
			± 10%	20.6%
			± 20%	37.3%
			± 50%	78.4%
			± 100%	100%

# 11.4 MOYDOW DRILLING SAMPLING

#### 11.4.1 Moydow RC sample collection

Moydow completed a thirty-two-hole (4739 m) twin and infill drilling program in 2021. Recovered one metre samples were typically in the range of weight between 20 kg and 35 kg.

Each sample was weighed at the sample preparation site to determine the level of splitting required at the riffle splitter, such that the splitting would deliver two identical splits – the first one being sent to the laboratory for further preparation for LeachWELL analysis and the second being stored at the project sample house and serving as a witness sample for backup for the LeachWELL sample. These identical LeachWELL samples would weigh between five kilograms and seven kilograms each.

In addition, one split weighing between two and three kilograms was collected at site for Fire Assay.

#### 11.4.2 Moydow QA/QC samples

A Quality Assurance (QA) and Quality Control (QC) program was implemented during the Labola 2021 drilling program to ensure the reliability and trustworthiness of twinning and exploration data. It consisted of 1) periodic verification of various aspects of the drilling program such as and including surveying, sampling, and assaying, data management and database integrity and of 2) the insertion of analytical control measures such as blanks, field duplicates and certified reference materials within routine samples sent to the laboratories. The insertion of control samples aimed to address the following:

- Monitor the precision and accuracy of the sampling and assaying,
- Monitor potential sample contamination,
- Prevent sample mix-up.

Blanks were inserted into the fire assay sample train at a frequency of 1 in 20. Blank sample size was in the two kilograms to three kilograms range.

Certified Reference Material Standards were inserted into the Fire Assay sample train at a frequency of 1 in 20. Ten CRMs were purchased from reputable Australian supplier Geostats and one from RockLabs. The standards ranged in value from 0.3 g/t to +12 g/t.

Duplicate samples were likewise inserted at a frequency of 1 in 20

A total of 263 blanks, 264 duplicates and 264 standards we inserted in the sample train for fire assay analysis during the drilling program.





Figure 11.11 Moydow's Sampling and Assaying Protocols on the Labola project

(Source: Moydow, 2021)

# 11.4.3 QA\QC data for the Moydow Drilling Moydow duplicates

Field duplicates were only inserted within batches sent to SGS for FA analysis and at a systematic frequency of one duplicate of two kilograms in every 20 samples. A total of 264 duplicates, representing 5.9% of the 4,480 FA samples, were inserted within the nine successive batches sent to SGS. The results (Figure 11.12) show an acceptable reproducibility with a slight, relative positive, bias toward the original values. The duplicate values also show a slightly higher variability than original values. The performance of the duplicate program is acceptable considering this type of deposit.

#### **Moydow Blanks**

Blank material was inserted within the LeachWELL sampling routine at a frequency of one five kilograms blank sample in every 20 samples. One hundred and eighteen (118) blank samples, representing 5% of the 2379 total LW samples, were inserted in 9 successive batches of samples sent to Biggs Global Laboratory. All blanks sent to Biggs returned gold concentration less than the limit of detection of the LW method. An analysis of the tails of blank samples also returned gold concentration less than the background for all samples

Blank material was inserted in the FA sampling process at a frequency of one, two kilograms sample of barren sand in every 20 samples. A total of 263 blank samples were inserted routinely in the nine batches sent to SGS for fire assaying. The 253 blank samples returned gold concentration less than the limit of detection of FA and 10 samples returned values ranging between 0.01 and 0.05 ppm. Assuming a failure threshold of 10X\_Au (ten times the detection limit), none of the returned assay results for the blank samples exceeded the failure limit. However, ten of the blank FA samples had slightly elevated grades suggesting either very minor contamination in the laboratory during sample preparation, or that the sand was not completely barren. Whatever the case, the level of possible contamination within and between batches appears very low for samples analyzed by FA at SGS during this drilling campaign. Figure 11.13 shows a chart of blank contamination control while Table 11.7 shows a compilation of count of Blanks with Au  $\geq$  0.01 ppm by Batch.





#### Figure 11.12 Scatter plots and statistics of original versus field duplicates







Summary	Count	Min	Max	CAUTION	CAUTION %	CHECK	CHECK %
RC	263	0.005	0.050	6	2.3	0	0
DDH	-	-	-	-	-	-	-
Total	263	0.005	0.050	6	2.3	0	0

Table 11.7 Summary of Laboratory performance for QA/QC Blanks for Moydow's RC 2021 drilling program at Labola

#### **Moydow Standards**

Standards known as certified reference materials ("CRMs") were inserted in the FA sampling stream at a frequency of one standard in every 20 samples. A total of 264 standards, representing 5.9% of the total FA samples, were inserted in the different batches transmitted to SGS in Ouagadougou. The gold ranges of the standards are outlined in figure 11.14. Performance of the FA assaying was checked by comparing the returned analytical values for the CRM assays and comparing those values with the certified values (Table 11.8 and figure 11.14). In this program, Moydow checked that the results fell within threshold limits corresponding to  $\pm$  1, 2 and 3 standard deviations, and described to represent successively a good, caution and check criteria. A 100% pass rate was observed for nine of the CRMs. One failure was observed in CRM G917-9 (Geostats) and five failures were observed for CRM OXE106 (Rocklabs). The CRMs show generally good accuracy of the assaying completed at SGS



Figure 11.14 Laboratory performance for QA/QC gold CRMs for the Moydow drilling



Standard	Best value (g/t Au)	No. of samples	No. in good range	No. in caution range	No. in check range	% Good	% Caution	% Check	Bias (%)
G316-1	0.31	28.0	24.0	4.0	0.0	85.7	14.3	0.0	1.0
G319-3	4.90	28.0	26.0	2.0	0.0	92.9	7.1	0.0	-1.5
G911-10	1.30	30.0	26.0	4.0	0.0	86.7	13.3	0.0	0.3
G917-9	12.14	30	21	8	1	70.0	26.7	3.3	0.4
G918-2	1.43	27	21	6	0	70.0	20.0	0.0	-0.1
G919-3	0.87	29	26	3	0	86.7	10.0	0.0	-1.9
G919-4	6.21	30	0	30	0	0.0	100.0	0.0	-5.8
Oxi121	1.83	8	6	2	0	20.0	6.7	0.0	-1.7
OxE106	0.61	22	0	17	5	0.0	56.7	16.7	5.2
AMIS0722	7.30	14	14	0	0	46.7	0.0	0.0	0.4
AMIS0765	2.93	18	18	0	0	60.0	0.0	0.0	0.4

Table 11.8Summary table showing the laboratory performance for eleven Certified Refence Material standardsused by Moydow in its QAQC program for RC drilling

#### 11.4.4 Moydow Sample Preparation and Analysis

Only selected LeachWELL samples were sent to the laboratory for LeachWELL analysis. The samples sent were from downhole sections chosen and guided by the following criteria:

- a. Geological delineation of the drill mineralised zone based on identification from RC chips
- b. Assay results from the original parent hole
- c. XRF multi-element results, specifically arsenic determinations

The chosen five to seven kilogram LeachWELL split then underwent further splitting at the laboratory. If the sample was greater than five kilograms it would be first reduced to five kilograms. The resulting five kilograms would then be split into three sub-samples:

- a. a two kilograms split to be pulverized for LeachWELL bottle roll analysis (Tails to be analysed by Fire Assay)
- b. a two kilograms emergency back-up split
- c. the remaining one kilogram reject would be the source of a further 50 g pulp to be sent to another laboratory for ICP-MS analysis.

All one kilogram samples were sent to SGS in Ouagadougou for fire assay and AAS finish. Each two-to-three-kilogram sample was pulverised and split. Each assay was undertaken on a 50 g aliquot.

#### 11.4.5 Moydow security protocols

During the 2021 Labola drilling campaign, Moydow has implemented rigorous security protocols and procedures in accordance with industry standards and best practices. Pre-labeled sample bags were available at the RC drill rig and used to retrieve the samples for each metre drilled interval. Retrieved samples were transported to a sampling shed for weighing and splitting as outlined in Figure 11.11. This resulted in two samples of between five and seven kilograms each for LeachWELL ("LW") assaying, a back up sample, and one sample of between two and three kilograms for Fire Assay ("FA"). For intervals not selected for LW assay, a fractioning approach was undertaken to deliver a single two to three kilogram sample to SGS for FA analysis. Each sample bag was clearly labelled with hole name and sample ID written using black marker pencil. For each sample, two sample tickets were inserted in the bag with one ticket stapled and clearly visible and adjacent to the marker label. Sample bags were transported to Moydow warehouse in Banfora and stored under lock and key with a security guard. Hole ID, sample type, sample interval, sampling date were written in a sampling book and were also recorded on a field printed sampling sheet.

QA/QC samples (blanks and standards) were inserted in the sample train and packaged by the group in labelled and coloured rice bags used for dispatch to the SGS and Biggs Global laboratories. Red rice bags were dispatched to Biggs Global for LeachWELL analysis and white rice bags were sent to SGS for fire assay. The number of samples in each rice sample bag was



recorded. The maximum, total weight of each rice bag was 25 kg in order to facilitate handling during transport to the Laboratories. The LeachWELL back-up sample was kept in the secured Banfora warehouse.

For each sampling batch the site geologist completed sample submission forms indicating dispatch date, number of rice bags, total number of samples submitted, required analytical codes, laboratory contact person and Moydow contact person for forwarding results. Samples and submission forms were then entrusted to an experienced transporter who was responsible for taking the samples from Banfora to Ouagadougou and delivering them to the relevant laboratory. Upon arrival at the laboratory, the laboratory representative and the driver completed a verification procedure to ensure that delivered samples corresponded to the declaration on the submission form. The final and verified submission form was then signed both by the laboratory representative and the driver and one copy transmitted to Moydow's country manager in Ouagadougou.

#### 11.4.6 QP comments on Moydow QA\QC

The QP has reviewed the written field procedures, chain of custody and analytical quality control measures used by Moydow. Aurum is of the opinion that Moydow personnel have used care in the collection and management of field and assaying exploration data. Furthermore, sample preparation, sample security, and analytical procedures used by Moydow are consistent with generally accepted industry best practices and the results are suitable for mineral resource estimation.

Aurum also considered that the sampling, sample preparation and data collection by Moydow for its twin drilling program had been carried out in an acceptable and systematic manner. Blanks, CRMs, and laboratory duplicates were used at an acceptable rate and closely monitored by Moydow geologists.

The LeachWELL re-assay program conducted by Moydow, and the assay program has been under the supervision and security of the issuer's Qualified Person with regards to sample preparation prior to dispatch. The laboratory sample reduction and LeachWELL analytical procedures have been conducted by an independent accredited company utilising acceptable practices. It is the QP's opinion that the two kilogram LeachWELL assays are a more robust result than the 50 g fire assay.

The on-site sample preparation facility inspected by Aurifer during the site visit was found to be acceptable for purpose. Based on the detailed analysis of the results from the QA/QC processes utilized by Moydow, SGS and Biggs laboratories, it can be concluded that sample assay determination accuracy and precision is within accepted industry standards and contamination during processing was not an issue. It is the author's opinion that the sample preparation and assay determinations provided by SGS and Biggs assay laboratories in Ouagadougou, Burkina Faso are of suitable quality and acceptable for use in resource estimation.

# 11.5 QP COMMENTS ON OVERALL QA/QC RESULTS

The QA/QC data obtained from the Labola Project results show a good quality database from the Taurus and Moydow data with some lesser quality from the HRG data. Accuracy, contamination and precision generally fall within acceptable performance levels. Notwithstanding this, 13 of the HRG drillholes were twinned by Moydow in 2021 and the reproducibility of the results was very good with data clearly defining the same zones as outlined in the original data set with very similar grades (see section 12). The reproduction of these mineralised zones with very similar grades from the high quality Moydow drilling provides confidence that the HRG drilling is not significantly biased or erroneous. The HRG, Taurus and Moydow data was therefore taken as sufficiently accurate to be used in the estimation of mineral resources for Labola.



# 12 DATA VERIFICATION

### 12.1 DATABASE

#### 12.1.1 Collar Locations database

Aurum noted that Taurus had acquired certified surveyed collar data (ATEF, 2009), and that with respect to the Taurus collar data in the database there were no omissions or discrepancies in the collar table.

Aurum completed some work in 2020 on the data and noted that there were inconsistencies in the elevations between the Taurus data and the HRG data, as well as with the topographic survey data from the HRG Lidar survey.

In early 2021, Moydow commissioned a professional surveyor to complete a survey check on a selected number of collars.

In summary:

- The March 2021 survey confirmed that the Taurus elevation data was consistent with the WGS84 spheroid but consistently plotted 28.18 metres above the Lidar topography surface. This discrenancy can be explained by the difference between expressing heights in the WGS84 Ellipsoidal Height Datum versus the Orthometric Height Datum.
- The March 2021 survey demonstrated a high level of accuracy for the Lidar survey at the selected drill collar locations.
- The main issue with the original collar database was inconsistencies amongst the HRG collar elevations with respect to the Ladar surface.
- Where original detailed survey X,Y data were available for the HRG collars this has been used for the X, Y coordinates in the database. A review of the data had highlighted a small number of problematic collar coordinates and some of these were resurveyed in the March 2021 topo survey. For those resurveyed collars the new survey data was used.
- Elevation values for the remainder of the HRG collars were then extracted from the Lidar surface.
- The March 2021 survey had given accurate WGS84 X andY coordinates as well as elevations for the small number of surveyed holes. These surveyed coordinates have been input into the database.
- Taurus collars elevations were reduced by 28.18 metres to ensure consistency with the remainder of the database.

#### 12.1.2 Assay Database audit

Aurum completed an audit on the assay database by comparing the assay data with the assay certificates, and found that of the 10% of the data selected, only 31% of the data has assay certificates.

Original Excel/CSV format files were available for 147 Taurus drillholes, mostly from Bureau Veritas laboratory in Abijan with a few from ALS Ouagadougou. Assay certificates were not available for the HRG data.

For the HRG drilling, no original laboratory report files were available for any of the drilling. Moydow has relied on compiling assay information in spreadsheets acquired from HRG/Nordgold under its database acquisition agreement. The data appears to have been properly collated and includes references to hundreds of unique assay report identification numbers, but the laboratory no longer exists and the original reports were not available to the company.

However, of the assay data that did have certificates, no issues were identified.

# 12.2 TWIN DRILLING

In July 2021, Moydow started twin drilling and completed 23 (3676 m) holes, twinning existing historical holes (Table 10.5).



A further six holes (808 m of drilling) were completed for resource extension drilling and some infill drilling. The twinned drilling, infill and the resource extension drilling were included in the dataset used to define the resource estimate. Drilling by Moydow represents approximately 6% of the data used to define the mineral resource.

### 12.2.1 Comparison of results with historical data

In order to compare the old with the new, fire assay values of the new data (the new twin holes) were compared statistically with the old fire assay data (the original holes that have been twinned). This comparison which used length-weighted statistics showed that the overall average grade of the directly comparable old data was 0.30 g/t Au as opposed to 0.29 g/t Au of the new data. There was a small influence by higher grade values, but this was consistent between the datasets and Aurum saw no reason to be concerned.

The downhole grade comparisons of the new drilling versus the old holes that have been twin drilled was also completed, where the grade (fire assay) downhole was plotted on the same graph for the new drillhole as well as the drillhole that was twinned. Examples of these plots are shown in Figure 12.1 and Figure 12.2. These figures are prepared so that the original hole is plotted as a blue line, and the twin hole is plotted as an orange line. They show a very reasonable correlation with the earlier drilling in the location of mineralization as well as grade, especially given that they are several metres apart and given the coarse gold nature of the mineralization.





Figure 12.2 Plot of Twin Drillhole results for fire assay: DRADD012 and DRA-LW-21-004





These results indicate the robustness of the HRG data (location of mineralized zones and grade) as well as short range continuity of the mineralization.

### 12.2.2 Comparison of LeachWELL results with Fire Assay results

In 2020, Aurum noted that there is visible gold in the Labola core and samples, and there was a risk that assays for the samples would potentially have poor precision because of the randomness of the gold distribution. It was therefore recommended that a five kilogram sample be taken from the total sample, and be sent to the laboratory for two kilogram LeachWELL assays. LeachWELL assaying is a technique used on bulk samples (in this case two kilograms) to get a representative sample and therefore representative assay from the drilling.

Moydow completed 17 holes at Daramandougou and 12 samples at Wuo Ne, each of which intersected zones of mineralisation. These zones were either identified based on holes that the new hole twinned or were identified using fire assays for gold and assays showing elevated arsenic grades. Five kilogram samples within these zones were then selected and sent to Biggs Global Laboratory for LeachWELL assays. In all 2261 primary samples were sent to the laboratory for LeachWELL assaying.

Results of the LeachWELL analyses (Table 12.1) show that fire assays in the range of 0.3 to 0.5 g/t Au increased on average by 23%, in the range of 0.5 to 1.0 g/t Au increased on average by 10%, and in the range of 1.0 to 2.0 g/t Au increased on average by 12%. Above 2 g/t Au, the average grade decreased. Whilst it was disappointing that the sample assays in the higher grade were lower, the average grade remained the same in the LeachWELL as for the fire assays of the same samples, and the variance was reduced in the LeachWELL from the fire assays.

Grade range	# Samples	FA Average	LW Average	Variation
		(g/t Au)	(g/t Au)	% increase
gt10 g/t Au	11	19.06	14.07	-26.18%
5 to 10 g/t Au	12	6.69	6.36	-4.92%
2 to 5 g/t Au	70	3.01	2.67	-11.14%
1 to 2 g/t Au	108	1.42	1.59	11.99%
0.5 to 1.0 g/t Au	136	0.71	0.78	9.96%
0.3 to 0.5 g/t Au	104	0.41	0.50	23.13%
0.1 to 0.3 g/t Au	345	0.18	0.19	1.55%

 Table 12.1
 Variations in Fire Assay to LeachWELL analysis from Moydow drilling

Overall, the LeachWELL assay results compared with the fire assay results for the same holes (Figure 12.3 and Figure 12.4) also highlights reproducibility of the zone and similar gold results.



#### Figure 12.3 Plot of new Moydow hole WN-LW-21-001 comparing FA with LeachWELL results



**DRA-LW-004** 10 9 8 7 6 <u>`</u>a 5 Au Au FA g/t 4 3 Au LW g/t 2 1 0 20 0 60 80 100 40 Count

Figure 12.4 Plot of new Moydow hole DRA-LW-21-004 comparing FA with LeachWELL results

# **12.3** Site Visit and Verification by Aurifer

In June 2021, Moydow considered was Burkina Faso off-limits to Europeans because of the high level of terrorist activity, and this was confirmed by Moydow's independent security advisers. Mr John Asafo-Akowuah of Aurifer Resources (Aurifer) was subsequently commissioned to undertake a site visit as part of the compilation of this technical report and work directly with Aurum Consulting to form an independent review and verification at the project.

The site visit was required to review evidence of historical work, the scale of historical and ongoing artisanal mining, the ongoing RC drilling and the sample security and sample custody procedures currently being implemented.

The following items were reviewed and verified:

- Artisanal activity and geology of the areas of interest
- Locations of drill rigs and operation.
- Cross-check of drill logs with drill samples.
- Sample handling, storage and security.
- Insertion of blanks, certified reference material.
- Independent samples and assaying of low and high grade assays.
- Review of drill logs and assay sheets.

#### 12.3.1 Site Overview

Aurifer undertook traverses with Moydow's onsite geologist to key areas within the permit area. The aim was to observe evidence of historical work completed in the form of historical drill hole collars, the extent of artisanal activity within the project area, and the mappable surface regolith.

#### 12.3.2 Observations on Artisanal Activity

The artisanal mining sites were typically in the form of shafts that later get transformed into trenches that are generally aligned in a NNE-SSW direction. The main lithological unit being mined by artisanal miners was mainly milky to smoky quartz veins and stockwork of quartz veining, but there were areas in the Daramandougou artisanal mining village where sheared graphitic schists/phyllites were being mined.



At the north-eastern part of tenement area, material that was processed by artisanal miners were mainly Smokey quartz veins and graphitic schist/phyllite. Vertical shafts observed had dimensions of approximately 1 m x 1 m x 10 m. Semimechanized mining equipment usage in this area was on a limited scale.

At the artisanal mining village of Daramandougou, semi-mechanized equipment usage was widespread, as well as mining by blasting. This according to the artisanal miners has allowed them to reach depths of approximately 110 m. The equipment was mainly in the form of water pumps, power generators and rock grinding machines.

#### 12.3.3 Drilling

RC drilling was ongoing during the period of the site visit. A total of six drill holes had been completed at the time of the visit (Table 12.2), with the seventh hole ongoing when the site visit ended on the 13<sup>th</sup> of June. The fourth hole (WN-LW-21-004A) had been redrilled (as WN-LW-21-004B) due to downhole ground conditions.

Hole ID (New)	Hole ID (Old)	m East	m North	m Elevation	Distance Apart
WN-LW-21-001	WNDD022	326285	1188772	318	6
WN-LW-21-002	WNRC013	326303	1188808	317	7
WN-LW-21-003	WNDD042	326229	1188801	315	7
WN-LW-21-004A	WNDD055	326255	1188840	318	8
WN-LW-21-004B	WNDD055	326267	1188835	315	6
WN-LW-21-005	LBRH-234	326300	1188835	317	7

#### Table 12.2 Summary of twin drilling observed during the site visit

### 12.3.4 Collar locations

Aurifer took 15 measurements of collar locations using a hand-held GPS (2). Nine collars were from Taurus drill holes and six were from HRG holes. All collar location measurements were within an acceptable tolerance of the database position (within 2.5 m) given the accuracy of hand-held GPS measurements.

Database **GPS** Measurement Hole ID Company m East m North m East m North WNDD022 326,285.2 1,188,766.9 Taurus 326,285.0 1,188,768.0 WNDD026 326,280.5 1,188,902.5 Taurus 326,280.0 1,188,903.0 WNDD042 326,227.5 1,188,794.6 Taurus 326,228.0 1,188,796.0 WNDD055 326,257.1 1,188,829.7 326,258.0 Taurus 1,188,831.0 DRADD013 326,904.4 1,190,695.6 Taurus 326,903.0 1,190,697.0 DRADD015 326,846.4 1,190,616.0 Taurus 326,847.0 1,190,618.0 DRADD023 326,914.8 1,190,745.3 Taurus 326,915.0 1,190,746.0 DRADD027 326,984.7 1,190,930.7 Taurus 326,984.0 1,190,932.0 326,304.0 WNRC013 326,303.9 1,188,812.3 Taurus 1,188,813.0 326,905.1 LBLC08-001 1,190,693.4 HRG 326,905.0 1,190,695.0 LBLC08-016 326,443.8 1,187,968.1 1,187,969.0 HRG 326,444.0 LBLC08-021 326,320.4 1,188,869.8 HRG 326,320.0 1,188,872.0 LBR11-191 326,983.4 1,190,913.9 HRG 326,983.0 1,190,915.0 LBR11-192 327,035.7 1,191,004.0 HRG 327,036.0 1,191,006.0 LBR11-231 326,271.5 1,188,766.3 HRG 326,273.0 1,188,768.0

 Table 12.3
 Database collar coordinates versus GPS measured coordinates for verification

#### 12.3.5 Sampling

Aurifer observed the sampling process, including the insertion of QA/QC, logging of RC samples and transport of samples. Aurifer noted that Moydow's sampling team onsite undertook the sample processing according to the protocols shown in Figure 11.11 above and noted that individual geologists were responsible for each of drilling, sampling, artisanal shaft mapping, and XRF analysis. The sampling team clearly understood sampling protocols well, and routinely completed the process each time with confidence and certainty. It's Aurifer's opinion that the process was completed to a good standard that was consistent with that required to provide high quality data for resource estimation.



## 12.3.6 Sample Storage

The Banfora storage facility was a large warehouse of about 90 m<sup>2</sup> located opposite a PetroFa filling station in the middle of Banfora. The warehouse is use for storing pulps, old RC rejects and historical drill core. The facility holds other drill core from other Taurus Projects which do not belong to Moydow. RC bulk sample rejects were nicely packed in the yard, but many of the bags were decomposing at the time of visit. The warehouse is well secured with a padlock and the keys are kept by the most senior site geologist.

The Core Shed was Located opposite the Banfora Camp for geologists. The shed doors were locked and there were security guards during the night. Core boxes from some historical drill holes were inspected. Core was inspected from two randomly selected drill holes (WNDD022 and WNDD042). The mineralization observed was mainly quartz vein hosted with disseminated sulphides and free gold within graphitic shales/phyllites. The half-core retained appeared to have been neatly sawn (Figure 12.5).

#### 12.3.7 Independent check samples

Initially, six RC samples (two kilograms each) were collected as duplicates from randomly selected drilled intervals and were submitted to the SGS Laboratory in Ouagadougou for LeachWELL Au analysis. These samples were split off from their rejects using the Jones riffle splitter at the field sampling shed. The samples remained in the custody of the author right from sample collection until submission at the Ouagadougou lab. Seven samples (including a certified reference material CRM) were sent to the SGS laboratory in Ouagadougou (Table 12.4). These samples were collected in a zone predicted to contain gold mineralization, but all returned results less than 0.05 g/t Au. This was consistent with the results from the primary samples from the drilling.





#### Figure 12.5 Photos of core from holes WNDD022 and WNDD042.

Table 12.4

Details of Independent collected samples.

Hole ID (New)	From	То	Sample ID
WN-LW-21-002	132	133	C001
WN-LW-21-002	133	134	C002
WN-LW-21-003	46	47	C003
WN-LW-21-003	47	48	C004
WN-LW-21-004A	95	96	C005
WN-LW-21-005	96	97	C006
GEOSTATS - CRM			C007

A second set of RC samples (two kilograms each) were collected as duplicates from drilled intervals selected by Ivor Jones, and the samples again submitted to the SGS Laboratory in Ouagadougou for LeachWELL Au analysis. These samples were again split off from their rejects using the Jones riffle splitter at the field sampling shed. Seven samples (including a certified reference material CRM) were sent to the SGS laboratory in Ouagadougou. The results from these samples, and the results from the primary samples, are reported in figure 12.5.



Hole ID (New)	From	То	Sample ID	Primary Au (g/t)	Duplicate Au (g/t)
WN-LW-21-004A	123	124	C008	0.98	1.65
WN-LW-21-004A	124	125	C009	2.12	1.53
WN-LW-21-004A	125	126	C010	5.3	1.89
WN-LW-21-008	60	61	C011	1.28	0.85
WN-LW-21-008	61	62	C012	9.72	9.84
WN-LW-21-010	100	101	C013	0.41	0.41
WN-LW-21-010	101	102	C014	0.92	0.76
WN-LW-21-010	102	103	C015	2.48	2.45

# 12.4 NEAREST NEIGHBOUR EVALUATION OF ALL HOLES - MOYDOW VERSUS HISTORICAL

Following the recovery of the assay data for holes xxx, Aurum completed an evaluation to compare assay results for samples of new holes along strike form the historial holes. This was primarily because the new holes were not drilled as exact replicas of the original holes with the understanding that the data from the original holes was not available.

The results of this evaluation which used a maximum distance of 10 m between samples in a direction consistent with the orientation of the mineralisation (025 degrees).

Of the twinned samples, 1892 samples were Taurus samples with an average grade of 0.30 g/t Au compared to 0.29 g/t Au for the Moydow samples, and 2436 samples were HRG samples with an average grade of 0.22 g/t Au compared to 0.23 g/t Au for the Moydow samples. There was no significant bias observed in either dataset.

# 12.5 QUALIFIED PERSON'S OPINION ON THE ADEQUACY OF THE DATA FOR THE PURPOSES USED IN THE TECHNICAL REPORT

Aurum's audit of the collar location data, the conclusions of the ATEF(2009) drill collar survey, the conclusions of the 2021 Moydow survey, the Aurifer GPS measurements, and the elevation checks and adjustments using the HRG 2008 Lidar survey indicate robust data for the collar locations in the database.

The assay certificates for 147 Taurus drillholes, and the lack of assay certificates for the HRG data is not ideal, but given the other work that has been completed, the QP does not consider this a major risk to the project. The mitigating factors include:

- Moydow has completed 2,960 m of RC drilling that has twinned earlier holes of which 2,462 m twin existing drillholes;
- The twinned drillholes generally showed that where the older drilling showed mineralization the twinned drilling also showed mineralization; and
- The average grade from the twinned drilling matched reasonably closely over the 2,462 m.
- In addition, additional holes were drilled to replace holes where assays were considered unavailable. The assays for these holes were later found, and compared to the original results in a nearest neighbour evaluation for all holes (new versus historical holes).

It is the opinion of the Qualified Person that the data from the Moydow drilling demonstrates the general validity of the original data including both the assay data and the collar data. That is, the data demonstrates suitable robustness for use in the estimation of a mineral resource to a good level of confidence.



# 13 MINERAL PROCESSING AND METALLURGICAL TESTING

# 13.1 SUMMARY

The deposit type is described as orogenic lode gold typical of the Archean gold provinces of West Africa and Brazil with 2 styles of mineralization: quartz-carbonate-pyrite veining and disseminated sulphides. It has been subject to lateritic weathering down to approximately 50 m underlain by a so far ill-defined transition zone overlaying the primary fresh rock.

As such one would expect high and generally uniform metallurgical recoveries from the oxide zone and lower and more variable recoveries from the underlying transition and primary material

While the work is not definitive, the results suggest that gold is readily treatable by conventional cyanide leaching techniques after grinding to industry standard grind-sizes of approximately 80% passing 120 microns. Recoveries are suggested to be between 90% and 98% in the oxide zone and between 82% and 93% in the transition/sulphide zone.

# **13.2** SAMPLE REPRESENTATIVENESS

The historical drilling program has involved a total of 537 holes and 65,337 metres (excluding abandoned and redrilled holes), representing an average downhole depth of 121 m. The number of holes and meterage used in the Resource Estimate are 566 and 69,787 m (excluding abandoned and redrilled holes).

Metallurgical samples, apart from the initial 50 kg of RC chips in 2010, have been derived from a total of 9 holes and 45 m of intercepts for the 2011 testwork.

The 2012-13 testwork for which no sample provenance data is available was based on 2 x 38 kg samples. Even if half core NQ these sample would be of very limited meterage.

Therefore sample representivity falls far short of normal industry practice even in gross meterage terms and not accounting for representative spatial coverage.

This low degree of metallurgical sample representivity does not necessarily constitute a red flag for the oxide resource where the weathering processes tend to eliminate the primary mineralogical variability mainly related to the gold-sulphide associations.

With respect to the sulphide zone the drillholes are mainly in the true depth range of 50-100 m and therefore subject to the vertical variability of any transition zone. Coupled with the very limited metallurgical sample coverage, the QP believes that there is a lower level of confidence in the metallurgical performance predictions for the sulphide zone. However recently received LeachWELL assays and Fire Assays on LeachWELL tails indicate expected recoveries in potentially economic grade material in the 80-95% range relatively independent of downhole depth to approximately 160 m. This would indicate that the material is essentially free-milling, in line with the regional metallurgy.

# 13.3 HISTORICAL TESTWORK RESULTS

Three episodes of mineral processing testwork have been undertaken by HRG – 2010, 2011 and 2012-13. No testwork has been undertaken by Taurus.

#### 13.3.1 2010 Testwork

A 50kg sample of RC chips was selected as being representative, although no details are available and hence this cannot be confirmed. Rougher stage testwork was conducted at Bissa Mine.

Testwork included:

1. **Cyanide Optimisation Testwork**: This work examined the concentration of sodium cyanide required to achieve good gold liberation. It concluded that the optimum concentration is 0.7kg/tonne as shown in Table 13.1 and Figure 13.1 below.





CN concentration (kg/t)	Au Recovery %
0.0	1.12
0.1	37.74
0.3	57.33
0.5	85.78
0.7	86.17
1.0	90.89
1.5	85.75
2.0	81.88

#### Table 13.1: Cyanide Concentration vs Gold Recovery

### Figure 13.1: Graph of Cyanide Concentration vs Gold Recovery



2. **Particle Size vs Recovery Testwork**: This work examined the effect of different grind sizes on overall gold recovery and concluded that the optimum grind size is about 71% passing 75 micrometres (Table 13.2 and Figure 13.2).

Granulometry (% passing -75µ)	Au Recovery
(), passing ( ) oh)	(,,,)
43.1	67.08
51.2	82.80
57.5	85.81
63.2	88.66
70.8	90.74
76.1	90.21
86.8	88.95

Table 13.2: Grind Size vs Gold Recovery







3. **Recovery Kinetics Testwork**: This work focussed on examining the time required in an agitated vat for optimal gold recovery. It was concluded that the optimum residence time is about 16 hours as shown in Table 13.3 and Figure 13.3 below.

#### Table 13.3: Residence Time vs Gold Recovery

Agitation	time	Au Recovery
(hrs)		(%)
1h		54.6
3h		78.2
8h		92.3
16h		93.9
20h		93.1
24h		91.5

#### Figure 13.3: Graph of Residence Time vs Gold Recovery





4. **Particle Size Analysis on Optimum Grinding**: This work looked at the amount of rejects at various grinds. This concluded an optimum grind of 80% passing 120 micrometres (Table 13.4 and Figure 13.4).

Table 13.4: Sizings at Opti	mum Grind
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Mesh Size	Cumulative Weight%	
(µm)	passing	
212	5.1	
150	12.1	
106	21.6	
75	29.0	
63	31.8	
45	38.5	
-45	100.0	

In summary, this work showed that the sample submitted can be simply treated by cyanidation. The general conditions of treatment obtained after the roughing tests gave the following values:

- NaCN: 0.7kg/t
- Ca(OH)<sub>2</sub>: 1kg/t
- Particle size: D80 = 120μm
- Recovery kinetics: 16h
- Recovery: 91%





#### 13.3.2 2011 Testwork

Follow-up testwork was also conducted at the metallurgical laboratory of the Bissa Gold Mine and reported in May 2011. A high grade and low grade sample were despatched to the laboratory as per Table 13.5.

Table 13.5: Sample for Metallurgical Testwork



Project	Sample ID	grade (g/t Au)
	LBC08-004	1.40
	LBC08-006	1.28
	LBC08-012	3.16
	LBC08-020	1.73
	LBC08-023	7.31
LABOLA	composite LBC08	3.34
	LBR10-024	2.45
	LBR10-106	0.73
	LBR11-117	0.24
	LBR11-123	0.19
LABOLA	composite LBR10-11	0.8

It is unclear exactly where in these drillholes the sample came from, but an examination of the drill logs suggests the LBC08 mineralisation zones are all in fresh rock and hence it is likely that these represent unweathered samples whereas the ore zones in the LBR10 and 11 samples are generally in the weathered zone with some occasional deeper intercepts and hence these are most likely to be from weathered (oxidised) mineralisation.

Mineralisation zones in the holes tested for composite LBC08 are:

- LBLC08-004: 8.45 m @ 0.81 g/t Au from 119 m
- LBLC08-006: 4.7 m @ 0.64 g/t Au from 109.5 m
- LBLC08-012: 5 m @ 1.03 g/t Au from 114 m
- LBLC08-020: 3.65 m @ 4.05 g/t Au from 87.35 m

4.65 m @ 1.70 g/t Au from 93.65 m

5 m @ 0.93 g/t Au from 104 m

• LBLC08-023: 9.1 m @ 2.11 g/t Au from 126.9 m

It can be noted that all mineralisation is at least 87 m deep down hole.

Mineralisation zones in the holes tested for composite LBR10-11 are:

•	LBR10-024:	1 m @ 2.73 g/t Au from 31 m
		1 m @ 1.28 g/t Au from 40 m
		2 m @ 0.66 g/t Au from 68 m
		1 m @ 2.07 g/t Au from 115 m
		3 m @ 4.07 g/t Au from 131 m
•	LBR10-106:	1 m @ 1.54 g/t Au from 8 m
		1 m @ 1.24 g/t Au from 31 m
•	LBR10-117:	1 m @ 3.19 g/t Au from 39 m
•	LBR10-123:	1 m @ 1.37 g/t Au from 48 m
		1 m @ 1.66 g/t Au from 102 m
		1 m @ 0.88 g/t Au from 106 m

It can be noted that two of these holes only have shallow intercepts (shallower than 40 m down hole and that they all have at least one shallow intercept.

The laboratory tests were undertaken using the conditions shown in Table 13.6.



#### Table 13.6: Laboratory Test Conditions for Metallurgical Testwork

TEST CONDITIONS				
Parameters	Value	Units		
Time leach	24	h		
Cyanide concentration	46	g/l		
Lime concentration	50	g/l		
NaCN	1.87	kg/t		
Ca(OH) <sub>2</sub>	1.5	kg/t		
solid component	42	%		

Sample Preparation and Grind Establishment Testwork:

One-kilogram sub-samples of each hole and composite were ground in a laboratory stainless steel ball mill at 50% solids (w/w) for various times. The ground solids were wet screened at  $45\mu$ m. The plus  $45\mu$ m fractions were dried and then rescreened at 150, 106, 75 and 45 micrometres

#### Analytical:

All assay samples produced during the laboratory test program were analysed by Taparko laboratory. The following analytical methods were used :

- Gold in solids: Fire assay/AAS finish
- Gold in solids: Aqua Regia digestion/AAS finish
- Gold in solution: DIBK extraction/AAS finish

#### Testwork water:

The entire laboratories test program was carried out using Taparko raw water.

#### Test Procedure:

The test procedure for each sample was as follows:

- The sample was ground to reach 80% passing minus 75 micrometres.
- The sample was transferred into a four-litre leach bottle with screw on lid for mechanical rolling.
- Taparko tap water was added to establish a slurry density of 42% solids(w/w).
- Sufficient hydrated lime (60% CaO) was added to the slurry to establish a pH of approximately 10.5.
- An addition of sodium cyanide was made to the slurry to establish initial nominal cyanide solution strength.
- The leach slurry was sparged with oxygen to provide elevated dissolved oxygen content to the slurry.
- After 24 hours of leaching ,30 ml of solution was sampled for gold analysis.
- A 10 ml aliquot of the solution sample was titrated for cyanide with silver nitrate and, if required, further lime and cyanide were added to maintain desired pH and cyanide solution strength.
- At the termination of the test (24 hours) the terminal pH and cyanide levels were determined and a solution sample was taken for gold analysis.
- The residual slurry was filtered, washed and dried to provide leach residue solids.
- A sub-sample was split out for gold analysis.

#### Test Results:

A summary of test results is shown in Table 13.7.

Table 13.7: Results of Initial Testwork completed at Bissa Mine



#### Diamond Fields Resources Inc.

Labola Gold Project 2021-10

Project	Project Sample ID Grindsize (μm)	Grindsize P80	lsize P80 % Au extraction @ 24 hours	consumption of reagent (kg/t)	
,		(µm)		cyanide	lime
	LBC08-004	50	95.1	0.73	1.26
	LBC08-006	80	86.7	1.10	1.28
	LBC08-012	80	86.0	1.27	1.36
	LBC08-020	90	92.0	0.91	1.19
	LBC08-023	90	93.4	1.00	1.28
LABOLA	composite LBC08	78	92.8	0.77	1.24
	LBR10-024	150	69.8	0.91	1.25
	LBR10-106	45	78.3	1.50	1.37
	LBR11-117	150	81.4	0.69	1.21
	LBR11-123	150	79.5	1.04	1.29
LABOLA	composite LBR10-11	124	93.3	1.16	1.30

Reagent consumption levels were relatively high, as these had not been optimised. However, the gold extraction rate of the samples is very good and confirms there is excellent gold recovery in both the oxide and sulphide mineralisation zones.

Interestingly, it appears that the best recoveries are in the sulphide zone, although that may be due to the finer grind of those samples.

#### 13.3.3 2012-13 Testwork

Two samples were selected as being representative of mineralisation:

- LB-MT1: Diamond core and RC chips from the weathered zone (38.7kg)
- LB-MT2: Diamond core from the sulphide zone (38.0kg)

Unfortunately, no details of individual samples used to obtain these composites is provided. Nor are details of the metallurgical laboratory given and it is thus assumed that the work was undertaken at the Bissa Gold Mine as for the previous episodes of testwork.

The following tests were undertaken:

#### 1: Leaching at Various Grind Sizes

Three grind sizes were used for the bottle roll experiments:

- 150 micrometres
- 106 micrometres
- 75 micrometres

Results were generally positive for both oxide (90-98% recovery) and sulphide (82-85% recovery) mineralisation as shown in Table 13.8.

Sample ID	Recovery Au %			
	Particle Grind Size (d <sub>80</sub> )			
	150 μm	106 µm	75 μm	
Labola Oxide	95.9	90.2	97.5	
Labola Sulphide	84.2	85.4	82.4	

#### 2: Leaching at Various Cyanide Concentrations



Leaching at various cyanide concentrations was also positive as shown in Table 13.9.

Table 13.9: Cv	anide Concentration vs Gold Recovery

Sample ID	Recovery Au %			
	Cyanide Solution 1.0 g/l	Cyanide Solution 0.5 g/l		
Labola Oxide	90.2	86.0		
Labola Sulphide	85.4	86.1		

Interestingly, better recovery was obtained at a lower cyanide concentration in the fresh rock sample.

#### 3: Diagnostic Leach Tests

The distribution of gold in various forms was examined and it was found that most of the gold occurs as free grains in both the oxide (90.2%) and sulphide (85.4%) samples as shown in Table 13.10 and Figure 13.5 below:

Table 13.10: Gold Distribution

Sample ID	Gold Distribution (%)			
	Free	In Sulphides	In Carbonates	Encapsulated
Labola Oxide	90.2	0.9	4.2	4.6
Labola Sulphide	85.4	9.6	3.1	1.9

Figure 13.5: Gold Distribution



Approximately 10% of the gold is associated with sulphides in the sulphide zone and between 5% and 9% of the gold is encapsulated in quartz and carbonates.



Activated carbon loads for various grades are presented in Table 13.11 below. It can be seen that there is an approximately 4 to 6.5 :1 gold:silver ratio.

Sample ID	Equilibrium Carbon Gold Load (g/t)		Equilibrium Carbon Silver Load (g/t)			
	Equilibrium Solution		Equilibrium Solution			
	1.0 g/t	0.5 g/t	0.2 g/t	1.0 g/t	0.5 g/t	0.2 g/t
Labola Oxide	3,348	2,454	1,628	520	386	261
Labola Sulphide	1,969	1,400	892	385	305	224

#### Table 13.11: Activated Carbon Loading

# 13.4 QUALIFIED PERSONS OPINION ON THE PREVIOUS TEST WORK RESULTS

The QP believes that the results support mining of the oxide material but that there is a lower level of confidence in metallurgical performance predictions in the underlying transition/sulphide material. However recently received LeachWELL assays and Fire Assays on LeachWELL tails indicate that the material is essentially free milling, in line with the regional metallurgy.

The QP recommends that the main issues to be resolved with some urgency in the next phase of drilling and test work are: -

- Improved definition of the oxidation profile including the transition zone with clearly defined core-logging and assay criteria
- Increased density of metallurgical sampling within the proposed Mineral Resource pit shell especially in the transition/sulphide zone
- A metallurgical test work program in a recognized accredited metallurgical laboratory with due regard to sample provenance, sample preparation protocols appropriate to the gold particle sizing, full head-assaying and compositing initially by lithology and oxidation state
- This program should include some initial comminution test work (simple Bond Work Indices will suffice at this stage) as well as leaching tests to confirm leach kinetics and ultimate recoveries
- A basic bottle-roll program of intercepts by depth and along strike to establish a preliminary assessment of variability



# 14 MINERAL RESOURCE ESTIMATES

The October 2021 estimate of the Mineral Resource for the Labola gold deposit, as documented in this report, used data provided by Panthera and Moydow. The data included information from 70,298 m of drilling from 572 RC and diamond drillholes.

# 14.1 DISCLOSURE

Mineral Resources were prepared by the Author, Mr. Ivor Jones. Mr. Jones is an employee of Aurum Consulting, a Cayman Islands based company. The Author is a Qualified Person as defined by NI 43-101. This is by way of his experience, membership of a recognized professional organization and qualifications. Both Mr. Jones and Aurum Consulting are independent of the Issuer.

# 14.2 KNOWN ISSUES THAT MATERIALLY AFFECT MINERAL RESOURCES

At the time of this report, the Author was not aware of any permitting, legal, title, taxation, socio-economic, and marketing that could materially affect the Mineral Resource.

# 14.3 THE APPROACH USED FOR MODELLING

The basis of the resource estimates for the Labola gold deposit was prepared in the following steps:

- digital data validation.
- data preparation.
- exploratory data analysis of Au.
- geological interpretation and modelling (wireframing).
- establishment of block models.
- coding and compositing of assay intervals.
- consideration of grade outliers.
- derivation of kriging plan.
- variogram analysis and selection of kriging parameters.
- grade interpolation of Au using ordinary kriging.
- validation of Au grade estimates and models.
- classification of estimates.
- deduction for prior mining.
- resource tabulation and resource reporting.

The ordinary kriging grade estimation method was chosen as there is well recognized and demonstrated continuity of the mineralization, which exceed the average drill spacing for the vein interpretations used in the resource estimate. In this context, the interpretation of the mineralisation is relatively well defined by the drilling.

All grade modelling was completed using Datamine's Studio 3 software.

# 14.4 DATA PROVIDED FOR ESTIMATION

The drillhole database used for the resource estimate was provided by Moydow, and audited by Aurum Consulting without any significant issues identified. The data was provided as Excel format "xlsx" files from the Issuer database and contained collar, survey, assay, geological codes and specific gravity data.



A digital terrain model (DTM) was provided for the topographic elevation. Interpretations from prior work completed by Taurus was also available, but it was incomplete and Aurum chose to have a consistent approach throughout the model.

The sample database and the topographic surface were reviewed and validated by Moydow prior to being supplied for grade estimation. This was further checked by Aurum for consistency with other available data.

#### 14.4.1 The assay data used for grade estimation

The drilling dataset includes:

- Assays for 64,111 samples from drilling completed, of which there were:
  - Fire assay results for 61,124 samples from drilling completed by Taurus and HRG.
  - Fire assay results for 4,480 samples from drilling completed by Moydow.
  - LeachWELL assays for 2,261 samples from the drilling completed by Moydow. These assays were for intervals that already had fire assay results.
  - Of the 64,111 assays: 2,874 samples have a value of 0.5 g/t Au or greater, with an average grade of 2.39 g/t Au.

For the purposes of this work, the LeachWELL assay where available was taken as the primary assay. If there was no LeachWELL assay, then the fire assay was used. In some of the drilling records, there were intervals with no recovery or no sample where a hole intersected a cavity. There was some selective sampling in the diamond drillholes, so a default grade of 0.001 g/t Au was applied to these intervals. No default value was applied to unsampled intervals in the RC drilling.

# 14.5 GEOLOGICAL INTERPRETATION AND MODELLING

The defined mineralization at the Labola gold deposit has been interpreted to fall into three major structural trends (Western, Central and Eastern Zones).

The information available was evaluated in plan view, section view and in three dimensions in order to tag the samples used for generating the domains.

Overall, there were six mineralised domains used for this grade modelling (North-West, North-West Extension, Central, Eastern (North), Eastern (South) and Laterite). Each zone contains multiple units of mineralization that are subparallel and almost impossible to separate from each other, and the mineralized zones are therefore comprised multiple zones of mineralization and multiple zones of waste between those zones. Because of the linear nature of the mineralisation, there is a relatively high degree of confidence in the geological framework in the interpretation presented.

# 14.6 COMPOSITING OF ASSAY INTERVALS

The composite sample length selected for Labola was 1.0 m based on the most common sample length. Compositing was completed in Datamine's COMPDH process, with the parameter MODE=1 selected so as to avoid small samples as residuals, and to provide composites as close to the same sample support as possible. The composited data was then coded according to the relevant mineralized zone in preparation for modelling.

#### 14.6.1 Summary statistics

Histograms of the composited data exhibit a moderately strong positive skew with a moderate coefficient of variation (CV), with some grades that are considerably higher than the average grades (Table 14.1). Table 14.1 summarizes the statistics for gold grade for the 1.0 m composites of all mineralized zones.



Table 14 1	Summan	( statistics for	or Au of		nocitod (	data foi	tho mino	ralizod	70000
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Statistic	All data	Composites greater than 0.3 g/t Au
Number of samples	31,863	3,630
Minimum grade (g/t Au)	0.01	0.30
Maximum grade (g/t Au)	145.5	145.5
Mean grade (g/t Au)	0.22	1.64
Standard deviation	1.70	4.8
CV	7.7	2.9
Variance	2.88	23.04

The interpretations represent varying numbers of samples per wireframe including varying amounts of mineralization, and with that comes varying amounts of robustness in the decisions made using the statistics.



Figure 14.1 Log histogram of gold grades of all composited drill data for the mineralized zones

#### 14.6.2 The higher-grade values and grade-capping

The histogram of the grades of composite samples in the mineralized domains is positively skewed with a small proportion of the higher grades in amongst a large number of lower grade mineralization. There is also clustering of high grades locally within the Labola gold deposit, so the spatial relationships between high grades was considered during the capping strategy.

The value selected as cap was defined based on visual inspection of the higher grade values and their surrounding values, as well as an inspection of the continuity of the higher grades in the histogram. The mineralisation was considered as a whole.

The capping value for the composites was 35 g/t Au.



# 14.7 VARIOGRAM ANALYSIS

Experimental semi-variograms for gold were calculated as a combined dataset.

Traditional variograms were calculated, modelled and variogram estimation parameters (Table 14.2) were defined for the horizontal direction parallel to the structural trend (025°), down-dip direction (vertical) and cross-strike direction (115°).

Table 14.2 Variogram parameters (Au)

Domoin	Orientation	Nurset	Structure 1		Structure 2	
Domain	Unentation	Nugget	Sill	Range (m)	Sill	Range (m)
	0/025	0.48	1.02	6	1.50	75
All domains	90/115			5		65
	0/115			1		15

## 14.8 BLOCK MODEL SET UP

A Datamine block model with parent cell dimensions of 10 mE by 10 mN by 10 mRL was created and coded to reflect the surface topography, weathering profile and mineralized zones.

Weathering was applied using 2.5 m subcells in the Z direction, and added into the model using a Nearest Neighbour approach from codes in the drill data supplied by Moydow. These codes were derived from logging by Moydow in 2021 (highest quality) and historic codes from HRG and Taurus drill logging (this appears to be of varying quality).

Sub-celling was also used so that grade definition could be preserved using 2.5 m subcells in the X and Y directions where the mineralisation was narrow.

#### 14.8.1 Volumetric Mass Density & Specific Gravity

Specific Gravity was from measurements described in Section 11, and assigned in the block model based on the state of the weathering with respect to weathering (Table 14.3).

Table 14.3Specific Gravity values used in the resource model

Rock Type	No. of samples	Average SG (t/m <sup>3</sup> )
Laterite and soil	23	1.96
Mottled Zone	23	1.84
Saprolite	1197	2.18
Fresh	2951	2.73

# Note that the total is less than the total number of SG measurements as some were not classified by weathering code

# 14.9 GRADE ESTIMATION

Assay populations from gold deposits are generally positively skewed and contain outliers that can introduce bias into mineral resource estimates.

The composite data for Labola exhibits a moderately skewed gold grade population where the grades are represented in a skewed histogram with individual raw gold grades of up to 258.7 g/t Au.

Ordinary kriging (OK) with capped high grades was selected for estimation of the grade of the mineralized portion.

#### 14.9.1 Assumptions in the grade estimation

The key assumption used for the grade modelling is that the mineralized zones, and the grades in the mineralized zones are relatively continuous. This has been demonstrated through drilling as well as the artisanal mining activity.



#### 14.9.2 Grade estimation in steps

The grade estimation has been completed in several steps to optimize evaluation of the resource. These were:

- 1. An empty block model was prepared at the parent block size (10 m by 10 m by 10 m) using sub-cells to honour the volume locally and allow the trends of the mineralisation to be preserved, with blocks coded by mineralized domain (MINZONE), and weathering code (WEATH).
- 2. Variograms were prepared for the gold and silver composites;
- 3. Composited data was analysed, and top-cap values selected;
- 4. Grade estimation was completed using ordinary kriging ("OK") of the capped grades;
- 5. Estimates were checked/validated against the composited data.
- 6. Validation of the process was checked in each step along the way.

#### 14.9.3 Grade estimation parameters

Variogram models (Table 14.4) were used as input parameters to the ordinary kriging. Search parameters were selected so that the search would select enough data to make an estimate. Search parameters were applied as is shown in Table 14.4.

Grade estimation was then completed using the parent subcell dimensions as the base.

Table 14.4Search parameters

Parameter	Mineralized zones
Estimation method	ОК
Pass 1	
Search ellipse	65 m by 65 m by 7.5 m
Minimum samples	6
Maximum samples	12
Maximum composites per drillhole	5
Pass 2	
Search volume factor	2
Minimum samples	6
Maximum samples	12
Maximum composites per drillhole	5
Pass 3	
Search volume factor (As per pass 2)	2
Minimum samples	2
Maximum samples	24
Maximum composites per drillhole	5

# 14.10 MODEL VALIDATION

In addition to conducting validation checks on all stages of the modelling and estimation process, final grade estimates and models were checked / validated by comparing global grades with the input drillhole composites, by visual validation of block model cross sections against drilling and channel sampling information, and by grade trend plots.



The final grade estimates were validated statistically against the input drillhole composites. Table 14.5 provides comparisons between the estimated grades and the input grades for the global estimate of each of the domains. This statistical comparison shows that the grade estimates in the domains validate reasonably well.

Table 14.5 Comparison of the mean con	posites grade with the mean block model grade
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Domain	Composite (g/t Au)	Block Model (g/t Au)
3 (Western Zone)	0.25	0.23
4 (Western Zone - Northern Extension)	0.15	0.16
5 (Central Zone)	0.24	0.20
6 (Eastern Zone – North)	0.40	0.34
7 (Eastern Zone – South)	0.07	0.07
9 (Laterite)	0.08	

Note - only the Indicated and Inferred category estimates were included in this summary of the model grades

#### 14.10.2 Visual validation

The gold estimates show a good visual correspondence with the input composite grades. An example cross-section of the discretized model as used for validation is illustrated in Figure 14.2.

Figure 14.2	Cross-section validation view of MINZONE 5 (Daramandougou area)
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#### 14.10.3 Grade trend plots

Sectional validation graphs otherwise known as grade trend plots were created to assess the reproduction of local means and to validate the grade trends in the model. A grade trend plot is a moving window average where the average of the estimated grades in the model in a slice of the model is compared to the average grade of the input grades for the same slice. The graphs also show the number of input samples on the right axis to give an indication of the support for each bin.

The graphs indicate that there is generally good local reproduction of the input grades and proportions of mineralization. An example is shown in Figure 14.3 for MINZONE 7. The mineralized population estimate generally shows a good reproduction of the input grades with some smoothing evident, even though at this scale the detail is not evident. Departures noted in



these graphs were checked and generally found to represent clustering of data relative to the model, and not an issue with the model. Note that the model covers the waste within the overall zone as well as the mineralisation.



Figure 14.3 Grade trend plot of composite data vs average model grade – MINZONE 5 (covers Daramandougou)

# 14.11 THE INFLUENCE OF ADDITIONAL DATA

The model was initially prepared with data that excluded 20 drillholes. The data from these holes was thought to be lost, but was found close to the end of the modelling process. The data was then added into the dataset, the model rerun, and the results compared to the model prior to the data being added in.

At a cut-off grade of 0.35 g/t, and using the pit shell that constrained the Mineral Resource as defined below, the results showed an increase of tonnes and ounces in the higher confidence estimates, and a decrease in the lower confidence estimates, with an overall balance of approximately 600 oz.

The distribution of the mineralization as represented in the model was very similar to the earlier model, as was the grade estimates. This remodel, whilst it was inconvenient, provided strong support for the robustness of the model.

# 14.12 REASONABLE EXPECTATION OF ECONOMIC EXTRACTION

To define a Mineral Resource, there must be reasonable prospects for eventual economic extraction(CIM Definition Standards, 2014). Moydow therefore commissioned Aurum to complete a pit optimisation exercise using the parameters provided in Table 14.6. The work was completed by a qualified engineer with the sufficient experience, and parameters consistent with local conditions as provided by Moydow, but endorsed by the QP. Notwithstanding the pit optimisation study, it did not result in an engineered or operational open pit mine design. The model was classified using a confidence field for this evaluation, so that only the better confidence material was used in line with the Indicated and Inferred categories (essentially constrained by the first search distance in grade estimation).

Note: blue = number of composite samples, orange = composite grade > 0.1 g/t, grey = model grade



At the time of preparation of the September 2021 Mineral Resource, the gold price was US\$1,760/oz Au, and the average three year trailing gold price was approximately US\$1,618/oz Au. The gold price forecast used for estimating the prospects for eventual economic extraction, as requested by Moydow, was US\$1,900/oz Au.

The results of the optimisation provided a pit shell, which was used to constrain the limits of the Mineral Resource.

 Table 14.6
 Parameters for testing prospects for economic extraction

Parameter	Unit	Laterite	Saprolite	Fresh
Gold price	US\$/oz	1,900	1,900	1,900
Royalties	%	0	0	0
Mining Cost	US\$/t	2.00	2.00	2.75
Mine Cost adjustment Factor		1.00	1.00	1.38
Processing Cost (including admin and haulage)	US\$/t	7	11	13
Au Metallurgical Recovery (Saprock/Fresh Rock)	%	94	94	87
G & A	US\$/t	3.00	3.00	3.00
Mining Recovery	%	95	95	95
Mining dilution (as described in this report)	%	5	5	5
Geotechnical slope angles	Degree	40	40	50
Rehabilitation Cost	US\$/t	1.00	1.00	1.00
Effective Cut-off grade	g/t Au	0.206	0.206	0.357

Note - Optimization assumes sunk processing and infrastructure capex, and no exclusion areas

Overall, Aurum was of the opinion that these assumptions were fair for the purpose of determining reasonable prospects for eventual economic extraction for the Labola Project. However, Aurum did not demonstrate that the mineralisation is economic, as this pit optimisation study was not at the level of at least a prefeasibility study (PFS) and did not conform to the studies required for a PFS.

# 14.13 MINERAL RESOURCE CLASSIFICATION

The Mineral Resource classification definitions used for this estimate are those published by the CIM Definition Standards (2014) and includes Measured, Indicated and Inferred Mineral Resource.

- Measured Mineral Resource: that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough to confirm both geological and grade continuity.
- Indicated Mineral Resource: that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
- Inferred Mineral Resource: that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling



gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes.

The Qualified Person for the Mineral Resource is satisfied that the information which was used to define the Mineral Resource is of a high quality and suitable for the estimation of resources at a high level of confidence. The Author is also satisfied that the confidence in the geological framework as defined by the geological interpretation is adequately reflected in the classification of the resource, and that any changes to the interpretation following the acquisition of new data would have minimal impact on the Mineral Resource.

Once the Author was satisfied that the data and geological interpretation met the confidence required for the classification, the confidence in the estimation became more the confidence in the grade estimation, particularly the estimation of the gold grade which carries the most value. The remaining part of the classification was thus based on the following:

#### 14.13.1 Application of Classification

The general criteria used during the resource classification are presented below.

- Mineral Resource:
  - For an estimate to be considered as a part of the Mineral Resource, it needed to fall within the limits of the open pit evaluation used to define the Reasonableness of Eventual Economic Extraction.
- Measured:
  - The Measured classification was not used for this estimate.
- Indicated:
  - For an estimate to be classified as Indicated, it needed to have samples within a drill spacing of approximately
     50 m, be estimated using the information from two holes, and using a minimum of six samples.
- Inferred:
  - For an estimate to be classified as Inferred, it needed to have samples within a search distance of 65 m from drilling and fall within the pit shell.

#### 14.13.2 Mineral Resource Tabulation

The summarized results are shown in Table 14.7.

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Category	Mineralization (Mt)	Gold grade (g/t Au)	Contained gold (koz)
Indicated Resource	5.41	1.52	264
Inferred Resource^	6.93	1.67	371

1. \*\* Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues. The Mineral Resources in this note were reported using CIM (2014) Standards on Mineral Resources and Reserves, Definitions and Guidelines and adopted by CIM Council.

2. ^ The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define this Inferred Resource as an Indicated or Measured Mineral Resource. It is uncertain if further exploration will result in upgrading the Inferred Resource to an Indicated or Measured Mineral Resource category.

- 3. The Mineral Resource has been constrained by an open pit evaluation using a gold price of \$1900 per ounce, and then reported at a cut-off of 0.5 g/t Au.
- 4. Contained metal and tonnes figures in totals may differ due to rounding.

Moydow has estimated the amount of the resource that has been depleted by artisanal mining to be approximately 341,000 tonnes at 3 g/t Au. The quantity of mined material has been calculated from estimates of dump and leach pad volumes. The grade of the material mined has been estimated in the range of 1.5-3.0 g/t and is based on an evaluation of extensive rock chip, channel sampling of artisanal workings and selective sampling of adjacent dumps. The location of where the material


has been mined from is not known with any degree of accuracy. As such, the artisanal mining has not been deducted from the Mineral Resource but noted here for reference.

#### 14.13.3 Grade-tonnage Tabulation

Grade-tonnage numbers were generated for the grade model within the pit shape used to constrain the mineral resource (Table 14.8). Artisanal production has not been stripped from the grade-tonnage figures because of uncertainty with the numbers produced, but are reported separately at the bottom.

	Cut-off (g/t Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (koz)
	(6) ( 7,0)	(ivic)	(8) ( 74)	(102)
Indicated	0.35	6.9	1.26	286
Inferred	0.35	9.6	1.34	407
Indicated	0.4	6.4	1.35	279
Inferred	0.4	8.5	1.44	394
Indicated	0.45	5.9	1.43	271
Inferred	0.45	7.7	1.55	383
Indicated	0.5	5.4	1.52	264
Inferred	0.5	6.9	1.67	371

Table 14.8Grade-tonnage figures for the in-pit model by cut-off grade

Footnotes for Table 14.7 apply to this table. Comments on depletion also apply.



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#### 15 MINERAL RESERVE ESTIMATES

No Mineral Reserves are reported for the Labola Project.

## 16 MINING METHODS

Not reported.

## 17 RECOVERY METHODS

Not reported.

#### **18 PROJECT INFRASTRUCTURE**

Not reported.

#### **19** MARKET STUDIES AND CONTRACTS

Not reported.

# 20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Not reported.

### 21 CAPITAL AND OPERATING COSTS

Not reported.

## 22 ECONOMIC ANALYSIS

Not reported.



#### **23** ADJACENT PROPERTIES

The information in this section has been sourced from publicly available information on the relevant company websites and published NI 43-101 technical reports. The QP has not been able to verify the information as sourced and provided here and therefore the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report The information reported here is for context purposes only.

The Labola Project lies 80 km NE of the of Endeavour Mining's Wahgnion Gold Mine in SW Burkina Faso. The Wahgnion Gold Mine has been in commercial production since September 2020 and up until end of Q2, 2021 had produced approximately 127 000 ounces of gold. The project appears, based on information supplied in a July 2019 NI 43-101 technical report, to have similarities with Labola in terms of its geology, mineralisation styles and open mining from multiple pits with ores amenable to processing using a conventional carbon-in-leach ("CIL") leaching method. The following points are highlighted:

- The Wahgnion Gold Mine locates in the Senoufo Gold belt in SW Burkina Faso and is 510 km by road from the capital, Ouagadougou. Endeavour Mining owns 90% of the project with the government of Burkina Faso holding the remaining 10%. The Mining Lease was granted in 2014, covers 89 km<sup>2</sup> and is valid for 20 years with potential for additional 5-year extensions. Banfora is the nearest town to the property.
- The Senoufo Belt trends north-northeast and comprises mainly basaltic and andesitic volcanic and volcaniclastic rocks, sedimentary rocks, and numerous gabbroic to granitic subvolcanic plutons. The basic volcanic sequences correlate with those of the adjacent Banfora belt which hosts the Labola Project.
- Mineralization at the Property is structurally controlled and is widely associated with hematite, iron carbonate, sericite, pyrite and, locally, with albitic alteration. Higher gold grades are commonly associated with stylolitic laminated quartz veins or pyrite veinlets. Coarse grained gold is found in fractures within pyrite veins or in quartz-carbonate vein selvages. Mineralization is predominantly of a lode-style gold type, associated with discrete structures. The mineralization is interpreted to have formed from the same mineralizing system, with variations in style reflecting the difference in local lithological and structural settings.
- The open pit Measured, and Indicated Mineral Resources are estimated to total 2.44 million ounces (Moz) of gold (inclusive of mineral reserves), and Inferred Mineral Resources are estimated to total 0.24 Moz of gold. Mineral Resources are pit constrained at US\$1,500 per ounce of gold. The five main gold deposits located on the Wahgnion mining permit are Nogbele North and Nangolo, Nogbele South, Fourkoura, Samavogo, and Stinger.
- For the Resource estimation each deposit was modelled separately with the same general steps: resource database verification, modelling of mineralized zones, lithologies, and regolith layers in Leapfrog software, block modelling in a standard mining software package (Vulcan or Micromine), and industry standard model verification steps. Capping levels were determined by raw assays for mineralization domains prior to compositing to limit the influence of high grade outliers. Assays were composited to two metre length given the predominant sample length of one metre, the minimum mining width of two metres, the style of mineralization, and general continuity of grade. The estimation methodology was conventional Ordinary Kriging using variogram models.
- The Proven and Probable Mineral Reserves within open pits are estimated to total 1.61 Moz of gold, based on a gold price of US\$1,250 per ounce. Mining will be by way of conventional open pit mining techniques using drill and blast with material movement by hydraulic excavators and trucks. Wahgnion is characterized by numerous narrow orebodies that have variable orientations and widths, but good continuity along strike and down dip. A selective mining operation is proposed for mining these orebodies involving an intensive grade control program. Multiple backhoe excavators, equipped with a 5.7 m3 bucket (approximately 2.3 m wide), are specified as the primary loading units, allowing for a high level of mining selectivity from multiple production faces. Based on these attributes, the minimum mining thickness was assumed to be 2.5 m, which is equal to the minimum block size.
- The process plant design is based on a conventional CIL gold process flowsheet consisting of primary crushing, semi-autogenous grinding (SAG) and ball milling, with a pebble crusher, CIL gold extraction, elution, electrowinning, and gold smelting to produce doré on site. Throughput is designed to range between 2.2 million tonnes per annum (Mtpa) and 2.5 Mtpa, depending on the blend of soft and hard ore. The average predicted plant gold recovery is 92%, with soft (oxide) material recoveries from some zones reaching as high as 95%.



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## 24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data and information to disclose that makes the Technical Report not misleading.



#### **25** INTERPRETATION AND CONCLUSIONS

Historical exploration on the tenements has mainly been by two companies: Taurus Gold Ltd and High River Gold Mines Ltd (HRG, taken over by Nordgold). As a result of this work, as well as new work by Moydow, has resulted in a large, good quality, database. Some data with questionable verification has been twin drilled and found to be consistent with the new data, providing confidence in the use of all of the data for the purposes of this report.

Aurum was involved with the planning and management of the 2021 drilling program which was supervised by Aurum and which is summarized in this Technical Report. This work recommended a pilot study involving a drilling program utilising LeachWELL bottle roll analysis as well as Fire Assay analysis of drill samples. The aim of the pilot study was twofold:

- 1. Provide validation of the historical HRG and Taurus Gold drilling databases.
- 2. Assess the efficacy of the LeachWELL versus traditional Fire assay method in the context of a high coarse gold component to the Labola mineralisation.

The drilling program commenced on 22 May 2021 and concluded on 7 August 2021. An aggregate of 4,739 metres was drilled in 31 holes. 23 holes were twin holes, 2 were infill holes and 4 were step out exploration holes. Two were re-drilled. Each of the holes intersected zones of mineralisation which were either identified based on holes that the new hole twinned or were identified using fire assays for gold and assays showing elevated arsenic grades.

Results of the LeachWELL analyses show that fire assays in the range of 0.3 to 0.5 g/t Au increased on average by 23%, in the range of 0.5 to 1.0 g/t Au increased on average by 10%, and in the range of 1.0 to 2.0 g/t Au increased on average by 12%. Above 2 g/t Au, the average grade decreased. Whilst it was disappointing that the sample assays in the higher grade were lower, the overall average grade remained the same in the LeachWELL as for the fire assays of the same samples, and the variance was reduced in the LeachWELL from the fire assays. This result provided a strong case for the LeachWELL assay being a superior assay result when compared to the Fire Assay result at Labola.

The database of historical information has been audited, correctly coordinated and the twin drilling results confirm the validity of the historical information. The HRG, Taurus and Moydow data, including the LeachWELL assay data, was therefore taken as sufficiently accurate to be used in the estimation of mineral resources for Labola.

The preliminary metallurgical results support mining of the oxide material but that there is a lower level of confidence in metallurgical performance predictions in the underlying transition/sulphide material. However recently received LeachWELL assays and Fire Assays on Leachwell tails indicate that the material is essentially free-milling, in line with the regional metallurgy.

Moydow in 2020 and 2021 has compiled, integrated and assessed all of the available information and has outlined targets based on each of the main data sets. Based on this, Moydow selected targets and ranked them based on their perceived prospectivity as summarised:

- Priority 1 Taurus Resource Targets.
- Priority 2 HRG Resource Targets.
- Priority 3 Mineralisation Extensions.
- Priority 4 Untested Workings.
- Priority 5 Previous Drill Intercepts.
- Priority 6 IP Targets.
- Priority 7 Mineralisation Trends.
- Priority 8 Geochemical Targets.
- Priority 9 EM targets.

The main targets are along the major interpreted central shear system but there is strong evidence that there are several sub-parallel structures that also host significant gold mineralisation as shown by artisanal workings. These targets can be considered as clearly defined with generally good to excellent potential. Many of the targets are resource expansion opportunities as obvious extensions to identified resources and include areas with only widely spaced historical drilling. Additional targets include untested zones with artisanal workings and new zones as defined by soil geochemistry and/or Induced polarisation surveys. It is the authors opinion that Labola represents an advanced exploration project with clearly defined drill targets that provide opportunities for Resource expansion.



Aurum, on behalf of DFR, has completed the estimation of a mineral resource as documented in this report (Table 25.1). Resource estimation was undertaken using ordinary kriging and standard estimation practices. Validation of the grade estimation showed good predictability of the model and generally good model validation. It is the QP's opinion that the Mineral Resource is robust and the confidence in the estimates is adequately reflected in the resource classification.

Table 25.1	Mineral Resource for the Labola (	Gold Project, 25 October 2021**
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Category	Mineralization (Mt)	Gold grade (g/t Au)	Contained gold (koz)
Indicated Resource	5.41	1.52	264
Inferred Resource^	6.93	1.67	371

1. \*\* Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues. The Mineral Resources in this note were reported using CIM (2014) Standards on Mineral Resources and Reserves, Definitions and Guidelines and adopted by CIM Council.

2. ^ The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define this Inferred Resource as an Indicated or Measured Mineral Resource. It is uncertain if further exploration will result in upgrading the Inferred Resource to an Indicated or Measured Mineral Resource Resource category.

- 3. The Mineral Resource has been constrained by an open pit evaluation using a gold price of \$1900 per ounce, and then reported at a cut-off of 0.5 g/t Au.
- 4. Contained metal and tonnes figures in totals may differ due to rounding.

Moydow has estimated the amount of the resource that has been depleted by artisanal mining to be approximately 341,000 tonnes at 3 g/t Au. The quantity of mined material has been calculated from estimates of dump and leach pad volumes. The grade of the material mined has been estimated in the range of 1.5-3.0 g/t and is based on an evaluation of extensive rock chip, channel sampling of artisanal workings and selective sampling of adjacent dumps. The location of where the material has been mined from is not known with any degree of accuracy. As such, the artisanal mining has not been deducted from the Mineral Resource but noted here for reference.

Nothwithstanding these results, there remain risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information, and the mineral resource. The main risks remain:

Burkina Faso, at the time of this report, is a country where there is a high risk of extremist activity and therefore a security risk to personnel. This has a flow on effect to the project.

There is a risk that the company, regardless of the quality of the defined exploration targets, will not be able to define additional resources for the project.



#### 26 RECOMMENDATIONS

Moydow has prepared a two-phase work program for the Labola project. In phase one, the primary objective is to drill test, at a reconnaissance level, a number of areas adjacent to current resource pit shells to look at immediate expansion opportunities.

The phase two program is designed to complete a full resource expansion program to find additional resources and achieve the requisite project size to develop a mining project. Supporting technical work will include variability metallurgical test work, geotechnical studies, base line environmental and social studies as well as supporting technical studies for the completion of a Preliminary Economic Assessment ("PEA").

Phase One Budget: US\$1.0 million. Reconnaissance drilling to test for immediate expansion opportunities adjacent to current pit shells to include:

- A planned program of 5 000 m of RC drilling. The primary objectives will be to expand the potentially economic, open pit, resource base through the drilling of extensions to known mineralisation adjacent to the pit shells as outlined in this study.
- Sampling will include fire assay and LeachWELL analysis.
- Updating of the geological wireframes and an assessment of extension opportunities.

Phase Two Budget: US\$10 million. Resource expansion and preliminary economic assessment ("PEA") to include:

- A planned drilling program which includes 50 000 m RC, 10 000 m DDH and 10 000 m RAB. The RC drilling program will focus on resource expansion opportunities and conversion of more resources to the Indicated category. The DDH program will focus on obtaining core for the variability metallurgical test work and geotechnical studies. The RAB drilling will be designed to test new, undrilled zones which can then be followed up with RC drilling.
- Metallurgical test work studies based on sample composites to review possible variability between the various mineralised areas (in both oxide and sulphide zones) culminating in a recommended process design. The studies will include CIL and gravity recoveries as well as a review of gold deportment.
- Initial capex and opex estimates for all relevant mine operations and infrastructure including tailings and plant.
- Social and environmental baseline studies within the Labola project area.
- Induced polarisation (IP) surveys will be conducted to expand the existing IP grid as high chargeability and high
  resistivity measurement have been very effective in defining mineralised zones. Mineralisation at Labola relates
  to disseminated sulphides and quartz veining plus silicification.
- Construction of a new exploration camp to accommodate an increased workforce in support of the accelerated exploration program.
- Further geotechnical studies on each mineralised zone.
- Update of the resource estimate and Mineral Resource based on the new drilling results.
- Completion of a PEA based on metallurgy, geotechnical studies, preliminary opex and capex estimates and pit optimisation work.



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#### Figure 26.1 Proposed areas for resource expansion and exploration drilling

(Source: Map provided by Moydow, 2021)



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Essai de traitement du minerai de Labola, Dec 10 (Internal HRG Document)



Diamond Fields Resources Inc.

Labola Gold Project 2021-10

## Appendix A Certificates



CERTIFICATE of QUALIFIED PERSON

#### Ivor W.O. Jones, M.Sc., P.Geo, FAusIMM

I, Ivor W.O. Jones, M.Sc., P.Geo, FAusIMM of Georgetown, Cayman Islands, do hereby certify:

- I am a Principal Consultant with Aurum Consulting with a business address at Block OPY, Parcel 45, Genesis Close, Genesis Building, George Town, Cayman Islands.
- This certificate applies to the technical report entitled "Technical Report on the Labola Project, Burkina Faso" with effective date of 25 October 2021 (the "Technical Report").
- I am a graduate of Macquarie University (B.Sc. Geology, 1984, (Honours), 1986) and the University of Queensland (M.Sc. Resource Estimation, 2001). I am licensed as a Professional Geoscientist with Engineers and Geoscientists British Columbia (Licence No. 197172), and I am a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) (Member No. 111429). I have worked as a geologist continuously for a total of 35 years since graduation. I have been involved in resource evaluation for 30 years and consulting for more than 20 years, including resource estimation of different gold deposit types for at least 15 years. I have been involved in gold exploration and mining operations for at least 20 years. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- I have not completed a personal inspection of the Property that is the subject of the Technical Report because of the Security situation in Burkina Faso.
- I am independent of Diamond Field Resources as defined by Section 1.5 of the Instrument.
- I have only had involvement with the Property that is the subject of this Technical Report since mid 2020.
- I am responsible for Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 (apart from Section 12.3), 14, 23, 24, 25, 26 and 27 of this Technical Report.
- I have read the Instrument and the sections of the Technical Report that I am responsible for and it has been prepared in compliance with the Instrument.
- As of the date of this certificate, to the best of my knowledge, information and belief, the sections of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 3<sup>rd</sup> day of December 2021, in Belo Horizonte, Brazil.

"original document signed and sealed"

Aurum Consulting

Ivor W.O. Jones, M.Sc., P.Geo, FAusIMM Director & Principal Consultant



#### Alan Riles, B.Met, M. EconGeol, Grad Dip Prof Mgt, M.AIG

I, Alan Riles, B.Met, M. EconGeol, Grad Dip Prof Mgt do hereby certify:

- I am a Principal Consultant with Riles Integrated Resource Management Pty Ltd with a business address at 8, Winbourne St, Gorokan NSW 2263.
- This certificate applies to the technical report entitled "Technical Report on the Labola Project, Burkina Faso" with effective date of 25 October 2021 (the "Technical Report").
- I am a graduate of Sheffield University (B.Met., 1974, (Honours class 1)) and the University of Tasmania (M.EconGeol. 2016). I am a Member of the Australian Institute of GeoScientists (AIG) (Member No. 4820). I have worked as a metallurgist continuously for a total of 45 years since graduation. I have been involved in mining operations for 30 years and consulting for more than 15 years, including metallurgical process design of different gold deposit types for at least 15 years. I have been involved in gold geometallurgy for at least 10 years. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- I have not completed a personal inspection of the Property that is the subject of the Technical Report because of the current global travel restrictions.
- I am independent of Diamond Field Resources as defined by Section 1.5 of the Instrument.
- I have only had involvement with the Property that is the subject of this Technical Report since mid 2021.
- I am responsible for Section 13 and parts of Sections 1, 25, 26 and 27 of this Technical Report.
- I have read the Instrument and the sections of the Technical Report that I am responsible for and it has been prepared in compliance with the Instrument.
- As of the date of this certificate, to the best of my knowledge, information and belief, the sections of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 3<sup>rd</sup> day of December 2021, in Cairns, Australia.

"original document signed and sealed"

Alan Riles, B.Met, M. EconGeol, Grad Dip Prof Mgt Director & Principal Consultant

Riles Integrated Resource Management Pty Ltd



CERTIFICATE of QUALIFIED PERSON

#### John Asafo-Akowuah, M.S., MAIG

I, John Asafo-Akowuah, M.S., MAIG of Milford, Connecticut, do hereby certify:

- I am a Principal Consultant with Aurifer Resources LLC with a business address at 24 Calloway Drive, Milford, Connecticut, U.S.A.
- This certificate applies to the technical report entitled "Technical Report on the Labola Project, Burkina Faso" with effective date of 25 October 2021 (the "Technical Report").
- I am a graduate of University of Ghana (B.Sc. (Honours) Geology, 2005), New Mexico Institute of Mining and Technology (M.S. Mineral Engineering, 2017) and Imperial College London (MBA, 2017). I am a Member of the Australasian Institute of Geoscientists (MAIG) (Member No. 7276). I have worked as a geologist continuously for a total of 16 years since graduation. I have been involved in gold exploration and mining operations for at least 8 years. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- I have completed an inspection of the Property that is the subject of the Technical Report in Burkina Faso.
- I am independent of Diamond Field Resources as defined by Section 1.5 of the Instrument.
- I have only had involvement with the Property that is the subject of this Technical Report since mid 2021.
- I am responsible for Section 12.3 of this Technical Report.
- I have read the Instrument and the sections of the Technical Report that I am responsible for has been prepared in compliance with the Instrument.
- As of the date of this certificate, to the best of my knowledge, information and belief, the sections
  of the Technical Report that I am responsible for contain all scientific and technical information that
  is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 3<sup>rd</sup> day of December 2021, in Milford, Connecticut.

"original document signed and sealed"

John Asafo-Akowuah, M.S., MAIG Principal Consultant

Aurifer Resources