

A dark blue horizontal banner featuring a light blue world map in the background. The map shows the continents of North America, South America, Europe, and Africa.

DEFINE | PLAN | OPERATE




Altus Strategies: Diba & Lakanfla Project Heap  
Leach Preliminary Economic Assessment  
(NI43-101), Mali





#### Document Control Information

<b>Customer</b> 	<b>Altus Strategies: Diba &amp; Lakanfla Project Heap Leach Preliminary Economic Assessment (NI43-101), Mali</b>	<b>REVISION</b>	
		No.	DATE
	DOCUMENT NAME	02	28/07/2022

#### Revision Tracking

Revision	Prepared By	Reviewed By	Issued For	Approved By	Date
00	L Sullivan	A Carneiro	RC		17/07/2022
01	L Sullivan	M Field	RC		27/07/2022
02	L Sullivan	Altus	FV		28/07/2022
03					
04					

Issued For: Review and Comment (RC), Information Only (IO), Implementation (IM), Final Version (FV).







## CERTIFICATE OF AUTHOR

I, Matthew Field, BSc, BSc Hons, MSc, PhD, Pr. Sci. Nat #40006/08 do hereby certify that:

1. I am currently employed as Principal Consulting Geologist with Mining Plus UK Ltd, located at Desklodge House, 2 Redcliffe Way, Redcliffe, Bristol, BS1 6NL;
2. This certificate applies to the Technical Report titled "Altus Strategies Diba & Lakanfla Project Heap Leach Preliminary Economic Assessment (NI43-101), Mali" (the "Technical Report") prepared for Altus Strategies Plc ("the Issuer"), which has an effective date of 1 August 2022 – the date of the most recent technical information;
3. I graduated from Rhodes University with BSc (1984), BSc Hons (1985) and MSc (1986) degrees and from the University of Bristol with a PhD in 2009. I have gained over 35 years of practical, technical, managerial and consulting experience as a consulting geologist. This has included carrying out Mineral Resource estimations, , mine design, optimisation and scheduling on base metal, industrial minerals and gold deposits in the Middle East, Africa, Canada and Australia.  
I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "qualified person" for the purposes of NI 43-101;
4. I completed a personal inspection of the Property between 5 and 6 June 2022;
5. I am responsible for Items 12 and 14, and sections pertaining thereto in Item 1 to 11, and sections pertaining thereto in Item 1 and Items 24 to 27
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have not had prior involvement with the property that is the subject of the Technical Report in my role as Principal Consulting Geologist Mining Plus UK;
8. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1;
9. As of the effective date of the Technical Report and the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading;

Effective Date: 1 August 2022

Signing Date: 1 August 2022



(Signed) Matthew Field, Pr. Sci. Nat #40006/08



## CERTIFICATE OF AUTHOR

I, Adriano Carneiro, BSc Min, FAusIMM do hereby certify that:

1. I am currently employed as Principal Mining Engineer with Mining Plus UK Ltd, located at Desklodge House, 2 Redcliffe Way, Redcliffe, Bristol, BS1 6NL;
2. This certificate applies to the Technical Report titled "Altus Strategies Diba & Lakanfla Project Heap Leach Preliminary Economic Assessment (NI43-101), Mali" (the "Technical Report") prepared for Altus Strategies Plc ("the Issuer"), which has an effective date of 1 August 2022 – the date of the most recent technical information;
3. I am a graduate of the Federal University of Ouro Preto, Ouro Preto – MG - Brazil (BSc Mining Engineer, 1996). I am registered as fellow of the Australasian Institute of Mining and Metallurgy (#319595). I have gained over 25 years of practical, technical, managerial and consulting experience as a mining engineer. This has included carrying out Mineral Reserve estimations, , mine design, optimisation and scheduling on base metal, industrial minerals and gold deposits in Latin America, Africa, and Australia. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "qualified person" for the purposes of NI 43-101;
4. I did complete a personal inspection of the Property on 5 and 6 June 2022);
5. I am responsible for Items 15 and 16, Item 22, and sections pertaining thereto in Item 1 to 7, Items 15 to 16, items 18 to 23 and sections pertaining thereto in Item 1 and Items 24 to 27
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have not had prior involvement with the property that is the subject of the Technical Report in my role as Principal Mining Engineer Mining Plus UK;
8. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1;
9. As of the effective date of the Technical Report and the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading;

Effective Date: 1 August 2022

Signing Date: 1 August 2022



(Signed) Adriano Carmensi Carneiro, BEng mining, #319595



## **Certificate of Qualified Person**

Nick Wilshaw, BSc MSc ACSM FIMMM, Principal Consultant,  
Grinding Solutions Ltd  
14 Tresillian Business Park, Tresillian, Truro, United Kingdom TR2 4HF  
Tel: +44 1872 223331  
[nick.wilshaw@grindingsolutions.com](mailto:nick.wilshaw@grindingsolutions.com)

I, Nick Wilshaw, BSc MSc ACSM FIMMM, am the Managing Director and Principal Consultant for Grinding Solutions Ltd.

This certificate applies to the Technical Report titled "Altus Strategies: Diba & Lakanfla Project Heap Leach Preliminary Economic Assessment (NI43-101), Mali", and dated 01 August 2022 (the Technical Report).

I am a Fellow of the Institute of Materials, Minerals and Mining (#466642). I graduated from the Camborne School of Mines in 1980 and gained a Masters' of Science from Queens university, Canada in 1982

I have gained over 30 years of practical and technical experience in both metalliferous and industrial applications My experience ranges from research and development, product development, production and product marketing through to plant specification design and commissioning. I am also Director of CEEC and I also provide advice on market analysis and mining investment.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

I did not visit the Diba-Badiazila gold property.

I am independent of Altus Strategies, as independence is described by Section 1.5 of NI 43-101. I have not had any previous involvement with the property which is the subject of this Technical Report.

I have read NI 43-101, and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated at Truro, United Kingdom, this 1<sup>st</sup> day of August 2022



Nick Wilshaw FIMMM

Fellow of the Institute of Materials, Minerals and Mining (#466642).





**CONSENT OF QUALIFIED PERSON**

I, Matthew Field, Pr. Sci. Nat, state that I am responsible for preparing and supervising the preparation of part of the technical report titled “Altus Strategies Diba & Lakanfla Project Heap Leach Preliminary Economic Assessment (NI43-101), Mali” with an effective date of 1 August 2022, as signed and certified by me (the “Technical Report”).

Furthermore, I state that:

- (a) I consent to the public filing of the Technical Report by Altus Strategies Plc.
- (b) The Technical Report supports a Press Release by Altus Strategies Plc dated 1 August 2022.
- (c) I consent to the use of extracts from, or a summary of, the Technical Report in the Press Release of Altus Strategies Plc dated 1 August 2022.
- (d) I confirm that I have read the Press Release being filed by Altus Strategies Plc Inc and that it fairly and accurately represents the information in the part of the Technical Report for which I am responsible.

Dated at Bristol, United Kingdom this 1<sup>st</sup> day of August 2022.

A handwritten signature in blue ink, appearing to read 'Matthew Field'.

Matthew Field Pr. Sci. Nat #40006/08




**CONSENT OF QUALIFIED PERSON**

I, Adriano Carmensi Carneiro, BSc Min, FAusIMM, state that I am responsible for preparing and supervising the preparation of part of the technical report titled “Altus Strategies Diba & Lakanfla Project Heap Leach Preliminary Economic Assessment (NI43-101), Mali” with an effective date of 1 August 2022 as signed and certified by me (the “Technical Report”).

Furthermore, I state that:

- (a) I consent to the public filing of the Technical Report by Altus Strategies Plc.
- (b) The Technical Report supports a Press Release by Altus Strategies Plc dated 1 August 2022.
- (c) I consent to the use of extracts from, or a summary of, the Technical Report in the Press Release of Altus Strategies Plc dated 1 August 2022.
- (d) I confirm that I have read the Press Release being filed by Altus Strategies Plc Inc and that it fairly and accurately represents the information in the part of the Technical Report for which I am responsible.

Dated at Bristol, United Kingdom this 1st day of August 2022.

A handwritten signature in blue ink, appearing to read 'Adriano Carmensi Carneiro', enclosed within a light blue rectangular box.

Adriano Carmensi Carneiro, BSc Min, FAusIMM





**CONSENT OF QUALIFIED PERSON**

I, Nick Wilshaw, BSc MSc ACSM FIMMM, state that I am responsible for preparing and supervising the preparation of part of the technical report titled “Altus Strategies Diba & Lakanfla Project Heap Leach Preliminary Economic Assessment (NI43 -101)” with an effective date of 1 August 2022, as signed and certified by me (the “Technical Report”).

Furthermore, I state that:

- (a) I consent to the public filing of the Technical Report by Altus Strategies Plc.
- (b) The Technical Report supports a Press Release by Altus Strategies Plc dated 1 August 2022.
- (c) I consent to the use of extracts from, or a summary of, the Technical Report in the Press Release of Altus Strategies Plc dated 1 August 2022.
- (d) I confirm that I have read the Press Release being filed by Altus Strategies Plc and that it fairly and accurately represents the information in the part of the Technical Report for which I am responsible.

Dated at Truro, United Kingdom this 1<sup>st</sup> day of August 2022.

Nick Wilshaw, BSc MSc ACSM FIMMM



## 1 EXECUTIVE SUMMARY

---

Mining Plus has updated the mineral resource estimate and prepared an updated Preliminary Economic Assessment (PEA) on behalf of Altus Strategies (Altus) for the 100%-owned Diba & Lakanfla Gold Project, located in Mali. The purpose of this updated Technical Report is to support the disclosure of the 01<sup>st</sup> August 2022 Diba Gold Project Updated Preliminary Economic Assessment (PEA).

The initial PEA for the project was prepared by Mining Plus and released by Altus on 22nd July 2020. The project economics have since been re-assessed and re-stated on 18th November 2020, following receipt by Altus of the results of additional metallurgical test work that had been completed subsequent to the date of the initial PEA.

This updated PEA represents a re-assessment of the project economics following updated geological modelling using new drilling results. It also captures changes to metal prices and global changes to other price inputs since the previous PEA.

Altus Strategies is a London (AIM:ALS) and Toronto (TSX-V:ALTS) listed mining royalty company focused on generating and developing a diversified portfolio of precious metal assets through discovery, investment and acquisition.

### 1.1 Location, Access & Infrastructure

The Diba & Lakanfla Project, covers an area of approximately 107.1km<sup>2</sup>, and is located in the Kayes region of Mali, approximately 450km west-northwest of Bamako, and 100km south of Kayes the regional capital. The nearest international border is with Senegal to the west and Mauritania to the north.

Road access from Bamako to the Diba & Lakanfla Project is either via the partially paved, two-lane Bamako-Dakar road up to Kéniéba (about 450 km drive), followed by about 140 km of dirt road to the village of Kantela, or via the 506km paved highway from Bamako to Kayes.

The project is currently isolated from public infrastructure. With the exception of the dirt road that connects Kéniéba with Kayes, the Project area has little or no infrastructure, but it is located approximately 13km from the Sadiola gold mine, where some basic services (food, accommodation, hospital, communication, fuel supply, workshops, and small commerce) can be found. Support for other basic needs should be sought from Kayes or Bamako. Historically, exploration activities were conducted from an exploration camp near the Kantela village.

At the moment, there is no electricity supply from a national grid to the Project or its proximity. Sufficient long-term water supply for potable and process usage may be available from surface and/or underground sources, but will need to be assessed during any future



engineering studies. Water rights would still require formal approval from the Malian authorities.

Non-qualified labour is available in the region for exploration and future mining activities, but specialised labour and technical advice will have to be provided from Kayes, Bamako or abroad. Cellular telephone communication is possible in most nearby villages, Kantela, Sadiola, and from various points in the Project and along the Kéniéba-Kayes road.

Exploration and future mining operations could be conducted year-round.

Recent conflict events have not extended over Western Mali, although the country as a whole is still dealing with ongoing political instability. The QPs recognize that such events may result in interruptions to planned exploration activities.

## 1.2 Mineral Tenure and Royalties

The Korali Sud Small Scale Mining Authorisation is valid for four years effective from 15 April 2022, renewable for successive four year periods until the deposit is depleted. The Company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger MRE.

The Lakanfla permit is valid for three years effective from 31 July 2021. The permit is in its final three-year renewal of the current licence term (3yrs +2yrs +3yrs). Following the completion of the last renewal it is possible to reapply for the licence, a process which Altus has successfully done before. Should the situation warrant it, Altus may opt to start the mining licence application process.

Mining Plus has reviewed the planned expenditure in the renewal documents submitted by Altus to the Malian authorities, which can be summarised as follows:

- **Year 1 – US\$234,965 (144,150,000 XOF).**
- **Year 2 – US\$312,308 (191,600,000 XOF).**
- **Year 3 – US\$238,388 (146,250,000 XOF),**

Under the Korali Sud Small Scale Mining authorisation there are no statutory minimum expenditure commitments and the Company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger MRE.

As of 21 August 2019, the Malian government have announced a new mining code. The new mining code and amendments are currently being implemented; Altus Strategies are currently reviewing and liaising with the Malian government to identify any material changes to royalties and the tax regime. Current taxes and royalties are summarised in Section 4.7.



### 1.3 Environmental and Permitting

Altus does not hold surface land or water rights within the Project. The surface rights in the Project belong to the State. No public consultations are required during the exploration phase.

Water for the drill program was obtained from surface sources in the Permit area. Altus have the right to extract water for use at their exploration camp and during drilling. The permit holders do not currently hold water rights in connection with the Project (Will Slater, VP Operations for Altus), and these would require formal approval from the Malian authorities.

While there are no known environmental liabilities associated with previous artisanal mining activities, there is an expectation that with detailed surveys, some minor environmental issues may be identified.

As part of the application process for the small scale mining authorisation an Environmental & Social Impact Assessment (ESIA), Community Development Plan (CDP), Training Plan and Site Closure and Rehabilitation Plan was prepared by independent Malian Consultant EBEF Mali in consultation with the communities affected and the relevant local and national authorities. The ESIA, CDP, Training Plan and Site Closure and Rehabilitation Plan were all authorised as part of the grant of the small scale mining authorisation. The Company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger MRE. Further Environmental and Socio-Economic studies would be required if the Company applies for a full-scale mining licence.

Additional permits, including surface and water rights, as well as environmental permits, will be required for the Project development.

### 1.4 Geology and Mineralisation

The primary lithologies in the area of the deposit consist of a sequence of calcareous lower-greenschist facies metasediments. These comprise two facies that are classified, from bottom to top, as the Lower Calcareous Sequence (LCS) and the Upper Calcareous Sequence (UCS). The units are described as follows:

- The LCS is characterized by dark grey planar-bedded siltstones, overlain by finely-laminated calcareous argillite layers with a banded appearance. This argillite layer is overlain by a <7.5m thick hydraulic breccia horizon, composed of subangular black siltstone clasts cemented by a matrix of white calcite.
- The UCS is composed of a poorly-sorted pebble conglomerate, overlain by fine-grained sandstone and thick laminated dark –grey siltstone beds with inter-bedded pebble-conglomerate and siltstone-mudstone intervals.



- Massive sandstone beds are randomly interlayered with the thick siltstone layers in the UCS and LCS, and minor <10cm thick granular conglomerate beds are locally intercalated.
- The contact between both LCS and UCS is marked by the transition at the base of the UCS to a polymictic conglomerate composed of sub-rounded clasts of sedimentary, intrusive and volcanic rocks contained in a fine grained matrix.

Carbonatisation and sulphidation are the most widespread alteration types. Alteration zones with abundant calcite veinlets and aggregates with disseminated pyrite and minor bedding-parallel veinlets of pyrite, reaching tens of metres in width occur.

The weathering profile and depth of oxidation at Diba is up to 70m vertical, and results in extensive oxidation from surface. The top of the UCS is capped by a lateritic regolith. The weathering profile and depth of oxidation at Diba NW is significantly less than at Diba and is typically between 0 m and 15 m vertical depth.

The weathering profile and depth of oxidation at the Lakanfla Central is up to 100 m vertical depth, and results in extensive oxidation from surface, but is typically between 60 m and 80 m vertically from the surface.

Gold mineralisation modelled at Diba extends over an area measuring 700m x 700m and Diba NW over an area approximately 1,000m x 300m. Anomalous gold at the Korali Sud Licence extends over 2.5km north – south, and is defined where auger sample values yielded >0.1g/t Au.

No sulphide or gold mineralisation has been intersected in the LCS. Gold mineralisation is strata-bound and constrained to the UCS. The sulphide content of the mineralised lenses is typically less than 10% by volume, and commonly as little as 1%. Disseminated sulphides are fine- to very-fine grained, and consist dominantly of pyrite, with a minor amount of arsenopyrite, chalcopyrite, tellurides and native gold.

Based on the continuity of mineralised zones (defined as >0.3g/t Au), and the interpretation of the mineralisation as sediment-hosted, disseminated epigenetic deposit, Mining Plus modelled the zones of the Diba deposit as a series of 8 stacked lenses. The mineralised units extend horizontally over a 700m x 700m area, and the mineralised bodies are usually shallow-dipping (30 degrees east – ESE) and generally 20 – 40m thick. The spatial distribution of the gold grades dipping approx. 30° ESE supports the interpretation of the stacked lenses modelled with the grade shells.

Lakanfla Central is hosted exclusively in massive, medium- to coarse-grained granite and granodiorite. Mineralisation occurs in two styles; firstly, in a wide, NE striking, steeply-dipping body of disseminated mineralization. This orderly, disseminated orebody has a strike length



of approximately 650 m and an approximate width of 140 m, with consistent lower grade typically between 0.5 g/t Au to 1 g/t Au. Mineralisation is thought to be controlled by subvertical, NE-striking brittle-ductile faults and barren dykes. In some instances, the faults are mineralized (with quartz-sulphide veinlets) and are characterized by higher gold grades, typically above 3g/t Au over 1-2 metres.

## 1.5 Exploration and Drilling

Etruscan commenced exploration in the area in 2001. Exploration was initiated using regional soil sampling, followed by infill soil samples collected over regional anomalies. Once anomalies were confirmed, then single-sample auger drilling was completed over the area of interest. Subsequent to positive results, additional multi-sample auger drilling was completed, and reverse-circulation and/or diamond drilling was conducted.

Etruscan conducted rotary air blast (RAB), diamond and reverse-circulation (RC) drilling campaigns to follow-up on Au geochemical anomalies identified during the auger and deep-auger geochemical programs at Diba. Table 1 summarises the Etruscan drilling for the Diba project. These campaigns took place between 2006 and 2008.

Table 1 – Etruscan drilling summary for Diba Project / Korali Sud licence

Target	Drilling method	No of holes	Total Metres (m)	Length		
				Min	Max	Average
DIBA	RAB	330	11,679	7.5	103	35
DIBA	RC	109	6,670	24	143	61
DIBA	DIAMOND	92	13,348	70	352	145
<b>Total</b>		<b>531</b>	<b>31,697</b>			

Two phases of project development took place under the ownership of Legend Gold (2011 – 2018). In 2013 a maiden NI43-101 resource estimation was performed by independent consultants AMEC, followed by drilling of further RC and AC holes in 2014. These 2014 RC holes have been included in this 2022 mineral resource update.

The first RC hole was sunk on Wednesday 12 March 2014 with the final hole being completed on Wednesday 2 April 2014, constituting a three-week drilling programme. Legend Gold Corp. contracted Geodrill Limited, an established West- and Central Africa-focussed drilling service and rig provider that is listed on the Toronto Securities Exchange (TSX:GEO). The programme employed two RC drilling rigs operating a single 12-hour day shift.

- 300 Aircore (AC) holes were drilled between February and April 2014, all holes orientated with an azimuth of 265 and a dip of 60°. They had an average depth of 14.7m with a maximum of 41m.
- 59 RC holes were drilled between April and May 2014, all holes orientated with an azimuth of 265 and a dip of 60°. They had an average depth of 85.8m with a maximum



of 180m. A total of 5,067 m was drilled. The nomenclature for these holes was “DBRC-###”, referring to Diba [the prospect], reverse circulation [type of drill hole], and the sequential numbering from 1 to 59.

The RC holes were drilled as infill or proximal extension holes on Diba. The AC holes were drilled in the anomalous zones surrounding Diba to test proximal mineralisation, and along the NW extension.

In 2018 Altus Strategies completed a Plan of Arrangement with Legend Gold, and the licence is now held by Altus's 100% owned subsidiary LGN Holdings (BVI) Ltd.

Since acquiring the project Altus have undertaken a further 27,349 m of RC drilling for 165 holes at Diba and Diba NW and 1,359m of Diamond Drilling at Diba. Four companies have drilled the Lakanfla project to date; North Atlantic Resource between 2003 -2004, Legend Gold during 2011, Marvel Gold 2020 and Altus Strategies 2022.

Table 2 - Lakanfla drilling summary

Target	Drilling method	No of holes	Metres (m)	Length		
				Min	Max	Average
LAKANFLA	RC	272	28,066	40	280	100
LAKANFLA	DIAMOND	13	2,575	101	265	139
<b>Total</b>		<b>285</b>	<b>30,641</b>			

## 1.6 Sampling and Analysis

### 1.6.1 Etruscan

Abilab Afrique de l’Ouest SARL (Abilab), of Bamako, was in charge of sample preparation and analyses on all core samples, and also on portions of the RAB and RC sampling. In order to improve the turn-around time, a second laboratory, Analabs (a subsidiary of SGS Limited), located in Kayes, was used for portions of the RAB and RC sampling.

Sample preparation consisted of drying, crushing to 70% passing -2 mm, riffle-splitting and pulverization to 85% passing -0.075 mm. Pulverized samples were assayed for Au by fire assay with atomic absorption spectroscopy (AAS) finish. Both Abilab and Analabs had implemented appropriate quality control (QC) procedures, which included the use of certified reference materials (CRMs), duplicates and blanks. AMEC visited the ALS Laboratory (former Abilab) in Bamako, and observed that the laboratory is well equipped and managed, and appears to be able to produce reliable results.

While in the Diba & Lakanfla Project camp, samples were kept at a secured space. Samples were transported to the laboratory either directly by Abilab personnel using laboratory trucks, or by Etruscan personnel to Analabs on company trucks. In either case, an adequate chain-of-custody procedure was followed.



The remaining core is currently stored at a secured location at the Diba & Lakanfla Project camp. Sample pulps are currently stored at a secured location next to the Etruscan office in Bamako. No rejects have been kept.

Survey, logging and sampling data were stored in Excel spreadsheets. Sample locations were hand-entered from GPS co-ordinates; logging data were manually entered; assay data were supplied electronically by the laboratories, and then digitally uploaded into the spreadsheet

### **1.6.2 Legend Gold**

The SGS Laboratory in Bamako (SGS Mali SARL), located in the Zone Industrielle, Roue 948m Porte 40, was used for both sample preparation and analysis. A total of 5,961 samples were collected, every 20 samples, a duplicate sample was created from the chip rejects and included in the sample stream. RC pulps as well as rejects were kept as a reference.

The entire volume of chips from each reverse circulation interval were collected, dried and split on site into an approximately 2 kg subsample using a Jones splitter on a metre by metre basis. The 2 kg sample was submitted to SGS Laboratories (“SGS”) in Bamako for crushing, grinding and 50 gram gold fire assay with AAS finish.

## **1.7 Data Verification**

Mining Plus has reviewed and updated the verification and checks from the previous NI43-101 report and performed our own checks where necessary to ensure that the data is of good enough quality to be used for Mineral Resource estimation. The Legend Gold data is reviewed separately by Mining Plus as it post-dates the previous 2013 MRE.

Only minor errors were encountered in collar coordinates and downhole surveying in any of the databases, and again only minor errors in the lithology and assay logs were found. Mining Plus is of the opinion that the down-hole survey information is sufficiently reliable to be used in Mineral Resource estimation.

Mining Plus completely re-modelled the geological and mineralisation wireframes. The modelling was based on Au grade shells, rather than lithology or other features, due to the monotonous composition of the geological sequence, and strong structural control of the mineralisation. The grade shell model was diligently constructed to conform with industry standard practices; the interpretation being consistent with a deposit of this type.

Bulk density was determined using the water-displacement method, an industry-standard method. However, additional bulk density samples should be collected in future drilling campaigns.



Mining Plus reviewed the work done by AMEC and reported in Simon and Pizarro (Simon, 2013), and considers it to be industry standard and suitable for Mineral Resource estimation:

- Mining Plus considers that Etruscan implemented a rigorous QC program that allowed monitoring of real time precision, accuracy and possible contamination.
- The 2006 – 2008 drilling database is sufficiently reliable, and the Au assay data are sufficiently precise and accurate to be used for Mineral Resource estimation.

Mining Plus also considers the RC drilling data from Legend Gold's 2014 campaign to be industry standard and suitable for Mineral Resource estimation.

## 1.8 Metallurgy

Five samples comprised of composited pulp samples were selected by Endeavour from the Diba Resource (two oxide samples, one transition sample and two sulphide samples) from five drill holes from the 2006 campaign, distributed across the deposit area.

These samples, weighing approximately 200 g each, had been pulverized to 85% passing - 0.075 mm. A standard, 48-hour bottle-roll test was conducted for a preliminary assessment of the leachability of the mineralised material at the metallurgical laboratory of Avion Gold's Tabakoto mine.

Preliminary results from limited, bottle-roll analysis of five composited pulp samples from Diba yielded good recoveries of oxide material (91.9% to 94.3%) at grind sizes of P<sub>80</sub> 38µm and P<sub>80</sub> 44µm and transition material (94.2%) at a grind size of P<sub>80</sub> 34µm, and lower (although still reasonable) recoveries for sulphide material (75% to 87.5%) at grind sizes of P<sub>80</sub> 98µm and P<sub>80</sub> 42µm. The possible behaviour of deleterious elements was not considered in this test.

Grinding Solutions have completed a simple benchmarking study of other operations in the same region featuring similar geology and along with the results of the test work completed concluded that a heap leach metallurgical recovery of 95% can be used during this PEA. However, they have stressed that additional test work is required to produce an accurate estimate of the recovery. Based on the review of the operations in the region, the recovery is conservative but based on the fact that the existing bottle roll test has been performed on a finely ground sample, this was deemed the most suitable recovery. Coarse ore bottle roll tests followed by column tests need to take place to better mimic the behaviour within a heap leach environment.

Altus Strategies collected additional samples and engaged Grinding Solutions Ltd for further test work, which was completed with results reported in October 2020. In June 2022, Altus prepared some samples from Lakanfla.



Testing conducted by Grinding Solutions for Diba has shown that both submitted samples contained economic levels of gold and silver with the sulphide sample grading at 1.02 g/t Au and 1.20 g/t Ag and the oxide sample grading at 3.74 g/t Au and 0.50 g/t Ag. Both the sulphide sample and the oxide sample had low total sulphur contents of 0.5% and 0.37% respectively and organic carbon contents of 0.03 % and 0.04 % respectively.

For Lakanfla, testing has shown that oxide sample contained economic levels of gold and silver grading at between 0.61 – 0.71 g/t Au and 0.50 g/t Ag. The oxide sample had low total sulphur content of 0.01 % and carbon content of 0.1 % respectively.

Coarse ore bottle roll testing on the oxide sample has shown that excellent gold extractions of up to 95.8% can be achieved for Diba and for Lakanfla, coarse ore bottle roll testing on the oxide sample has shown that excellent gold extractions of between 92.75 % and 98.49%. Extractions were similar for both crush sizes of 6.7 mm and 12.5 mm indicating coarser crush sizes could be employed. Final extractions are achieved after a leach period of approximately 240 hours.

## 1.1 Mineral Resource Estimation

The drilling database used in the estimation was compiled by Mining Plus from Excel workbooks provided by Altus in March 2020. The workbooks comprise the drill holes used in the 2013 estimation:

- Diba DD 2006-2007 - Drill Master File (92 holes)
- Diba RC 2006-2008 - Master File (109 holes)

And new holes drilled in 2014:

- Korali Sud RC 2014 - Master File (59 RC drill holes, mostly infill)

Mining Plus completely re-modelled the mineralisation wireframes and geological surfaces to include the 2014 RC drilling. The mineralisation shells created from wireframing in Datamine closely matched previous work, and honoured the gold mineralisation spatial distribution characterised by a plunge of 30° ESE

Mining Plus defined two estimation domains for analysis and variography during the Mineral Resource estimation. These were based on consistent behaviour (stationarity) of gold grade distribution, and a requirement to have enough samples to model variography.

- Oxide Domain: Inside the mineralised grade shell (>0.3g/t Au), and above the base of oxidation surface. This incorporates the oxide and transition zones, which are shown to behave geologically, mineralogically and metallurgically similarly enough to assume stationarity.



- Fresh Domain: Inside the mineralised grade shell ( $>0.3\text{g/t Au}$ ), and below the base of oxidation surface.

Mining Plus performed exploratory data analysis (EDA) on the raw assays data flagged as inside the modelled grade shells. The original sample lengths are predominantly 1m in length (over 85% of samples), so Mining Plus applied an overall composite of 1m. Top cutting was performed on the composited samples. The grades were capped at  $67\text{g/t Au}$  in the OXIDE zone, and at  $23\text{g/t Au}$  in the FRESH zone.

Mining Plus used Snowden Supervisor software to calculate downhole and directional variograms using the 1m capped gold composites located inside the grade shells. The variography was split into two domains; OXIDE and FRESH, which allowed sufficient samples for variography, and split the domains with different grade distributions.

Mining Plus also used Snowden Supervisor to run a Kriging Neighbourhood Analysis (KNA), to define block sizes, min-max samples, search ellipse size and discretisation for estimation.

To calculate block tonnages, Mining Plus assigned bulk density values of  $1.8\text{ m}^3/\text{t}$ ,  $2.2\text{ m}^3/\text{t}$  and  $2.7\text{ m}^3/\text{t}$  to the oxide, transition and fresh rock blocks respectively.

The gold grades were estimated into the block model using Ordinary Kriging (OK), with check estimates using Inverse Distance Squared (ID2) and Nearest Neighbour (NN) were performed. Estimation was performed only on cells within the mineralised wireframes (i.e. oxide and fresh, but not transitional). Grade was estimated in two passes, using increased search ellipse sizes each time.

Mining Plus performed validation of the gold grade estimate by visual inspection on vertical E-W cross sections of the estimated blocks and Au capped composite drill hole samples. A volume and grade validation was also performed for each of the estimation domains. Swathe plots comparing the OK and NN models within the  $0.3\text{ g/t Au}$  grade wireframes show that the composite spatial grade distribution is adequately reproduced by the Au kriged block model.

Based on the continuity of the grade shells, and the continuity of the grade inside the shells, Mining Plus classified the mineralised blocks as either Indicated or Inferred Mineral Resources, based on average block to sample distance, and minimum block to sample distance.

Mining Plus assessed the resource model for reasonable prospects of economic extraction by applying preliminary economics for open pit mining methods to the Indicated and Inferred blocks. Pit optimization analysis was done the using NPV Scheduler optimising tool.

The mineral resources were classified in accordance with the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves. Dr Matthew Field, Pr. Sci Nat (SACNASP), a



Mining Plus employee, is responsible for the mineral resource estimates. The estimate has an effective date of 22 April 2022. Mineral Resources are reported within a pit shells and are reported to a base-case grade cut-off of 0.5 g/t Au (Table 3).



Table 3 – Mineral Resource Statement for Diba project.

Mineral Resource Estimate for the Diba Project - April, 2022											
Prospect	Domain	Cut-Off (g/t Au)	Indicated			Inferred			Total Resource (Indicated + Inferred)		
			Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz
Diba	Oxide	0.5	4.1	1.52	199	0.1	0.84	3	4.2	1.50	202
Diba NW	Oxide	0.5				0.1	0.63	2	0.1	0.63	2
Lakanfla	Oxide	0.5				2.5	0.87	69	2.5	0.87	69
<b>Total</b>	<b>Oxide</b>	<b>0.5</b>	<b>4.1</b>	<b>1.52</b>	<b>199</b>	<b>2.7</b>	<b>0.86</b>	<b>75</b>	<b>6.7</b>	<b>1.26</b>	<b>271</b>
Diba	Trans	0.5	0.7	1.18	25	0.05	0.78	1	0.7	1.15	26
Diba NW	Trans	0.5				0.4	0.69	9	0.4	0.69	9
Lakanfla	Trans	0.5				0.8	0.90	23	0.8	0.90	23
<b>Total</b>	<b>Trans</b>	<b>0.5</b>	<b>0.7</b>	<b>1.18</b>	<b>25</b>	<b>1.2</b>	<b>0.83</b>	<b>33</b>	<b>1.2</b>	<b>0.83</b>	<b>33</b>
Diba	Fresh	0.5	3.1	0.88	88	4.7	0.90	135	7.8	0.89	223
Diba NW	Fresh	0.5				3.6	0.91	106	3.6	0.91	106
Lakanfla	Fresh	0.5				0.5	0.80	13	0.5	0.80	13
<b>Total</b>	<b>Fresh</b>	<b>0.5</b>	<b>3.1</b>	<b>0.88</b>	<b>88</b>	<b>8.8</b>	<b>0.90</b>	<b>255</b>	<b>11.9</b>	<b>0.89</b>	<b>341</b>
Diba	Total	0.5	7.8	1.24	312	4.8	0.90	139	12.7	1.11	451
Diba NW	Total	0.5				4.1	0.88	118	4.1	0.88	118
Lakanfla	Total	0.5				3.7	0.87	105	3.7	0.87	105
<b>Total</b>	<b>Total</b>	<b>0.5</b>	<b>7.8</b>	<b>1.24</b>	<b>312</b>	<b>12.7</b>	<b>0.87</b>	<b>362</b>	<b>20.6</b>	<b>1.01</b>	<b>673</b>



## 1.9 Mining Methods

The pit optimisation was completed based on a selling price of USD\$1,750/oz Au. Table 4 presents the parameters that were used for pit optimisation analysis. All parameters were benchmarked values based on other operations sites in the vicinity of the Diba & Lakanfla project.

Table 4 – Optimization parameters

Parameter	Unit	Value
<b>Mining cost</b>		
<b>Drilling and blasting</b>		
Oxide	\$USD/BCM	<b>0.36</b>
Transitional	\$USD/BCM	<b>2.81</b>
Fresh	\$USD/BCM	<b>3.67</b>
<b>Load &amp; Haul:</b>		
Waste	\$USD/BCM	<b>0.0205*ΔZ + 5.9300</b>
Ore	\$USD/BCM	<b>0.0205*ΔZ + 5.9300</b>
Mining Recovery	%	<b>95%</b>
Mining Dilution	%	<b>5%</b>
<b>Processing Cost Heap Leach</b>		
Oxide	\$/t	<b>6.94</b>
Transitional	\$/t	<b>6.94</b>
Fresh	\$/t	<b>N/A</b>
Site G&A	\$/t	<b>3.13</b>
Process Recovery (oxide/transitional)	%	<b>95%/70%</b>
<b>Geotechnical Parameters</b>		
<b>Wall Angles</b>		
Oxide	deg	<b>35</b>
Transitional	deg	<b>40</b>
Fresh	deg	<b>45</b>
<b>Revenue</b>		
Gold Price	\$/oz.	<b>1,750</b>
Selling and refining /oz	\$/oz.	<b>10</b>
Royalty – Gov. of Mali	%	<b>3.00%</b>
Annual Discount Rate	%/Annum	<b>8</b>
Selling Price	\$/g	<b>52.70</b>

Pit shell selection was performed for mine design and planning. At Diba Pit 99 with a profit factor of 100% was selected. At Lakanfla Pit 57 was chosen with a profit factor of 83%.

Tonnage of PMI content inside the selected Diba pit shell includes 6,080 kt of PMI with an average grade of 1.22 g/t of Au and includes a stripping ratio (waste:PMI) of 1.04. Lakanfla pit shell includes 3,420 kt of PMI with an average grade of 0.70 g/t of Au and includes a stripping ratio (waste:PMI) of 0.99.



A conceptual mine design has been completed based on the optimal pit shell generated, assuming the use of rigid off road trucks with ~100t tray capacity. The pit design was prepared using a minimum mining width of 30m with a ramp width of 16m single lane; 25m dual lane and 10% gradient. Face angles used are 50° for the oxide zone, 60° for the transitional and 65° for the fresh rock zone.

Modelled grades for each mineralised zone within the pit designs are shown in Table 5 and Table 6. These numbers do not include mining dilution and recovery.

Table 5 – Content of material within Diba pit design

Material	Indicated (kt)	Au grade (g/t)	Inferred (kt)	Au grade (g/t)	Waste (kt)
Oxide	4,945	1.29	126	0.60	6,417
Transitional	573	1.14	25	0.79	141
Fresh	0	0.00	0	0.00	60
<b>Total</b>	<b>5,518</b>	<b>1.27</b>	<b>151</b>	<b>0.63</b>	<b>6,618</b>

Table 6 – Content of material within Lakanfla pit design

Material	Indicated (kt)	Au grade (g/t)	Inferred (kt)	Au grade (g/t)	Waste (kt)
Oxide	0	0.00	3,028	0.65	4,260
Transitional	0	0.00	322	0.87	36
Fresh	0	0.00	0	0.00	10
<b>Total</b>	<b>0</b>	<b>0.00</b>	<b>3,350</b>	<b>0.67</b>	<b>4,306</b>

The mining plan requires limited initial waste stripping using a PC1250-8 and a CAT365 excavator. Mining would be via conventional open-pit methods (drilling, blasting, loading, haulage and ancillary services). It is expected that oxide material is free dig and will not require blasting, however a blasting cost has been applied to 15% of oxide tonnage in case of any difficult ground. The use of a mining contractor for earth movement has been assumed for both mine plans.

Mine Scheduling targets the mining of PMI with the highest grade in the first months with the aim being to maximize the NPV for the project.

The life of mine (LOM) is 56 months or 4.7 years.

Considering the anticipated production rates the use of Komatsu HD785-7 (or similar) trucks has been forecast.

The parameters used for drill and blast consider different blast patterns depending on the rock characteristics. Blast patterns of 3.2m x 4.3m for the oxide zone, 3.2m x 3.7m for the transitional zone and for the fresh zone a blast pattern of 2.8m x 3.2m were assumed.



For loading waste material a PC1250SP-8 excavator (or similar) will load 91t rigid dump trucks. With a 6.7m<sup>3</sup> bucket capacity, ten passes are required to fill each truck. For loading ore material a CAT 365 excavator (or similar) will load 91t rigid dump trucks. With a 4.6m<sup>3</sup> bucket capacity, 16 passes are required to fill each truck.

Table 7 – Diba material content by phase

Material	Phase 1	Phase 2	Phase 3	Phase 4	Total
PMI Tonnes (kt)	1,178	2,291	1,690	496	5,655
Au grade (g/t)	0.99	1.44	1.03	1.13	1.20
Waste Tonnes (kt)	1,014	2,841	1,798	979	6,632
Strip ratio	0.86	1.24	1.06	1.97	1.17

Note: 95% recovery and 5% dilution have been assumed

Table 8 – Lakanfla material content by phase

Material	Phase 1	Phase 2	Total
PMI Tonnes (kt)	3,032	309	3,341
Au grade (g/t)	0.60	1.03	0.64
Waste Tonnes (kt)	3,523	791	4,314
Strip ratio	1.16	2.56	1.29

Note: 95% recovery and 5% dilution have been assumed

Conceptual mine design, production planning, operating and capital cost estimates have been developed for an open-pit operation.

### 1.10 Recovery Method

The process considered for this PEA for the extraction of gold from the Diba & Lakanfla project oxide material will utilize heap leach technology currently used globally for gold mining operations and Carbon-in-Column (CIC) processing for gold from the Pregnant Leach Solution (PLS).

The proposed conceptual heap leaching system is similar to existing and operating heap leach mines processing similar material under comparable conditions. The processing facilities proposed for the Diba and Lakanfla project include:

- Two-stage crushing, screening, and agglomeration
- Heap stacking and leaching
- Gold recovery by CIC processing.

### 1.11 Infrastructure

A summary of the infrastructure requirements to support the mining and processing operations is as follows:



- Maintenance workshop area, including
  - Supplies warehouse
  - Equipment laydown areas
  - Fuel storage area
  - Waste management facilities
- Administrative building area, including
  - Offices, meeting rooms and training rooms
  - Emergency first aid room
  - Kitchen mess room
  - Assay laboratory
  - Washrooms and changing rooms for employees
  - Security
- Secure explosive storage area
- Site lighting equipment
- Substation and power distribution
- Heap leach pad
- Open pit
- Waste Rock Storage Facility
- Carbon-in-Column recovery plant
- Solution ponds & water management
- Access and site roads

## 1.12 Capital and Operating Costs

Mining capital and operating costs have been developed based on benchmarking of mines near to the Diba & Lakanfla project with similar characteristics.

All costs are presented in US Dollars (\$).

### 1.12.1 Capital Costs

According to the completed benchmarking with other projects of similar size and type of gold recovery process, escalated to account for inflation, the total initial capital expenditure (CAPEX) for the project would be approximately \$ 26 million. Sustaining capital was estimated at US\$ 2 million for the life of mine.

### 1.12.2 Operating Costs

The operating costs for mining (Table 9) were based on recent mining contracts for similar operations nearby the Diba & Lakanfla project and escalated due to fuel price increases since then.



Drilling cost for oxide was applied just on 15% of the total oxide material as the material is free-digging. This is to account for any necessary blasting in case of any laterite and/or hardness of the material as it approaches the transitional zone.

Table 9 – Operating costs for mining

Costs	Unit	Oxide	Transitional	Fresh
<b>Drilling &amp; Blasting</b>	\$USD/BCM	<b>2.40</b>	<b>2.81</b>	<b>3.67</b>
<b>Load &amp; Haul</b>				
Waste	\$USD/BCM	<b>0.0205*ΔZ + 5.9298</b>	<b>0.0205*ΔZ + 5.9298</b>	<b>0.0205*ΔZ + 5.9298</b>
Ore	\$USD/BCM	<b>0.0205*ΔZ + 5.9298</b>	<b>0.0205*ΔZ + 5.9298</b>	<b>0.0205*ΔZ + 5.9298</b>

Based on benchmarking, the estimated operating processing (heap leach) cost is \$6.94/t PMI at a processing rate of 2.0 Mtpa.

Also based on benchmarking and assumed production rate, administrative costs have been assumed to be \$3.13/t of PMI.

### 1.13 Economic Analysis

The economic evaluation presents an estimate of the net present value (NPV) before taxes, payback period (time in months to recapture the initial capital investment), and the internal rate of return (IRR) for the project. Monthly cash flow projections were estimated over the life of mine based on the estimates of capital expenditures, production cost, and sales revenue. Revenues are based on the gold production.

A summary of the PEA results can be seen in Table 10.

Table 10 – Summary of the economic analysis for two production rates

Description	Unit	2.0Mtpa
Ore mined	Kt	8,996
Strip ratio (waste: ore)		1.22
Gold Grade	g/t	0.99
Mined Gold	oz	286,208
Produced Gold	oz	271,898
Recovery	%	95
Avg Production/year	oz	54,380
AIC	US\$/oz	781
AISC	US\$/oz	686
Avg Free Cash Flow/year	US\$000	2,446
Total capex (pre-prod + sustaining)	US\$000	28,000
IRR % before taxes		1,343%
NPV (8% discount) before taxes	US\$000	224,595
IRR % after taxes		749%
NPV (8% discount) after taxes	US\$000	157,723



The NPV sensitivity has been tested and it was found that the project is most sensitive to gold price and metallurgical recovery, as shown on Table 11 and Table 12.

Table 11 – NPV and IRR sensitivity to gold price

Gold Price \$/oz	Before tax		After tax	
	NPV (US\$000)	IRR (%)	NPV (US\$000)	IRR (%)
	224,595	1,343%	157,723	749%
1600	190,545	962%	133,884	562%
1650	201,895	1,077%	141,831	620%
1700	213,245	1,204%	149,777	683%
1718 (Spot 14/07/22)	217,331	1,253%	152,638	706%
1750	224,595	1,343%	157,723	749%
1800	235,945	1,494%	165,668	820%
1850	247,295	1,659%	173,614	896%
1900	258,645	1,840%	181,559	977%

Table 12 – NPV and IRR sensitivity to metallurgical recovery

2.0 Mtpa Recovery (%)	Before tax		After tax	
	NPV (US\$000)	IRR (%)	NPV (US\$000)	IRR (%)
	224,595	1,343%	157,723	749%
70%	120,654	444%	84,949	287%
75%	141,442	568%	99,505	357%
80%	162,230	715%	114,060	436%
85%	183,018	891%	128,614	526%
90%	203,807	1,098%	143,169	630%
95%	224,595	1,343%	157,723	749%
100%	245,383	1,631%	172,275	882%

## 1.2 Interpretation and Conclusions

The Mining Plus QP has reviewed the data for the project and can make the following conclusions:

- Exploration to date has been conducted in accordance with the appropriate Malian regulatory requirements.
- Additional permits, including surface and water rights, as well as environmental permits, will be required for any future development.
- As of 21 August 2019, the Malian government have announced a new mining code. The new mining code and amendments are currently being implemented; Altus



Strategies are currently reviewing and liaising with the Malian government to identify any material changes to royalties and the tax regime.

- To the extent known to the QPs, no other significant factors and risks may affect access, title, or the right or ability to perform work on the project.
- The interpreted orogenic-gold deposit model is appropriate for guiding the exploration and development of the Diba & Lakanfla project, although some aspects of the controls to mineralization are not fully understood. Additional ongoing exploration work will result in a more accurate interpretation of controls on mineralisation. Mining Plus noted during wireframing and modelling of the mineralisation that there is a poorly mineralised E-W trending zone in the middle of the deposit that may represent a structural discontinuity. There is also a NE-SW trending high-grade portion of the deposit defined in the upper portion of the oxide zone, which is not understood at this stage.
- RAB and aircore (AC) drilling has not been included in the resource estimation done by Mining Plus; only the RC and diamond drilling that took place during this time is used.
- Mining Plus found significant discrepancies between measured densities and expected values for the type of lithologies found at Diba.
- The topographic surface provided by Altus from the 2013 AMEC estimate was completely unusable, as it had been vertically translated by an unknown amount. Mining Plus suspect this is due to a mix-up in coordinate systems used during the estimation. Mining Plus created a new topographic surface from interpolating between drill hole collars.
- Validation of the block model highlighted that the estimated block model grades (locally and globally) do reflect the real gold grades in the deposit, and that the difference between the drill hole sample grades and the block grades is entirely due to high grade gold clusters, that have been effectively dealt with during the estimation process.
- Mining Plus recognised that there is a second high-grade population of Au (strong NE-SW trend) within the OXIDE portion of the deposit that needs to be domained separately.
- The assessment of reasonable prospects of economic extraction for the mineral resources contains the assumptions based on benchmarked and analogous operations by Mining Plus. Mining Plus considers them reasonable given the current state of



project knowledge. However, as more detailed site-specific metallurgical, geotechnical, environmental and engineering data become available, these assumptions are likely to change.

- Grade-tonnage sensitivity analysis indicates that the Diba & Lakanfla project is only moderately sensitive to changes in cut-off grade.
- There is some sensitivity in the model to changes in geological interpretation, and with additional drill information, there may be changes to the understanding of the mineralized structures, interpreted grade shells, and therefore to the estimates.
- A lower cut-off grade may be warranted, if the gold price continues at a sustained higher price, and higher metallurgical recoveries can be justified through test work.

Significant risks to the project are summarised below:

- *Geological / Structural model:* Additional ongoing exploration work will result in a more accurate interpretation of controls on mineralisation. Changes in the geological model of the deposit poses a moderate risk to tonnage and grade (particularly spatial location), although the overall contained gold is unlikely to fluctuate dramatically.
- *High grade mineralised zone:* Mining Plus recognised that there is a second high-grade population of Au (strong NE-SW trend) within the OXIDE portion of the deposit that needs to be domained separately. This has significant upside potential if it is modelled separately.
- *Topographic surface:* there are requirements for a high resolution and accurately located surface for processing engineering, geology, tailings design, plant design, and pit engineering
- *Political Instability:* conflict events have not yet extended over Western Mali, although there is always a risk that exploration and development will be interrupted suddenly and over a potentially long term.
- *Community engagement:* There is significant opportunity to engage the local communities around the Diba & Lakanfla project at this early stage of the project, through employment opportunities and direct communication. Failure to do this adequately poses significant negative risk, as much investment in mining projects now requires a very high standard of ESG.



### 1.3 Recommendations

All the recommendations listed below can be included as items in the work programme during the next phase of project development. In the case of the Diba & Lakanfla project, the next phase of work would be a Pre-Feasibility Study (PFS) incorporating the updated resource numbers. Recommendations are as follows:

- Detailed geological modelling and structural modelling is recommended; aspects of the mineralization controls remain poorly understood. Mining Plus recommends relogging of all drill core, and logging of RC chips to update the geological model. This will result in a more accurate interpretation of the controls on mineralization.
- Mining Plus recommends that declustering is investigated during the next iteration of estimating the block model.
- Mining Plus recommends that some check assays are performed at an internationally accredited independent lab, to support the assaying done at the three Mali-based labs during the drilling campaigns.
- A high-resolution topographic surface (corrected for vegetation) should be surveyed during the next stage of project development; there are requirements from processing engineering, geology, tailings design, plant design, and pit engineering that need a high veracity surface.
- A programme of detailed metallurgical test work needs to be continued to assess optimal process parameters for gold recovery and gold recovery levels via heap leaching, as well as further assessing the potential to use a Carbon in Leach (CIL) plant, which would also allow processing of the sulphide resource at the Diba & Lakanfla project.
- Geotechnical drilling and studies should be completed, to determine appropriate pit wall design parameters, together with hydrological and hydrogeological studies to assess requirements for management of groundwater and surface water.
- Appropriate PFS-level mine planning, process engineering and design, heap leach pad design and non-process infrastructure design work needs to be completed to support declaration of Ore Reserves at end of PFS.
- A full PFS-level Environmental and Social Impacts Assessment (ESIA) will be required.

PFS studies overall range from USD\$1M to USD\$2M depending on the total amount of work required to advance the project. An estimated order of magnitude budget is shown in Table 13 below. Mining Plus has used benchmarked costs for similar projects and studies in West Africa; actual costs may vary significantly.



Significant further infill drilling will also be required for project advancement; at this stage Mining Plus will not budget for this, as it is dependent on ongoing results from PFS level work.



Table 13 – Estimated cost for PFS programme items

Activity	Proposed Work	Estimated Cost (USD)
PFS-Level Environmental/Social Impacts	Site Visit, baseline field studies, impact assessment and mitigation, monitoring, social impact assessment, reporting	180,000
Geological Modelling & Mineral Resources	Update geological modelling, check assays, density measurements, QAQC, update Mineral Resource Estimate	80,000
Geotechnical Studies (Mining)	Site visit, geotechnical program supervision, geotechnical drilling laboratory test work, numerical modelling, reporting	200,000
Metallurgy, Test work and Process & Infrastructure Engineering	Metallurgical test work, process design, process engineering, plant design, infrastructure design, plant capex & opex Estimation	300,000
Heap Leach Design Studies	Heap Leach pad design, test work, site visit, material properties assessment (mechanical and chemical), leach dynamics	90,000
Hydrogeology and Hydrology Studies	Site visit, baseline field studies, groundwater study, surface water management study, geochemistry assessment (waste rock ARD potential), reporting	100,000
Mine Engineering and Mineral Reserves	Pit optimisation, pit design, LOM scheduling, mining capex and opex estimates.	100,000
Project Management, Reporting	Project Management, Site Visits, Data Collation and LIDAR Surveys, Preparation of PFS Report	350,000
<b>Total</b>		<b>1,400,000</b>



## TABLE OF CONTENTS

<b>1</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>10</b>
1.1	Location, Access & Infrastructure .....	10
1.2	Mineral Tenure and Royalties .....	11
1.3	Environmental and Permitting .....	12
1.4	Geology and Mineralisation .....	12
1.5	Exploration and Drilling.....	14
1.6	Sampling and Analysis.....	15
1.6.1	Etruscan .....	15
1.6.2	Legend Gold .....	16
1.7	Data Verification .....	16
1.8	Metallurgy .....	17
1.1	Mineral Resource Estimation .....	18
1.9	Mining Methods.....	22
1.10	Recovery Method.....	24
1.11	Infrastructure.....	24
1.12	Capital and Operating Costs .....	25
1.12.1	Capital Costs.....	25
1.12.2	Operating Costs.....	25
1.13	Economic Analysis.....	26
1.2	Interpretation and Conclusions .....	27
1.3	Recommendations .....	30
	<b>TABLE OF CONTENTS.....</b>	<b>33</b>
	<b>LIST OF FIGURES &amp; TABLES.....</b>	<b>41</b>
<b>2</b>	<b>INTRODUCTION.....</b>	<b>49</b>
<b>3</b>	<b>RELIANCE ON OTHER EXPERTS .....</b>	<b>52</b>
3.1	Company Ownership and Agreements .....	52
3.2	Work Commitments.....	52
3.3	Mineral Tenure .....	52
3.4	Surface Rights .....	52
3.5	Water Rights .....	52
3.6	ESIA Commitments .....	52
3.7	Taxes & Royalties.....	53
3.8	Economic Analysis.....	53



<b>4</b>	<b>PROPERTY, DESCRIPTION AND LOCATION .....</b>	<b>54</b>
4.1	Location .....	54
4.2	Mali Mineral Policy Overview .....	56
4.3	Company Ownership and Agreements for the Korali Sud & Lakanfla Permits .....	59
4.3.1	Work Commitments.....	60
4.4	Surface Rights .....	61
4.5	Water Rights .....	61
4.6	Environment and Socio-Economics.....	61
4.7	Taxes and Royalties.....	62
4.8	Recent Conflicts .....	62
<b>5</b>	<b>ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY .....</b>	<b>64</b>
5.1	Access .....	64
5.2	Climate, Vegetation and Fauna .....	65
5.3	Physiography .....	66
5.4	Local Resources and Infrastructure .....	67
<b>6</b>	<b>HISTORY.....</b>	<b>69</b>
<b>7</b>	<b>GEOLOGICAL SETTING AND MINERALISATION .....</b>	<b>77</b>
7.1	Regional Geology .....	77
7.2	Diba & Diba NW Property Geology .....	80
7.2.1	Lithological Sequence .....	81
7.2.2	Alteration .....	82
7.2.3	Weathering .....	83
7.2.4	Mineralisation .....	83
7.2.5	Structure .....	85
7.3	Lakanfla Property Geology .....	86
7.3.1	Lithological Sequence .....	86
7.3.2	Alteration .....	86
7.3.3	Weathering .....	87
7.3.4	Mineralisation .....	87
7.3.5	Structure .....	87
<b>8</b>	<b>DEPOSIT TYPES.....</b>	<b>88</b>
<b>9</b>	<b>EXPLORATION.....</b>	<b>89</b>



<b>9.1</b>	<b>Diba &amp; Diba NW Exploration .....</b>	<b>89</b>
<b>9.2</b>	<b>Etruscan Exploration Programme .....</b>	<b>89</b>
9.2.1	Surveying.....	90
9.2.2	Geochemical Surveys .....	90
9.2.3	Ground Geophysics .....	91
9.2.4	VTEM Airborne Survey .....	92
9.2.5	Geological Mapping and Trenching .....	92
9.2.6	Petrographic Analysis.....	92
<b>9.3</b>	<b>Legend Gold &amp; Altus Strategies Exploration Programme .....</b>	<b>92</b>
<b>9.4</b>	<b>Lakanfla Exploration .....</b>	<b>92</b>
<b>9.5</b>	<b>North Atlantic Resources, Legend Gold &amp; Marvel Gold Exploration Programme .</b>	<b>93</b>
9.5.1	Surveying.....	93
9.5.2	Geochemical Surveys .....	93
9.5.3	Ground Geophysics .....	95
9.5.4	Geological Mapping and Trenching .....	95
9.5.5	Petrographic Analysis.....	95
<b>10</b>	<b>DRILLING.....</b>	<b>96</b>
<b>10.1</b>	<b>Diba &amp; Diba NW Drilling .....</b>	<b>96</b>
10.1.1	Etruscan Drilling .....	96
10.1.2	Legend Gold Drilling.....	100
10.1.3	Altus Strategies Drilling.....	102
<b>10.2</b>	<b>Lakanfla Drilling .....</b>	<b>103</b>
10.2.1	North Atlantic Resources & Legend Gold Drilling.....	104
<b>10.3</b>	<b>Mining Plus Comments .....</b>	<b>107</b>
<b>11</b>	<b>SAMPLE PREPARATION, ANALYSES AND SECURITY.....</b>	<b>109</b>
<b>11.1</b>	<b>Etruscan Drilling Campaign.....</b>	<b>109</b>
11.1.1	Sample Preparation .....	109
11.1.2	Sample Analysis.....	109
11.1.3	Laboratory Quality Control .....	110
11.1.4	Sample Security.....	111
11.1.5	Geological Quality Control .....	111
11.1.6	Database .....	111



11.2	Legend Gold Drilling Campaign.....	112
11.2.1	Sample preparation & analysis .....	112
11.2.2	Quality Control.....	112
11.3	Mining Plus Comments .....	113
<b>12</b>	<b>DATA VERIFICATION.....</b>	<b>114</b>
12.1	Diba .....	114
12.1.1	Diba .....	114
12.1.2	Diba NW .....	114
12.1.3	Lakanfla .....	115
12.2	Bulk Density.....	115
12.2.1	Diba .....	115
12.2.2	Assessment of Precision at Diba .....	118
12.2.3	Assessment of Accuracy at Diba .....	118
12.2.4	Assessment of Contamination at Diba.....	119
12.2.5	Mining Plus Comments for Diba .....	119
12.2.6	Assessment of Precision at Lakanfla .....	120
12.2.7	Assessment of Precision .....	120
12.2.8	Assessment of Accuracy at Lakanfla .....	121
12.2.9	Assessment of Contamination at Lakanfla .....	122
12.2.10	Check Assays at Lakanfla.....	122
12.2.11	Mining Plus Comments for Lakanfla .....	122
<b>13</b>	<b>MINERAL PROCESSING AND METALLURGICAL TESTING .....</b>	<b>123</b>
13.1	Diba Metallurgical Testing 2012 .....	123
13.2	Diba Metallurgical Testing 2020 .....	125
13.3	Lakanfla Metallurgical Testing 2022 .....	126
<b>14</b>	<b>MINERAL RESOURCE ESTIMATES .....</b>	<b>131</b>
14.1	Diba .....	131
14.1.1	Client Data.....	131
14.1.2	Database .....	131
14.1.3	Topographic Surface .....	132
14.1.4	Geological Model .....	133
14.1.5	Exploratory Data Analysis .....	137



14.1.6	Kriging Neighbourhood Analysis .....	141
14.1.7	Estimation Methodology .....	142
14.1.8	Block Model Validation .....	143
14.1.9	Classification .....	147
14.1.10	Mineral Resource Statement .....	148
14.1.11	Comparisons to Previous Mineral Resource Estimates .....	150
14.1.12	Mining Plus Comments .....	151
<b>14.2</b>	<b>Diba NW .....</b>	<b>152</b>
14.2.1	Database .....	152
14.2.2	Topographic Surface .....	153
14.2.3	Geological Model .....	154
14.2.4	Exploratory Data Analysis .....	158
14.2.5	Kriging Neighbourhood Analysis .....	162
14.2.6	Estimation Methodology .....	163
14.2.7	Block Model Validation .....	166
14.2.8	Classification .....	169
14.2.9	Mineral Resource Statement .....	170
14.2.10	Mining Plus Comments .....	172
<b>14.3</b>	<b>Lakanfla .....</b>	<b>173</b>
14.3.1	Database .....	173
14.3.2	Topographic Surface .....	175
14.3.3	Geological Model .....	177
14.3.4	Estimation Domains .....	179
14.3.5	Exploratory Data Analysis .....	180
14.3.6	Kriging Neighbourhood Analysis .....	184
14.3.7	Estimation Methodology .....	185
14.3.8	Block Model Validation .....	188
14.3.9	Classification .....	192
14.3.10	Mineral Resource Statement .....	194
14.3.11	Mining Plus Comments .....	196
<b>15</b>	<b>MINERAL RESERVE ESTIMATES .....</b>	<b>197</b>



<b>16 MINING METHODS.....</b>	<b>198</b>
16.1 Introduction.....	198
16.2 Block Model.....	199
16.3 Geotechnical Parameters .....	199
16.4 Pit Optimisation.....	200
16.5 Mine Design.....	206
16.5.1 Diba Mine Design .....	207
16.5.2 Lakanfla Mine Design.....	210
16.6 Mine Plan.....	213
16.6.1 PEA Mine Production Schedule .....	213
16.7 Mining Equipment .....	215
16.7.1 Mining Fleet .....	215
16.7.2 Drill and Blast .....	215
16.7.3 Load and haul.....	217
<b>17 RECOVERY METHODS.....</b>	<b>219</b>
17.1 Introduction.....	219
17.2 Process Plant Description.....	221
17.2.1 Crushing .....	221
17.2.2 Heap Leaching.....	221
17.2.3 Carbon-in-Column Recovery and Refining.....	223
17.2.4 Water Supply.....	224
17.2.5 Air Supply .....	224
<b>18 PROJECT INFRASTRUCTURE.....</b>	<b>225</b>
18.1 Existing Infrastructure.....	225
18.2 Project Site Layout .....	225
18.3 Site Development .....	225
18.4 Project Infrastructure.....	225
18.4.1 Maintenance Workshop Area .....	226
18.4.2 Administrative Building Area .....	226
18.4.3 Secure Explosive Storage .....	227
18.4.4 Power Supply and Distribution .....	227
18.4.5 Heap Leach Pad.....	227
18.4.6 Waste Rock Storage Facility .....	227
18.4.7 Carbon-in-Column Facility .....	229



18.4.8	Solution Ponds and Water Management .....	229
18.4.9	Access and Site Roads .....	229
18.4.10	Tailings Containment Facility .....	229
<b>19</b>	<b>MARKET STUDIES AND CONTRACTS .....</b>	<b>230</b>
19.1	Gold Price .....	230
<b>20</b>	<b>ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT ...</b>	<b>231</b>
<b>21</b>	<b>CAPITAL AND OPERATING COSTS .....</b>	<b>232</b>
21.1	Capital Cost.....	232
21.2	Operating Cost .....	232
21.2.1	Mining Cost .....	234
21.2.2	Processing Cost .....	235
21.2.3	General and Administrative Cost .....	235
<b>22</b>	<b>ECONOMIC ANALYSIS.....</b>	<b>236</b>
22.1	Introduction .....	236
22.2	Mine Production Statistics .....	236
22.3	Plant Production Statistic .....	236
22.4	Capital Expenditure.....	236
22.4.1	Initial Capital .....	236
22.4.2	Sustaining Capital.....	236
22.4.3	Revenue .....	237
22.5	Total Operating Cost .....	237
22.5.1	Total Cash Cost.....	237
22.6	Net Present Value, Internal Rate of Return, Payback.....	237
22.7	Sensitivity Analysis.....	238
22.8	Detailed Economic Model .....	240
<b>23</b>	<b>ADJACENT PROPERTIES .....</b>	<b>242</b>
<b>24</b>	<b>OTHER RELEVANT DATA AND INFORMATION .....</b>	<b>244</b>
<b>25</b>	<b>INTERPRETATION AND CONCLUSIONS.....</b>	<b>245</b>
<b>26</b>	<b>RECOMMENDATIONS.....</b>	<b>254</b>
<b>27</b>	<b>REFERENCES.....</b>	<b>256</b>







## LIST OF FIGURES & TABLES

Figure 1 – Satellite images Mali .....	55
Figure 2 – Western portion of Mali showing location of the Korali Sud & Lakanfla properties (Google Earth).....	56
Figure 3 – Diba & Lakanfla project exploration concession polygons (Google Earth image) ..	60
Figure 4 – Google Earth map of access route between Bamako and Korali Sud & Lakanfla properties.....	65
Figure 5 – Typical view at the Diba & Lakanfla project.....	67
Figure 6 – Klockner regional geochemistry soil map (Woodman, 2007).....	70
Figure 7 – Aerodat Airborne Survey Map: Total Radiometric Count (Woodman, 2007). ....	71
Figure 8 – Diba Historic Mineral Resource. Cut-off grade is 0.5g/t (Simon, 2013). ....	72
Figure 9 – Timeline of the drilling and exploration at Diba Project (Altus Geological Review) .....	72
Figure 10 – Targets on the Korali Sud licence from surface geochemistry and AC / RAB drilling .....	73
Figure 11 – Targets on the Lakanfla licence from surface geochemistry .....	74
Figure 12 – Location of the West African Craton and the Man Shield (Simon, 2013). ....	77
Figure 13 – Geological map of the Birimian Kenieba-Kedougou Inlier (Woodman, 2007). ....	79
Figure 14 – Schematic Geologic Map of the Birimian Kéniéba-Kédougou Inlier (Lawrence, 2013). ....	80
Figure 15 – Generalised stratigraphic columns (Simon and Pizarro, 2013) .....	82
Figure 16 – Interpreted mineralised domains (>0.3g/t Au), isometric view looking NE. ....	84
Figure 17 – Top: vertical E-W section looking north and showing grade and mineralised wireframe outline. Bottom: plan view showing mineralised wireframes, purple dashed line shows position of section. ....	85
Figure 18 – Timeline of the drilling and exploration at Diba Project (Altus Geological Review) .....	89
Figure 19 – Summary of geochemical work completed on the Korali Sud licence (Simon, 2013). ....	90
Figure 20 – Summary Au geochemical and RAB drilling map (Simon, 2013). ....	91
Figure 21 – Timeline of the drilling and exploration at Lakanfla Project (Altus Geological Review).....	93
Figure 22 – Summary of geochemical work completed on the Lakanfla licence. ....	94



Figure 23 – RAB drilling on the Diba prospect (Simon, 2013). ....	97
Figure 24 - Diamond drilling on the Diba prospect (Simon, 2013). ....	98
Figure 25 – RC drilling on the Diba prospect (Simon, 2013). ....	100
Figure 26 – Diba Au in field duplicates .....	118
Figure 27 – Diba SRM chart.....	119
Figure 28 – Au in field duplicates.....	121
Figure 29 – SRM chart for Lakanfla .....	122
Figure 30 – Diba composite samples selected for Bottle-Roll analysis (Simon, 2013). ....	124
Figure 31 – Summary of preliminary bottle-roll results from Diba. ....	125
Figure 32 – Oxide samples grind calibration curve.....	127
Figure 33 – Au kinetic extraction curve for oxide coarse ore bottle roll tests .....	129
Figure 34 – Au kinetic extraction curves for oxide fine ore bottle roll tests .....	130
Figure 35 – Plan view of the different drilling types at Diba .....	132
Figure 36 – Mining Plus-created topographic surface, coloured by elevation, using the dGPS surveyed drill hole collars .....	133
Figure 37 – Vertical W-E cross section with interpreted lithologies and modelled wireframe outlines (top) and coded block model (bottom). ....	134
Figure 38 – Vertical cross section with drillholes coded by weathering code and outlines of modelled weathering domains (top) and block model coded by oxidation domain (bottom). ....	135
Figure 39 – Contact boundary analysis between lithological units .....	136
Figure 40 – Vertical cross section with drillholes coded by Au domain from the grade shells shown and modelled (top) and block model coded by Au domain.....	137
Figure 41 – Histograms of sample length pre (left) and post compositing (right). ....	138
Figure 42 – Variograms for the Saprolite domain (AUDOM 2).....	139
Figure 43 – Variograms for the combined metasediment-intrusive domain (AUDOM 3) ....	140
Figure 44 – E-W cross section (1522380 N) in the southern part of the Diba deposit looking South. ....	143
Figure 45 – E-W cross section (1522620 N) in the northern part of the Diba deposit looking South. ....	144
Figure 46 – Swath plots for each mineralised domain Top: Laterite (AUDOM1), middle: Saprolite (AUDOM2) and bottom: Metasediments-Intrusive (AUDOM3).....	146



Figure 47 – Top: Block model plan view. Bottom: block model E-W section with Indicated Mineral resource wireframe (white line). Blocks coloured by SVOL (search ellipse number). .....	148
Figure 48 – Grade Tonnage curves - LEFT: Total Indicated, RIGHT: Total Inferred .....	150
Figure 49 – Plan view of the different drilling types at Diba NW .....	153
Figure 50 – The Diba NW topographic surface, coloured by elevation. The dGPS surveyed drill hole collars (yellow squares) are also shown. ....	154
Figure 51 – Lithologic model clipped to topography coloured by grouped lithological units .....	155
Figure 52 –Vertical E-W section showing lithology and weathering surfaces and coded block model. ....	155
Figure 53 – Contact boundary analysis between lithological units, 2=Saprolite, 3=Metasediments and 4=Intrusive .....	156
Figure 54 – Oblique view of grade shells .....	157
Figure 55 – Vertical E-W cross section with drillhole intersection and modelled grade shells (top) and coded block model (bottom) .....	158
Figure 56 – Histograms of length pre (left) and post compositing (right).....	159
Figure 57 – Upper image: variograms for the Intrusivess portion of the data. Lower image: shape of theoretical search ellipse .....	161
Figure 58 – E-W cross section (1523520 N) in the southern part of the Diba NW deposit looking North.....	166
Figure 59 – E-W cross section in the northern part of the Dina NW deposit looking North. ....	167
Figure 60 – Swathe plots for Saprolite (MINDOM=2), Metasediment (MINDOM=3) and Intrusive domains( MINDOM=4).....	169
Figure 61 – Top: Block model plan view. Bottom: block model E-W section with inferred wireframe (white line). Blocks coloured by pass (search ellipse diameter).....	170
Figure 62 – Grade Tonnage curves - LEFT: oxide Inferred, RIGHT: oxide Inferred .....	172
Figure 63 – Plan view of the different drilling types at Lakanfla .....	174
Figure 64 – Mining Plus-created topographic surface, coloured by elevation, using the dGPS surveyed drill hole collars .....	176
Figure 65 – Mining Plus created lithologic model clipped to topography coloured by grouped lithological units.....	176
Figure 66 – Drill hole traces coded by Oxide, Transition and Fresh and base of transition surface created from drill hole intersections. ....	177



Figure 67 – Contact boundary analysis between weathering boundaries 1=Oxide, 2=transition, 3=Fresh.....	178
Figure 68 – Oblique view of grade shells Bottom: E-W section view of grade shells.....	179
Figure 69 – Histograms of length pre (left) and post compositing (right).....	181
Figure 70 – Upper image: variograms for the oxide intrusive portion of the data. Lower image: shape of theoretical search ellipse .....	183
Figure 71 – Block model coded by Au grade (Isometric view northwest).....	188
Figure 72 – E-W cross section in the southern part of the Lakanfla deposit looking North. ....	188
Figure 73 – E-W cross section in the northern part of the Lakanfla deposit looking North..	189
Figure 74 – Swath plots for Audom 11, 12, 13, 32, 33.....	192
Figure 75 – Blocks coloured by pass (maximum search ellipse diameter). ....	193
Figure 76 – Block model plan view. Blocks coloured by RESCAT with 3 = Inferred and 4 = unclassified.....	194
Figure 77 – Grade Tonnage curves - LEFT: oxide Inferred, RIGHT: Fresh Inferred .....	195
Figure 78 – Diba Pit shell rock tonnes and discounted cash flow by profit factor .....	202
Figure 79 – Lakanfla Pit shell rock tonnes and discounted cash flow by profit factor .....	203
Figure 80 – Plan view of the Diba optimised pit shell with the section and view direction used in Figure 81 marked in red .....	204
Figure 81 – Section through optimised shell showing indicated and inferred block model cells. Original topography – grey, pit shell – black, base of complete oxidisation and top of fresh rock – purple. ....	204
Figure 82 – Plan view of the Lakanfla optimised pit shell with the section and view direction used in Figure 83 marked in red .....	205
Figure 83 – Section through optimised shell showing indicated and inferred block model cells. Original topography – grey, pit shell – black, base of complete oxidisation and top of fresh rock – purple .....	206
Figure 84 – Plan view of final Diba pit design .....	207
Figure 85 – Cross section A-A' through the final pit design Phase 2-3.....	208
Figure 86 – Cross section B-B' through the final pit design Phase 2 .....	209
Figure 87 – Cross section C-C' through the final pit design Phase 3 .....	209
Figure 88 – Plan view of final Lakanfla pit design.....	210
Figure 89 – Cross section A-A' through the final pit design Phase 1 .....	212
Figure 90 – Cross section B-B' through the final pit design Phase 2 .....	212
Figure 91 – Total material movement .....	213



Figure 92 – PMI movement by phase .....	215
Figure 93 – Typical gold heap leach process flow diagram (Produced by Zenito) .....	220
Figure 94 – Preliminary site layout .....	228
Figure 95 – NPV Sensitivity Analysis @ 8% - Before taxes.....	239
Figure 96 – NPV Sensitivity Analysis @ 8% - After taxes .....	240
Figure 97 – General view of the Sadiola open pit.....	242
Figure 98 – Geological cross-section of the Sadiola deposit .....	243
Table 1 – Etruscan drilling summary for Diba Project / Korali Sud licence .....	14
Table 2 - Lakanfla drilling summary .....	15
Table 3 – Mineral Resource Statement for Diba project. ....	21
Table 4 – Optimization parameters .....	22
Table 5 – Content of material within Diba pit design .....	23
Table 6 – Content of material within Lakanfla pit design .....	23
Table 7 – Diba material content by phase .....	24
Table 8 – Lakanfla material content by phase .....	24
Table 9 – Operating costs for mining.....	26
Table 10 – Summary of the economic analysis for two production rates.....	26
Table 11 – NPV and IRR sensitivity to gold price .....	27
Table 12 – NPV and IRR sensitivity to metallurgical recovery .....	27
Table 13 – Estimated cost for PFS programme items.....	32
Table 14 - Summary of QPs by section .....	49
Table 15 – Corner coordinates of the licence .....	54
Table 16 – Etruscan drilling summary for Diba / Korali Sud Licence .....	96
Table 17 – Diba density statistics by weathering zone .....	115
Table 18 – Diba density statistics by rock type .....	116
Table 19 – Samples Blended to Form Oxide Composite Sample .....	126
Table 20 – Coarse Ore Bottle Results on Diba Oxide Sample .....	126
Table 21 – Oxide samples received.....	127
Table 22 – Summary results of oxide coarse ore bottle roll tests .....	128
Table 23 – Summary results of oxide fine ore bottle roll tests.....	130
Table 24 – Total metres of drilling in each campaign.....	131



Table 25 – Statistics of the pre- and post-composited drill hole intercepts. ....	137
Table 26 – Top-cutting parameters for the Diba drill hole data .....	138
Table 27 – Variogram parameter files .....	140
Table 28 – Densities chosen for use in the block model based on lithology type.....	141
Table 29 – Estimation parameters.....	141
Table 30 – Block model parameters .....	142
Table 31 – Columns coded into the block model. ....	142
Table 32 – Estimation parameters.....	143
Table 33 – Volume validation of each estimation domain .....	144
Table 34 – Grade validation for each estimation domain .....	145
Table 35 – Classification rules used for the Diba project. ....	147
Table 36 – Mineral Resource Statement for Diba. ....	149
Table 37 – Grade-tonnage table of Diba.....	150
Table 38 – Comparison between the May 2020 and April 2022 Mineral Resource Estimates .....	150
Table 39 – Summary of drilling used for MRE at Diba NW .....	152
Table 40 – Statistics of the pre- and post-composited drill hole intercepts. ....	159
Table 41 – Top-cutting parameters for the Diba NW drill hole data .....	159
Table 42 – Diba NW Variogram parameters .....	162
Table 43 – Densities chosen for use in the block model based on lithology type.....	162
Table 44 – Estimation parameters.....	163
Table 45 – Block model parameters .....	163
Table 46 – Columns coded into the block model. ....	164
Table 47 – Estimation parameters for Diba NW .....	165
Table 48 – Volume validation of each estimation domain .....	167
Table 49 – Grade validation for each estimation domain .....	167
Table 50 – Mineral Resource Statement for Diba NW. ....	171
Table 51 – Total metres of drilling in each campaign.....	174
Table 52 – Statistics of the pre- and post-composited drill hole intercepts. ....	180
Table 53 – Grade cutting at Lakanfla .....	181
Table 54 – Variogram parameter files .....	184
Table 55 – Densities chosen for use in the block model based on lithology type.....	184



Table 56 – Estimation parameters.....	185
Table 57 – Block model parameters .....	185
Table 58 – Columns coded into the block model. ....	186
Table 59 – Search ellipse parameters .....	187
Table 60 – Grade validation for each estimation domain .....	189
Table 61 – Classification rules used for the Lakanfla project. ....	192
Table 62 – Mineral Resource Statement for Lakanfla .....	194
Table 63 – Diba summarised in-pit inventory.....	198
Table 64 – Lakanfla summarised in-pit inventory.....	198
Table 65 – Combined summarised in-pit inventory .....	199
Table 66 – Resource model details .....	199
Table 67 – Open pit optimisation mining cost parameters .....	200
Table 68 – Open pit optimisation mining parameters.....	200
Table 69 – Open pit optimisation processing cost parameters .....	201
Table 70 – Open pit optimisation processing parameters .....	201
Table 71 – Open pit optimisation geotechnical parameters .....	201
Table 72 – Open pit optimisation revenue parameters .....	201
Table 73 – Evaluation within the ultimate pit shells .....	202
Table 74 – Mine design parameters .....	206
Table 75 – Differences between the ultimate pit shell and operational pit design .....	208
Table 76 – Diba Pit design inventory .....	208
Table 77 – Diba Material content by phase.....	210
Table 78 – Differences between the ultimate pit shell and operational pit design .....	211
Table 79 – Lakanfla pit design inventory .....	211
<i>Table 80 – Lakanfla Material content by phase .....</i>	<i>212</i>
Table 81 – Quarterly material movement .....	214
Table 82 – Technical drilling parameters for oxide material .....	216
Table 83 – Technical drilling parameters for transitional material .....	216
Table 84 – Technical drilling parameters for fresh material.....	217
Table 85 – Loading parameters by material type .....	218
Table 86 – Haulage parameters by material type.....	218
Table 87 – Original cost inputs and their escalation to 2022 .....	233



Table 88 – Drilling cost by material type .....	234
Table 89 – Blasting Cost by material type.....	234
Table 90 – Total operating cost .....	237
Table 91 – Financial analysis results after tax.....	237
Table 92 – NPV sensitivity @ 8% - before taxes .....	238
Table 93 – NPV sensitivity @ 8% - after taxes .....	238
Table 94 – NPV8 sensitivity analysis to the gold price (US\$).....	240
Table 95 – Economic model.....	241
Table 96 – Mineral Resource Statement for Diba & Lakanfla Project. ....	246
Table 97 – Summary of the economic analysis.....	247
<i>Table 98 – NPV and IRR sensitivity to gold price.....</i>	<i>248</i>
<i>Table 99 – NPV and IRR sensitivity to metallurgical recovery .....</i>	<i>248</i>
Table 100 – Estimated cost for PFS programme items.....	255



## 2 INTRODUCTION

Mining Plus has prepared an updated Technical Report on behalf of Altus Strategies (Altus) for the 100%-owned Diba Gold Project, located in Mali. The purpose of this Technical Report is to support the disclosure of the 01<sup>st</sup> August 2022 Diba Gold Project Updated Preliminary Economic Assessment (PEA)

The initial PEA for the project was prepared by Mining Plus and released by Altus on 22 July 2020 and then updated on 18 November 2020 following some additional metallurgical testwork. The project economics have been re-assessed and re-stated for this Updated second PEA update, following receipt by Altus of the results of additional metallurgical test work that have been completed subsequent to the date of the initial PEA, an additional round of drilling on the site and the inclusion of the Diba NW and Lakanfla deposits.

The Qualified Persons (QPs) for this report are listed in the table below:

Table 14 - Summary of QPs by section

Report Section	Company	QP
1.0 Summary	All	Sign-off by Section
2.0 Introduction	Mining Plus	Julian Aldridge
3.0 Reliance on Other Experts	Mining Plus	Julian Aldridge
4.0 Property Description and Location	Mining Plus	Julian Aldridge
5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiology	Mining Plus	Julian Aldridge
6.0 History	Mining Plus	Julian Aldridge
7.0 Geological Setting and Mineralisation	Mining Plus	Julian Aldridge
8.0 Deposit Types	Mining Plus	Julian Aldridge
9.0 Exploration	Mining Plus	Julian Aldridge
10.0 Drilling	Mining Plus	Julian Aldridge
11.0 Sample Preparation, Analyses and Security	Mining Plus	Julian Aldridge
12.0 Data Verification	Mining Plus	Matthew Field
13.0 Mineral Processing and Metallurgical Testing	Grinding Solutions	Nick Wilshaw, FIMMM
14.0 Mineral Resource Estimates	Mining Plus	Matthew Field
15.0 Mineral Reserve Estimates	Mining Plus	Adriano Carneiro
16.0 Mining Methods	Mining Plus	Adriano Carneiro
17.0 Recovery Methods	Grinding Solutions	Nick Wilshaw, FIMMM
18.0 Infrastructure	Mining Plus	Adriano Carneiro
19.0 Market Studies and Contracts	Mining Plus	Adriano Carneiro
20.0 Environmental Studies, Permitting and Social or Community Impact	Mining Plus	Adriano Carneiro



Report Section	Company	QP
21.0 Capital and Operating Costs	Mining Plus	Adriano Carneiro
22.0 Economic Analysis	Mining Plus	Adriano Carneiro
23.0 Adjacent Properties	Mining Plus	Matthew Field
24.0 Other Relevant Data and Information	Mining Plus	Matthew Field
25.0 Interpretation and Conclusions	All	Sign-off by Section
26.0 Recommendations	All	Sign-off by Section
27.0 References	All	Sign-off by Section

Mr Aldridge prepared the Mineral Resource estimate and accompanying report as of 22 April 2022, at the request of Altus Strategies.

The initial PEA was concluded on 22 July 2020. This updated PEA contains no material changes relating to those sections of the report for which Mr Aldridge assumes responsibility.

A site visit was conducted by Dr Matthew Field and Mr Adriano Carneiro during the period of 5 and 6 June 2022.

The Report has effective dates as follows:

- Drill data and information is current to 15 April 2022.
- The Mineral Resource estimate was prepared and completed on 15 April 2022, and was reviewed and finalised on 18 April 2022.
- The initial Preliminary Economic Assessment was prepared and completed on 22 July 2020.
- Grinding Solutions metallurgical test work completed and reported 24 October 2020.
- This Updated Preliminary Economic Assessment was prepared and completed on 01 August 2022.

No work has been undertaken on the property since this Mineral Resource estimate has been completed. No additional information has been collected or been made available subsequent to the preparation of the Mineral Resource estimate that would render the estimate historic.

Therefore, the effective date of this report is taken to be 01 August 2022, the date of completion of the updated Technical Report.

The Qualified Persons are not aware of any material scientific or technical changes to the information on the Property between the date of the receipt of the data from the client, and the Technical Report signature date.



Information that supports the report and was used during the Mineral Resource estimate and PEA was provided by Altus, and a full list of data is provided in Appendix 1. Mineral Resource estimate and PEA preparation and reporting was performed entirely by, or under the supervision of the QPs. Reference documents are cited in the text as appropriate and listed in the References.

Prior to the acquisition of the Korali Sud by Altus, previous owners Endeavour Mining Corporation (EMC) filed a 2013 report, and Etruscan Resources Inc filed a 2007 report that both included the Korali Sud licence.

All measurement units used in this Report are metric, and currency is expressed in US dollars, unless otherwise stated.



### **3 RELIANCE ON OTHER EXPERTS**

---

The QPs have relied on the following reports and information from other experts, which have provided information in sections of this report as summarised below.

#### **3.1 Company Ownership and Agreements**

For information relating to the status of ownership and agreements, Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' VP Operations Will Slater. This information is used in Section 4.3 of the Report.

#### **3.2 Work Commitments**

For information relating to the status of work commitments, Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' VP Operations Will Slater. This information is used in Section 4.3.1 of the report.

#### **3.3 Mineral Tenure**

Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' VP Operations Will Slater. This information is used in Section 4.3 of the Report.

#### **3.4 Surface Rights**

Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' VP Operations Will Slater. This information is used in Section 4.4.3 of the Report.

#### **3.5 Water Rights**

Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' VP Operations Will Slater. This information is used in Section 4.5.3 of the Report.

#### **3.6 ESIA Commitments**

Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' VP Operations Will Slater. This information is used in Section 4.6.3 of the Report.



### **3.7 Taxes & Royalties**

Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' CEO Steve Poulton. This information is used in Section 4.7 of the Report.

### **3.8 Economic Analysis**

For information relating to the application of tax and depreciation in the financial model, Mining Plus and QP authors have fully relied upon, and disclaim responsibility for information provided by, Altus Strategies' CEO Steve Poulton. This information is used in Section 22 of the Report.



## 4 PROPERTY, DESCRIPTION AND LOCATION

### 4.1 Location

The Korali Sud & Lakanfla Licences (Table 15), which contains the Diba & Lakanfla project, covers an area of approximately 107.1km<sup>2</sup>, and is located in the Kayes region of Mali, approximately 450km west-northwest of Bamako, and 100km south of Kayes the regional capital. The nearest international border is with Senegal to the west and Mauritania to the north (Figure 2).

Table 15 – Corner coordinates of the licence

District	Permit	Point	Datum	E utm	N utm
Mali West	Korali Sud	A	WGS84	204502	1529965
Mali West	Korali Sud	B	WGS84	211714	1529884
Mali West	Korali Sud	C	WGS84	211638	1523027
Mali West	Korali Sud	D	WGS84	213682	1523004
Mali West	Korali Sud	E	WGS84	213663	1521282
Mali West	Korali Sud	F	WGS84	219013	1521224
Mali West	Korali Sud	G	WGS84	218961	1516396
Mali West	Korali Sud	H	WGS84	213369	1516457
Mali West	Korali Sud	I	WGS84	213418	1520916
Mali West	Korali Sud	J	WGS84	211615	1520936
Mali West	Korali Sud	K	WGS84	211609	1520444
Mali West	Korali Sud	L	WGS84	207040	1520495
Mali West	Korali Sud	M	WGS84	207118	1527414
Mali West	Korali Sud	N	WGS84	204473	1527444
Mali West	Lakanfla	A1	WGS84	220628	1531141
Mali West	Lakanfla	B1	WGS84	220608	1529325
Mali West	Lakanfla	C1	WGS84	221355	1529317
Mali West	Lakanfla	D1	WGS84	221230	1524214
Mali West	Lakanfla	E1	WGS84	217330	1524290
Mali West	Lakanfla	F1	WGS84	217395	1530312
Mali West	Lakanfla	G1	WGS84	219407	1530290
Mali West	Lakanfla	H1	WGS84	219416	1531154



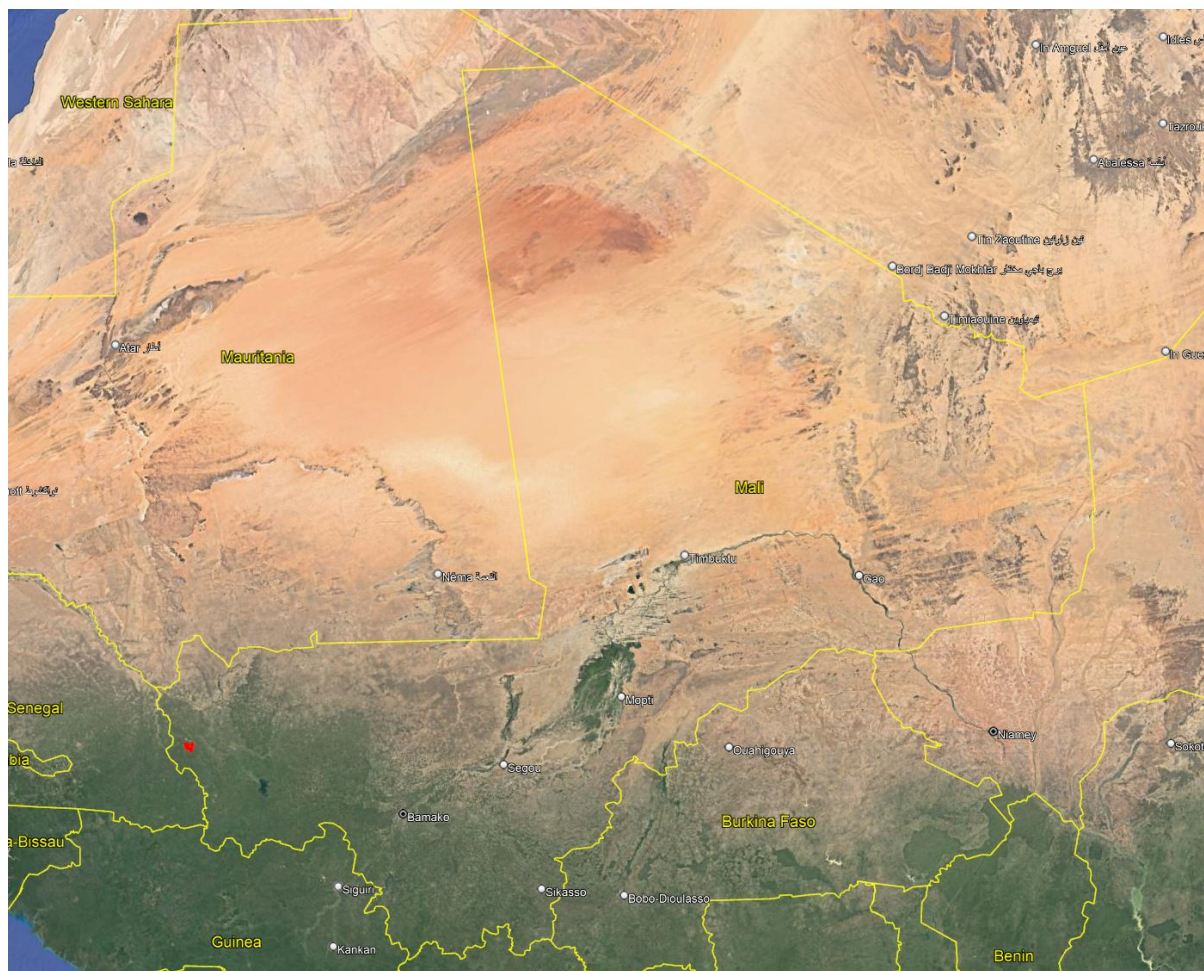


Figure 1 – Satellite images Mali



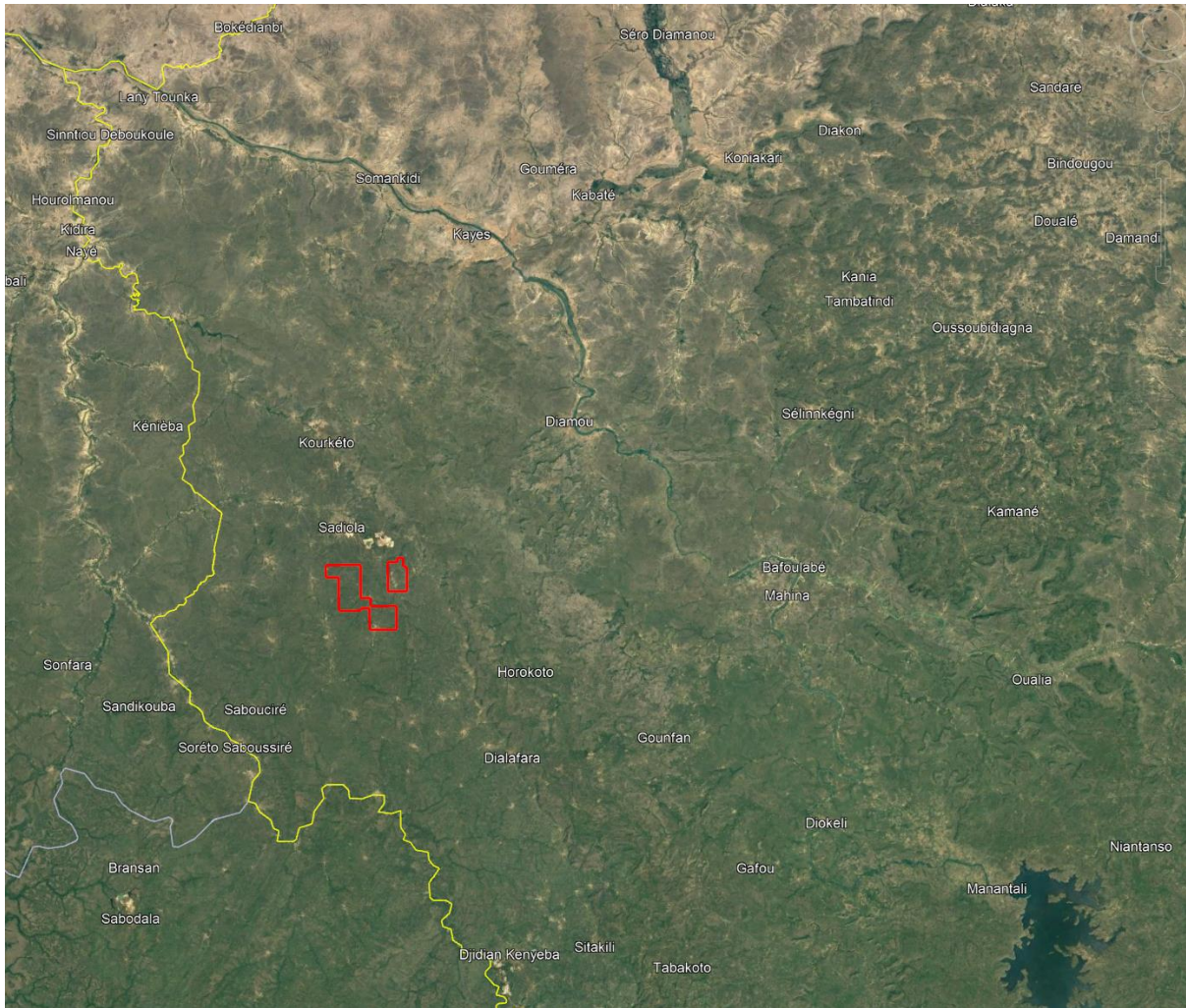


Figure 2 – Western portion of Mali showing location of the Koral Sud & Lakanfla properties (Google Earth).

Local artisanal miners have been active in the area exploiting near-surface, high-grade quartz veins (Woodman, 2007). There has been no infrastructure built on the licence.

## 4.2 Mali Mineral Policy Overview

According to the report of Simon and Pizarro (Simon, 2013), mining activities in Mali are governed by the following legal orders and decrees:

- Order No 99-032/P-RM, of 19 August 1999, relating to the country's Mining Code, and as modified by Order No 00-013/P-RM, of 10 February 2000.
- Decree No 99-255/P-RM, of 15 September 1999, pertaining to the application of the 1999 Mining Code, which was modified by Order No 00-013/P-RM, of 10 February 2000.



- Decree No 99-256/PM-RM, of 15 September 1999 (MMM, 1999), which pertains to the approval of the model prospecting, exploration and mining agreement to be entered into between mineral title applicants and the State of Mali.

More recently, other legal documents and decrees ruling the Malian mining activity have been issued:

- Order No.2012-015 of 27 February 2012 relating to the new Mining Code.
- Decree No. 2012-311/P-RM of 21 June 2012 pertaining to the application of the 2012 Mining Code.
- Decree No.2012-49/PM-RM of 7 September 2012 pertaining to the approval of the model prospecting, exploration and mining agreement to be entered into between mineral title applicants and the State of Mali.
- Decree No. 2012-717/PM-RM of 20 December 2012 pertaining to the operation and management of a fund to finance exploration, training and promotion of mining activities.

The 2012 Mining Code and related 2012 Decrees are in force and have superseded the 1999 Mining Code and related 1999 Decrees; however, some aspects are still governed by the 1999 mining legislation for existing titles. All new mineral titles issued after February 2012 are governed by the 2012 Mining Code and related 2012 Decrees. This includes the Korali Sud & Lakanfla properties owned by Altus Strategies.

As of 21 August 2019, the Malian government have announced a new mining code, which is currently being implemented.

The 1999 Mining Code (the Code; MME, 1999a) defines five types of mining titles:

Exploration authorization (autorisation d'exploration), which may be granted for three months, but can be renewed once for the same period, after which the authorization holder has the right to request a prospection authorization, assuming that the authorization holder has complied with the specifications set out in the Code. The maximum surface covered by this authorization is specified in the corresponding authorizing decree, and it covers specified commodities (the same area may be covered by distinct permits concerning different commodities). Such an authorization cannot be transferred to third parties by any means.

Prospection authorization (autorisation de prospection), which may be granted for three years, and is renewable once with no surface reduction, assuming that the authorization holder has complied with the specifications outlined in the Code. The maximum surface covered by this authorization is specified in the corresponding authorizing decree, and it



covers specified commodities (the same area may be covered by distinct permits concerning different commodities). Such an authorization can be transferred to third parties by inheritance or cession under certain conditions established by the Code. The holder should regularly deliver details of the prospection programs and reports to the Department of Mines.

Exploration permit (*permis de recherche*), which may be granted for three years, and is renewable twice, assuming that the authorization holder has complied with the specification of the Code. The maximum surface covered by this authorization is specified in the corresponding authorizing decree (although the maximum size of a gold permit has been recently restricted to 500 km<sup>2</sup>), and it covers specified commodities (the same area may be covered by distinct permits concerning different commodities). After each renewal, the surface covered by the permit should be reduced by 50%. Such an authorization can be transferred to third parties by inheritance or cession under certain conditions established by the Code. The holder should regularly deliver details of the exploration programs and reports to the Department of Mines.

Mining licence (*permis d'exploitation*), which may be granted to the holder of an exploration permit or an authorization of prospection for a 30 year period, renewable for successive 10 year periods until the mineral reserves within the licence area are exhausted. The Malian State will have a 10% carried interest in the operation, which will be considered as resulting from priority shares that cannot be diluted by future capital contributions. The State reserves the right to increase its participation in the future by an additional 10%. Such a permit can be transferred to third parties by inheritance or cession under certain conditions established by the Code.

Small-scale mining authorisation (*autorisation d'exploitation de petit mine*), which may be granted to the holder of an exploration permit or an authorization of prospection for a four year period, renewable for successive four year periods until the mineral reserves within the license area are exhausted. Such a permit can be transferred to third parties by inheritance or cession under certain conditions established by the Code.

Mineral titles do not include any rights over the use of the soil. If the surface owner refuses the authorisation to conduct exploration or other mining activities to a permit holder, such authorisation can be legally enforced through payment of adequate compensation. If the normal use of the land becomes impossible due to the exploration or mining activities, the surface owners could force the holder of the mineral permit to acquire the projecty.

The analysis of the samples should be conducted in Mali, unless the holder of a mineral title obtains the authorisation of the Director of Mines to submit the samples to another country for analyses.



As of 21 August 2019, the Malian government have announced a new mining code that seeks to end VAT exemptions for mining companies operating in the country, and shorten the 30-year period during which mining companies' existing investments are protected from fiscal regime and customs changes. In a statement, the Mines Ministry said the changes seek to redress the 'shortcomings' of a 2012 law by bringing a 'substantial increase' in the contribution of the mining sector to the economy.

The new mining code and amendments are currently being implemented, and Altus Strategies are currently reviewing and liaising with the Malian government to identify any material changes to royalties and the tax regime.

### **4.3 Company Ownership and Agreements for the Korali Sud & Lakanfla Permits**

The information on company ownership and agreements for the Korali Sud small scale mining authorisation (Korali Sud) and the Lakanfla exploration permit (Lakanfla) has been summarized from personal communications between the report author and Will Slater, VP Operations for Altus.

The Korali Sud small scale mining authorisation is valid for four years effective from 15 April 2022, renewable for successive four year periods until the deposit is depleted. The Company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger MRE.

The Lakanfla permit is valid for three years effective from 31 July 2021. The permit is in its final three-year renewal of the current licence term (3yrs +2yrs +3yrs). Following the completion of the last renewal it is possible to reapply for the licence, a process which Altus has successfully done before. Should the situation warrant it, Altus may opt to start the mining licence application process.

Under the licence reapplication process, no historical exploration expenditure from the previous grant can be taken forward.

The outline of the licences and position of the corner coordinates are shown in Table 15, and Figure 3 below.



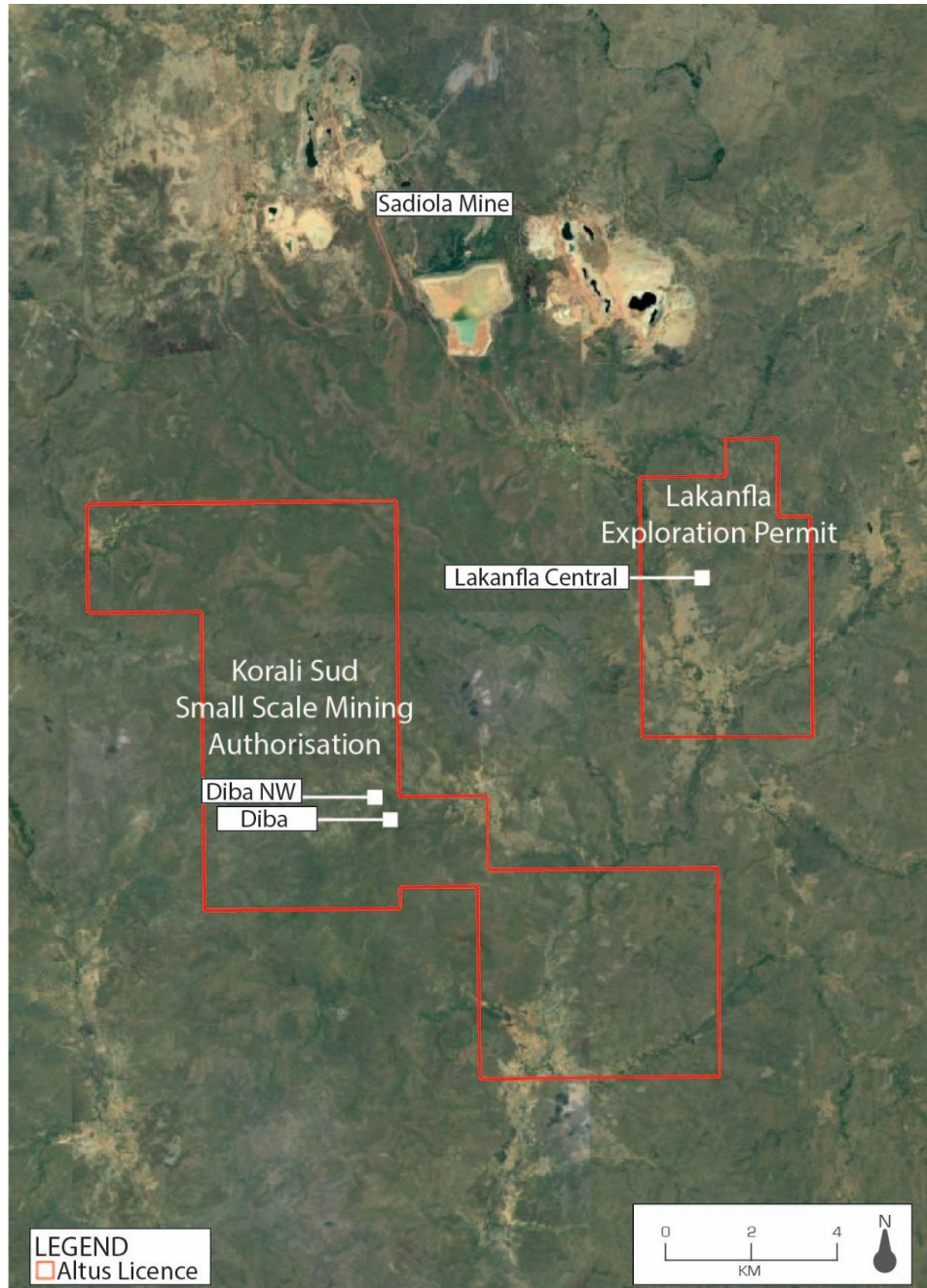


Figure 3 – Diba & Lakanfla project exploration concession polygons (Google Earth image)

#### 4.3.1 Work Commitments

Under the Korali Sud Small Scale Mining authorisation there are no statutory minimum expenditure commitments and the company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger Mineral Resource.

Under the Lakanfla exploration licence renewal process, no historical exploration expenditure from the previous grant can be offset against future production. Mining Plus has reviewed



the planned expenditure in the renewal documents submitted by Altus to the Malian authorities, which can be summarised as follows:

- Year 1 – US\$234,965 (144,150,000 XOF).
- Year 2 – US\$312,308 (191,600,000 XOF).
- Year 3 – US\$238,388 (146,250,000 XOF),

#### 4.4 Surface Rights

The surface rights in the Project belong to the State. Whilst Altus liaise closely with communities near to the project no public consultations are required during the exploration phase. According to Will Slater, VP Operations for Altus, exploration at the Project does not have any known significant potential social impacts that need to be monitored during the exploration phase. Ongoing engagement with local communities ensures that issues are identified as work progresses. No agreements with communities have been entered into.

#### 4.5 Water Rights

Water for the drill program was obtained from surface sources in the Permit area. Altus have the right to extract water for use at their exploration camp and during drilling. The permit holders do not currently hold water rights in connection with the Project (Will Slater, VP Operations for Altus), and these would require formal approval from the Malian authorities. Sufficient long-term water supply for potable and process usage may be available from surface and/or underground sources; however, this would need to be confirmed by hydrogeological studies.

#### 4.6 Environment and Socio-Economics

As part of the application process for the small scale mining authorisation an Environmental & Social Impact Assessment (ESIA), Community Development Plan (CDP), Training Plan and Site Closure and Rehabilitation Plan was prepared by independent Malian Consultant EBEF Mali in consultation with the communities affected and the relevant local and national authorities. The ESIA, CDP, Training Plan and Site Closure and Rehabilitation Plan were all authorised as part of the grant of the small scale mining authorisation. The company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger Mineral Resource. Further Environmental and Socio-Economic studies would be required if the Company applies for a full-scale mining licence.

No formal environmental or socio-economic studies have been conducted to date at the Lakanfla licence. Under the laws of Mali, the permit holder does not require any other types of permits to carry out exploration activities, but will require an environmental permit



following the filing of a feasibility study in order to be granted a mining permit (Will Slater, VP Operations for Altus). The drill sites and roads used during the exploration activities have not been actively rehabilitated, but due to the sparse vegetation and gently undulating to flat terrain significant earth movement were not required during drilling.

Altus employs an in-house Environmental Management Plan for all of its exploration work, which broadly follows guidance from the e3 Plus framework, to ensure exploration work progresses with minimum negative environmental impact. Concerning social impact, Altus employs an in-house corporate and social responsibility policy that ensures that they engage with local stakeholders, and that the staff employed are representative of the communities in which they operate.

#### **4.7 Taxes and Royalties**

The following outlines the main taxation considerations applied in the financial model as provided by Altus, with reference to Law No. 2012-015 of 27 February 2012 (2012 Mining Code). Corporate income tax in Mali is 30% under the 2012 Mining Code. For exploitation license holders, there is a 15-year period from the start of production where the corporate income tax is reduced to 25%.

In addition, a new tax has been introduced applying to holders of an exploitation license that produce, in one year, more than 10% of the expected quantity fixed in the annual production program approved by its shareholders' general assembly. This new tax consists of standard taxes and rights applying to operations and results relating to overproduction.

Altus has applied a conservative corporate tax rate of 30% to the PEA and assumed no overproduction tax will be incurred during the life of mine. Similarly, no tax holiday has been applied, although it is provided for under the 2012 Mining Code.

Initial capital costs have been depreciated over the life of mine and a 3% government royalty has been applied.

These assumptions are preliminary in nature and will be refined in the next phase of work and may be subject to change in line with the mining code.

#### **4.8 Recent Conflicts**

During 2012, various insurgent groups began fighting against the Malian government for independence or greater autonomy for northern Mali (the Azawad region). On 22 March 2012, the Malian President was ousted in a coup d'état over disagreement for the way the crisis was handled, and shortly after that Islamic organizations intending to make Azawad an independent homeland for the Tuareg people took control of the region.



Early 2013, French military joined the operations against the Islamists, and forces from other African Union states were deployed in the area. By 8 February 2013 the Islamist-held territory had been re-taken by the Malian military, with assistance from the international coalition.

A nationwide state of emergency in place since November 2015 has been extended several times, most recently in October 2019 by one year until 31 October 2020. Mali held legislative elections in March and April 2020. Since 1 May, regular protests have taken place in Bamako and across the country following the Constitutional Court's ruling on these elections.

On 9 January 2022 the Economic Community of West African States (ECOWAS) announced the closure of land and air borders between ECOWAS countries (Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea Bissau, Liberia, Niger, Nigeria, Senegal, Sierra Leone and Togo) and Mali. ECOWAS also suspended all non-essential commercial transactions between ECOWAS countries and Mali. On 6 July 2022 ECOWAS lifted the imposed restrictions.

The conflict events have not extended over Western Mali, where several international mining companies, including Barrick, AngloGold Ashanti, IAMGOLD and B2Gold run operations, and where the Tuareg population has a minor representation, although the country appears to be dealing with ongoing political instability. The QPs recognize that such events may result in interruptions to planned exploration activities.



## 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

---

### 5.1 Access

Mali, officially the Republic of Mali, is a landlocked nation in West Africa. Mali borders Algeria on the north, Niger on the east, Burkina Faso and the Côte d'Ivoire on the south, Guinea on the southwest, and Senegal and Mauritania on the west.

Bamako, the capital of Mali, is linked to Europe through direct flights from Paris and Lisbon. Other international airlines provide communication between Bamako and major African centres (Abidjan, Addis Ababa, Accra, Algiers, Dakar, Lagos, Nairobi, Niamey, Ouagadougou, Tunis, etc.), as well as to several Malian cities, among them Kayes, the regional capital.

Narrow-gauge railroad services the Bamako-Kayes route three times a week (about 15 to 16 hours transit time). The railroad extends further to Dakar, Senegal, but the Kayes-Dakar section is currently out of service.

Road access from Bamako to the Diba & Lakanfla Project is either via the partially paved, two-lane Bamako-Dakar road up to Kéniéba (about 450 km drive), followed by about 140 km of dirt road to the village of Kantela, or via the 506 km paved highway from Bamako to Kayes (Figure 4).

Travel in the rainy season can be periodically interrupted along certain segments of the road, particularly at some river crossings. The center of the Korali Sud Licence is located 13 km west of the village of Kantela, where the Company has its exploration camp. Numerous tracks and trails provide direct access to and through the entire Project.



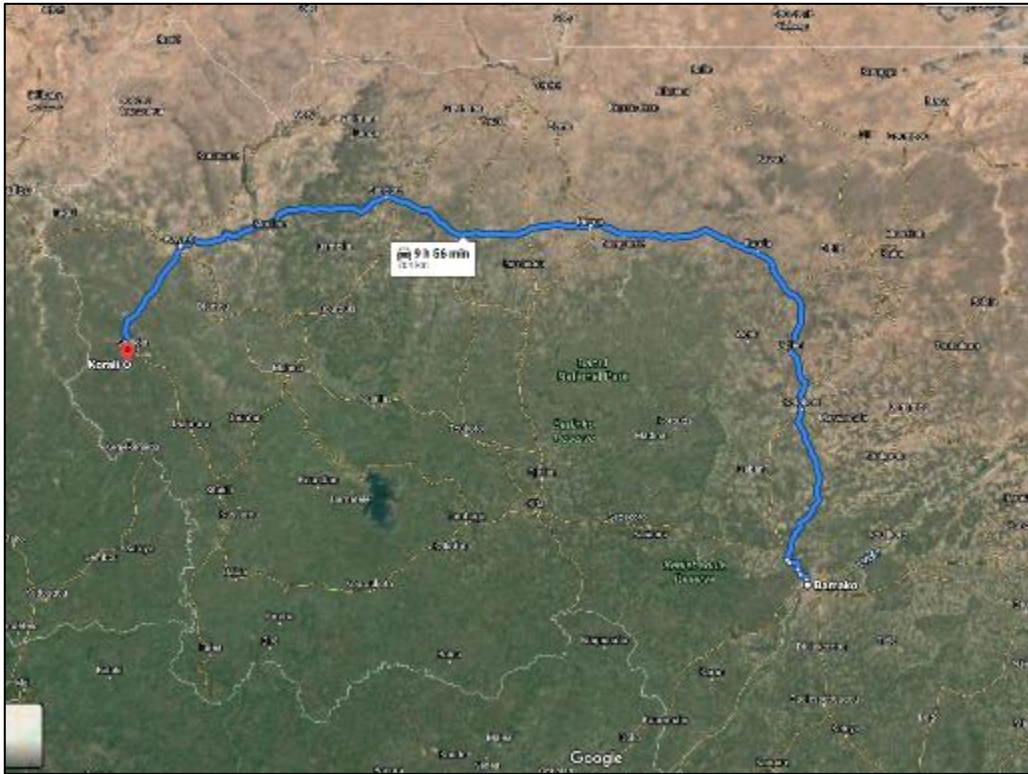


Figure 4 – Google Earth map of access route between Bamako and Korali Sud & Lakanfla properties.

## 5.2 Climate, Vegetation and Fauna

Temperature and precipitation show a strong latitudinal gradient in Mali, ranging from hot and dry Sahara-type climate in the north, to a relatively moist woodland savannah-type climate in the south (Simon, 2013).

The Kayes region exhibits typical Sahelian-savannah features, with two well-marked seasons: a rainy season, from June to October, and a dry season, from November to May. Monthly average temperatures range from 26°C in December and January to 35°C in April and May, with monthly extremes of 17°C (January average minimum) and 41°C (April average maximum). Temperatures are usually lower during the wet season.

Average monthly precipitation in the Kayes region is 0 mm from December to April up to 240 mm in August. Average annual rainfall is 751 mm. Mean relative humidity for an average year has been recorded as 38%, ranging from 12% in March to 75% in August. However, rains are often spotty (heavy in some areas and light only a few kilometres away) and torrential, producing severe soil erosion which leads to desertification.

Exploration activities and future mining operations could reasonably be conducted year-round if sufficiently planned and organised.



Average wind speeds in western Mali range from 6 km/h to 12 km/h. During the wet season, winds generally blow from the west-southwest to east-northeast, and in the dry season from the opposite direction (Woodman, 2007).

Simon and Pizarro (Simon, 2013) reported the land cover in the Project area as transitional between woody savannah and lightly wooded savannah. During the wet season, vegetation is represented by savannah-type tall grasses (*Cenchrus biflorus*, *Schoenefeldia gracilis*, *Aristida stipoides*, etc.) with sparse tree coverage, mainly acacias (*Acacia tortilis* the most common, along with *Acacia senegal* and *Acacia laeta*). Nearly everything dries up during the dry season.

Native fauna used to be represented by grazing mammals, like the scimitar-horned oryx (*Oryx dammah*), various gazelles (*Gazella dama*, *Gazella dorcas*, *Gazella rufifrons*), and the Buba Hartbeest (*Alcelaphus busephalus buselaphus*), along with large predators like the African wild dog (*Lycaon pictus*), the cheetah (*Acinonyx jubatus*), and the lion (*Panthera leo*). Over-hunting and competition with livestock have severely reduced their population, some of them being now near extinction. Numerous bird species cross the area during their regular migrations.

### 5.3 Physiography

The Project is located in a low-rolling, peneplained plateau cut by moderately-well developed drainage systems (Figure 5). Average elevation in the Project is 160 m, and ranges from 140 m to 230 m. Some higher ridges, capped by hard ferruginous laterite crusts (cuirasses), extend for several kilometres. Seasonal streams criss-cross the area, generally flowing southward into the Falémé River that forms the Mali-Senegal border.





Figure 5 – Typical view at the Diba & Lakanfla project.

## 5.4 Local Resources and Infrastructure

The population of Mali is estimated to be in excess of 11.5 million people comprised of the following principal ethnic groups: Mande (50%), Peul (17%), Voltaic (12%), Songhai (6%) and Tuareg (10%). With a per capita GDP of \$2,313 (2018 estimate), Mali is among the poorest countries in the world. Malians experience the daily hardships associated with life in a harsh semi-desert environment. Life expectancy at birth is 58 years and the adult male literacy rate is 46%<sup>1</sup>. There are a number of human resources and services available to mining companies exploring for gold in this country.

Mali has a long history of gold mining that goes back thousands of years and many Malian civilizations were built on the production and trading of gold. Mali reformed its mineral code in 1991 and has attracted large amounts of foreign investment to the country. So much so that the Malian gold mining industry is now the second largest income earner in the country and Mali is the fourth largest gold producer in Africa.

Gold production in Mali in 2019 was 46 t, up from 41 t in 2016, as miners followed through with expansion plans, as reported by the Malian government. Output from Mali's southern gold mines has expanded 10 t over the last 10 years.

---

<sup>1</sup> UNESCO data <http://uis.unesco.org/en/country/ml> as of 2018



Land use in Mali mainly consists of subsistence farming, grazing of domestic animals and commercial cotton production. Arable land is concentrated in the southern part of the country, and comprises less than 4% of the total surface. Small crops usually consist of maize, millet, rice, peanuts and melons. Domestic animals consist of sheep, goats or cattle.

The project is currently isolated from public infrastructure. With the exception of the dirt road that connects Kéniéba with Kayes, the Project area has little or no infrastructure, but it is located in the proximity of the Sadiola gold mine, where some basic services (food, accommodation, hospital, communication, fuel supply, workshops, and small commerce) can be found. Support for other basic needs should be sought from Kayes or Bamako. Historically, exploration activities were conducted from an exploration camp near the Kantela village.

Non-qualified labour is available in the region for exploration and future mining activities, but specialised labour and technical advice will have to be provided from Kayes, Bamako or abroad. Cellular telephone communication is possible in most nearby villages, Kantela, Sadiola, and from various points in the Project and along the Kéniéba-Kayes road.

The area currently covered by the Project is approximately 107.1 km<sup>2</sup>. Therefore, the Project is sufficiently large to accommodate a mining operation, including tailing and waste disposal areas, as well as potential leach pads and processing plant sites.

At the moment, there is no electricity supply from a national grid to the Project or its proximity. Sufficient long-term water supply for potable and process usage may be available from surface and/or underground sources, but will need to be assessed during any future engineering studies. Water rights would still require formal approval from the Malian authorities.



## 6 HISTORY

---

The content of this section has been summarized from Woodman and van Osta (Woodman, 2007). Artisanal gold miners have been active in the Kayes region of Mali since pre-historic times. Large amounts of gold (speculated to be in excess of 8 tonnes), extracted from alluvial placers and shallow mining activity in the region, were reportedly transported by Mansa Musa I on his famous hajj to Mecca in the year 1324<sup>2</sup>.

The first geologic map of the Kayes region was produced in 1941 at a scale of 1:500,000, and modern exploration in the area was initiated during the French colonial period by the Service de *Géologie et de Prospection Minière* (SGPM). Following political independence in 1962, SONAREM, a state-owned mining company, undertook exploration during this period with financial and technical support from the Soviet Union.

The state geological survey DNGM was formed in 1969, and a new geological map of the region was produced by them in 1981. During the 1980s, regional mapping (1:50,000) and geochemical soil sampling conducted in the region by the Mali Gold Syndicate, a joint venture between the French Bureau de Recherches Géologiques et Minières (BRGM) and the Government of Mali, ultimately led to the discovery of the nearby Loulo deposit.

In 1987 the Government of Mali initiated a two-year multi-disciplinary regional mapping, prospecting and geochemical sampling program called Mali-Ouest 1. This program was founded by the European Development Fund, and was managed by Hansa GeoMin, the consulting division of Klöckner Industrie-Anlagen GmbH (Klöckner) of Germany.

The program was aimed at completing geological mapping and a geochemical survey over the entire region. A total of 35,000 soil samples were systematically collected at 250 m intervals along E-W trending lines spaced 1,000m apart. As a result of this program, a number of anomalies were defined across the area (Figure 6); including a large Au-As-Sb anomaly near the village of Sadiola, and additional detailed sampling resulted in the discovery of the Sadiola gold mine, although the area had been the site of artisanal gold workings for several centuries.

---

<sup>2</sup> [https://www.ancient.eu/Mansa\\_Musa\\_I/](https://www.ancient.eu/Mansa_Musa_I/)



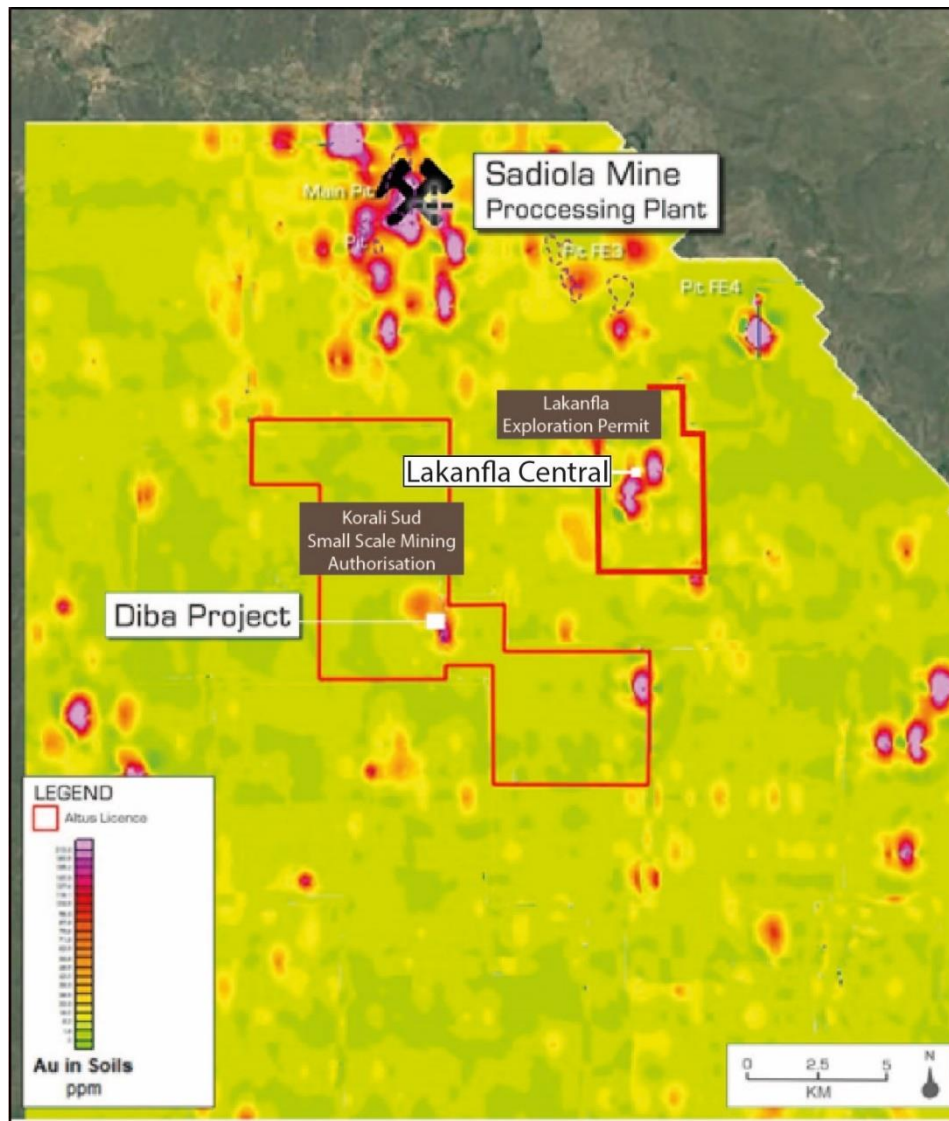


Figure 6 – Klockner regional geochemistry soil map (Woodman, 2007).

An airborne magnetic and radiometric survey over the Kéniéba-Kedougou Inlier, Western Mali, was conducted during 1996 - 1997 by Geonex Aerodat Inc (Aerodat). The survey included 55,000 line-km, and was flown along traverse lines in a southwest-northeast direction at 200 m line spacing and a nominal aircraft elevation of 100 m (Figure 7).



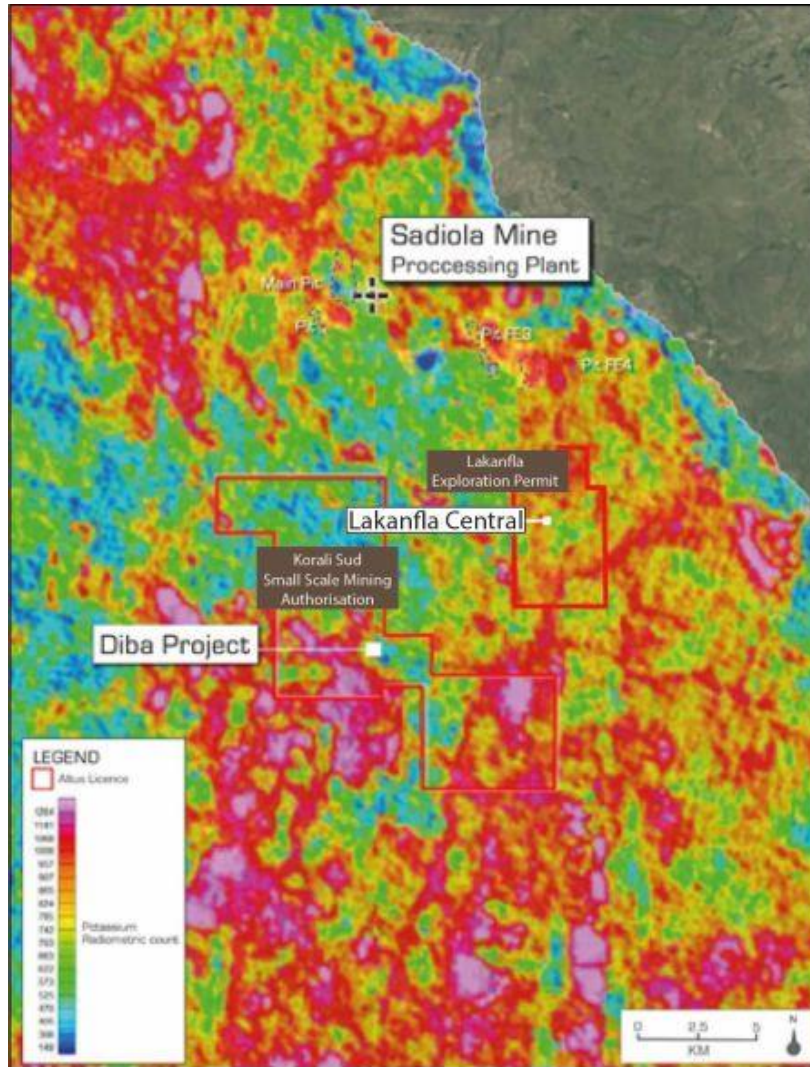


Figure 7 – Aerodat Airborne Survey Map: Total Radiometric Count (Woodman, 2007).

Etruscan commenced exploration in the area in 2001 (Woodman, 2007). Exploration was initiated using regional soil sampling, followed by infill soil samples collected over regional anomalies. Once anomalies were confirmed, then single-sample auger drilling was completed over the area of interest. Subsequent to positive results, additional multi-sample auger drilling was completed, and reverse-circulation and/or diamond drilling was conducted.

Two phases of project development took place under the ownership of Legend Gold (2011 – 2018). In 2013 a maiden NI43-101 resource estimation was performed by independent consultants AMEC, followed by drilling of further RC and AC holes in 2014.

The Historic Mineral Resource (Simon, 2013) is shown in Figure 8 below.



**Table 1-1: Diba Indicated and Inferred Mineral Resources  
(Effective Date 20 May 2013)**

Category	Tonnage (kt)	Au Grade (g/t)	Au Metal (koz)
Indicated	6,348	1.35	275.2
Inferred	721	1.40	32.5

Figure 8 – Diba Historic Mineral Resource. Cut-off grade is 0.5g/t (Simon, 2013).

Drilling Type	Total No	Depth		Year (no. holes)						
		Average	Maximum	2005	2006	2007	2008	2009-2013	2014	2015
Shallow Auger	1765	7.88	18	(1765)						
Deep Auger	88	18.3	30		(88)					
RAB	327	34.94	75	(49)?	(37)	(59)	(182)			
RC	109	61.19	143		(33)		(76)			
DD	92	145.1	352		(27)	(65)				
RC	59	85.88	180						(59)	
AC	300	14.67	41						(300)	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">DTH Conductivity &amp; Optical</div> <div style="text-align: center;">VTEM</div> <div style="text-align: center;">Ground IP (HIRIP)</div> </div>										

Figure 9 – Timeline of the drilling and exploration at Diba Project (Altus Geological Review)

In 2018 Altus Strategies completed a Plan of Arrangement with Legend Gold, and the licence is now held by Altus's 100% owned subsidiary LGN Holdings (BVI) Ltd. Following completion in 2018, Altus performed a detailed review of the >20 years of historic data accumulated from exploration over the area.

As a result of this data review process Altus undertook a number of exploration programmes including remote sensing, regolith mapping and termite sampling on the Project. This has led to the definition of six high priority targets both close to and along strike of Diba which offer potential to significantly expand the resource in the future with further drilling.



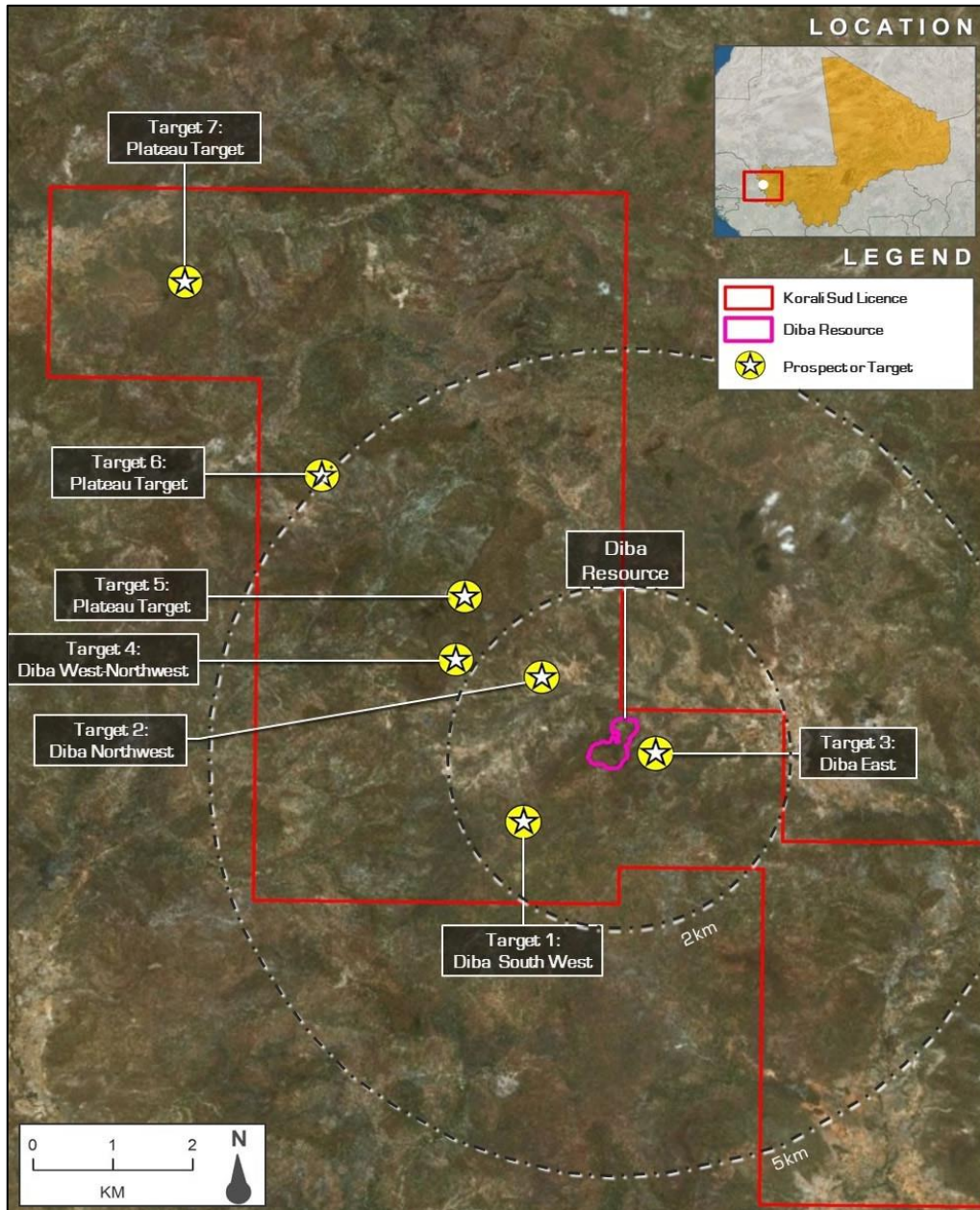


Figure 10 – Targets on the Korali Sud licence from surface geochemistry and AC / RAB drilling



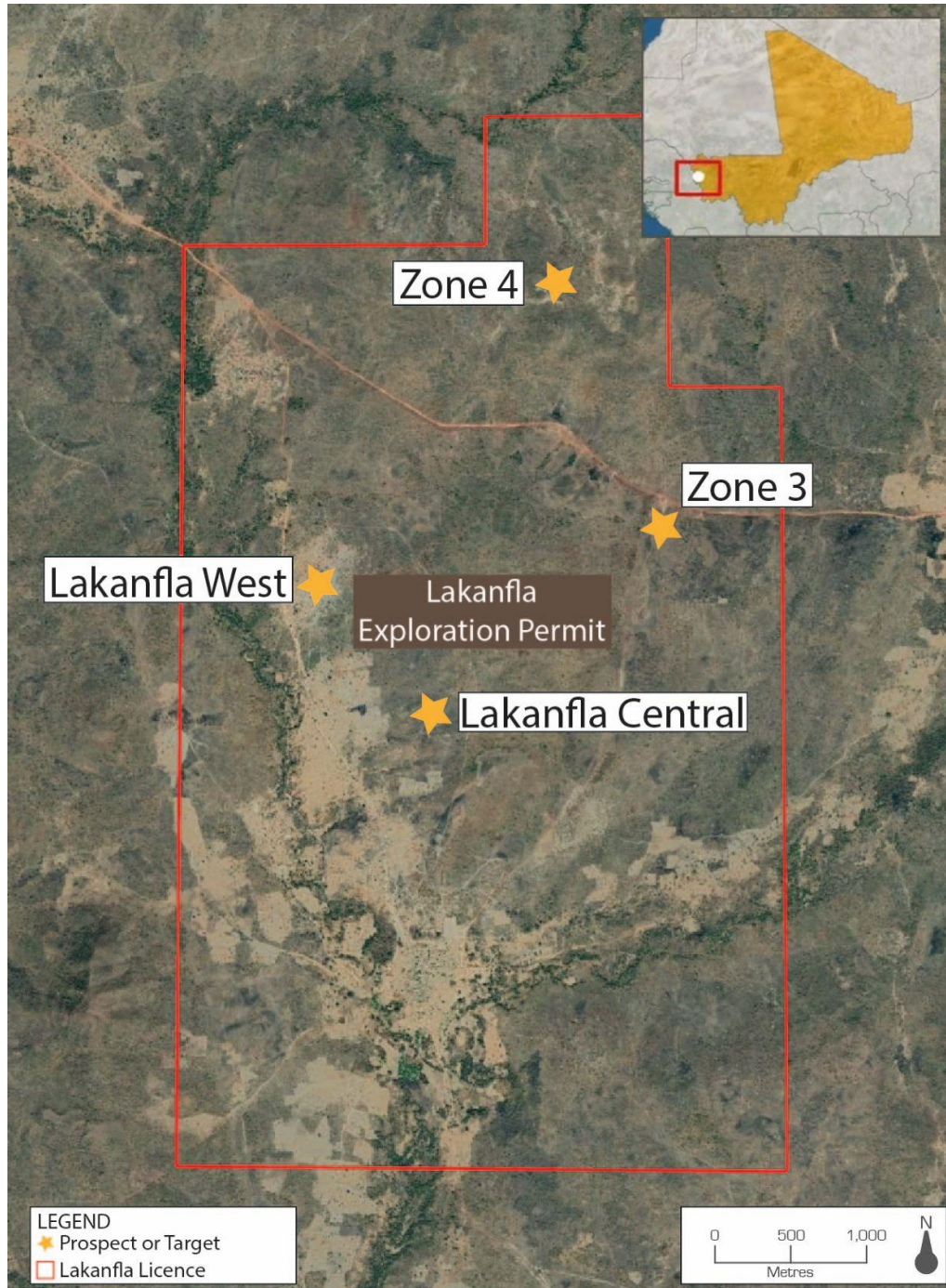


Figure 11 – Targets on the Lakanfla licence from surface geochemistry

### Diba South West

The Diba South West prospect is located 1.2km southwest and along strike of Diba. The prospect is defined by a northeast striking 1.2km long discontinuous gold in soil anomaly along the flank of a ferricrete ridge that extends a further 1.5km to the southwest. The prospect is defined by a series of discretely anomalous termite samples above 20ppb Au, orientated northeast-southwest and is coincident with a geophysical VTEM anomaly. Termite



sampling was completed by Altus in 2019 over a 2.7km<sup>2</sup> area. No termites were present for sampling along the ridge owing to the hard ferricrete carapace.

### **Diba Northwest**

The Diba Northwest prospect extends for 1.85km northwest from Diba. The prospect is defined by a northwest striking 2.6km<sup>2</sup> gold in soil anomaly coincident with a VTEM low anomaly. Historic systematic air core drilling over the prospect tested to an average vertical depth of only 14.70m with a number of holes terminating in gold mineralisation within the oxide zone.

### **Diba East**

The Diba East Prospect is located immediately east of Diba. The prospect is defined by a 2km<sup>2</sup> area cover a northeast striking VTEM low anomaly sub-parallel to the strike of Diba and of the Diba South West prospect. Historic air core and reverse circulation drilling intersected anomalous gold in the oxide zone and includes 12m @ 0.5g/t Au from 28.50m (down the hole) in hole MIRC08-049.

### **Diba West-North West**

The Diba West-North West prospect is located 2km northwest of Diba. The prospect is defined by a 650m x 440m east-west zone of anomalous gold in termite samples. The surface area of Diba west-northwest is comparable in size to that of Diba. Historic termite sampling returned anomalous gold grades of up to 37ppb.

### **Plateau Targets**

Three additional plateau target prospects are located 2.1km, 4.8km and 7.6km northwest of Diba covering areas of 1.07km<sup>2</sup>, 0.58km<sup>2</sup> and 0.55km<sup>2</sup> respectively. All three plateaus possess linear flanks on northeast, northwest and east strike directions indicating the potential for a structural control. The plateau targets are defined by gold in soil anomalies from historic soil sampling grids that occur on the margins of the plateaux, indicating the potential for mineralisation that is being masked by a ferricrete carapace.

Significant drilling intercepts that post-date the 2013 historic resource were found in the 2014 RC drilling database. Internal economic modelling was also run by the Altus team which included assessment for a standalone heap leach model. This ultimately led to the need for Altus to complete a Preliminary Economic Assessment (PEA) on the project, for which Mining Plus was engaged.

### **Lakanfla Central**



The Lakanfla central prospect is located 8.5km north east of Diba. The prospect is a northeast striking 650m zone hosted within a large porphyritic granite where gold mineralisation is often associated with sub-vertical and brecciated structures. *North east striking structures have been identified in geophysics.* Currently 1,700m of Diamond drilling and 13,886 m of Reverse Circulation drilling have been completed, including 3,283 m in 2022. In addition to the DD and RC drilling 1,304m for RAB and 517m of hand dug pitting have defined the target.

### **Lakanfla West**

The Lakanfla West prospect is located 8.4km north east of Diba. The prospect is defined by a northeast striking 1km by 0.73km zone of intense artisanal workings. The artisanal workings are targeting the carbonate and graphitic sediments hosting north east trending brecciated structures.

### **Lakanfla Zone 3**

The Zone 3 prospect is located 10.5km north east of Diba. The prospect hosts mineralised breccia at surface. Historical drilling at the prospect includes 26m @ 5.10g/t Au from 32m (down the hole) in hole 04-KRC-02.

### **Lakanfla Zone 4**

The Zone 4 prospect is located 11km north east of Diba. The prospect hosts a number of high-grade gold in soil anomalies. Drilling in 2022 at the prospect includes 12m @ 0.82g/t Au from 88m (down the hole) in hole 22LKRC-020. Historical drilling includes 19m @ 2.51g/t Au from 8m (down the hole) in hole 11LKFDD\_04.

More details of work done on the licence are provided in Section 9 Exploration.



## 7 GEOLOGICAL SETTING AND MINERALISATION

The content of this section has been summarised from Simon and Pizarro (Simon, 2013), Woodman and van Osta (Woodman, 2007) and Lawrence et al (Lawrence, 2013).

### 7.1 Regional Geology

Mali is comprised of two principal structural units: the West African craton in the west, and the Tuareg shield in the east. Within Mali, the West African craton units are represented by the Proterozoic-age Birimian Baoule-Mossi domain and greenstone belts (Figure 12).

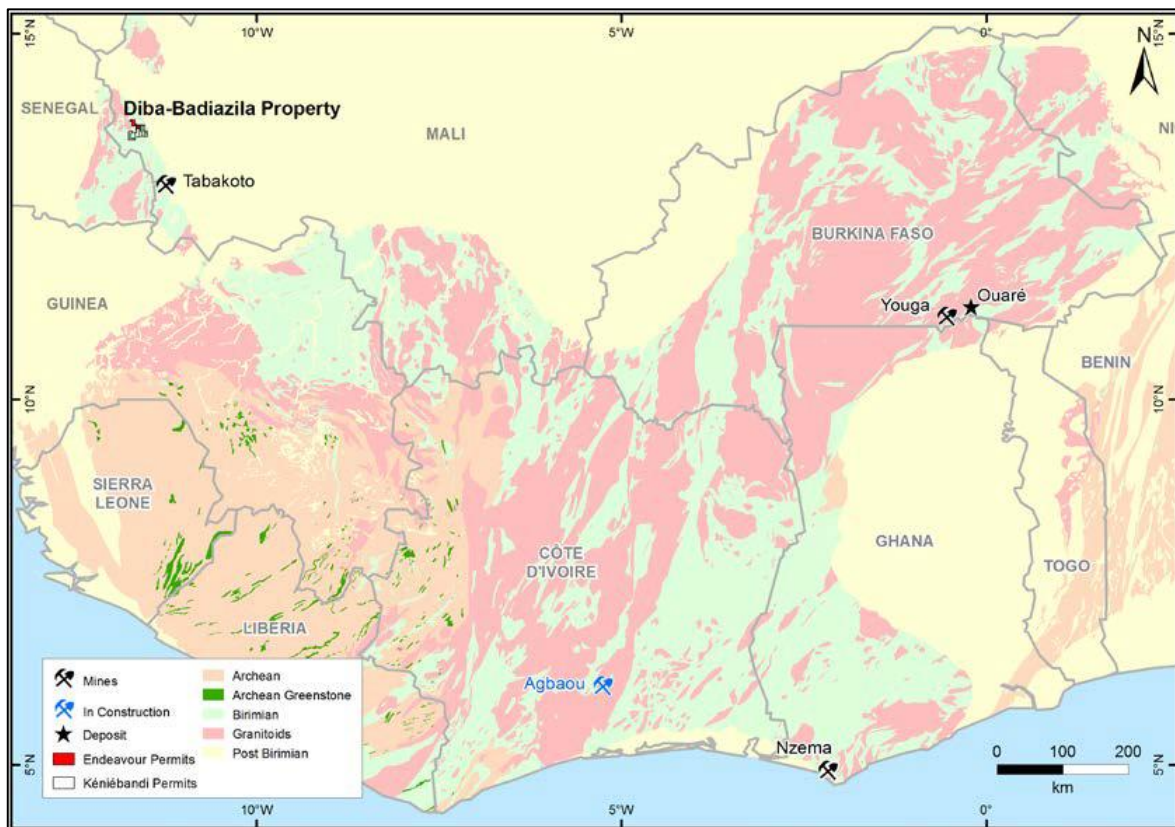


Figure 12 – Location of the West African Craton and the Man Shield (Simon, 2013).

The Baoule-Mossi domain contains small Archean slivers, but is dominated by Lower to Middle Proterozoic formations, later deformed during the Eburnean orogeny (2.0 Ga to 1.8 Ga). This domain consists of vast granitoid/gneiss complexes intermittently broken by narrow, elongate metamorphosed volcano-sedimentary greenstone belts, which host most of the well-known gold deposits of West Africa.

The Kéniéba-Kédougou inlier, which represents the westernmost exposure of the Birimian Supergroup (2,050 Ma to 2,200 Ma), covers eastern Senegal and western Mali. In the Kéniéba-Kédougou inlier, the Birimian greenstone belts are comprised of successive



sequences that range from volcanic-dominated in the west (Saboussiré Group) to predominantly flysch sediments and less voluminous volcanic rocks to the east (Kéniébandi Group and Kofi Group). This west-east transition represents a general, lateral facies change from volcanic and continental-rise sediments to continental slope and deeper-water sediments. The volcano-sedimentary belts have been intruded by granitoid plutons, ranging from small plutons to large batholiths and typically more abundant in the western half of the Kéniéba-Kédougou inlier (Figure 13).

The metamorphic grade of the greenstone belts ranges from lower greenschist to amphibolite facies, depending on the distance from the enveloping granitoids. Extensive recent weathering has produced large areas of laterite over the region, which effectively masks the underlying geology of these areas. As a result of the deep weathering, outcrop is rare and even when it occurs is often difficult to characterize.

The three groups (Saboussiré, Kéniébandi and Kofi) are delineated by major structural breaks that make up the Senegal-Mali Shear Zone (SMSZ). The Project area is represented by meta-volcano-sedimentary rocks of the Kéniébandi group. Several gold deposits are located along the SMSZ (Figure 14).



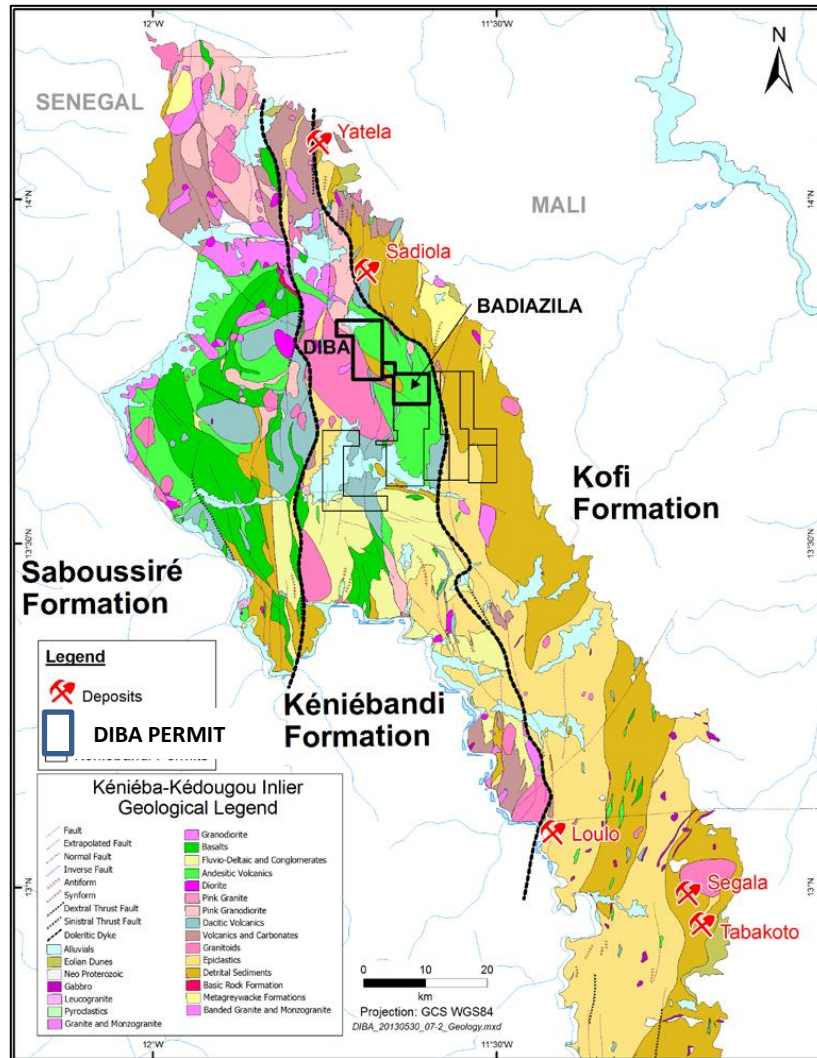


Figure 13 – Geological map of the Birimian Kenieba-Kedougou Inlier (Woodman, 2007).



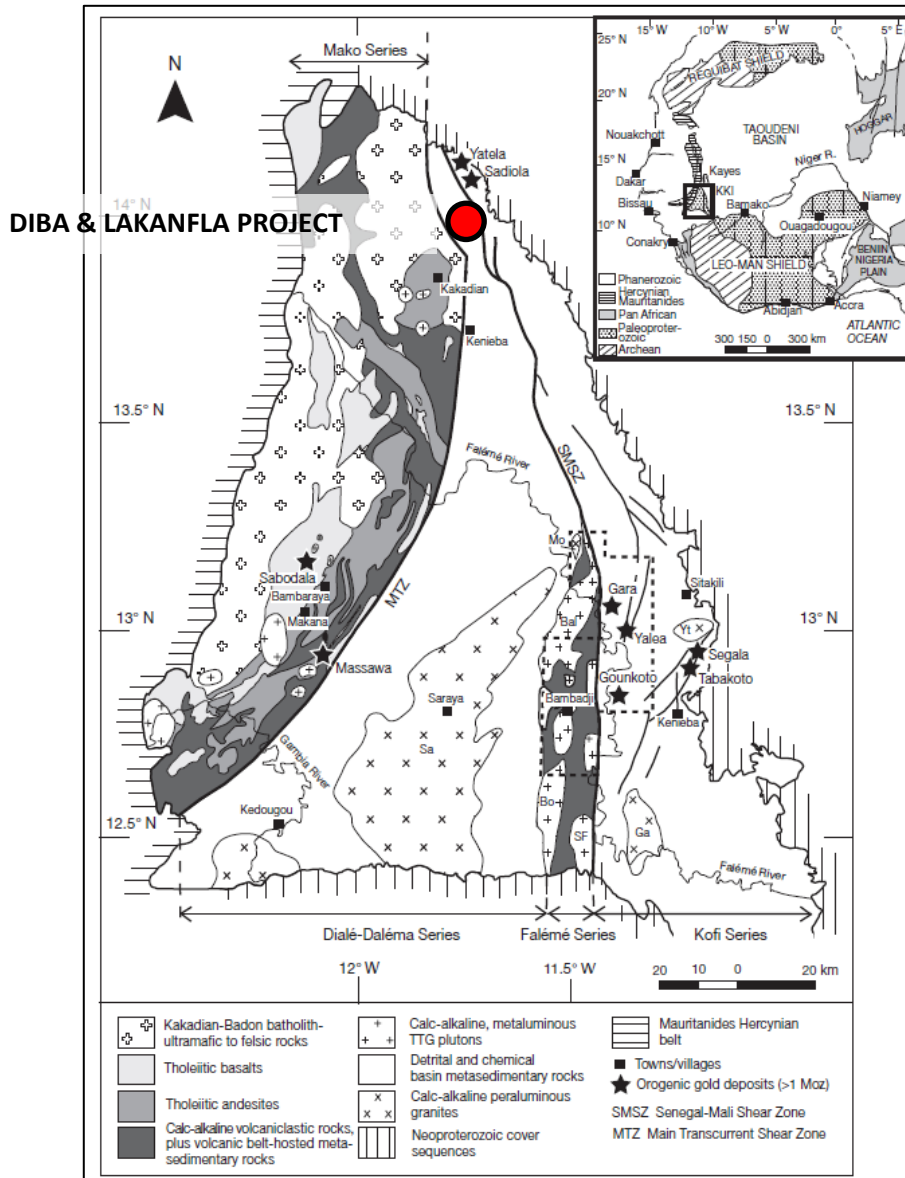


Figure 14 – Schematic Geologic Map of the Birimian Kénieba-Kédougou Inlier (Lawrence, 2013).

## 7.2 Diba & Diba NW Property Geology

Diba and Diba NW area is largely covered with sediments. The lack of outcrop makes it difficult to assemble a detailed geological representation. For that reason, the current understanding of the Project geology is mainly based on drill core observations.

The Project geology has been described by (Woodman, 2007) and (Simon, 2013). These interpretations were made based partly on the grade-shell geological model prepared during mineral resource estimation. A detailed geologic map has not been prepared to date.



### 7.2.1 *Lithological Sequence*

According to the report of Simon and Pizarro (Simon, 2013), in 2008 19 drill holes from sections covering the central part of the deposit were examined and re-logged in detail. The primary lithologies in the area of the deposit consist of a sequence of calcareous lower-greenschist facies metasediments.

Simon and Pizarro (Simon, 2013) use a litho-stratigraphic succession comprising two facies that are classified, from bottom to top, as the Lower Calcareous Sequence (LCS) and the Upper Calcareous Sequence (UCS). Generalized stratigraphic columns of LCS and UCS are shown below in Figure 15.

The units are described as follows:

- The LCS is characterized by dark grey planar-bedded siltstones, overlain by finely-laminated calcareous argillite layers with a banded appearance. This argillite layer is overlain by a <7.5m thick hydraulic breccia horizon, composed of subangular black siltstone clasts cemented by a matrix of white calcite.
- The UCS is composed of a poorly-sorted pebble conglomerate, overlain by fine-grained sandstone and thick laminated dark –grey siltstone beds with inter-bedded pebble-conglomerate and siltstone-mudstone intervals.
- Massive sandstone beds are randomly interlayered with the thick siltstone layers in the UCS and LCS, and minor <10cm thick granular conglomerate beds are locally intercalated.
- The contact between both LCS and UCS is marked by the transition at the base of the UCS to a polymictic conglomerate composed of sub-rounded clasts of sedimentary, intrusive and volcanic rocks contained in a fine-grained matrix.

Studies discussed in Simon and Pizarro (Simon, 2013) indicated that the host rocks for the gold mineralisation consist predominantly of arkoses or arkosic wackes containing a significant proportion of lithic fragments. The clastic grain fragments appear to be derived from a granitoid of quartz-dioritic composition, whilst the felsic clasts are from volcanic origin. The matrix composition varies considerably. Cement can be biotitic, sericitic, quartzo-feldspathic, calcareous, or epidotic. Thin (millimetre scale) veinlets and stringers of quartz or carbonate also occur. Late felsic and basic dykes crosscut the sedimentary sequence.



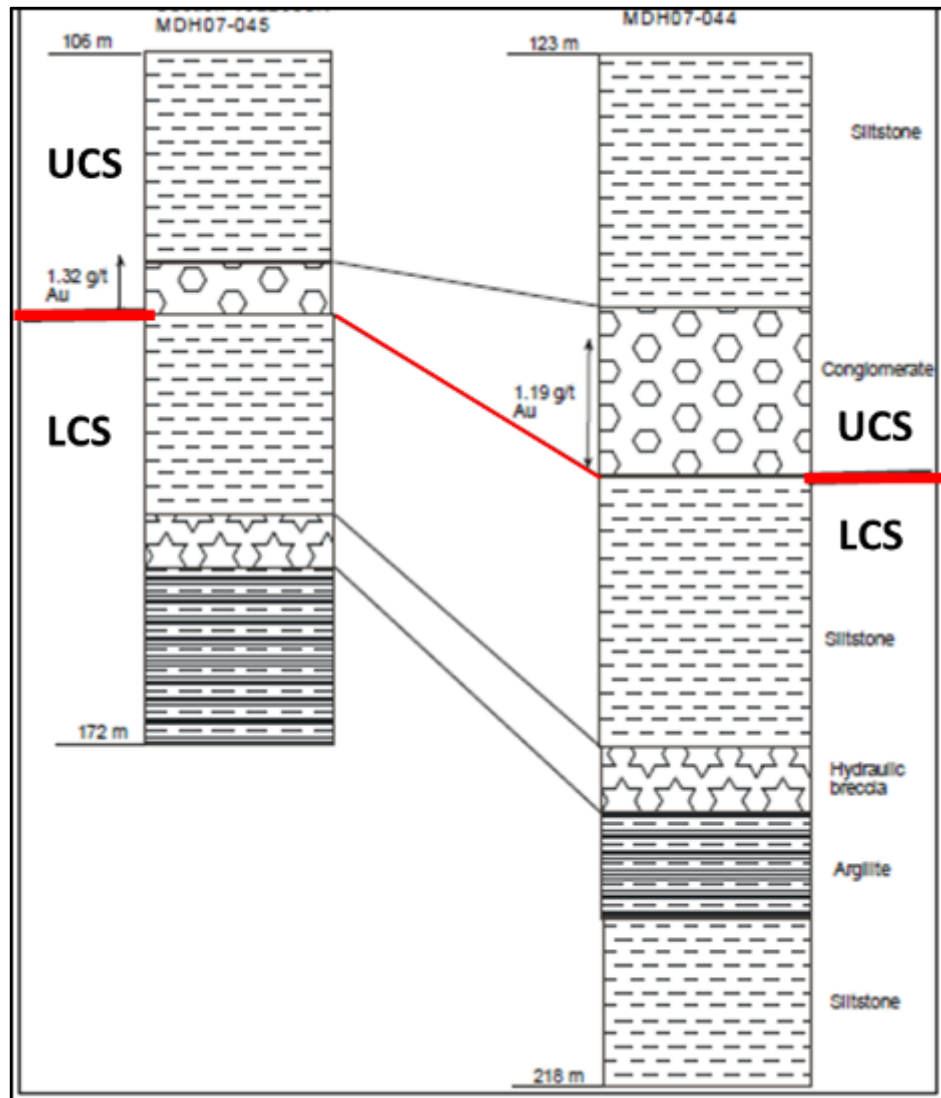


Figure 15 – Generalised stratigraphic columns (Simon and Pizarro, 2013)

### 7.2.2 Alteration

Alteration at Diba is discussed in Simon and Pizarro (Simon, 2013). The alteration intensity varies, and consists of pyritisation, calcite dissolution and re-precipitation in open fractures, minor development of biotite (K-metasomatism), and localized silicification and propylitisation. Mineralisation-related alteration consists of minor bleaching caused by late carbonatisation and, to a lesser extent, by chloritization and silicification.

Carbonatisation and sulphidation are the most widespread alteration types. Alteration zones with abundant calcite veinlets and aggregates with disseminated pyrite and minor bedding-parallel veinlets of pyrite, reaching tens of metres width occur.

The overall alteration sequence is not well understood, although certain stages overlap both spatially and temporally. The mineralisation is thought to have been introduced into the calcareous lithologies by magmatic-hydrothermal fluids through lithological contacts and



along bedding planes. Differing degrees of carbonatisation, sulphide presence and biotite-silica alteration of the wall rocks reflect the addition of variable amounts of Si, CO<sub>2</sub>, S and K during the alteration event.

### **7.2.3 Weathering**

The weathering profile and depth of oxidation at the project is up to 70m vertical, and results in extensive oxidation from surface. The top of the UCS is capped by a lateritic regolith. Three main units are distinguished in the oxide zone, and include a narrow horizon of saprock above the UCS, a thick sequence of gold-rich saprolite, and a thin duricrust cover. Iron and manganese oxides, as well as clays (mostly kaolinite and smectite), are the major constituents of the regolith.

The weathering profile and depth of oxidation at Diba NW is significantly less than at Diba and is typically between 0 m and 15 m vertical depth.

### **7.2.4 Mineralisation**

Gold mineralisation modelled at Diba extends over an area measuring 700m x 700m and Diba NW over an area approximately 1,000m x 300m. Anomalous gold at the Diba / Korali Sud licence extends over 2.5km north – south (Woodman, 2007), and is defined as auger sample values >0.1g/t Au.

No sulphide or gold mineralisation has been intersected in the LCS. Gold mineralisation is strata-bound and constrained to the UCS. The sulphide content of the mineralised lenses is typically less than 10% by volume, and commonly as little as 1%. Disseminated sulphides are fine- to very-fine grained, and consist dominantly of pyrite, with a minor amount of arsenopyrite, chalcopyrite, tellurides and native gold.

Calcite is a ubiquitous constituent of the rocks at Diba, typically 5 - 20% of the overall mineralogical composition. The mineralised dark-grey siltstone is strongly reactive to hydrochloric acid. Calcite also often occurs in veinlets and irregular pockets. The distribution of pyrite relative to calcite is inconsistent, but sometimes pyrite develops marginal to calcite crystals. Associated veinlets consist of millimetre-thick bedding-parallel veinlets of pyrite with subordinate amounts of calcite-quartz-biotite.

According to the report by Simon and Pizarro (2013), gold mineralisation in the Project is represented by native gold and calaverite within graphite, biotite and quartz-bearing silicates, and by native gold as inclusions in carbonates. Grain sizes vary between 3 - 100 µm, and all are believed to have formed during hydrothermal processes. The absence of silver in calaverite would suggest moderate to high temperature of crystallization.



Simon and Pizarro (2013) also reported native gold in biotite-altered domains that contain aggregates of fine-grained titanite and rutile, as a rim on epidote, as minute inclusions in recrystallized feldspars of a sericite+biotite-altered siltstone. The strong association of gold with biotite, sericite and carbonate suggests its mobilisation and concentration during hydrothermal processes. No visual guides for determining the presence of mineralisation in the drill holes have been identified. The deposit is characterized by an Au+Ag+As+Te±Sb geochemical signature.

Based on the continuity of mineralised zones >0.3g/t Au, and the interpretation of the mineralisation as sediment-hosted, disseminated epigenetic deposit, Mining Plus modelled the zones of the deposit as a series of 8 stacked lenses (Figure 16). These were given restricted continuity along strike and at depth.

The mineralised units extend horizontally over a 700m x 700m area (Figure 17), and the mineralised bodies are usually shallow-dipping (30 degrees east – ESE) and generally 20 – 40m thick. The spatial distribution of the gold grades dipping approx. 30° ESE supports the interpretation of the stacked lenses modelled with the grade shells.

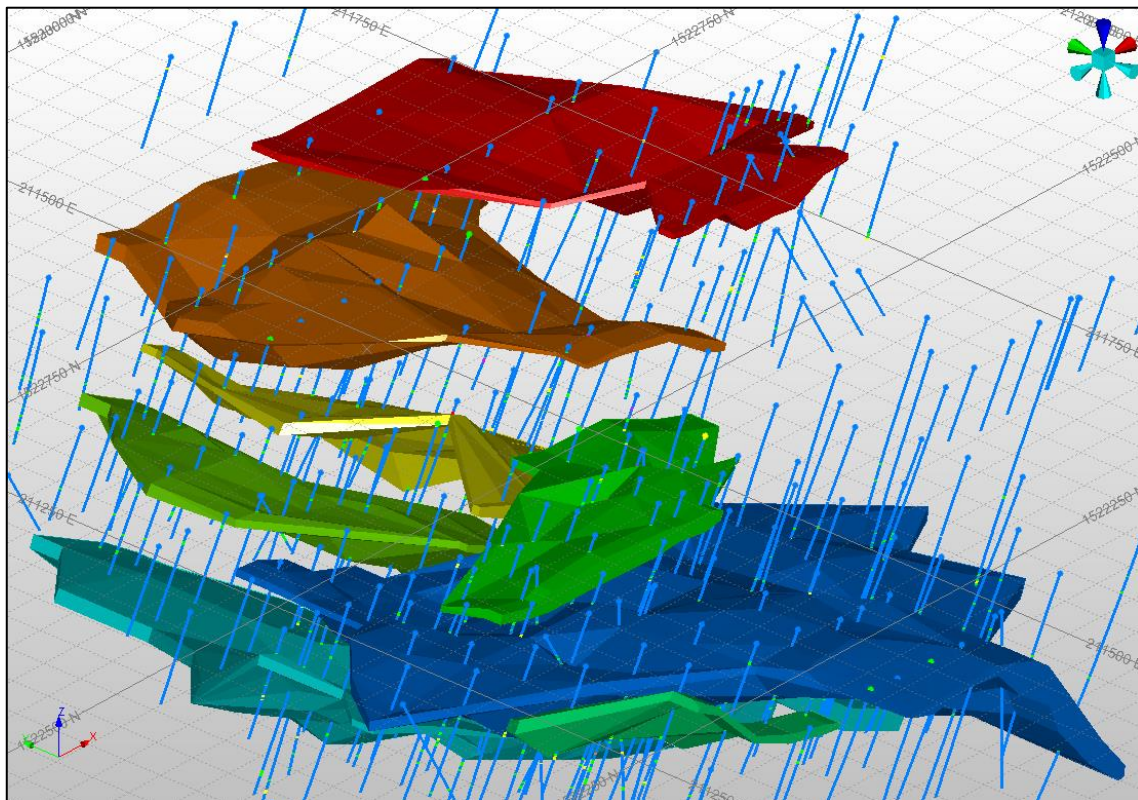


Figure 16 – Interpreted mineralised domains (>0.3g/t Au), isometric view looking NE.



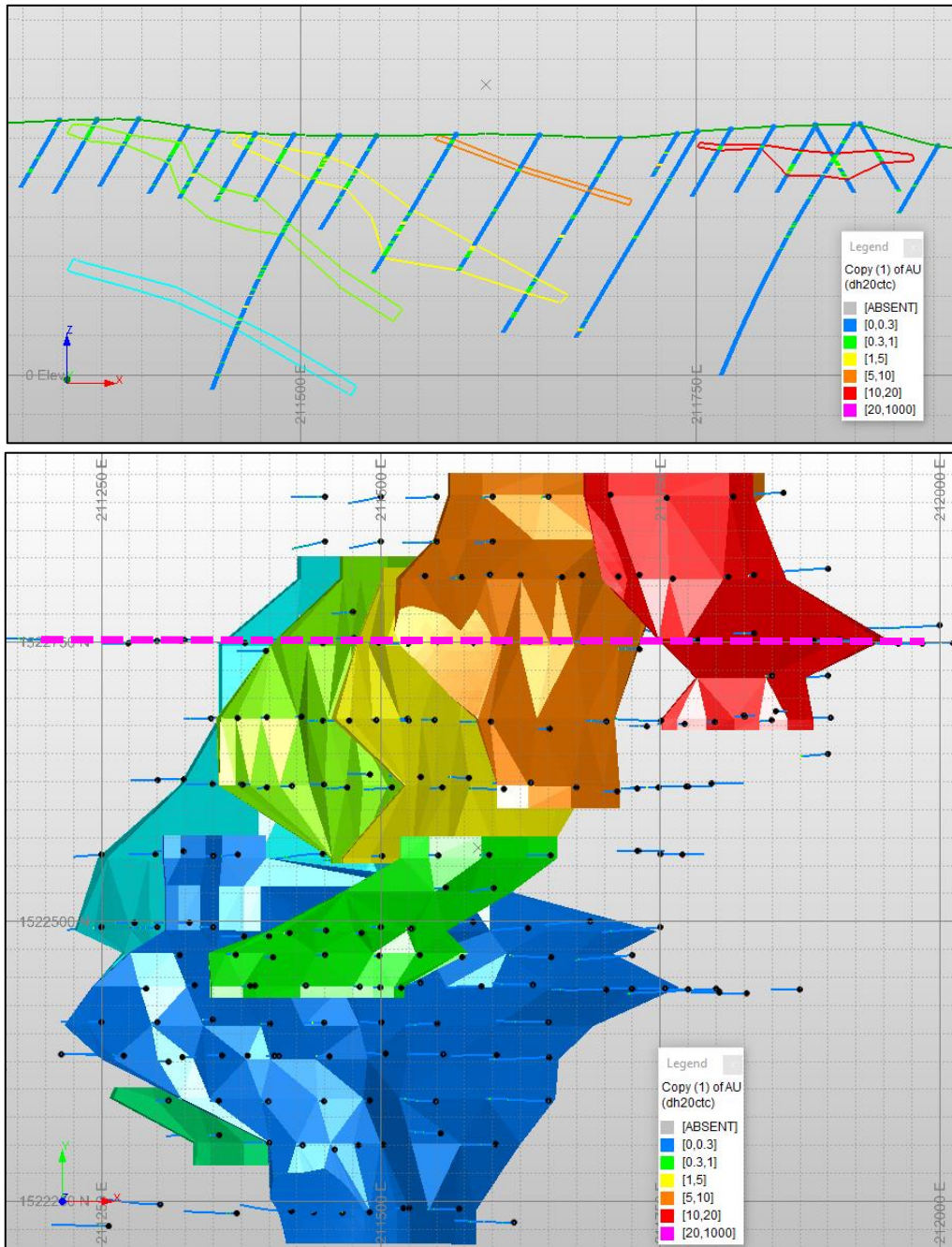


Figure 17 – Top: vertical E-W section looking north and showing grade and mineralised wireframe outline. Bottom: plan view showing mineralised wireframes, purple dashed line shows position of section.

### 7.2.5 Structure

As mentioned previously, the spatial distribution of the gold grades dipping approx. 30° ESE supports the interpretation of the stacked lenses represented by the grade shells. Simon and Pizarro (2013) reported that the Au values appear to be oblique to the primary bedding of the host units, although no major ductile-brittle faults have been identified in drill core. Therefore, although it is postulated that bedding planes may have been major conduits for



the gold mineralising fluids, the bedding does not appear to control the geometry of the mineralised lenses.

The general NE orientation of the axis of the mineralised units at the Project is oblique to the dominant N-S regional tectonic orientation, and to major structural discontinuities of the district. The deposit may be structurally controlled by possible NE striking faults linked to the transcurrent sinistral motion on the regional extensive Senegalo-Malian fault which bounds the Kéniébandi Formation to the east.

Mining Plus noted during wireframing and modelling of the mineralisation that there is a poorly mineralised E-W trending zone in the middle of the deposit that may represent a structural discontinuity. There is also a NE-SW trending high-grade portion of the deposit defined in the upper portion of the oxide zone, which is not understood at this stage.

On a local scale, the calcareous sequences have been affected by very weak deformation processes. A weak bedding-parallel foliation is only apparent locally, and corresponds to a compressional event. Primary structures are well preserved in several drill holes.

### **7.3 Lakanfla Property Geology**

Most of the Lakanfla property is underlain by a tightly-folded sequence of (a) calcareous metapelites, meta-arenites and meta-greywacke and (b) impure carbonate rocks (marble) interbedded with carbonaceous meta-argillite and minor metasiltstone/wacke. A 2 km<sup>2</sup>, composite granite-granodiorite intrusion, elongated NE-SW, lies roughly at the centre of the explored area.

#### **7.3.1 Lithological Sequence**

The general fabric of the sedimentary rocks (S0/S2) is steep and strikes in a north- to NNE-direction; attitude varies locally however, particularly near the granite contact. Minor intrusive rocks observed at Lakanfla include pre-mineral metadiorite dykes associated with gold bearing structures such as Lakanfla West Prospect, and post-mineral microdiorite and fine-grained “volcanic” or aplite dykes that crosscut Lakanfla Central. Dolerite dykes striking 015° are the youngest rocks on the project. The southwestern edge of the extensive Taoudenni Basin, comprising Neo-Proterozoic to Phanerozoic sedimentary rocks, lies 6 km east of the Lakanfla licence boundary.

#### **7.3.2 Alteration**

The overall alteration sequence at Lakanfla is not well understood across the project. Both phyllic alteration (quartz-sericite-pyrite +/- Chlorite) assemblages and



sericite+quartz+iron+carbonate alteration are exhibited. However, their association to mineralisation is not well defined.

### **7.3.3 Weathering**

The weathering profile and depth of oxidation at the Lakanfla Central is up to 100 m vertical depth, and results in extensive oxidation from surface, but is typically between 60 m and 80 m vertically from the surface. The base of oxidation is variable within Lakanfla Central which maybe as a result of subvertical structures which transect the prospect.

### **7.3.4 Mineralisation**

Lakanfla Central is hosted exclusively in massive, medium- to coarse-grained granite and granodiorite. Mineralisation occurs in two styles; firstly, in a wide, NE striking, steeply-dipping body of disseminated mineralisation. This orderly, disseminated orebody has a strike length of approximately 650 m and an approximate width of 140 m, with consistent lower grade typically between 0.5 g/t Au to 1 g/t Au. Mineralisation is thought to be controlled by subvertical, NE-striking brittle-ductile faults and barren dykes. In some instances, the faults are mineralised (with quartz-sulphide veinlets) and are characterized by higher gold grades, typically above 3g/t Au over 1-2 metres.

### **7.3.5 Structure**

Lakanfla Central is characterised by a corridor of subvertical, NE-striking brittle-ductile faults and barren, postmineral dykes (microdiorite and pink “volcanic”). This complex structural corridor extends NE from Lakanfla Central, well beyond the body of disseminated mineralisation, and eventually escapes the granite and passes into metasedimentary host rocks at which point it may refract in strike to an NNE attitude. Drillhole data indicates mineralisation that dips both subvertically and moderately to the SE.



## 8 DEPOSIT TYPES

---

Mining Plus visited the site on 6 and 7 June 2022 and can confirm the deposit type as described in Woodman and van Osta (Woodman, 2007). They describe the principal deposit at Diba and Diba NW as analogous to the Sadiola Gold Mine, located 20km north of the Diba & Lakanfla project. However, the Sadiola deposit occurs in rocks assigned to the Kofi Formation, whereas the Diba discovery occurs in rocks assigned to the Kéniébandi Formation. Until the discovery at Diba, no significant gold deposits had been recognized in the Kéniébandi Formation of western Mali.

Other gold deposits in the region include Sadiola, Loulo, Tabakoto, Segala, Gara, and Yalea. Lawrence et al (Lawrence, 2013) assigned the gold-bearing deposits located along second- or higher-order shears associated with the Senegal-Mali shear zone to the orogenic gold deposit type, developed along strike-slip fault systems linked to late-stage, non-orthogonal, orogenic crustal growth.

Common features of the orogenic gold deposits in the Kéniéba-Kédougou inlier are their shear-hosted character, the intimate association of the gold mineralisation with permeable lithologies and fractured host rocks, producing stratabound mineralised bodies, and the link between gold mineralisation and carbonatisation and Fe-rich alteration.

Mineralisation at Lakanfla exhibits both the characteristics of Orogenic load gold / shear Zone-hosted mineralisation and mineralisation related to magmatic hydrothermal activity with the intrusion as it cooled, which may point to mixing between metamorphic and magmatic fluids.

The source of orogenic gold has been strongly debated. In particular, the composition and source of hydrothermal fluids that sourced the gold mineralisation in Mali had been poorly studied until very recently. Simon and Pizarro (Simon, 2013) reviewed a detailed geological study at Loulo, which included fluid-inclusion investigations, and determined that low-salinity, reduced, CO<sub>2</sub>-rich metamorphic fluids were associated with gold mineralisation at Loulo, which is consistent with many orogenic gold fluid studies worldwide. The geological study considered the hyper-saline fluid as being related to a magmatic source, and its presence points to the potential role of multi-fluid sources in the formation of orogenic gold deposits. Gold precipitation may be, therefore, linked to fluid mixing between metamorphic and magmatic fluids, thus increasing metal fertility and leading to the formation of world-class orogenic gold deposits.



## 9 EXPLORATION

### 9.1 Diba & Diba NW Exploration

Etruscan commenced exploration in the area in 2001 (Woodman, 2007). Exploration was initiated using regional soil sampling, followed by infill soil samples collected over regional anomalies. Once anomalies were confirmed, then single-sample auger drilling was completed over the area of interest. Subsequent to positive results, additional multi-sample auger drilling was completed, and reverse-circulation and/or diamond drilling was conducted.

Etruscan used consultants and contractors for geophysical surveys, geophysical interpretations, soil sample collection, drilling and assaying. Simon and Pizarro (Simon, 2013) reviewed the various written, industry-standard procedures that have been followed during the exploration, and confirmed that they generally conform to best practices.

Two phases of project development took place under the ownership of Legend Gold (2011 – 2018). In 2013 a maiden NI43-101 resource estimation was performed by independent consultants AMEC, followed by drilling of further RC and AC holes in 2014.

In 2018 Altus Strategies completed a Plan of Arrangement with Legend Gold, and the licence is now held by Altus's 100% owned subsidiary LGN Holdings (BVI) Ltd.

Drilling Type	Total No	Depth		Year (no. holes)						
		Average	Maximum	2005	2006	2007	2008	2009-2013	2014	2015
Shallow Auger	1765	7.88	18	(1765)						
Deep Auger	88	18.3	30		(88)					
RAB	327	34.94	75	(49)?	(37)	(59)	(182)			
RC	109	61.19	143		(33)		(76)			
DD	92	145.1	352		(27)	(65)				
RC	59	85.88	180						(59)	
AC	300	14.67	41						(300)	

DTH Conductivity  
& Optical

VTEM

Ground IP  
(HIRIP)

Figure 18 – Timeline of the drilling and exploration at Diba Project (Altus Geological Review)

### 9.2 Etruscan Exploration Programme

The non-drilling exploration campaigns conducted by Etruscan are summarised below.



### 9.2.1 Surveying

Etruscan used the UTM coordinate system, WGS84 datum (GZD 29P) for surveys and locating information. Collar surveying during the Etruscan exploration was carried out using a Thales DGPS system. Down-hole surveys were conducted by the drilling company using the Reflex EZ-Shot method, with readings every 50 m on average. When transferring the readings into the database, all readings were corrected for magnetic declination. Drill-hole collars were initially marked with coloured pickets, but after completion of the holes the collars were measured again, and were given definite coordinates.

The final collar positions were then clearly marked with steel rods, and cement monuments indicating the hole number, depth, azimuth and dip were constructed. During the site visit AMEC reviewed various drill sites where monuments were still preserved, although some of them had been moved (Simon, 2013).

### 9.2.2 Geochemical Surveys

Between 2005 and 2007, Etruscan conducted regional geochemical surveys across the Korali Sud licence in order to confirm and better delineate the anomalies initially identified. These geochemical surveys confirmed the presence of extensive, kilometre-scale, low-level (25 ppb to 100 ppb Au) soil anomalies at the Project. The table below (Figure 19) summarises the sampling campaigns.

Type of Sampling	Spacing	Number of Samples
Regional soil	500 m x 200 m	700
Semi-regional soil	250 m x 100 m	400
Single auger	Regional	472
Single auger	Detailed	300
Deep auger	Detailed	165

Figure 19 – Summary of geochemical work completed on the Korali Sud licence (Simon, 2013).

Soil samples were collected from the soil B horizon through 20 cm to 30 cm deep hand-dug pits. Where the results were anomalous, they were followed up by single auger sampling. Samples were collected at depths of 0.5 m to 30 m, depending on the thickness of the regolith, using a truck-mounted auger drill. Samples were taken from fresh saprolite beneath the laterite or on the mottled zone over identified geochemical anomalies.

On the Korali Sud licence, a 2.5km long by 500m wide anomaly was outlined; this was followed up with deep augering to confirm mineralisation (Figure 20). Deep auger drilling used the same truck-mounted auger, but holes were deepened to auger refusal or to a maximum depth of 30 m, where chip recovery significantly dropped. Samples were collected starting from the



mouth of the auger hole at 1.5 m intervals. This resulted in the identification of the Diba and Diba NW prospect .

Etruscan later conducted a rotary air blast (RAB) program to test the mineralisation on the Diba & Diba NW; details of this and further drilling programmes are discussed in Section 10.

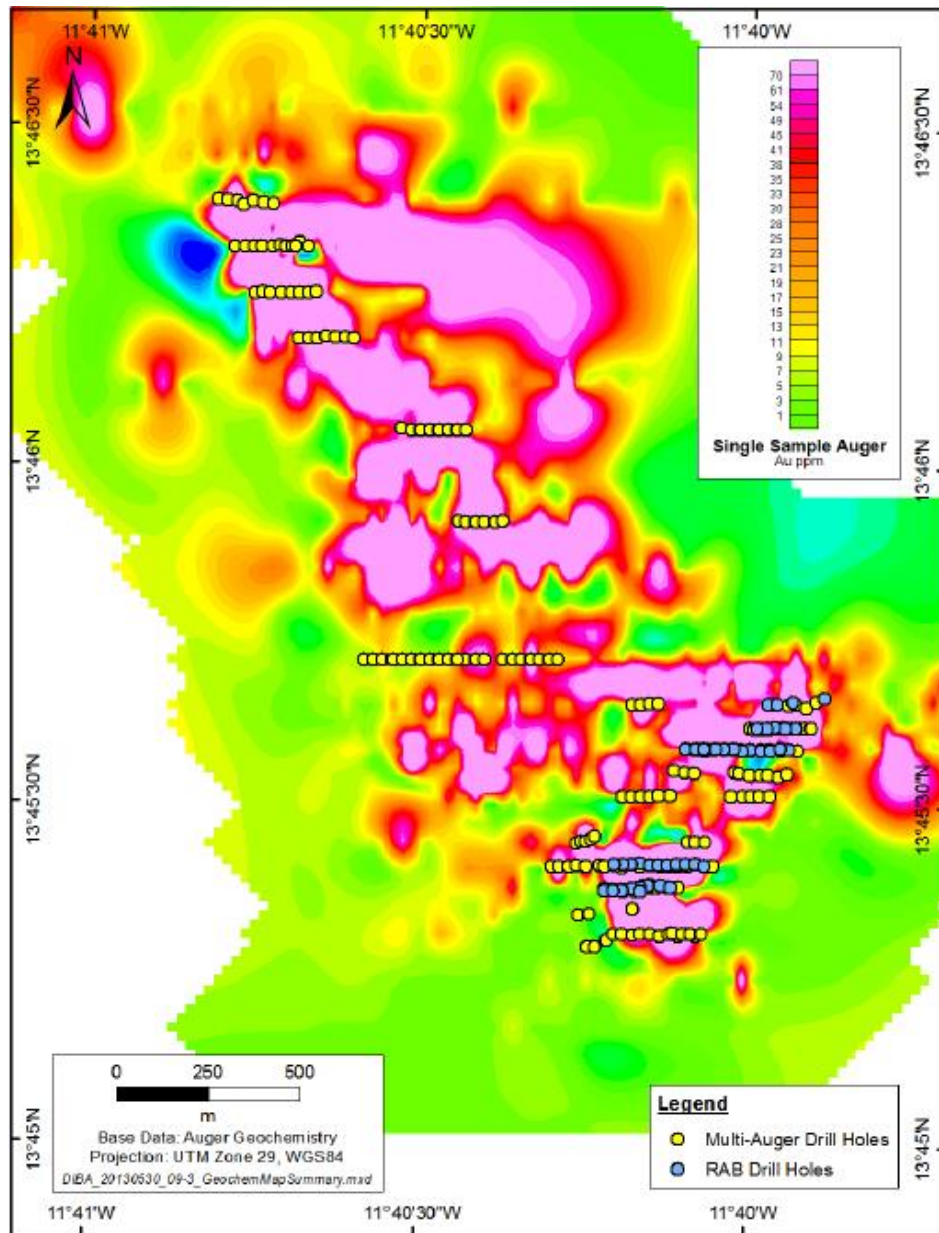


Figure 20 – Summary Au geochemical and RAB drilling map (Simon, 2013).

### 9.2.3 Ground Geophysics

Induced polarisation (IP), High Resolution Resistivity and Induced Polarisation (HIRIP), and magnetics ground geophysics surveys were conducted on the project by Terra Tec Mali Sarl in 2006- 2007. Terra Tec was also contracted to conduct down-hole optical scanning surveys



in seven holes. Mining Plus was not provided details of the procedures and parameters related to the ground geophysical surveys or the results obtained.

#### **9.2.4 VTEM Airborne Survey**

Geotech Airborne Limited (Geotech) completed a 3,546 line-km versatile time-domain electromagnetic (VTEM), helicopter-supported, airborne geophysical survey between 7 and 25 March 2008. The VTEM survey resulted in the identification of five significant anomalies located in the area surrounding the Korali Sud permit. These anomalies have no relevance to the Diba, Diba NW or this report.

#### **9.2.5 Geological Mapping and Trenching**

Due to the lack of outcrop exposures at the Project and to the great thickness of the weathering profile, no detailed mapping or trenching has been conducted.

#### **9.2.6 Petrographic Analysis**

Simon and Pizarro (Simon, 2013) discussed petrographic and mineralogical studies on numerous samples collected from diamond core, which allowed a more accurate identification of the host rock, as well as the mineral and alteration associations.

### **9.3 Legend Gold & Altus Strategies Exploration Programme**

The drilling that Legend Gold and Altus Strategies performed is detailed in Section 10.

### **9.4 Lakanfla Exploration**

Between 1989 and 1991 Klochner GMBH undertook a regional geochemical survey identifying anomalies on Lakanfla which was then part of the Sadiola Exploration permit; initial drilling to place across Lakanfla in 1996. Following the commencement of mining at Sadiola and the redefinition of the SEMOS exploration permit, the Lakanfla licence was granted to Ambogo Consulting SARL in 2000. In 2003 a JV was undertaken with North Atlantic Resources, with full ownership of the licence transferred to North Atlantic Resources SARL in 2009. In 2013 ownership was transferred to Legend Gold (2011 – 2018).

In 2018 Altus Strategies completed a Plan of Arrangement with Legend Gold, and the licence is now held by Altus's 100% owned subsidiary LGN Holdings (BVI) Ltd. During this period five phases of drilling have taken place in 1996, 2003, 2004, 2011 and 2022.



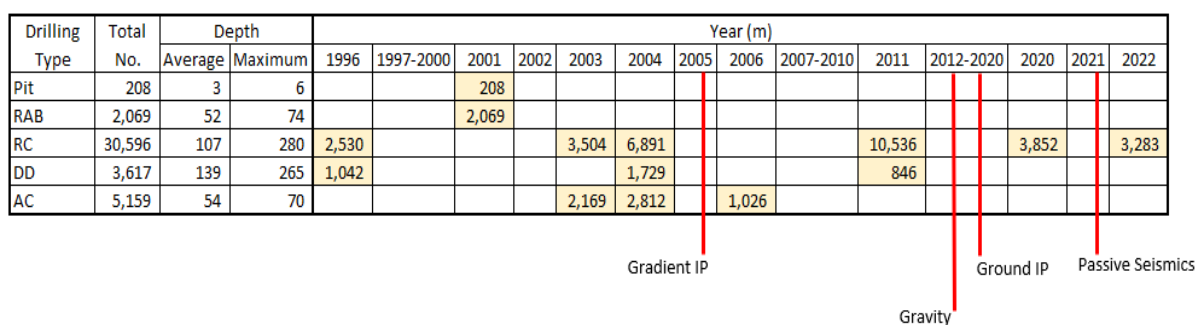


Figure 21 – Timeline of the drilling and exploration at Lakanfla Project (Altus Geological Review)

## 9.5 North Atlantic Resources, Legend Gold & Marvel Gold Exploration Programme

The non-drilling exploration campaigns conducted by Etruscan are summarised below.

### 9.5.1 Surveying

North Atlantic Resources, Legend Gold and Marvel Gold used the UTM coordinate system, WGS84 datum for surveys and locating information.

Collar surveying during the North Atlantic Resources & Legend Gold exploration was carried out using a handheld GPS system. Down-hole surveys were conducted on the Diamond Drilling programmes in 2004 and 2011 by the drilling company using the Reflex EZ-Shot method, with readings every 50 m on average. When transferring the readings into the database, all readings were corrected for magnetic declination. Drill-hole collars were initially marked with coloured pickets, but after completion of the holes the collars were measured again, and were given definite coordinates.

Collar surveying during the Marvel Gold exploration was carried out using a handheld GPS system. Down-hole surveys were conducted on all drill holes by the drilling company using a Axis Champ Gyro, with readings every 10 m on average. Drill-hole collars were initially marked with coloured pickets, but after completion of the holes the collars were measured again, and were given definite coordinates.

The final collar positions were then clearly marked with cement monuments indicating the hole number, depth, azimuth and dip.

### 9.5.2 Geochemical Surveys

In May 2021 Marvel Gold conducted regional geochemical surveys across the Lakanfla permit in order to confirm and better delineate the anomalies initially identified. In total, 623 samples were collected across the permit on a 200m x 200m-spaced grid. The samples were



submitted to the MSA laboratory in Ivory Coast and assayed for Au by fire assay. Pulps were subsequently forwarded-on to their head laboratory in Langley, BC, Canada for the assay of 51 elements by ICP-MS and ICP-ES on a 20g charge following an aqua regia digest. An aqua regia digest was chosen because boron (B) values were deemed potentially important given that tourmaline (a boron-bearing silicate) is frequently associated with mineralisation in western Mali.

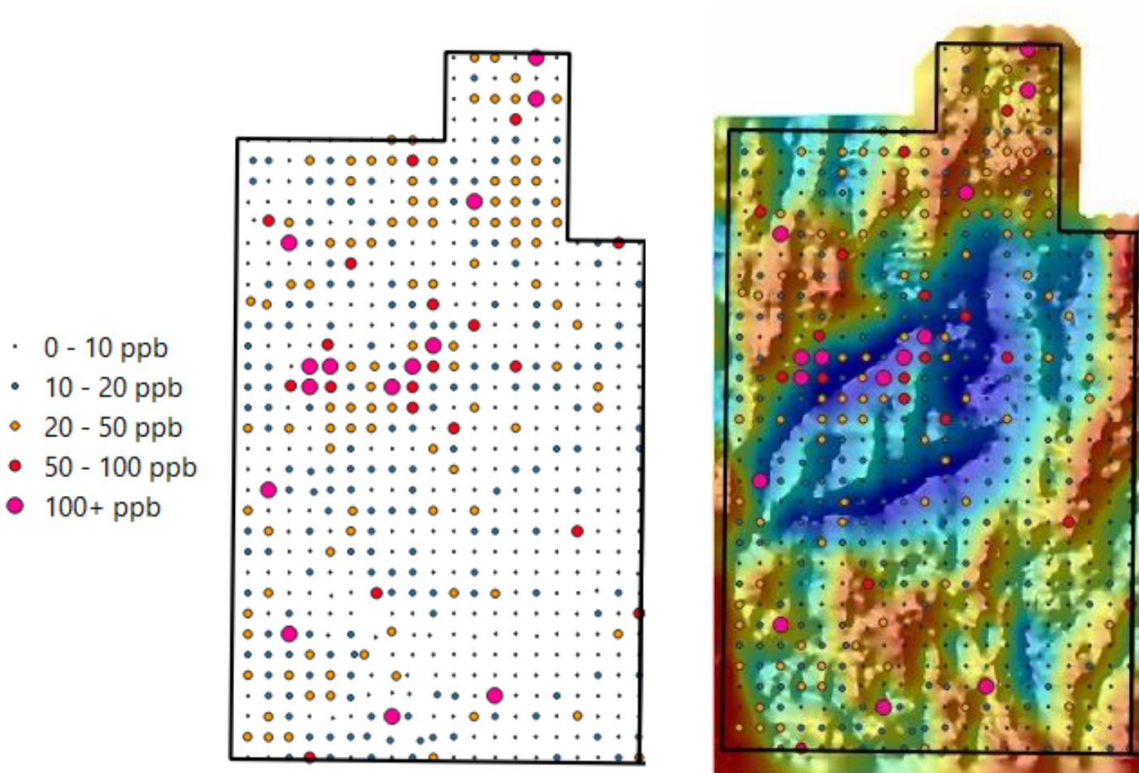


Figure 22 – Summary of geochemical work completed on the Lakanfla licence.

Samples were collected on a 200m x 200m grid: actual sample points were refined in the field as deemed appropriate by the leading geologist but were rarely moved more than 20m from the pre-determined sampling points. For the sampling, a 30cm-diameter hole was dug at each point and sample was typically collected from the 30cm – 40cm depth interval. If on cuirasse, sample was collected as deep as possible. If the geologist deemed it necessary, the sampling interval was deepened a little. All sample interval depths (from and to) were recorded, along with the actual sample co-ordinates and a brief sample description. The sample was not sieved, but any large stones or pieces of organic matter were removed by hand. Approximately 2.5kg of sample was collected in a plastic sample bag, upon which the sample ID was written: a paper sample ID label was also inserted into the bag and another one was stapled into the bag as it was rolled-over and stapled closed. Soil samples were collected from the soil B horizon through 20 cm to 30 cm deep hand-dug pits. Where the results were



anomalous, they were followed up by single auger sampling. Samples were collected at depths of 0.5 m to 30 m, depending on the thickness of the regolith, using a truck-mounted auger drill. Samples were taken from fresh saprolite beneath the laterite or on the mottled zone over identified geochemical anomalies.

### **9.5.3 Ground Geophysics**

SAGAX Afrique performed an Induced Polarisation (IP) survey in 2004. SAGAX Afrique conducted a gradient array and six Pseudo sections across the project. Mining Plus was not provided details of the procedures and parameters related to the ground geophysical surveys or the results obtained.

MWH Geo-Surveys International Inc undertook a gravity survey at the project in 2013. A 50km<sup>2</sup> grid was surveyed at 50x200 meter intervals comprising approximately 5,000 stations. MWH Geo-Surveys uses LaCoste & Romberg electronic feedback gravity meters operated via proprietary controller software.

In 2021 Marvel Gold conducted a passive seismic survey in areas surrounding the Katela granite-granodiorite. 767 readings were recovered during the survey.

### **9.5.4 Geological Mapping and Trenching**

Due to the lack of outcrop exposures at the Project and to the great thickness of the weathering profile, no detailed mapping or trenching has been conducted.

### **9.5.5 Petrographic Analysis**

A petrographic analysis of drill core from 04-KDD-07 was conducted in 2005 by R.W. Hodder. The conclusion from the petrographic analysis is that samples assessed fit type four of the five types of gold occurrences currently recognized within the Man Shield of the West African Craton. That is, micron-size particles of gold probably accompany arsenopyrite and arsenical pyrite, in and along quartz veinlets that occupy through-going fractures.



## 10 DRILLING

### 10.1 Diba & Diba NW Drilling

Three companies drilled the Diba and Diba NW during the exploration phase of the programme; Etruscan between 2005 -2008, Legend Gold during 2014 and Altus Strategies 2020-2022.

#### 10.1.1 Etruscan Drilling

Etruscan conducted rotary air blast (RAB), diamond and reverse-circulation (RC) drilling campaigns to follow-up on Au geochemical anomalies identified during the auger and deep-auger geochemical programs at Diba & Diba NW. Table 16 summarises the Etruscan drilling. These campaigns took place between 2006 and 2008. The information contained in this subsection of the Drilling section of this report has been collated from the Simon and Pizarro (Simon, 2013) report.

Table 16 – Etruscan drilling summary for Diba / Korali Sud Licence

Target	Drilling Method	No of Holes	Metres (m)	Length		
				Min	Max	Average
DIBA	RAB	330	11,679	7.5	103	35
DIBA	RC	109	6,670	24	143	61
DIBA	DIAMOND	92	13,348	70	352	145
<b>Total</b>		<b>531</b>	<b>31,697</b>			

#### 10.1.1.1 Rotary Air Blast Drilling

The RAB program was designed to initially test the gold-in-soil anomaly discovered at the south-eastern end of the Diba anomaly on five parallel drilling lines, oriented E-W over a longitudinal, SSW-NNE-oriented distance of 650 m (Figure 23). In total, this phase of RAB drilling included 148 drill holes totalling 5,575 m. An additional RAB drilling program of 182 drill holes totalling 6,104 m was completed in 2008.

Sample weight and chip characteristics were logged and recorded, and a chip-board (A3 size) comprising both powder and chips of each sample interval was prepared. Samples were collected at 1.5 m intervals where possible; the drilling depth was limited to reaching the water table, typically encountered at vertical depths of 30 m to 60 m. For this reason, approximately 75% of the RAB holes ended within the mineralised zone.

Numerous anomalous intersections were encountered, but the true thickness was unknown due to the limited drilling and geological information available at the time. As RAB drilling



may be highly influenced by down-hole contamination, especially below high-grade intersections, the RAB assay data were not used to support Mineral Resource estimation.

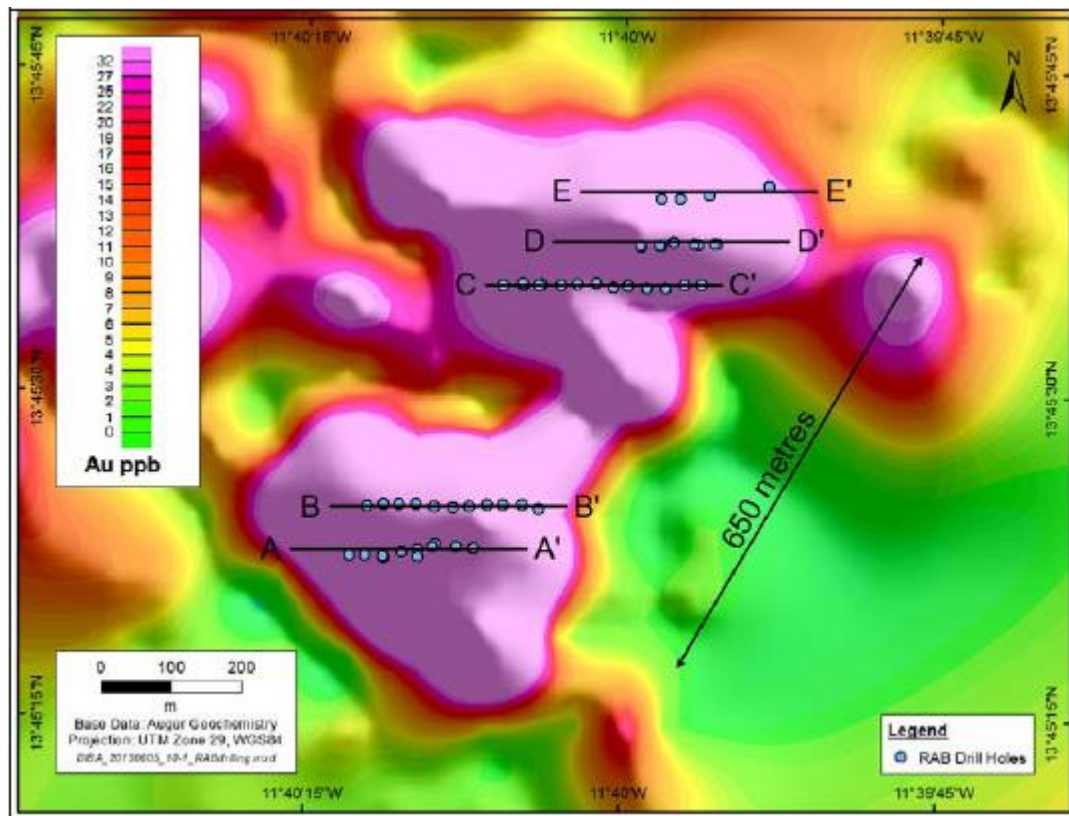


Figure 23 – RAB drilling on the Diba prospect (Simon, 2013).

#### 10.1.1.2 Diamond Drilling, Logging and Sampling

Following the positive results of the RAB campaign, Etruscan completed a diamond drilling campaign that consisted of 92 holes totalling 13,348 m. Initial core drilling focused on the high-grade RAB intersections within the south-eastern end of the Au geochemical anomaly (Figure 24). Nearly all diamond-drill holes were drilled with 270° azimuth and 60° dip, oriented to intersect the mineralised units at a high angle, and following E-W-oriented lines in the south-eastern end of the Diba geochemical anomaly. Only one hole was vertical, and four holes were oriented to the east (with 90° azimuth). The spacing between lines was 50 m on average, and less (up to 30 m) between drill holes.

The diamond drilling campaign was contracted to Boart Longyear. Drilling diameter was mainly HQ (63.5 mm), and NQ diameter (47.6 mm) was used when drilling became difficult. This assessment was made by the drilling supervisor or the geologist in charge of the hole. According to the written procedure, core recovery per run was recorded, and this information was included in the database delivered to Mining Plus. Note that the core recovery was usually good. Diamond core was placed in 1 m long wooden boxes with the drill-hole number and the box number marked in the front with a permanent marker. Small wooden tags



separated the run lengths. Tag position was also marked at the sides of the wood divisions with permanent marker, which allows identifying their correct location. Geology personnel transported the core boxes every day to the camp, where they were stored in a covered core shack for logging.

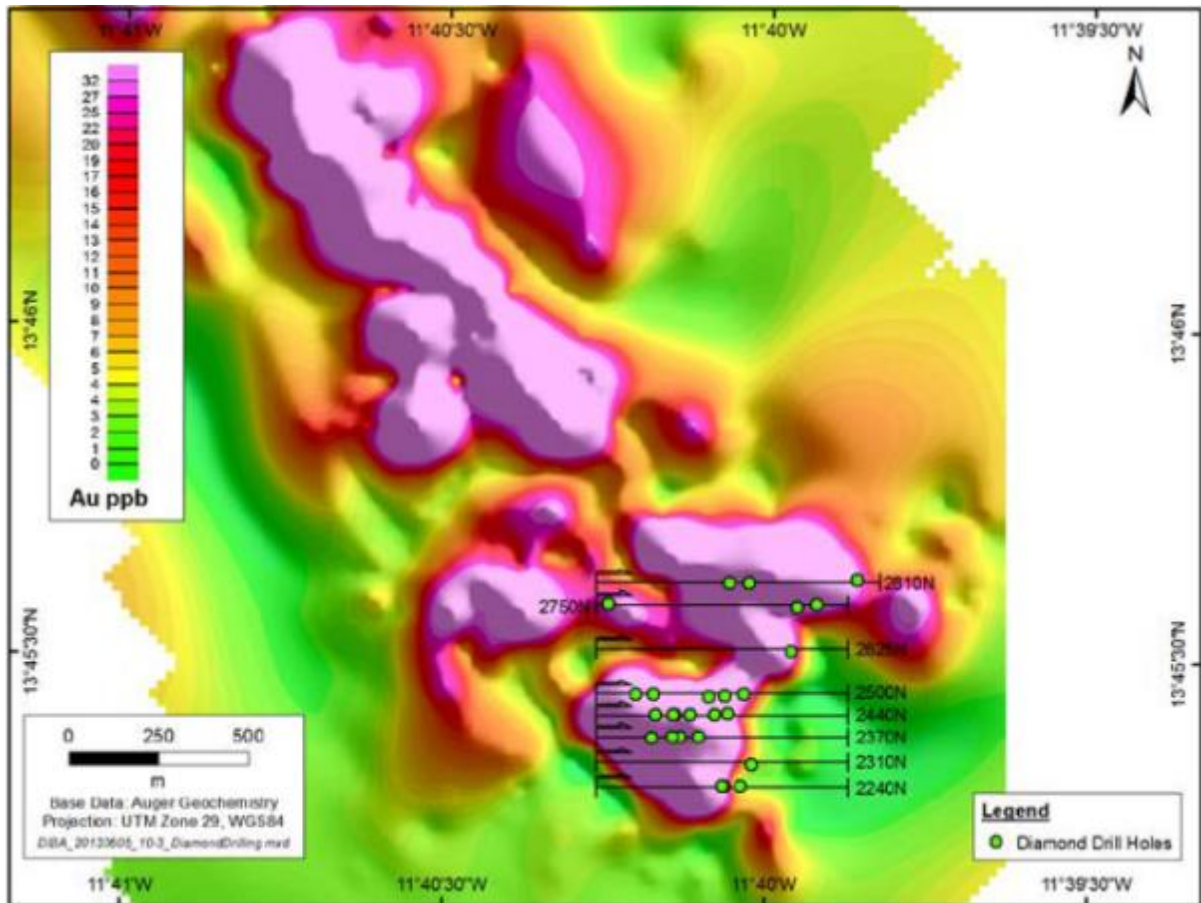


Figure 24 - Diamond drilling on the Diba prospect (Simon, 2013).

An initial log, including the identification of major lithology boundaries, a brief description of the rocks, and highlighting of zones with mineralisation, was prepared prior to the geotechnical logging.

Geotechnical logging included measurements of core recovery, rock quality designation (RQD), analysis of structures, hardness, and core orientation measurements in case of extraction of oriented core. Core was then photographed on a two-box setup with consistent distance from the camera.

The geological logging procedure included the preparation of a graphic log on paper, and the determination of the main rock types, position of the weathering level, presence of sulphide and alteration minerals (percentage, type, intensity), and a brief textural description. Major parameters were registered using previously-agreed codes.



Once geological logging was completed, the sample intervals (1 m long on average) were marked and numbered, and the core was transferred for cutting with a diamond saw along lines previously marked by a geologist. Samples were collected systematically from one side of the split core.

#### **10.1.1.3 Reverse-Circulation Drilling and Sampling**

Etruscan drilled 33 RC drill holes totalling 3,241 m in 2006-2007. An additional RC drilling program of 76 drill holes totalling 3,429 m was completed in 2008. West African Drilling Service (WADS) was in charge of the RC drilling campaign. Most RC holes were drilled with 270° azimuth and 60° dip, oriented to intersect the mineralised units at a high angle, and following E-W-oriented lines in the south-eastern end of the Diba geochemical anomaly, although some holes were oriented in the opposite direction with a 090° azimuth.

Samples were collected over 1 or 2 m intervals in large plastic bags directly from the cyclone. The total sample weight was recorded. Samples were split in a large riffle splitter to get down to approximately 3 kg. The splitter and boxes were cleaned with compressed air between samples. If a sample was wet, the entire sample was placed in a large rice bag and allowed to dry; then the weight was recorded and the sample was split off.

RC weight was recorded, however recovery percentage was not. According to the report of Simon and Pizarro (Simon, 2013), the RC recovery was good, but this information was not included in the database supplied to Mining Plus.



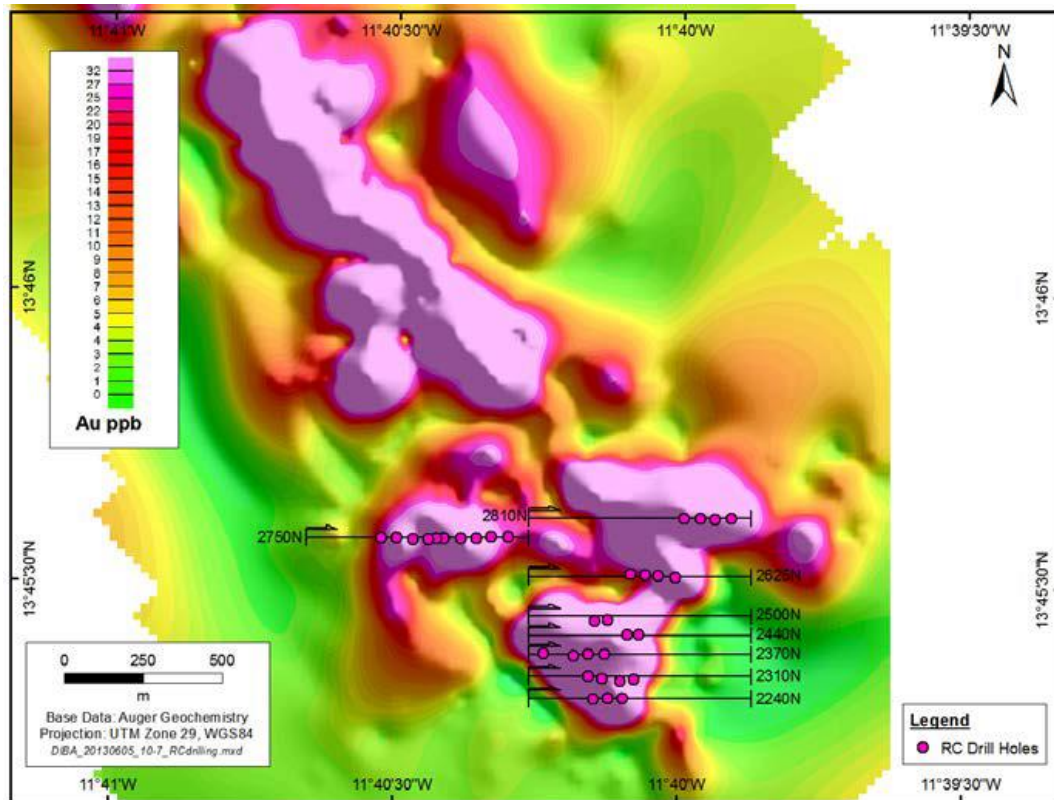


Figure 25 – RC drilling on the Diba prospect (Simon, 2013).

### 10.1.2 Legend Gold Drilling

All data pertaining to the Legend Gold Drilling campaign was received from Will Slater (Slater, 2020). The following information about the RC-drilling programme (does not consider the AC exploration programme) has been collated from three sources and is considered to be accurate:

- Personal communications with Kassoum Diakite, Altus Senior Geologist, and Ambogo Guindo, Altus Technical Adviser, who were both involved with the 2014 drilling programme and had first-hand experience of the procedures.
- Historical Legend Gold Corp reports from the period of the drilling programme.
- Legend Gold Corp drilling databases acquired as part of Altus Strategies transaction with Legend Gold Corp.

#### 10.1.2.1 Programme Information

The first RC hole was sunk on Wednesday 12 March 2014 with the final hole being completed on Wednesday 2 April 2014, constituting a three-week drilling programme. Legend Gold Corp. contracted Geodrill Limited, an established West- and Central Africa-focussed drilling service and rig provider that is listed on the Toronto Securities Exchange (TSX:GEO). The programme employed two RC drilling rigs operating a single 12-hour day shift.



- 300 Aircore (AC) holes were drilled between February and April 2014, all holes orientated with an azimuth of 265 and a dip of 60°. They had an average depth of 14.7m with a maximum of 41m.
- 59 RC holes were drilled between April and May 2014, all holes orientated with an azimuth of 265 and a dip of 60°. They had an average depth of 85.8m with a maximum of 180m. A total of 5,067 m was drilled. The nomenclature for these holes was “DBRC-###”, referring to Diba [the prospect], reverse circulation [type of drill hole], and the sequential numbering from 1 to 59.

The RC holes were drilled as infill or proximal extension holes on Diba. The AC holes were drilled in the anomalous zones surrounding Diba to test proximal mineralisation, and along the NW extension. Data from these are not included in the estimate, as they are highly influenced by down-hole contamination.

#### 10.1.2.2 Drilling Methodology

Drill pads were cleared, and the location of the hole was approximated using a handheld Garmin GPS device. A compass was used to sight the drilling azimuth, and pegs marked out the drilling direction. Three pegs placed along the line of the azimuth about 1.5m to the side of a peg denoting the collar. Flagging tape laid out along the exact azimuth direction on the side of the collar peg approximately 1.5m away. A clinometer was used to ensure the accuracy of the drilling angle. Following drilling a DGPS unit was used to survey the final hole locations, except for DBRC-046 to -052 (inclusive) which were measured by compass and tape relative to adjacent holes that had been surveyed.

#### 10.1.2.3 Logging and Sampling

Legend Gold Corp geologist supervised the rigs during the drilling shift ensuring the drilling was undertaken as planned. The team’s geologists logged the following information about the recovered rock-chips:

- the weathering profile (e.g. saprolite, mottle zone, fresh rock),
- lithology (e.g. sandstone, sediment),
- colour,
- oxidation state (e.g. oxide, mixed, sulphide),
- alteration styles (e.g. carbonate, silicification), and
- Modal abundance of mineralisation (e.g. 1 % pyrite, pyrrhotite, arsenopyrite).



Logging was overseen by Senior Geologist Kassoum Diakite. The database received by Mining Plus contains the usual collar, down hole survey, assay and geology data.

### **10.1.3 Altus Strategies Drilling**

#### **10.1.3.1 Programme Information**

##### **2020 Programme**

The first RC hole was sunk on 17 November 2020 with the final hole being completed on 13 January 2021, constituting a nine-week drilling programme. Altus Strategies contracted Capital Drilling Limited. Capital Drilling Limited is a leading mining services company providing a complete range of drilling, mining, maintenance, and geochemical laboratory solutions to customers within the global minerals industry, focusing on the African markets. The programme employed one RC drilling rig operating a double 12-hour day/night shift.

- 115 RC holes were drilled, all holes orientated with an azimuth of 270 and a dip of 60°. They had an average depth of 90m with a maximum of 270m. A total of 10,354.5 m was drilled. The nomenclature for these holes was “20KSRC-###”, referring to Korali Sud Licence, reverse circulation [type of drill hole], and the sequential numbering from 1 to 114.

The RC holes were drilled as infill or proximal extension holes on Diba and to delineate Diba NW.

##### **2021 & 2022 Programme**

The first RC hole was sunk on 06 July 2021 with the final hole being completed on 28 January 2022, constituting a 12-week drilling programme, excluding a hiatus during the rainy season. Altus Strategies contracted Capital Drilling Limited and IDC Drilling Company. The programme employed one RC drilling rig operating a double 12-hour day/night shift and one multipurpose drill rig over the course of the programme (does not consider the AC exploration programme).

- 50 RC holes were drilled, all holes orientated with an azimuth of 270 and a dip of 60°. They had an average depth of 140m with a maximum of 315m. A total of 6,995 m was drilled. The nomenclature for these holes was “21KSRC-###” “22KSRC-###”, referring to Korali Sud Licence, reverse circulation [type of drill hole], and the sequential numbering from 115 to 164.

The RC holes were drilled as infill or proximal extension holes on Diba and to delineate Diba NW.

- 8 DD holes were drilled, all holes orientated with an azimuth of 270 and a dip of -60°. They had an average depth of 170m with a maximum of 241m. A total of 1,359 m was



drilled. The nomenclature for these holes was “21KSDD-###”, referring to Korali Sud Licence, reverse circulation [type of drill hole], and the sequential numbering from 1 to 8.

### Drilling Methodology

Drill pads were cleared, and the location of the hole was approximated using a handheld Garmin GPS device. A compass was used to sight the drilling azimuth, and pegs marked out the drilling direction. Three pegs placed along the line of the azimuth about 1.5m to the side of a peg denoting the collar. Flagging tape laid out along the exact azimuth direction on the side of the collar peg approximately 1.5m away. A clinometer was used to ensure the accuracy of the drilling angle. All holes were surveyed using a Reflex Gyro at 20m stations for RC and 50m stations for DD. Diamond drilling was conducted using a Reflex ACT III tool to orientate the core. Following drilling a DGPS unit was used to survey the final hole locations.

### Logging and Sampling

Altus Strategies geologist supervised the rigs during the drilling shift ensuring the drilling was undertaken as planned. The team’s geologists logged the following information about the recovered rock-chips:

- the weathering profile (e.g. saprolite, mottle zone, fresh rock),
- lithology (e.g. sandstone, sediment),
- colour,
- oxidation state (e.g. oxide, mixed, sulphide),
- alteration styles (e.g. carbonate, silicification), and
- Modal abundance of mineralisation (e.g. 1 % pyrite, pyrrhotite, arsenopyrite).

Logging was undertaken directly into the companies geological database (MX Deposit) to ensure validation at the point of entry and overseen by Altus Senior Geologists. The database received by Mining Plus contains the usual collar, down hole survey, assay and geology data.

## 10.2 Lakanfla Drilling

Four companies drilled the Lakanfla project during the exploration phase of the programme; North Atlantic Resources between 2003 -2004, Legend Gold during 2011, Marvel Gold 2020 and Altus Strategies 2022.



### **10.2.1 North Atlantic Resources & Legend Gold Drilling**

All data pertaining to the North Atlantic Resources & Legend Gold Drilling campaign was received from Will Slater (Slater, 2020). The following information about the RC-drilling programme (does not consider the AC exploration programme) has been collated from three sources and is considered to be accurate:

- Personal communications with Kassoum Diakite, Altus Senior Geologist, and Ambogo Guindo, Altus Technical Adviser, who were both involved with the 2003, 2004 and 2011 drilling programme and had first-hand experience of the procedures.
- Historical Legend Gold Corp reports from the period of the drilling programme.
- Legend Gold Corp drilling databases acquired as part of Altus Strategies transaction with Legend Gold Corp.

#### **10.2.1.1 Programme Information**

##### **2003-2004 Drilling Programme**

113 RC holes were drilled in all holes orientated with an azimuth of 265 and a dip of -60°. They had an average depth of 92m with a maximum of 144m. A total of 10,395 m was drilled. The nomenclature for these holes was “03KRC-####” “04KRC-####”, referring to Kantela (the former name of the Lakanfla permit) [the prospect], reverse circulation [type of drill hole], and the sequential numbering from 1 to 40 and 1 to 72.

8 DD holes were drilled in all holes orientated with an azimuth of 265 and a dip of -60°. They had an average depth of 216m with a maximum of 265m. A total of 1,729 m was drilled. The nomenclature for these holes was “04KDD-####”, referring to Kantela (the former name of the Lakanfla permit) [the prospect], Diamond Drilling [type of drill hole], and the sequential numbering from 1 to 8.

##### **2011 Drilling Programme**

114 RC holes were drilled in all holes orientated with an azimuth of 265 and a dip of -60°. They had an average depth of 92m with a maximum of 108m. A total of 10,356 m was drilled. The nomenclature for these holes was “11LKFR-####”, referring to the Lakanfla permit [the prospect], reverse circulation [type of drill hole], and the sequential numbering from 1 to 40 and 1 to 116.

5 DD holes were drilled in all holes orientated with an azimuth of 265 and a dip of -60°. They had an average depth of 141m with a maximum of 204m. A total of 846 m was drilled. The nomenclature for these holes was “11LKFD-####”, referring to the Lakanfla permit [the prospect], Diamond Drilling [type of drill hole], and the sequential numbering from 1 to 5.



The RC holes were drilled to define Lakanfla Central prospect.

### Drilling Methodology

Drill pads were cleared, and the location of the hole was approximated using a handheld Garmin GPS device. A compass was used to sight the drilling azimuth, and pegs marked out the drilling direction. Three pegs placed along the line of the azimuth about 1.5m to the side of a peg denoting the collar. Flagging tape laid out along the exact azimuth direction on the side of the collar peg approximately 1.5m away. A clinometer was used to ensure the accuracy of the drilling angle.

### Logging and Sampling

North Atlantic Resources & Legend Gold Corp geologist supervised the rigs during the drilling shift ensuring the drilling was undertaken as planned. The team's geologists logged the following information about the recovered rock-chips:

- the weathering profile (e.g. saprolite, mottle zone, fresh rock),
- lithology (e.g. sandstone, sediment),
- colour,
- oxidation state (e.g. oxide, mixed, sulphide),
- alteration styles (e.g. carbonate, silicification), and
- Modal abundance of mineralisation (e.g. 1 % pyrite, pyrrhotite, arsenopyrite).

Logging was overseen by Senior Geologist Kassoum Diakite. The database received by Mining Plus contains the usual collar, down hole survey, assay and geology data.

### 2020 Marvel Gold Drilling

The first RC hole was sunk on 28 September 2020 with the final hole being completed on 13 November 2020, constituting a six-week drilling programme. Marvel Gold contracted Capital Drilling Limited. The programme employed one RC drilling rig operating a double 12-hour day/night shift. 20 RC holes were drilled, all holes orientated with varying azimuth and a dip of -58 to -90°. They had an average depth of 193m with a maximum of 280m. A total of 3,852 m was drilled. The nomenclature for these holes was "20LKFR-###", referring to Lakanfla Licence, reverse circulation [type of drill hole], and the sequential numbering from 1 to 18.

The RC holes were drilled into geophysical targets surrounding the Kantela granite-granodiorite targeting karst targets on the margin of the intrusive body



## Drilling Methodology

Drill pads were cleared, and the location of the hole was approximated using a handheld Garmin GPS device. A compass was used to sight the drilling azimuth, and pegs marked out the drilling direction. Three pegs placed along the line of the azimuth about 1.5m to the side of a peg denoting the collar. Flagging tape laid out along the exact azimuth direction on the side of the collar peg approximately 1.5m away. A clinometer was used to ensure the accuracy of the drilling angle. All holes were surveyed using a Reflex Gyro at 10m stations.

## Logging and Sampling

Marvel Gold geologist supervised the rigs during the drilling shift ensuring the drilling was undertaken as planned. The team's geologists logged the following information about the recovered rock-chips:

- the weathering profile (e.g. saprolite, mottled zone, fresh rock),
- lithology (e.g. sandstone, sediment),
- colour,
- oxidation state (e.g. oxide, mixed, sulphide),
- alteration styles (e.g. carbonate, silicification), and
- Modal abundance of mineralisation (e.g. 1 % pyrite, pyrrhotite, arsenopyrite).

Logging was undertaken directly into the Company's geological database managed by Rock Solid Data Consultancy. The database received by Mining Plus contains the usual collar, down hole survey, assay and geology data.

## 2022 Altus Strategies Drilling

The first RC hole was sunk on 29 January 2022 with the final hole being completed on 22 February 2022, constituting a four-week drilling programme. Altus Strategies contracted Capital Drilling Limited. Capital Drilling Limited is a leading mining services company providing a complete range of drilling, mining, maintenance, and geochemical laboratory solutions to customers within the global minerals industry, focusing on the African markets. The programme employed one RC drilling rig operating a double 12-hour day/night shift.

- 25 RC holes were drilled, all holes orientated with an azimuth of 270, 260 and 90 and a dip of -55 to 60°. They had an average depth of 154m with a maximum of 250m. A total of 3,848 m was drilled. The nomenclature for these holes was "22LKRC-###", referring to Lakanfla Licence, reverse circulation [type of drill hole], and the sequential numbering from 1 to 25.



The RC holes were drilled as infill or proximal extension holes on the Lakanfla Central Prospect and to twin previous companies drill holes to verify historical data.

#### Drilling Methodology

Drill pads were cleared, and the location of the hole was approximated using a handheld Garmin GPS device. A compass was used to sight the drilling azimuth, and pegs marked out the drilling direction. Three pegs placed along the line of the azimuth about 1.5m to the side of a peg denoting the collar. Flagging tape laid out along the exact azimuth direction on the side of the collar peg approximately 1.5m away. A clinometer was used to ensure the accuracy of the drilling angle. All holes were surveyed using a Reflex Gyro at 20m stations for RC and 50m stations for DD. Diamond drilling was conducted using a Reflex ACT III tool to orientate the core. Following drilling a DGPS unit was used to survey the final hole locations.

#### Logging and Sampling

Altus Strategies geologist supervised the rigs during the drilling shift ensuring the drilling was undertaken as planned. The team's geologists logged the following information about the recovered rock-chips:

- the weathering profile (e.g. saprolite, mottled zone, fresh rock),
- lithology (e.g. sandstone, sediment),
- colour,
- oxidation state (e.g. oxide, mixed, sulphide),
- alteration styles (e.g. carbonate, silicification), and
- Modal abundance of mineralisation (e.g. 1 % pyrite, pyrrhotite, arsenopyrite).

Logging was undertaken directly into the Company's geological database (MX Deposit) to ensure validation at the point of entry and overseen by Altus Senior Geologists. The database received by Mining Plus contains the usual collar, down hole survey, assay and geology data.

### 10.3 Mining Plus Comments

Mining Plus completed a site visit on 6 and 7 June 2022 and examined many drill cores and RC drill chips from holes drilled at Diba, Diba NW and Lakanfla. Mining Plus was not present during the drilling campaigns, although after reviewing the drill hole databases and the NI43-101 report of Simon and Pizarro (Simon, 2013), Mining Plus is of the opinion that the 2006-2008 Etruscan diamond and RC drilling appear to have followed industry-standard procedures. Mining Plus is of the opinion that the 2014 drilling campaign also followed



industry-standard procedures. Mining Plus holds the same opinion of the more recent drilling completed at the Project.

RAB and aircore (AC) drilling will not be included in the resource estimation done by Mining Plus; only the RC and diamond drilling that took place during this time is used.



## 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

---

For the Etruscan drilling and sampling programme, full details are available in the Simon and Pizarro (Simon, 2013) report. For the Legend Gold 2014 drilling, the information is contained in one paragraph from the 2014 news release (Perkins, 2014).

### 11.1 Etruscan Drilling Campaign

Samples were collected, bagged in plastic sample bags and staple-shut with a sample tag inside. Samples were then stored at the camp until a sufficient number of samples were ready for shipment to the laboratory. Samples were collected by laboratory personnel or delivered directly to the laboratory by Etruscan personnel.

#### 11.1.1 Sample Preparation

Abilab Afrique de l'Ouest SARL (Abilab), of Bamako, was used for sample preparation and analyses on all core samples, and on portions of the RAB and RC sampling. Abilab was acquired by ALS in 2006. In order to improve the turn-around time, a second laboratory, Analabs (a subsidiary of SGS Limited), located in Kayes, was used for portions of the RAB and RC sample preparation and analyses. Neither Abilab nor Analabs had ISO accreditation at the time of this drilling campaign.

Sample preparation (ALS procedure PREP-31) consisted of the following steps:

- Drying to 105°C
- Crushing to 70% -2 mm (10 mesh ASTM)
- Riffle-splitting to obtain a 250 g fraction
- Pulverizing the split fraction to 85% -0.075 mm (200 mesh Tyler).

In addition, sieve tests on pulverized material were conducted (data not made available to Mining Plus).

#### 11.1.2 Sample Analysis

Soil samples were assayed at Abilab using the FA(50) method, a low-detection-limit, fire assay-AA finish using 50 g aliquots and with 0.01 g/t Au detection limit, and by multi-element ICP analyses. Semi-regional and auger samples were assayed by Abilab only for Au.

RAB, RC and core samples were assayed for Au by Abilab using the same analytical method. Some RAB and RC samples were assayed by Analabs using the fire assay-AA finish FAA505 variant, with a similar detection limit (0.01 g/t Au).



### **11.1.3 Laboratory Quality Control**

Both Abilab and Analabs have appropriate quality control (QC) procedures, which includes the use of certified reference materials (CRMs), duplicates and blanks. Results of the QC samples were customarily reported in the assay certificates sent to Etruscan.

AMEC audited the ALS Laboratory (former Abilab) in Bamako on 12 October 2013, during the work on the Diba MRE; this information is quoted below from the Simon and Pizarro (Simon, 2013) report.

*'AMEC visited the ALS Laboratory (former Abilab) in Bamako on 12 October 2013, and received an explanation about the preparation and assaying procedure from Jeff Gyamera, the Laboratory Director.*

*At arrival, samples batches are checked, registered with bar-code tags, and introduced in the Laboratory Information Management System (LIMS). Samples are then dried at 110° to 120° in large containers converted in electric ovens.*

*Samples are crushed to 70% -2 mm (10 mesh ASTM) in four TM Engineering jaw crushers, which are cleaned between samples with compressed air and barren sandstone. Following riffle-splitting, samples are pulverized to 85% -0.075 mm (200 mesh Tyler) in 10 LM-2 and four TM Engineering pulverizers. Pulps are stored in thick paper bags and then in cardboard boxes, properly identified with bar-code tags.*

*Precision scales are located in an open space, which may allow sample contamination. Scales are certified every six months, and verified every morning with three certified weights (20 g, 50 g and 100 g).*

*The assay aliquots are placed in small plastic bags within the crucibles, together with the flux. Fire assaying regularly uses fluxes with standard composition. ALS has six electric ovens for fire assay (four for fusion and two for cupellation). Crucibles may be reused if the resulting fusion is good, and if the Au grade of the sample does not exceed 0.5 g/t Au.*

*The laboratory has two SpectrAA 55B atomic absorption spectrometers (AAS) commonly dedicated to FA, and two Varian AA240 instruments for other uses. Another SpectrAA 55B AAS is kept as a reserve. A Sartorius micro-scale is used for gravimetric-finish FA. Glassware and reagents are acquired from reputable suppliers.*

*Sieve tests are conducted on 20% of crushed and pulverized samples for QC. Every 24 sample batch for fire assay includes one CRM, one blank and two duplicates as part of the laboratory QC program. Results of QC checks are submitted to ALS Vancouver for assessment. The laboratory participates in inter-laboratory proficiency tests organized by Geostats and Rocklabs (twice a year each).*



*Only Au assays are performed at ALS Bamako. In the case that the client requires other analyses, samples are submitted to ALS Johannesburg.*

*In AMEC's opinion, the laboratory is well equipped and managed, and appears to be able to produce reliable results, although it would be advisable that precision scales be isolated and placed in a separate environment'*

Mining Plus was unable to visit any of the laboratories used for sample preparation and assaying, but considers the AMEC review to be reliable.

#### **11.1.4 Sample Security**

While in the camp, samples were kept at a secured space by the Diba & Lakanfla project camp. Samples were transported to the laboratory either directly by Abilab personnel using laboratory trucks, or by Etruscan personnel to Analabs on company trucks. In either case, an adequate chain-of-custody procedure was followed.

As of 2013, the remaining core is stored at a secured location at the Diba & Lakanfla project camp. Sample pulps are stored at a secured location next to the Etruscan office in Bamako. No rejects have been kept.

#### **11.1.5 Geological Quality Control**

Etruscan implemented a rigorous QC protocol in order to monitor various quality parameters. Details of the geological QC protocol are provided in Section 12.

#### **11.1.6 Database**

The drilling database used in the estimation was compiled by Mining Plus from excel workbooks provided by Altus in March 2020. The workbooks comprise the drill holes used in the 2013 estimation:

- Diba DD 2006-2007 - Drill Master File (92 holes)
- Diba RC 2006-2008 - Master File (109 holes)

And new holes drilled in 2014:

- Korali Sud RC 2014 - Master File (59 RC holes)

Simon and Pizarro (Simon, 2013) note that the Etruscan survey, logging, sampling and assay data were initially stored in Excel spreadsheets, and then transferred to Etruscan headquarters in Canada, where they were stored in an Access database. Whenever possible,



data entry was digital. Assay data were directly supplied by the laboratories in digital format and uploaded into the spreadsheet.

## **11.2 Legend Gold Drilling Campaign**

### **11.2.1 Sample preparation & analysis**

Bulk 1m samples were recovered from the rig cyclone by Geodrill offsideers and handed to Legend Gold Corp geotechnical staff for labelling, logging and sampling. The supervising geologist ensured the drilling contractor regularly flushed out the cyclone to ensure minimal cross-contamination. The entire volume of chips from each reverse circulation interval were collected, dried and split on site into an approximately 2 kg subsample using a Jones splitter on a metre by metre basis. The 2 kg sample was submitted to SGS Laboratories (“SGS”) in Bamako for crushing, grinding and 50 gram gold fire assay with AAS finish. All samples were weighed as per method WGH79 and subsequently analysed via fire assay technique FAA505, which has a lower detection limit of 0.01 ppm Au. Every 50th sample was submitted for granulometry (SCR32). The SGS Laboratory in Bamako (SGS Mali SARL), located in the Zone Industrielle, Roue 948m Porte 40, was used for both sample preparation and analysis.

Quality control checks on the inserted standards, blanks and duplicates were undertaken by Mr Eric Hanssen Legend Gold Corp exploration manager. QC checks indicate that the data received from the laboratory is reliable. Mr Hanssen identified two consecutive standards were outside of the three standard deviation zone and requested re-assay of the particular batch done as SGS’s cost. Following re-assay, no further issues were identified.

### **11.2.2 Quality Control**

Approximately 5% of both high and low grade, oxide gold standards as well as 5% blanks were inserted into the sample stream before delivery of the samples to SGS. Every 20 samples, a duplicate sample was created from the chip rejects and included in the sample stream. RC pulps as well as rejects were kept as a reference. A QA/QC analysis was performed on the results of the standard, duplicate and blank sample assays. If results of adjacent standards fell outside two standard deviations of the standard control assay, samples from that batch were flagged for re-assay.

A total of 5,961 samples were collected, including QAQC. Duplicates, standards and blanks inserted at staggered intervals roughly once every 20 routine samples. Eight different gold standards were used: OxN117 (7.679 ppm  $\pm$  0.207), SK78 (4.134 ppm  $\pm$  0.138), OXJ111 (2.166 ppm  $\pm$  0.053), SG66 (1.086 ppm  $\pm$  0.032), OxC109 (0.201 ppm  $\pm$  0.008), Si64 (1.780 ppm  $\pm$  0.042), SE68 (0.599 ppm  $\pm$  0.013), and OxH112 (1.271 ppm  $\pm$  0.028).



### 11.3 Mining Plus Comments

Mining Plus reviewed the work done by AMEC and reported in Simon and Pizarro (Simon, 2013), and considers it to be industry standard and suitable for resource estimation.

AMEC did not mention whether any samples were sent to referee labs for check assaying; Mining Plus recommends that some check assays are performed at an internationally accredited independent lab.

Mining Plus reviewed the logging, sampling, and assaying procedures used by Legend Gold, and considers them to be industry standard and suitable for resource estimation. The implemented QAQC programme is also of industry standard.



## 12 DATA VERIFICATION

---

### 12.1 Diba

Mining Plus has performed its own checks where necessary to ensure that the data is of good enough quality to be used for Mineral Resource estimation.

#### 12.1.1 Diba

During the site visit conducted in June 2022 Mining Plus checked core from a number of historical drillholes and RC chip samples from historical and recent drillholes. Mining Plus concluded from this examination that the weathering zones at all three deposits are well defined and readily seen in the core and chips. The main rock types, laterite, saprolite, intrusives and metasediments are easily distinguishable. The last mentioned are best distinguished in the fresh material at depth. When checked using the raw assay grades it was found that it is difficult to distinguish high and low-grade or barren samples in the saprolite in particular. In the transitional and fresh material carbonate veins become prominent, and while these are always present in high-grade samples they may also be present in low-grade or barren samples. The latter observation suggests that there may be more than one episode of veining and that perhaps Au mineralisation is not associated with all veins. Finely disseminated sulphide (probably mostly pyrite) shows a similar relationship to raw sample grade values. It always appears present in high-grade samples, but may also be present in low-grade or barren intervals. Mining Plus concludes that the overall geology evident in the drill cores and chips fits the models that have been constructed, but that further understanding can be developed as the project progresses. The geological interpretation, based on field logging and observation is suitable for MRE at a PEA level of study.

#### 12.1.2 Diba NW

During the site visit two historical holes from this deposit were examined, along with a larger number of chips from historical and recent RC holes. In this deposit there is much less laterite and saprolite (i.e. in the oxide weathering zone) than at Diba, and hence intersections of fresh rock comprising both granitoid intrusives and metasediments are more common than at Diba. In the field it is clearly evident that the laterite plateau that overlies the Diba deposit has been largely eroded at Diba NW, thus explaining the different profiles seen in the drill core and RC chips. Exposed outcrops of the transitional zone show multiple sets of carbonate veins. When checked against sample assays in the drill cores a similar relationship between grades and the occurrence of veins and disseminated sulphides is seen as described at Diba. That is, veins and sulphides are always present in high-grade samples, but may be present in low-grade or barren samples, suggesting multiple episodes of veining. In Mining Plus's opinion the



transitional and fresh rocks at Diba NW resemble those at Diba. The drilling data thus are suitable for geological modelling and MRE.

### 12.1.3 Lakanfla

Mining Plus examined a historic diamond drillhole and chips from a number of RC holes from Lakanfla. The change in geology to the mineralisation being hosted in granite is a striking difference between Lakanfla when compared to Diba and Diba NW. It is also evident that mineralisation is associated with veins that are very subtle in appearance, but are readily recognised by Altus’s geologists. In Lakanfla the mineralising system appears steep dipping (near vertical) and does not form the shallow-dipping “lenses” seen at Diba. Strong structural control appears to influence the occurrence of the mineralised veins. There is also a limited occurrence of mineralisation associated with carbonate rocks at Lakanfla that is quoted as having similarities to similar deposits at Sadiola and other mines in the region that are described as the “karst model”. Mining Plus did not see this material in either outcrop or drill cores. The geological logging and interpretation, especially in the granitic host rocks fit the geological modelling conducted by Mining Plus and thus these are suitable to support the geological modelling and the MRE.

## 12.2 Bulk Density

### 12.2.1 Diba

The density database includes 480 determinations from 5 core drill holes in Diba. Of these, 92 determinations correspond to oxide (OX code in the provided drilling spreadsheets), 54 determinations to transition (TR) and 334 determinations to fresh (FR). The density was determined at SGS Analabs on core samples using the PHY04V method. Although the detailed procedure was not specified, the Altus Strategies density determination protocol indicates that density samples were weighed dry, then coated with paraffin wax and then weighed again in air and under water, following the industry-standard water displacement (Archimedes) method. During the site visit in June 2022 no drilling and sampling was being undertaken and so the procedures could not be checked. However, in the drill cores examined wax-coated full core specimens were observed by Mining Plus.

The data are summarised in Table 17 and Table 18

Table 17 – Diba density statistics by weathering zone

Weathering	No. of Samples	Minimum	Maximum	Mean	SD	CV
Oxidised	92	1.442	1.924	1.683	0.105	0.062
Transitional	54	1.612	2.81	2.283	0.262	0.115
Fresh	334	2.603	2.957	2.733	0.05	0.018
<b>Total</b>	<b>480</b>					



Table 18 – Diba density statistics by rock type

Lithology	Weathering	No. of Samples	Minimum	Maximum	Mean	SD	CV
Laterite	Oxidised	1	1.776	1.776	1.776	0	0
Saprolite	Oxidised	103	1.442	2.265	1.715	0.155	0.091
Metasediments	Fresh/Trans	360	2.087	2.957	2.692	0.142	0.053
Intrusive	Fresh/Trans	16	2.64	2.83	2.708	0.047	0.017
	<b>Total</b>	<b>480</b>					

Mining Plus analysed the density data and has summarised the results below:

- Using Weathering Code:
  - Oxidised rock has a mean measured density of 1.68 g/cm<sup>3</sup> and a median of 1.66 g/cm<sup>3</sup>. When the data are displayed as a histogram it is clear there are two populations, a larger population that peaks at around 1.65 g/cm<sup>3</sup>, and a smaller population at around 1.80 g/cm<sup>3</sup>. These would seem to represent the laterite (having the higher density), and the saprolite with the lower density population. Ideally the unit needs much more sampling. During the site visit it became clear that drill core recoveries and RQDs in the oxidised zone are limited, and thus the potential for biased density sampling is high because there simply are very few pieces of core that are large enough to conduct measurements on. All of the core is from historic drilling and thus it has all been split, which has led to further degradation of the core making it less suitable for density measurements. If any further core drilling were to take place then more density measurements should be made as soon after drilling as is practical.
  - Transitional rock has a mean of 2.28 and a median of 2.23; there are a number of low outliers between 1.6 and 1.85 g/cm<sup>3</sup>, that potentially derive from the saprolite. Ideally the unit needs much more sampling. From the site visit observations it is clear that the transitional zone is thin, and that this limits the amount of material available for density measurements. Core recovery improves considerably in the transition zone, and while additional measurements could be undertaken this would be on halved or quartered core.
  - Fresh rock has a mean of 2.73 and a median of 2.73; there are a few high value outliers above 2.85 g.cm<sup>3</sup>, and the unit needs much more sampling.
- Using lithology code:



- A single sample of laterite yielded a density value of 1.78 g/cm<sup>3</sup>. It is unrepresentative and of little value. However the second population in the oxidised category would contain a sample of these values.
- 103 samples of saprolite have a mean value of 1.72 g/cm<sup>3</sup> that is on the high side of the lower density values of the lower density population identified in the oxide zone. However this grouping contains a subset of higher value outliers above 1.9 g/cm<sup>3</sup> that perhaps are misclassified and should form part of the laterite grouping.
- 360 samples were classified as metasediments that have a major peak in density around 2.75 g/cm<sup>3</sup> and an array of lower density values between 2.09 and 2.65 g/cm<sup>3</sup>.
- 16 intrusive samples do not form a coherent distribution with three peaks at 2.67, 2.73 and 2.82 g/cm<sup>3</sup>. Clearly there are too few samples and they potentially represent different types of intrusives that could also be variably weathered or altered.

Bulk density data used in the Lakanfla MRE is from the Diba dataset and based on the differences in geology noted above is clearly inappropriate.

The quality controls applied by previous owners of the Diba & Lakanfla project are summarised by Simon (2013), which concluded that the QA/QC procedures and results were of sufficient accuracy and repeatability to support Mineral Resource Estimation, and that evidence for contamination of samples was low. Simon also provided a list of standard reference materials (SRMs) used during this period.

During their Diba & Lakanfla project drilling campaign, Altus Strategies used the following control samples:

- Field duplicates: obtained from RC samples by riffle splitting at the time of the laboratory sample generation. The duplicates were inserted at a ratio of 1:25 samples.
- SRMs: commercial SRMs were acquired from numerous accredited sources in suitable grade ranges and inserted into the original samples at a ratio of 1:35 samples.
- Coarse blanks: prepared by the project geologists from barren material; several representative samples were submitted to a laboratory for confirmation prior to consistent use as a blank. The blanks were inserted at a ratio of 1:25 samples.

In core drilling batches, control samples were inserted in pre-established positions, but they were more dispersed in RC drilling batches. Altus Strategies processed the control sample



data on a regular basis using standard excel spreadsheets. QC data were monitored on real time, as assay batches were received. Whenever results were outside acceptable limits of 2 Standard Deviations, failed samples (or even the entire batch) were re-assayed.

Mining Plus was unable to check these procedures onsite since no drilling was being undertaken at the time of the site visit, or against the original data.

### 12.2.2 Assessment of Precision at Diba

Mining Plus assessed the core and RC sampling precision using the field duplicate data provided by Altus (*Diba Resource Duplicates 19-04-22 PMIE.csv*). Results are described below.

- Practical Detection Limit:** As no pulp duplicates were available, it was not possible to determine the Au practical detection limit (PDL). Therefore, Mining Plus used the detection limit stated by SGS Mali laboratory, Bamako (0.05 g/t Au) in the assessment of precision and contamination.

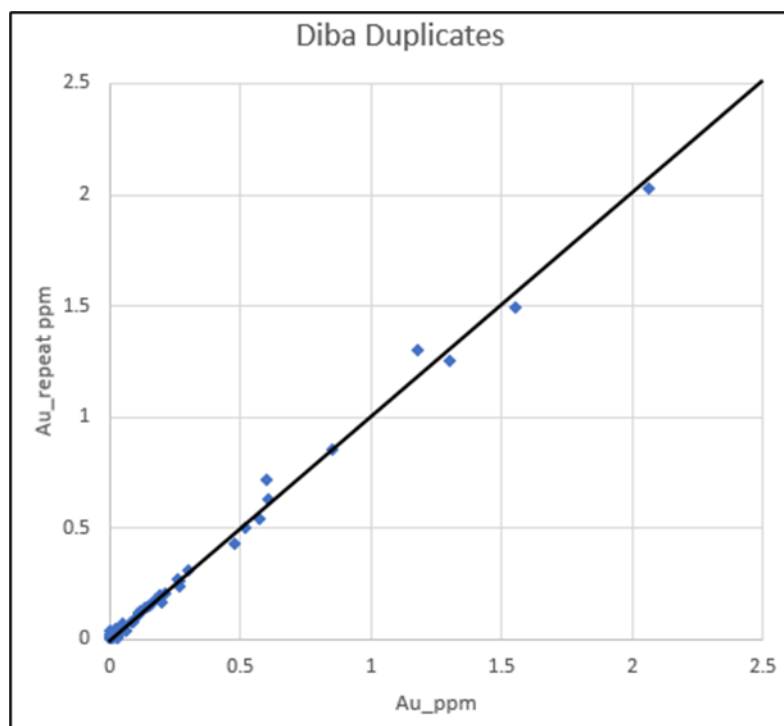


Figure 26 – Diba Au in field duplicates

### 12.2.3 Assessment of Accuracy at Diba

During the Diba drilling campaign 380 SRM samples were analysed and control plots prepared for 34 different SRMs used at the project. Mining Plus reviewed the bias and error for each SRM, based on multiple standard deviations (2 or 3) from the true value of the SRM (Figure 27). 50 SRM samples were flagged as warning (8% of total SRM samples) and 37 SRM samples



have been accepted with failures (10% of SRM samples). From the analysis of the SRM statistics, Mining Plus has concluded that the analytical accuracy for Au was within acceptable limits for most SRMs.

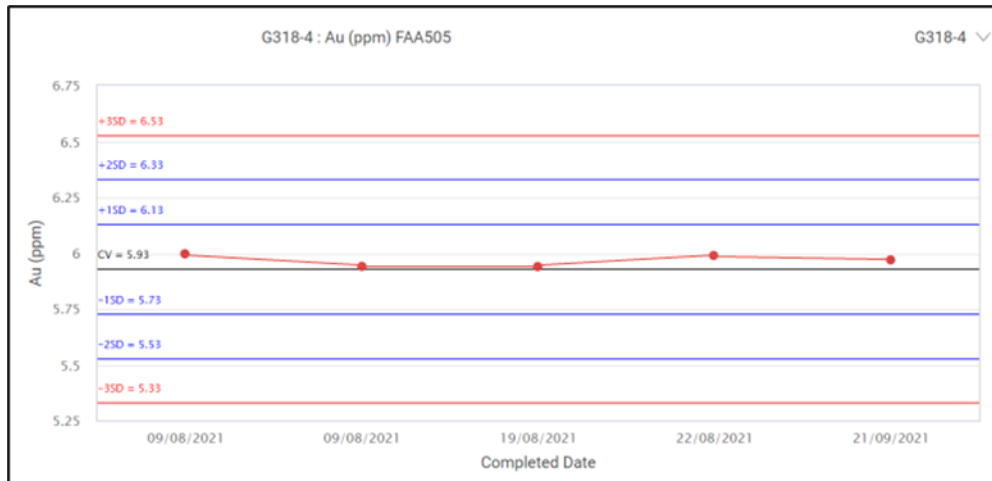


Figure 27 – Diba SRM chart

#### 12.2.4 Assessment of Contamination at Diba

Mining Plus analysed the results of 521 coarse blanks inserted in sample batches. None of the samples exceeded the practical detection limit for gold in commercial labs of 0.05g/t, so the contamination rate was nil. This indicates that Au contamination during the sample preparation process of the campaign was not significant.

#### Check Assays at Diba

Mining Plus has not found evidence that any check assays at referee laboratories were performed during the drilling and sampling campaign. Mining Plus recommends this is done as a check on the work done by SGS Mali in Bamako.

#### 12.2.5 Mining Plus Comments for Diba

Mining Plus considers the data quality to be suitable for Mineral Resource estimation:

- Mining Plus considers that Altus have implemented a rigorous QC program that allowed monitoring of real time precision, accuracy and possible contamination.
- The drilling database is sufficiently reliable, and the Au assay data are sufficiently precise and accurate to be used for mineral resource estimation.
- Additional bulk density samples should be collected in future drilling campaigns.



- Check assaying of the drill samples should be performed at an independent referee laboratory.

### **12.2.6 Assessment of Precision at Lakanfla**

During the Lakanfla drilling campaign, Altus Strategies used the following control samples:

- Field duplicates: obtained from RC samples by riffle splitting at the time of the laboratory sample generation. The duplicates were inserted at a ratio of 1:25 samples.
- SRMs: commercial SRMs were acquired from numerous accredited sources in suitable grade ranges and inserted into the original samples at a ratio of 1:35 samples.
- Coarse blanks: prepared by the project geologists from barren material; several representative samples were submitted to a laboratory for confirmation prior to consistent use as a blank. The blanks were inserted at a ratio of 1:25 samples.

In core drilling batches, control samples were inserted in pre-established positions, but they were more dispersed in RC drilling batches. Altus Strategies processed the control sample data on a regular basis using standard excel spreadsheets. QC data were monitored on real time, as assay batches were received. Whenever results were outside acceptable limits of 2 Standard Deviations, failed samples (or even the entire batch) were re-assayed.

Mining Plus was unable to check these procedures onsite, or against the original data.

### **12.2.7 Assessment of Precision**

Mining Plus assessed the core and RC sampling precision using the field duplicate data provided by Altus (*LKF Zone 2 Duplicates 19-04-22 PMIE.csv*). Results are described below in Figure 28.

- *Practical Detection Limit:* As no pulp duplicates were available, it was not possible to determine the Au practical detection limit (PDL). Therefore, Mining Plus used the detection limit stated by SGS Mali laboratory, Bamako (0.05 g/t Au) in the assessment of precision and contamination.



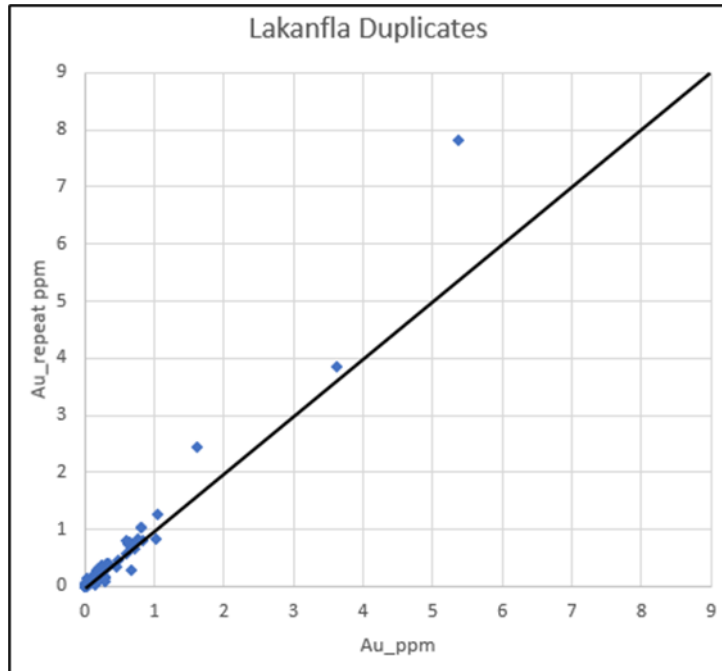


Figure 28 – Au in field duplicates

### 12.2.8 Assessment of Accuracy at Lakanfla

#### Standard Reference Material (SRMs)

During the Lakanfla drilling campaign 148 SRM samples were analysed and control plots prepared for 17 different SRMs used at the project. Mining Plus reviewed the bias and error for each SRM, based on multiple standard deviations (2 or 3) from the true value of the SRM (Figure 29). 16 SRM samples were flagged as warning (11% of total SRM samples) and 4 SRM samples have been accepted with failures (3% of SRM samples). From the analysis of the SRM statistics, Mining Plus has concluded that the analytical accuracy for Au was within acceptable limits for most SRMs.



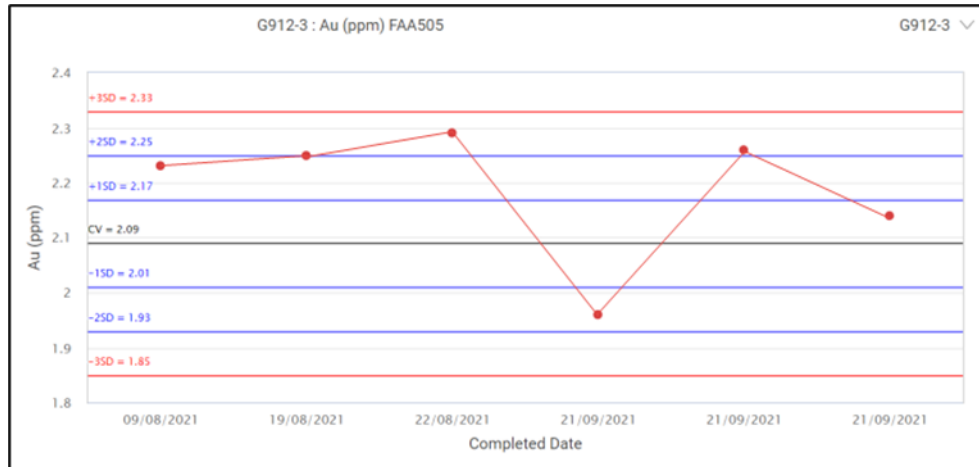


Figure 29 – SRM chart for Lakanfla

### 12.2.9 Assessment of Contamination at Lakanfla

Mining Plus analysed the results of 149 coarse blanks inserted in sample batches. None of the samples exceeded the practical detection limit for gold in commercial labs of 0.05g/t, so the contamination rate was nil. This indicates that Au contamination during the sample preparation process of the campaign was not significant.

### 12.2.10 Check Assays at Lakanfla

Mining Plus has not found evidence that any check assays at referee laboratories were performed during the drilling and sampling campaign. Mining Plus recommends this is done as a check on the work done by SGS Mali in Bamako.

### 12.2.11 Mining Plus Comments for Lakanfla

Mining Plus considers the data quality to be suitable for resource estimation:

- Mining Plus considers that Altus have implemented a rigorous QC program that allowed monitoring of real time precision, accuracy and possible contamination.
- The drilling database is sufficiently reliable, and the Au assay data are sufficiently precise and accurate to be used for mineral resource estimation.
- Additional bulk density samples should be collected in future drilling campaigns.
- Check assaying of the drill samples should be performed at an independent referee laboratory.



## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

---

### 13.1 Diba Metallurgical Testing 2012

Five composited pulp samples were selected by Etruscan from Diba in order to conduct a limited metallurgical test work programme. The selection included two oxide samples, one transition sample and two sulphide samples from five drill holes from the 2006 campaign, distributed across the deposit area (Simon, 2013).

These samples, weighing approximately 200 g each, had been pulverised to 85% passing - 0.075 mm. The composite samples were shipped on 30 October 2012 to the metallurgical laboratory of Endeavour Mining's Tabakoto mine. A standard, 48-hour bottle-roll test was conducted for a preliminary assessment of the leachability of the mineralised material.

Samples METDIBA01 and METDIBA02 are oxide samples, METDIBA03 is transitional, METDIBA04 and METDIBA05 are fresh (sulphide-hosting) samples.

Preliminary results from fine ore bottle-roll analysis of composited pulp samples from Diba yielded good recoveries of oxide material (91.9% - 94.3%) at grind sizes of  $P_{80}$  38 $\mu$ m and  $P_{80}$  44 $\mu$ m and transition material (94.2%) at a grind size of  $P_{80}$  34 $\mu$ m, and lower recoveries for sulphide material (75% - 87.5%) at grind sizes of  $P_{80}$  98 $\mu$ m and  $P_{80}$  42 $\mu$ m. Sample METDIBA04 was intended to be a high-grade sulphide interval; however, the accidental loss of sample C-1943 significantly reduced the overall grade of the composite.

The selected intervals represent a reasonable approximation to the sample variability and representativity across the deposit. As the samples had been pulverised prior to analysis, these tests only give an indication of recovery based on the particle size of the samples tested. The tests did not include the analysis of deleterious elements.

Grinding Solutions of Truro, United Kingdom have completed a simple benchmarking study of other operations in the same region featuring similar geology and along with the results of the test work completed concluded that a metallurgical recovery of 80% could be used for the PEA.

However, they have stressed that additional test work is required to produce a more accurate estimate of the recovery. Based on the review of the operations in the area, the recovery is conservative but based on the fact that the existing bottle roll test has been performed on a finely ground sample, this was deemed the most suitable recovery for the PEA. Coarse ore bottle roll tests followed by column tests need to take place to better mimic the behaviour within a heap leach environment.



Altus Strategies have collected additional samples for further test work to be completed in the near future.

Oxidation	Hole ID	Sample ID	From m	To m	Au Grade g/t	
					Sample	Interval
Oxide	MIRC06-001 (METDIBA01)	RC-2662	16	17	0.46	1.82
		RC-2663	17	18	0.33	
		RC-2664	18	19	0.33	
		RC-2665	19	20	0.67	
		RC-2666	20	21	0.72	
		RC-2667	21	22	0.51	
		RC-2670	22	23	12.10	
		RC-2671	23	24	0.74	
		RC-2672	24	25	1.39	
		RC-2673	25	26	0.99	
	MIDH06-009 (METDIBA02)	C-1474	8	9	26.10	3.42
		C-1475	9	10	0.32	
		C-1476	10	11	1.82	
		C-1477	11	12	0.44	
		C-1478	12	13	0.73	
		C-1479	13	14	0.20	
		C-1481	14	15	0.43	
		C-1482	15	16	4.61	
		C-1483	16	17	1.53	
Transition	MIRC06-004 (METDIBA03)	C-1484	17	18	0.70	3.42
		C-1485	18	19	0.72	
	MIRC06-004 (METDIBA03)	RC-3089	50	51	2.07	1.58
		RC-3090	51	52	1.56	
		RC-3091	52	53	3.84	
		RC-3092	53	54	3.67	
		RC-3094	54	55	1.18	
		RC-3095	55	56	0.90	
		RC-3096	56	57	1.18	
		RC-3097	57	58	0.79	
		RC-3098	58	59	0.36	
		RC-3099	59	60	1.00	
		RC-3100	60	61	0.83	
Sulphide	MIDH06-011 (METDIBA04)	C-1937	105	106	1.22	0.79
		C-1938	106	107	0.89	
		C-1939	107	108	0.35	
		C-1941	108	109	0.43	
		C-1942	109	110	0.93	
		C-1943	110	111	Lost (10.5)	
		C-1944	111	112	0.54	
	MIRC06-005 (METDIBA05)	C-1945	112	113	1.20	1.37
		RC-3193	86	88	4.37	
		RC-3194	88	90	0.92	
		RC-3197	90	92	0.29	
		RC-3198	92	94	0.57	
		RC-3199	94	96	1.31	
		RC-3200	96	98	0.73	

Figure 30 – Diba composite samples selected for Bottle-Roll analysis (Simon, 2013).



Sample ID	Feed Size (as is) 80%	Test Duration	Au Recovery	By Leaching gAu/mt ore			Reagent Requirements kg/mt ore	
	µm	Hours	%	Calc'd Head	Assayed Tail	Assayed Head	NaCN Consumed	Lime Added
METDIBA01	38	48	91.9	1.89	0.15	1.59	0.29	10.9
METDIBA02	44	48	94.3	1.37	0.08	1.30	0.18	7.7
METDIBA03	34	48	94.2	1.75	0.10	1.39	0.29	10.8
METDIBA04	42	48	87.5	0.90	0.11	0.74	0.19	2.69
METDIBA05	98	48	75.0	1.49	0.37	1.19	0.27	3.62

Table 2: Summary of Preliminary Bottle-Roll Results, Diba Deposit.

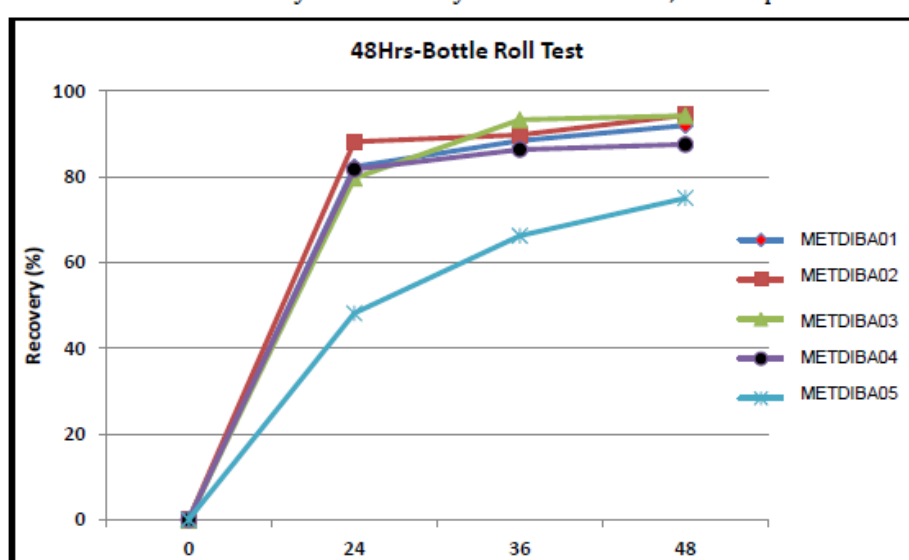


Figure 31 – Summary of preliminary bottle-roll results from Diba.

## 13.2 Diba Metallurgical Testing 2020

Grinding Solutions of Truro, United Kingdom completed a simple benchmarking study of other operations in the same region featuring similar geology and along with the results of the test work completed at that time concluded that a metallurgical recovery of 80% could be used for the PEA.

However, they stressed that additional test work is required to produce a more accurate estimate of the recovery. Based on the review of the operations in the area, the recovery was conservative but based on the fact that the existing bottle roll test had been performed on a finely ground sample, this was deemed the most suitable recovery for the PEA. Coarse ore bottle roll tests followed by column tests was advised to take place, in order to better mimic the behaviour within a heap leach environment.



Altus Strategies collected additional sample and engaged Grinding Solutions Ltd for further test work, which has been completed and the results were reported in October 2020.

Testing conducted by Grinding Solutions has shown that both submitted samples contained economic levels of gold and silver, with the sulphide sample grading at 1.02 g/t Au and 1.20 g/t Ag and the oxide sample grading at 3.74 g/t Au and 0.50 g/t Ag. Both the sulphide sample and the oxide sample had low total sulphur contents of 0.5 % and 0.37 % respectively and organic carbon contents of 0.03 % and 0.04 % respectively.

Coarse ore bottle roll testing on the oxide sample has shown that excellent gold extractions of up to 95.8% can be achieved at crush sizes down to 6.3mm, high extractions were also observed for crush size up to 16mm where gold extraction of 94.5 % was observed. Final extractions are achieved after a leach period of approximately 240 hours. If this process method is pursued further, additional coarse ore bottle roll tests should be completed at chosen crush sizes to optimise the cyanide dosage employed. Leach time for these tests could be reduced to 240 hours. Once this parameter has been selected, column leach testing should be completed in order to provide more realistic leach extraction data for heap leach modelling.

Table 19 – Samples Blended to Form Oxide Composite Sample

JOB NUMBER	SAMPLE SERIAL	DESCRIPTION	NAME	Quantity	Unit
21-1866	0001	MID 002 171101	22-44m	21.8	kg
21-1866	0002	MID H06 - 006 171102	18-57m	37.6	kg
21-1866	0003	MID H07 - 035 171103	34-41m	12.6	kg

Table 20 – Coarse Ore Bottle Results on Diba Oxide Sample

Crush Size $\mu\text{m}$	Final Au Extraction %	Final Ag Extraction %	NaCN Consumption kg/t	CaO Consumption kg/t
20000	90.63	24.06	0.23	1.68
16000	94.45	22.85	0.23	1.79
12500	93.30	35.46	0.18	1.86
6300	95.75	42.16	0.13	1.83

### 13.3 Lakanfla Metallurgical Testing 2022

Grinding Solutions Limited (GSL) was contacted by Altus Strategies regarding the investigation of gold recovery testing on samples from the Laflanka deposit.

Testing was to investigate heap leach amenability and gravity, CIP/CIL amenability of Oxide sample.

The Table 21 below shows the samples received by Grinding Solutions Ltd and were specified as oxide sample by the client, totalling 72.3 kg. The following sample preparation was performed on the oxide sample:



- Staged crushed through 12.5mm, 5kg split out for leach testing.
- The remaining stage crushed through 6.7 mm, and 5kg split out for leach testing.
- All remaining stage crushed through 1mm and split into 1kg charges for fine ore leach, and gravity testing.

Table 21 – Oxide samples received

JOB NUMBER	SAMPLE SERIAL	DESCRIPTION	NAME	Quantity	Unit
23-2071	0001	Oxide Bag 1/3	Sample as Received	24.0	kg
23-2071	0002	Oxide Bag 2/3	Sample as Received	23.7	kg
23-2071	0003	Oxide Bag 3/3	Sample as Received	24.6	kg

A sub-sample from each of the submitted ore types was subjected to chemical head analysis. results show that oxide sample contained economic levels of gold and silver grading at between 0.61 – 0.71 g/t Au and 0.50 g/t Ag. The oxide sample had low total sulphur content of 0.01 % and carbon content of 0.1 % respectively

Both samples were submitted for a grind calibration. Testing was performed on 1kg samples preground to a 2mm top size. Charges were ground in a laboratory rod mill for various time periods and the mill products were then submitted for size analysis. The product P80 of the mill was then plotted against the grind time employed to reach it to produce the grind curves. The plot is shown below in Figure 32.

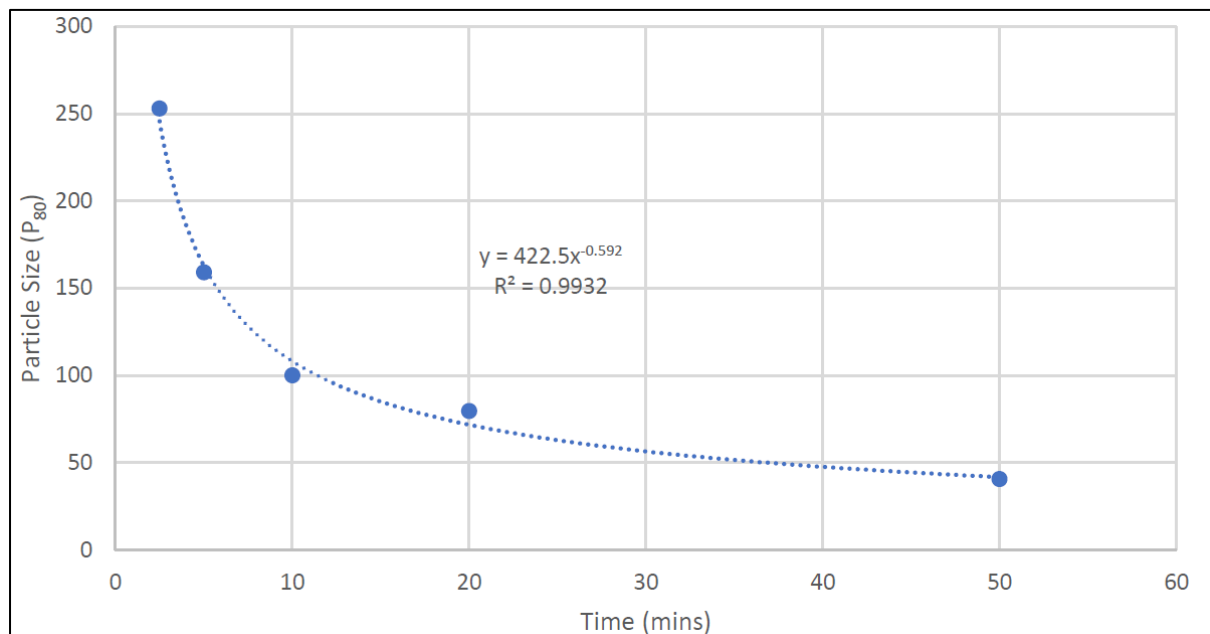


Figure 32 – Oxide samples grind calibration curve



Coarse ore bottle roll tests were completed on the oxide composite. The conditions for the tests are shown below:

- Crush sizes of 12.5mm, 6.7mm
- 40 % w/w solids
- NaCN 1 g/l
- 14 day leach period
- Rolling bottle 1min/hour

The results for the tests are shown below in Table 22 and Figure 33.

Table 22 – Summary results of oxide coarse ore bottle roll tests

Hrs	Au Extraction to Solution %			
	12.5 mm		6.7 mm	
	CN6	CN7	CN8	CN9
2	15.92	15.41	15.16	12.49
4	31.86	30.80	28.16	29.08
6	43.28	41.78	38.98	39.60
24	77.66	72.65	69.31	68.99
48	89.49	84.15	80.66	81.98
96	94.63	89.04	87.59	88.74
168	97.44	89.38	92.31	91.19
221	95.81	90.12	93.10	94.08
336	98.49	92.75	95.72	94.49
NaCN kg/t	0.12	0.11	0.13	0.12
Ca(OH) <sub>2</sub>	1.03	1.04	1.03	1.01



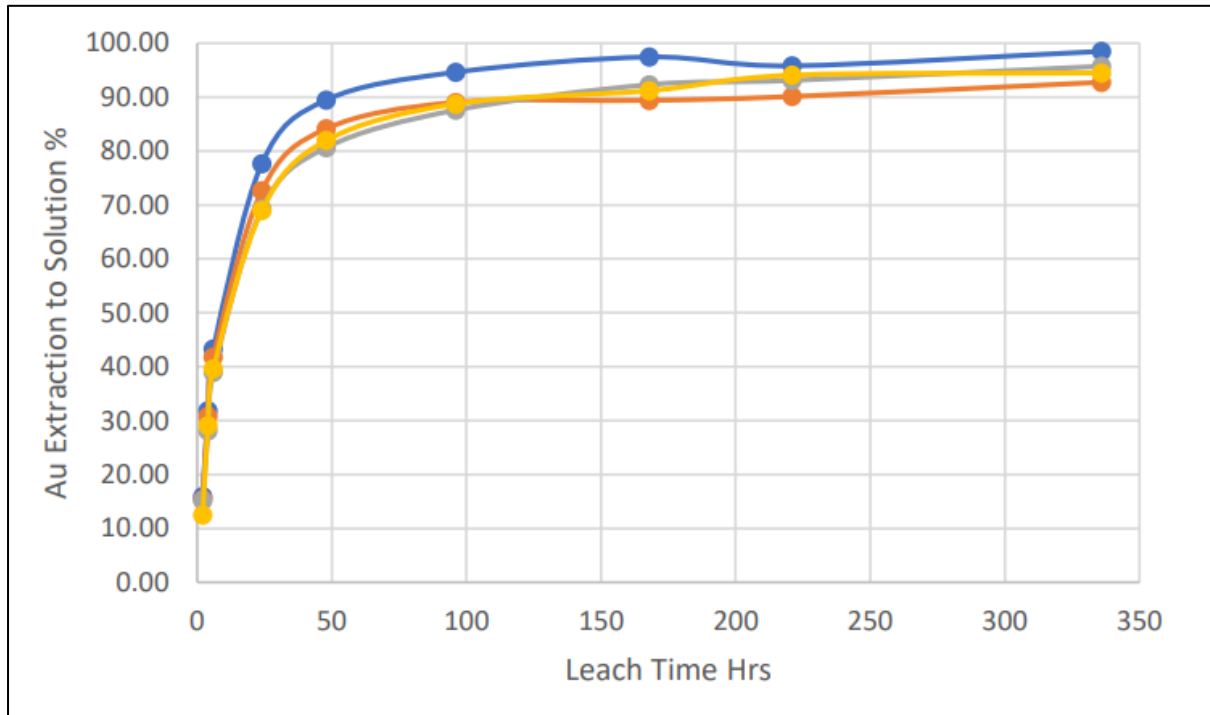


Figure 33 – Au kinetic extraction curve for oxide coarse ore bottle roll tests

The results show that final gold extractions ranged between 92.75 % and 98.49%. Extractions were similar for both crush sizes of 6.7 mm and 12.5 mm indicating coarser crush sizes could be employed.

Cyanide consumption after 14 days of leaching were low for all tests at around 0.13 kg/t. Lime consumption was around 1.03 kg/t for all tests.

Sub-samples of the oxide composite were submitted for fine ore cyanide leach tests. Tests were completed at the following conditions

- Grind sizes of 250µm, 180µm, 125µm, 75µm, 45µm
- 40 % w/w solids
- Maintained NaCN 1g/l
- 2-day leach period
- Continuous rolling bottle

The results for the tests are shown below in Table 23 and Figure 34



Table 23 – Summary results of oxide fine ore bottle roll tests

Grind Size µm	Gold Extraction to Solution %	NaCN Consumption kg/t	Ca(OH) <sub>2</sub> Consumption kg/t
250	98.49	0.013	0.678
180	98.53	0.011	0.617
125	97.50	0.008	0.675
75	98.56	0.011	0.777
45	98.66	0.008	0.725

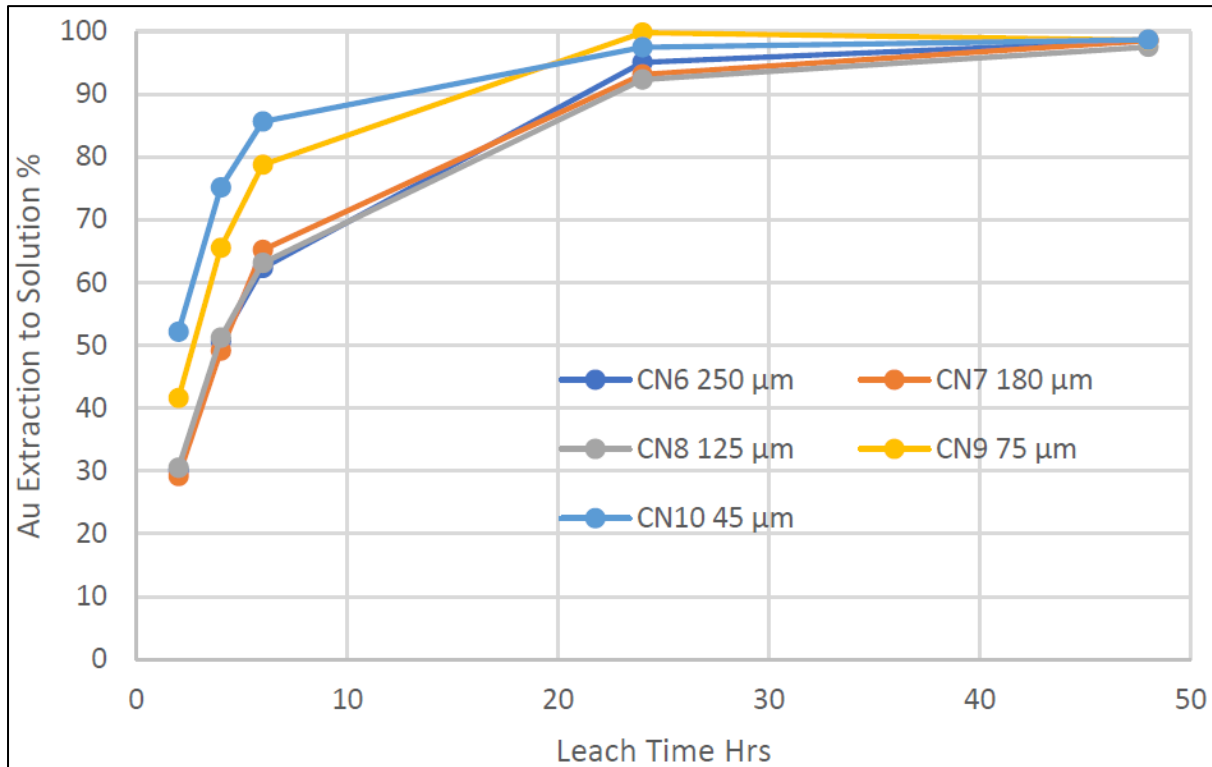


Figure 34 – Au kinetic extraction curves for oxide fine ore bottle roll tests

The results indicate that the tests gave gold extractions of between 97.50 % and 98.66 % after 48 hours of leaching. Cyanide consumption during the tests were low ranging between 0.008 to 0.013 kg/t NaCN. Lime consumption varied between 0.68 and 0.78 kg/t Ca(OH)<sub>2</sub>.



## 14 MINERAL RESOURCE ESTIMATES

### 14.1 Diba

The Mineral Resource estimate was prepared by Mr Julian Aldridge (formerly of Mining Plus UK Ltd) and Mr Lawrence Sullivan IEng (Mining Engineer, Mining Plus UK Ltd) supervised by Mr Dan Tucker CEng (Mining Plus UK Ltd). Dr Matthew Field Pr. Sci. Nat (Mining Plus UK Ltd) is the QP for the Mineral Resource Estimate (MRE).

The MRE was completed using Leapfrog Geo, Snowden Supervisor and Datamine Studio RM geological and mining software. The MRE was completed on 12 April 2022.

#### 14.1.1 Client Data

Data used in the MRE were provided by Altus Strategies and included drillhole files in Microsoft Excel format, surface topography and a variety of previous reports, maps and other documents.

#### 14.1.2 Database

The drilling database used in the estimation was compiled by Mining Plus from Microsoft Excel workbooks provided by Altus in March 2022.

These holes were compiled into DrillholeDB.xls (summarised in Table 24), and subsequently imported into Leapfrog Geo as COLLAR, SURVEY, ASSAY and WEATHERING text files, to produce a representation of the three-dimensional drill hole trace. Figure 35 below shows the drill locations. Core and RC holes have downhole survey measurements;

- Each of the diamond drill holes has a collar survey measurement and a measurement every 5-30m downhole.
- Each of the RC drill holes has a collar survey measurement and a measurement every 5-45m downhole.

The majority of drilled metres were sampled for assaying. There are 30,798 core and RC samples averaging 1m in length. On average, core samples are 0.99m in length (0.5 – 1m min-max), and the RC samples are 0.99m in length (0.75 – 1m min-max).

Table 24 – Total metres of drilling in each campaign.

Hole Type	Naming	Number of Holes	Metres Drilled
DDH	21KSDD-001 to MIDH07-092	86	12884.5
RC	20KSRC-001 to MIRC08-094	222	17855.35
<b>Total</b>		<b>308</b>	<b>30739.85</b>



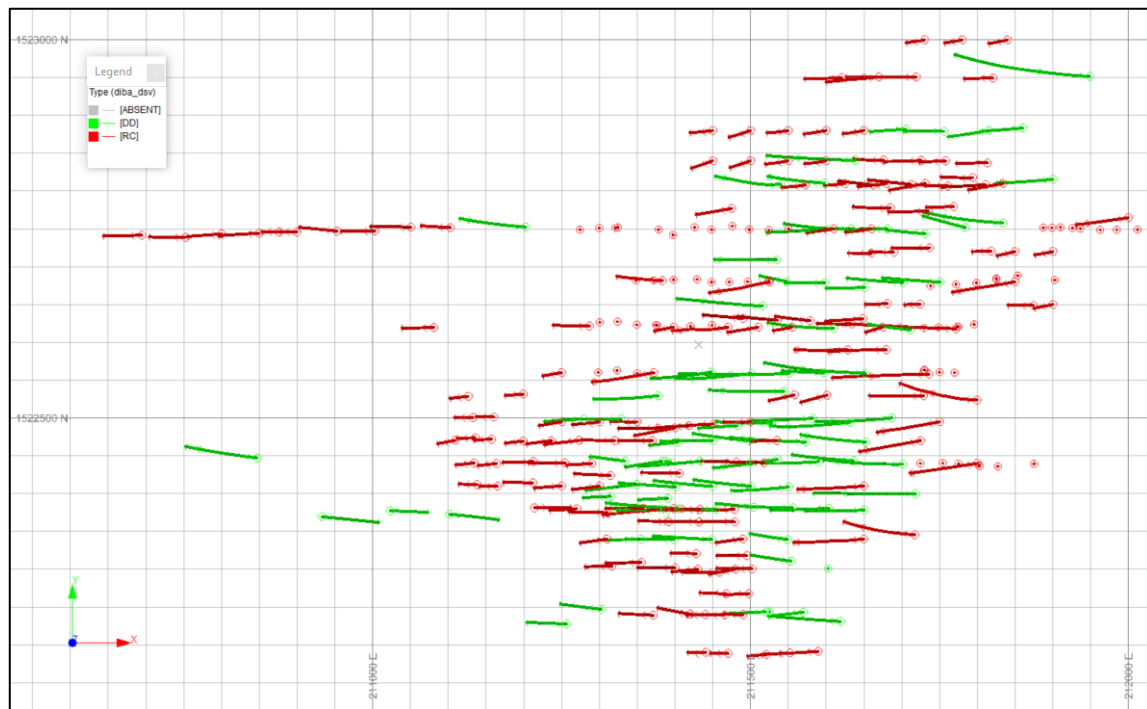


Figure 35 – Plan view of the different drilling types at Diba

Mining Plus comments:

- There are very few drill hole database errors. Drillhole collars were checked using a handheld GPS during the site visit and were found to be within reasonable proximity of the values contained in the database. It should be noted that collars were measured by Altus using a differential GPS and should be more accurate than the handheld GPS measurements. Mining Plus therefore accepts that the drillhole collar co-ordinates in the database are sufficiently accurate to support Mineral Resource Estimation.

### 14.1.3 Topographic Surface

Altus Strategies provided topographic maps from the Shuttle Radar Topography Mission (SRTM) that have 5-metre resolution. Mining Plus modified the topographic surface for the project using the drill hole collar elevations measured by DGPS to ensure that the topography coincides with drillhole collars (Figure 36). This means that the remainder of the surface remains at low resolution.

Mining Plus comments:

- A high-resolution topographic surface (corrected for vegetation) should be surveyed during the next stage of project development; there are requirements from geology, MRE,



processing engineering, tailings design, plant design, and pit engineering that require a higher resolution surface.

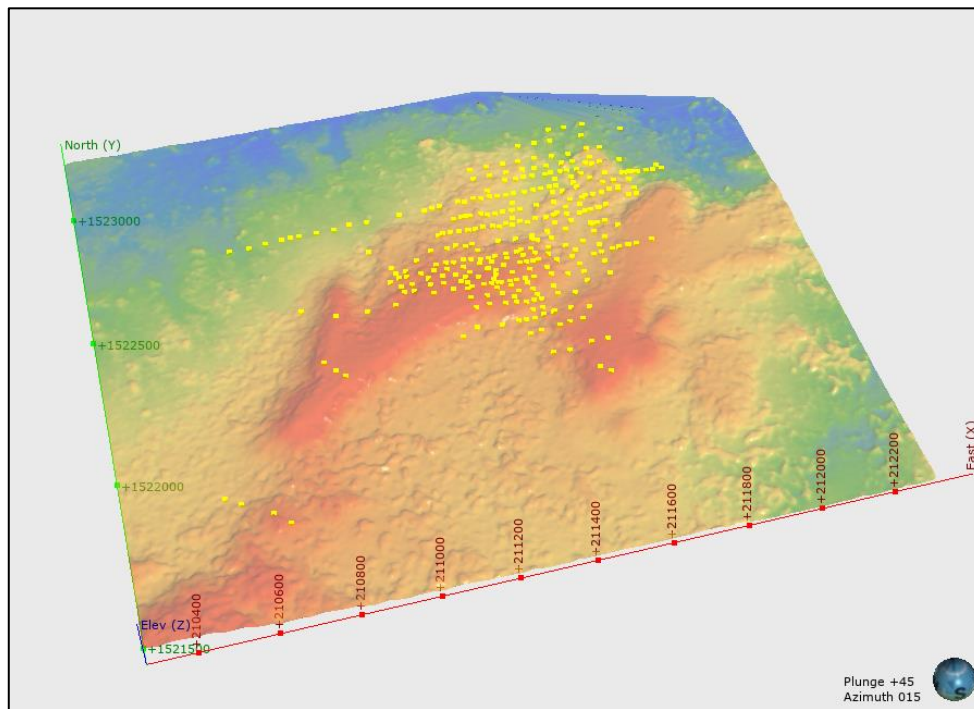


Figure 36 – Mining Plus-created topographic surface, coloured by elevation, using the dGPS surveyed drill hole collars

#### 14.1.4 Geological Model

Mining Plus grouped the logged lithologies in Leapfrog Geo into major lithological units, comprising laterite, saprolite, metasediments and intrusive before performing lithology contact modelling to construct a lithological model ensuring that the lithological units are snapped to the drillhole intercepts. The lithological units were used to code Lith\_type into the Datamine wireframes and block models used throughout the estimation process. A vertical cross section illustrating the interpreted lithologies, the modelled wireframes and block model coding are provided in Figure 37.



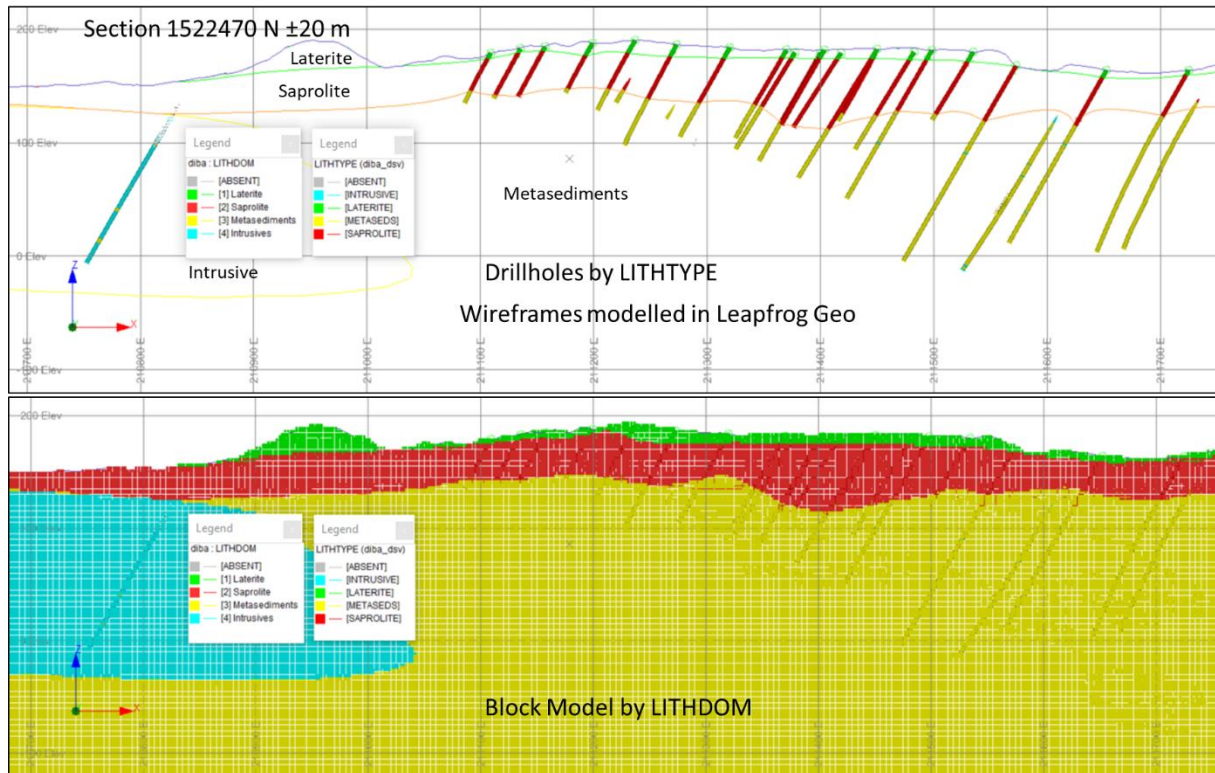


Figure 37 – Vertical W-E cross section with interpreted lithologies and modelled wireframe outlines (top) and coded block model (bottom).

Weathering drill data was used by Mining Plus to generate a base of complete oxidation (BOCO) surface and top of fresh (TOFR) surface in Leapfrog Geo (Figure 38) using the surface contact modelling function. The weathering surfaces were used to code Oxide, Transition and Fresh into the block model used throughout the estimation process.



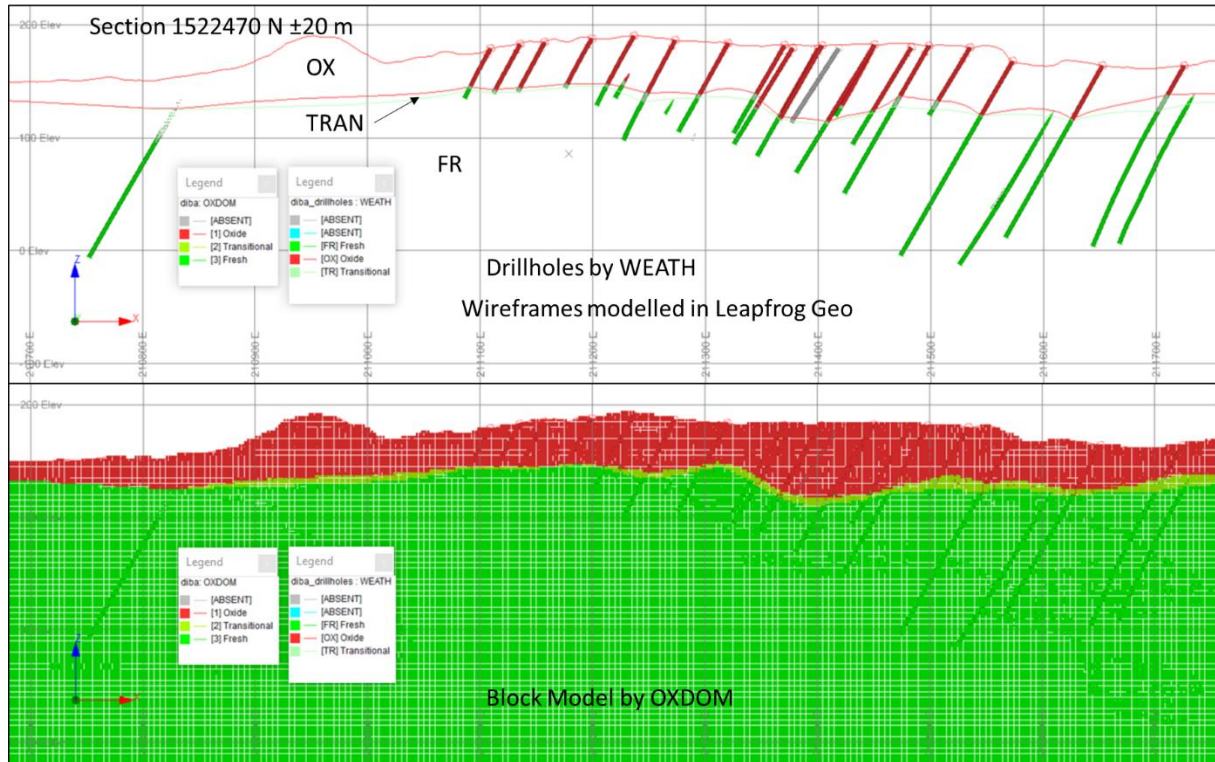


Figure 38 – Vertical cross section with drillholes coded by weathering code and outlines of modelled weathering domains (top) and block model coded by oxidation domain (bottom).

Mining Plus coded the weathering intervals into the assay file and performed contact analysis between the lithological units to confirm that grade modelling should be constrained within lithological units. The contact plots (Figure 39) confirm that grade shells should be modelled using lithological units as hard boundaries.



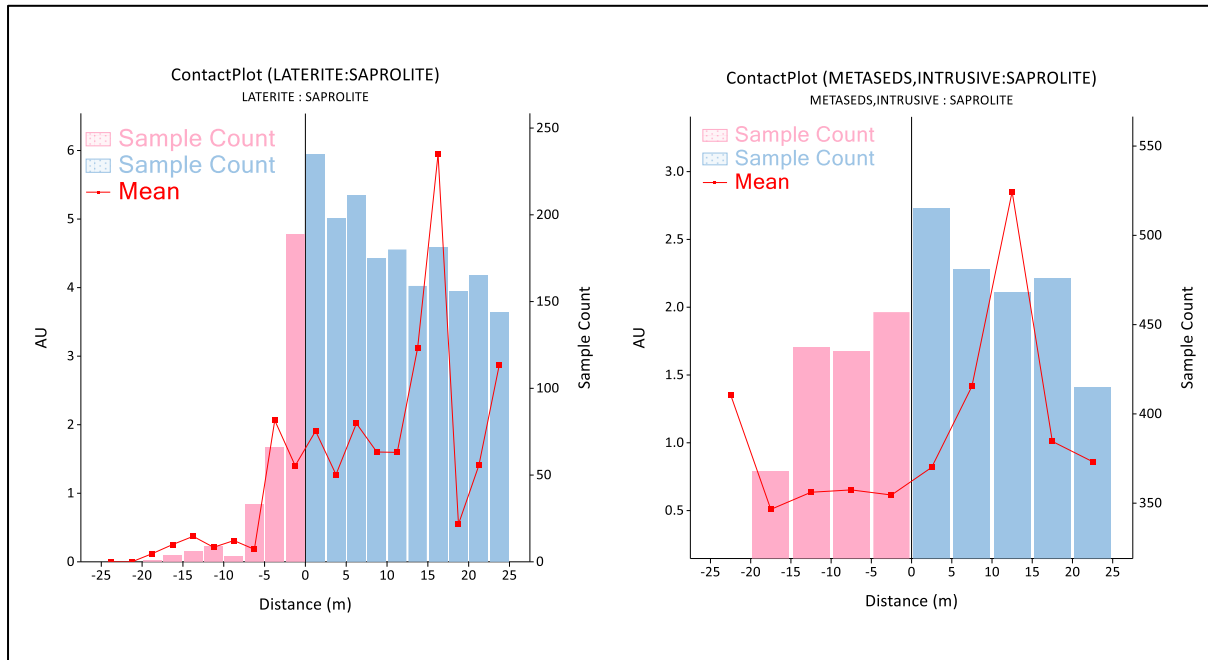


Figure 39 – Contact boundary analysis between lithological units

After review of natural breaks in the assay data, 0.2g/t Au was chosen as the threshold lower grade limit for modelling the mineralised shells. Mining Plus composited the assay data to 1m, applied a cut-off grade at 0.2 g/t Au and set the maximum included waste intervals to 8m to ensure continuity with sparse data in Leapfrog Geo to use for numerical modelling.

Mining Plus performed Indicator RBF grade interpolation within the lithological boundaries for laterite (AUDOM 1), saprolite (AUDOM2), and a combined shell for metasediments and intrusive units (AUDOM3) (Figure 40). These domains were used as the domains for estimation in the MRE. In three dimensions the grade shells, particularly in the fresh rocks have the appearance of multiple lenses that dip at moderate angles (20 to 30 degrees) to the southeast, conforming to previous interpretations of the mineralisation at Diba. Within the saprolite zone the lenses are obscured by alteration processes and thus have a flatter appearance. A flat, sub-horizontal aspect is a feature of the laterite.



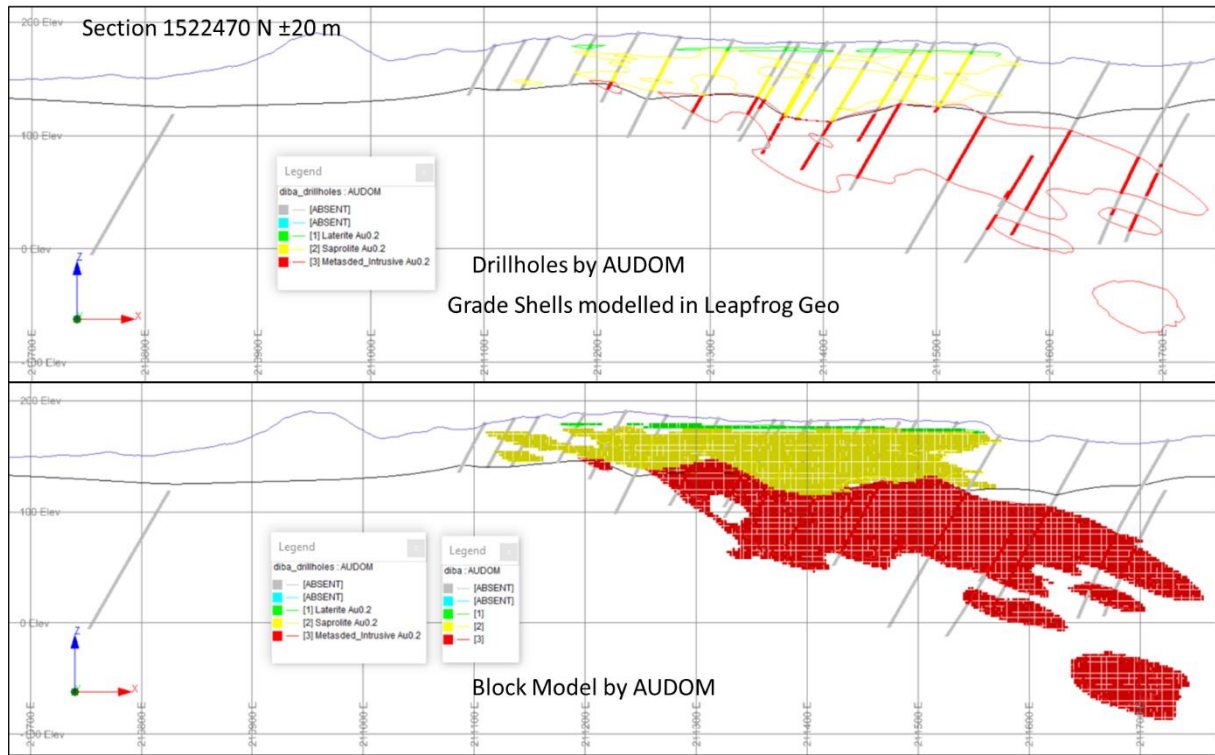


Figure 40 – Vertical cross section with drillholes coded by Au domain from the grade shells shown and modelled (top) and block model coded by Au domain

#### 14.1.5 Exploratory Data Analysis

Mining Plus performed exploratory data analysis (EDA) on the raw assay data that was flagged as being inside the modelled grade shells (AUDOMS).

##### 14.1.5.1 Compositing

The original sample lengths are predominantly 1m in length, so Mining Plus applied an overall composite of 1m (Figure 41). This both honours the majority intercept length, and allows enough definition to estimate thin zones of gold (Table 25).

The drill holes were composited prior to being used for wireframing, and prior to applying capping values.

Table 25 – Statistics of the pre- and post-composited drill hole intercepts.

Domain	Number of Samples		Mean Grade			Std Dev		Coeff Variation	
	Raw	Composite	Raw	Composite	% Diff	Raw	Composite	Raw	Composite
1	315	250	1.31	1.32	1%	8.6	8.32	6.54	6.32
2	5847	4486	0.68	0.56	-18%	4.69	4.43	6.91	7.98
3	4377	5498	1.5	1.23	-18%	15.4	9.86	10.2	8.02



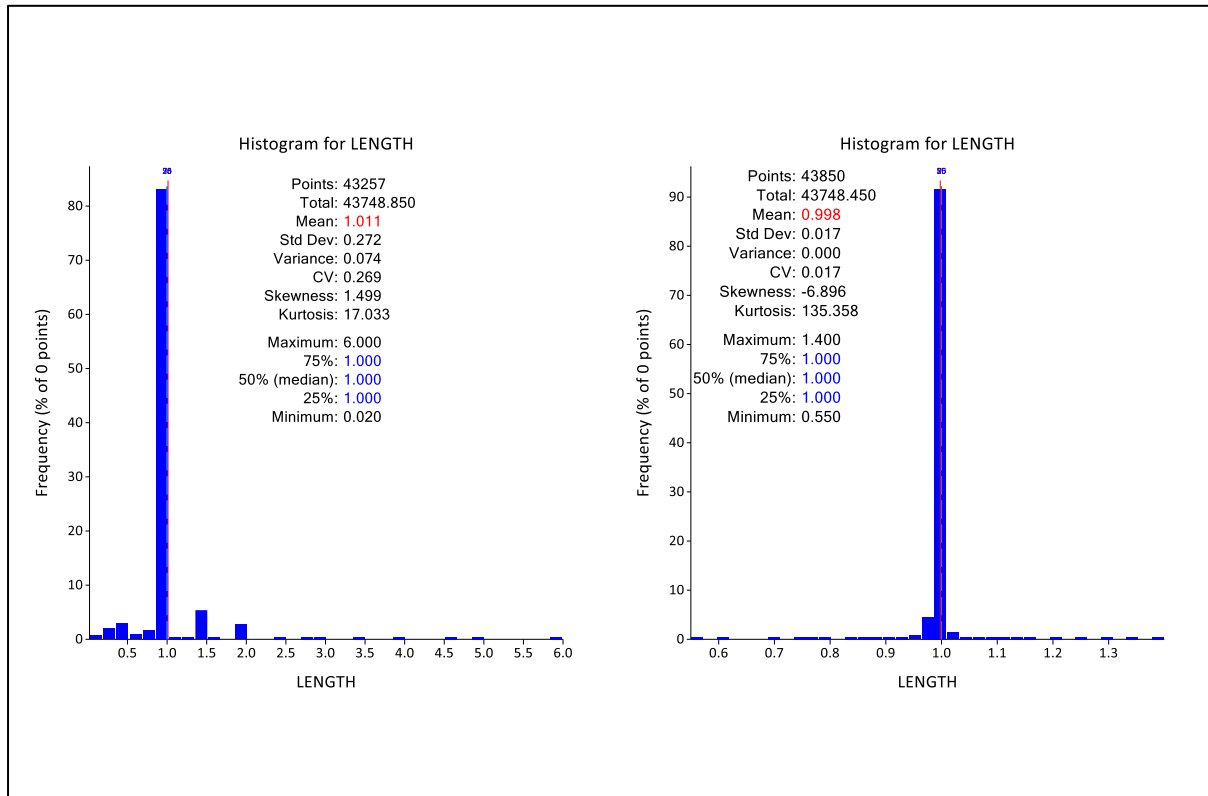


Figure 41 – Histograms of sample length pre (left) and post compositing (right).

#### 14.1.5.2 Top-cuts

Top cutting was performed on the composited samples. There are a significant number of outlier values, and the coefficient of variation for each domain is high in the composited samples indicating that top-cutting should be applied. On the basis of the different grade cumulative distributions for each estimation domain, Mining Plus decided to apply grade capping or top-cutting at different thresholds and summarised in Table 26.

Domain	Number of Samples		Mean Grade			Top-Cut Value	Standard Deviation		Coeff of Variation		Max Un-Cut Grade	Top-Cut %ile
	Un-Cut	Top-Cut	Un-Cut	Top-Cut	% Diff		Un-Cut	Top-Cut	Un-Cut	Top-Cut		
1	250	241	1.32	0.48	-64%	3	8.32	0.69	6.32	1.44	116.5	96%
2	4486	4464	0.56	0.94	68%	36	4.43	3.18	7.98	3.39	846.8	99.5%
3	5498	5474	1.23	1.23	-66%	8	9.86	0.82	8.02	1.93	228.5	99.6%

Table 26 – Top-cutting parameters for the Diba drill hole data

#### 14.1.5.3 De-clustering

Mining Plus reviewed declustering during the estimation process, and made the decision not to apply it prior to block model estimation.



#### 14.1.5.4 Variography

Mining Plus used Snowden Supervisor software to calculate downhole and directional variograms (Figure 43) using the 1m capped gold composites located inside the domains (AUDOMs). Whilst valid variograms were established for the Saprolite (AUDOM 2) and combined metasediment-intrusive domain (AUDOM 3), the laterite domain contained too few data for a meaningful variogram to be constructed.

Downhole variograms were used to define the nugget portion of the variance; which is 0.24 for the saprolite and 0.31 for the combined fresh metasediment-intrusive domain.

Mining Plus considers the orientations of the variograms, and the range of each axis, to be appropriate, and to closely match the thickness of the lenses, and orientation along-strike and down-dip of the mineralised lenses.

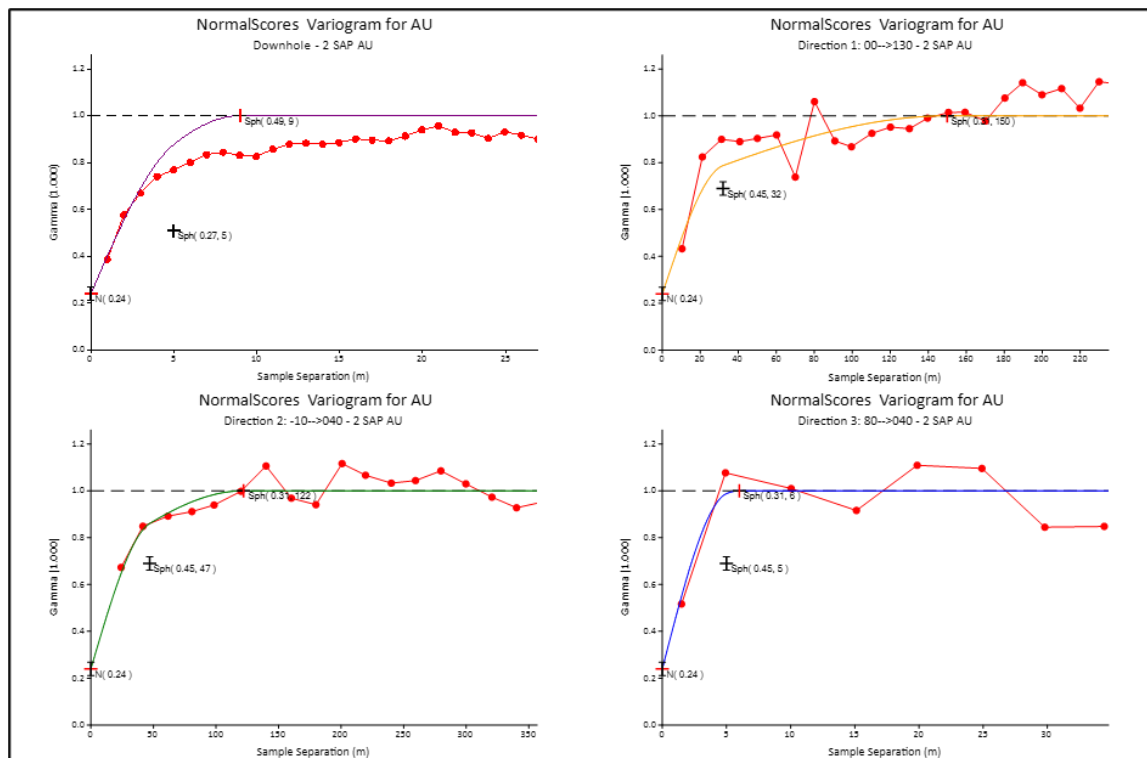


Figure 42 – Variograms for the Saprolite domain (AUDOM 2)



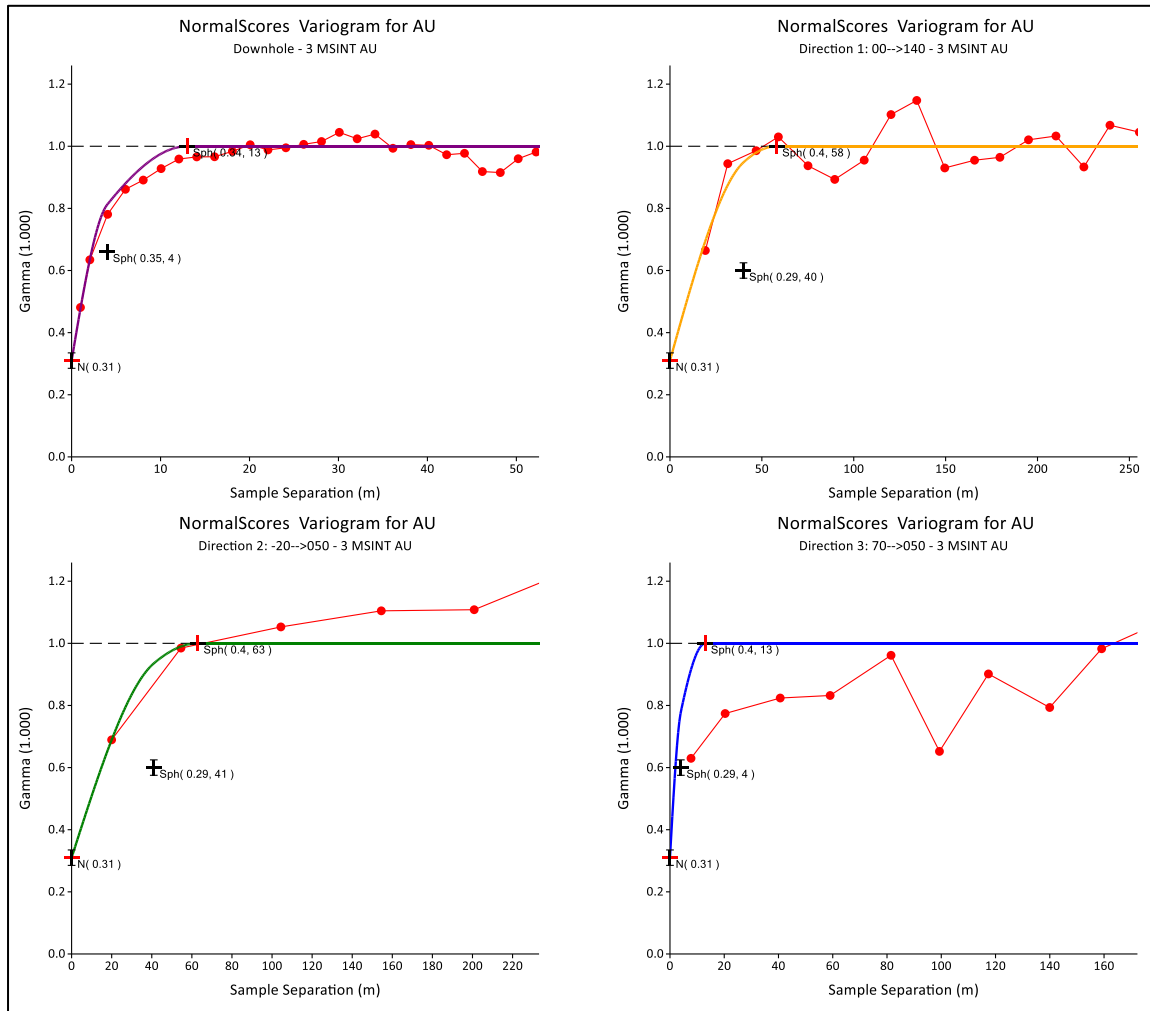


Figure 43 – Variograms for the combined metasediment-intrusive domain (AUDOM 3)

Table 27 – Variogram parameter files

Domain	Element				Variographic parameters - back transformed						
		Dir 1	Dir 2	Dir 3	C0	C1		A1	C2		A2
1	Au	0	0	0	0	Dir 1	1	75	Dir 1		
						Dir 2		75	Dir 2		
						Dir 3		5	Dir 3		
2	Au	40	10	0	0.585	Dir 1	0.376	32	Dir 1	0.04	150
						Dir 2		47	Dir 2		122
						Dir 3		5	Dir 3		6
3	Au	50	20	0	0.745	Dir 1	0.23	40	Dir 1	0.03	58
						Dir 2		41	Dir 2		63
						Dir 3		4	Dir 3		13



#### 14.1.5.5 Density

To calculate block tonnages, Mining Plus assigned bulk density values to the lithology zones (Table 28). These are the mean values calculated from the measurements made on Diba drill core samples as summarised in Table 18.

Table 28 – Densities chosen for use in the block model based on lithology type.

Domain	DENSITY
Laterite	1.78
Saprolite	1.72
Metasediments	2.69
Intrusive	2.71

#### 14.1.6 Kriging Neighbourhood Analysis

The geological software used for Kriging Neighbourhood Analysis (KNA) was Snowden Supervisor. Mining Plus made the following decisions for estimation parameters, based on the results of the KNA:

- **Block Size:** There was very little difference between the Kriging Efficiency (KE) and Slope of Regression (SR) of block sizes between 5m and 10m, so a parent block size of 5m x 10m x 5m was chosen to fit the wireframes effectively, and honour a planned bench height of 5m. Sub-celling to 5m x 5m x 2.5m was chosen.
- **Min-Max Samples:** The sample range for block grade estimation was chosen as 8-24 samples, based on the shape of the KE and SR curves over a 2-60 sample range.
- **Search Ellipse size:** the first search ellipse was chosen as half the variogram range, with the second search ellipse at the variogram range and the third search ellipse at twice the variogram.
- **Discretisation:** this showed little difference in KE or SR above a 2 x 2 x 2 discretisation; 2 x 2 x 1 was chosen for use in this estimation.

Table 29 – Estimation parameters.

KNA Summary Domain	Block Size	No. of Samples		Primary Search Ellipse			Discretisation
		Min	Max	Major	S-Major	Minor	
1	5m x 10m x 5m	8	24	35	35	2.5	2, 2, 1
2	5m x 10m x 5m	8	24	75	60	3	2, 2, 1
3	5m x 10m x 5m	8	24	30	30	6.5	2, 2, 1



### 14.1.7 Estimation Methodology

The software used for block model grade estimation was Datamine Studio RM. The block model was initially prepared from a prototype generated with the parameters in Table 30. The blocks were then populated in the mineralised wireframes and coded by AUDOM wireframe number (AUDOM). They were subsequently coded by oxide and lithology.

Table 30 – Block model parameters

	Scheme	Parent
Block Model Origin	X	210,300
	Y	1,521,600
	Z	- 250
Block Model Maximum	X	212,300
	Y	1,523,400
	Z	300
Parent Block Size	X	5
	Y	10
	Z	5
Sub-Cell Block Size	X	2.5
	Y	5
	Z	2.5

Table 31 – Columns coded into the block model.

Variable	Type	Default Value	Description
AUDOM	Integer (Integer * 4)	-99	Unique estimation domain code
LITHDOM	Integer (Integer * 4)	-99	Lithology Code (1-3)
DENSITY	Float (Real * 4)	0	bulk density estimate/assignment
OXDOM	Integer (Integer * 4)	-99	00 = air, 1 = oxide, 2 = transitional, 3= fresh
RESCAT	Integer (Integer * 4)	4	1 = Measured, 2 = Indicated, 3 = Inferred, 4 = Unclassified
AU	Float (Real * 4)	-99	Estimated Grade - OK - Gold - ppm - mindom2= ID2, mindom3&4= OK
AU_OK	Float (Real * 4)	-99	Estimated Grade - OK - Gold - ppm
AU_ID2	Float (Real * 4)	-99	Estimated Grade - ID2 - Gold - ppm
AU_NN	Float (Real * 4)	-99	Estimated Grade - NN - Gold - ppm
SVOL	Integer (Integer * 4)	-99	estimation pass number –(1-4)
NUM_S	Float (Real * 4)	-99	Number of samples
TDIS	Float (Real * 4)	-99	Translation Distance of samples
KV	Float (Real * 4)	-99	kriging variance - OK

Mining Plus estimated gold grades using Ordinary Kriging (OK), with check estimates using Inverse Distance Squared (ID2) and Nearest Neighbour (NN). Estimation was performed only



on cells within the mineralised wireframes. Grade was estimated in three passes, using increased search ellipse sizes each time (see KNA section). Details of the estimation parameters are given below in Table 32.

Table 32 – Estimation parameters

Domain	Search			# Samples		DH	Second Pass			# Samples		DH	Third Pass			# Samples		DH
	Major	Semi-Major	Minor	Min	Max		Major	Semi-Major	Minor	Min	Max		Major	Semi-Major	Minor	Min	Max	
1	75	75	5	8	24	4	150	150	10	2	24	4						
2	75	60	3	8	24	4	150	120	6	8	24	4	300	240	12	2	24	4
3	30	30	6	8	24	4	60	60	12	8	24	4	120	120	24	2	24	4

#### 14.1.8 Block Model Validation

Mining Plus performed validation of the gold grade estimate by visual inspection on vertical E-W cross sections of the estimated blocks and Au capped composites drill hole values. These sections show the internal distribution of grade within the mineralised shells, and show that the gold grade has not been smeared into internal waste zones. Example sections are shown in Figure 44 and Figure 45.

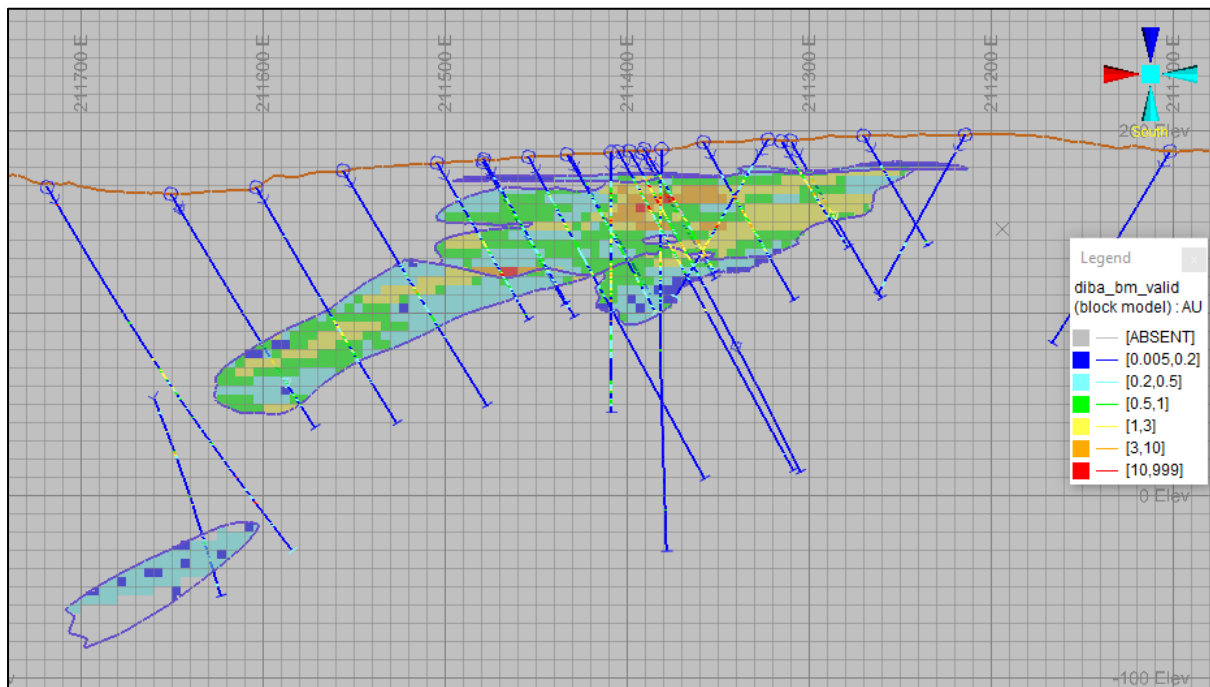


Figure 44 – E-W cross section (1522380 N) in the southern part of the Diba deposit looking South.



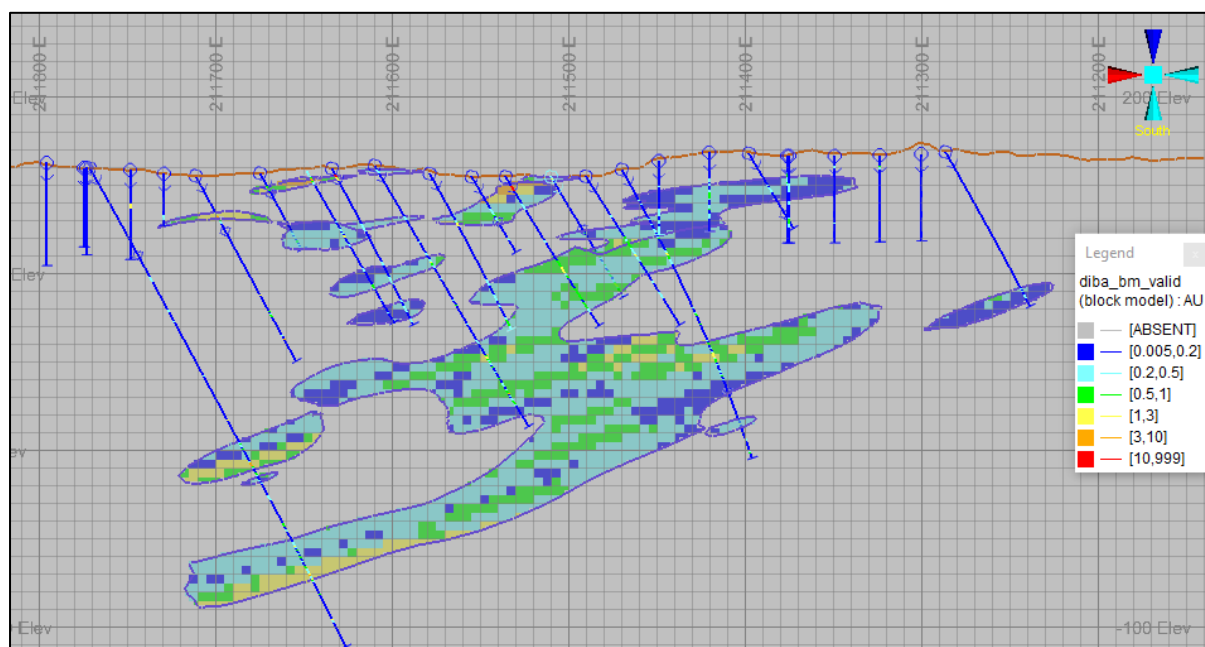


Figure 45 – E-W cross section (1522620 N) in the northern part of the Diba deposit looking South.

In Figure 45 it can be seen where substantial distances exist between holes at depth the influence of search volume 3 (twice the variogram range) allows blocks that are distant from samples to be estimated over considerable distances. However, the variography ensures that the high and low grade blocks are oriented along the trend of mineralised zone.

A volume validation was performed for each of the estimation domains (Table 33) and global grade validations for each estimated domain (Table 34). The volumes measured from the wireframes and those from the block model are in good agreement, indicating that sub-blocking process fills the blocks adequately. There is a decrease in the estimated grade that is discussed later in this section.

Table 33 – Volume validation of each estimation domain

Domain	Wireframe Volume	Block Model Volume	% Difference	Comments
1	229,732	229,344	<b>-0.17%</b>	Close fit
2	4,659,078	4,659,313	<b>0.01%</b>	Close fit
3	13,903,944	13,912,500	<b>0.06%</b>	Close fit

Table 34 indicates that the estimation process produces grades that are lower than the mean composite grades for all three domains, with those in Domain 1 (Laterite) and 2 (Saprolite) exceeding 10%, which Mining Plus considers significant. For the laterite there were too few samples to model a valid variogram, and this together with the insignificant volume of this unit means that there is little concern. In fact, from the contact plots (Figure 39 left) it could



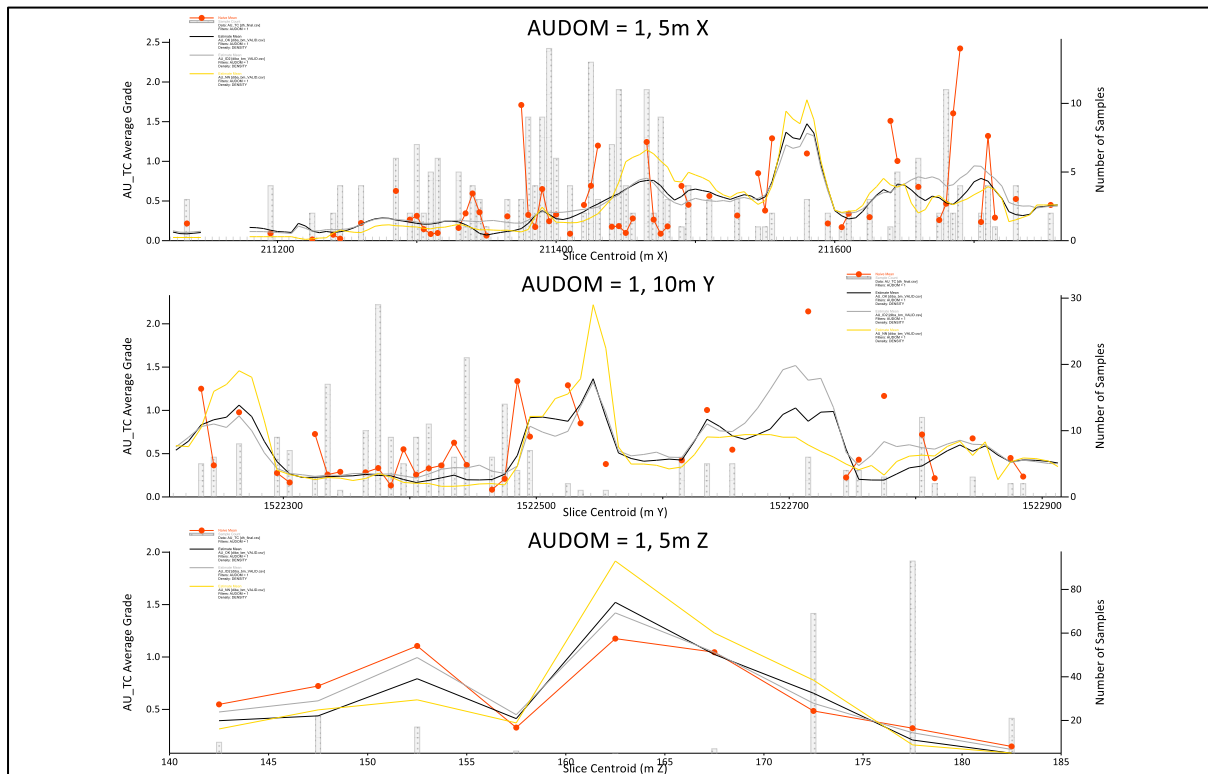
be argued that the mineralised laterite should have combined with the saprolite for estimation purposes.

Lower estimated grades in the Saprolite are of greater concern, since this material may be the largest contributor to a potential heap-leach operation.

Table 34 – Grade validation for each estimation domain

Domain	Estimated Tonnes	Estimated Grade (cut)	No. of Composites	Composite Grade (cut)	Tonnes per composite	% Diff Est Grade vs Composite	Comments
1	6,408	0.42	250	0.48	26	-13%	Small tonnage
2	58,611	0.96	4,486	1.08	13	-11%	
3	121,109	0.41	5,498	0.44	22	-7%	

Swath plots shown in Figure 46, compare the OK (black line), ID2 (grey line) and NN (yellow line) estimates to the naive composited and top-cut sample means (red line) within the defined mineralisation domains. These plots show that generally the composite spatial grade distribution is adequately reproduced by the Au kriged block model, although typically the kriged and ID2 means are smoothed. It also reveals the low numbers of samples in the laterite domain where the sample data are very spiky. The sampling of the saprolite and combined fresh metasediment-intrusive domain are better, and hence the swath plots produce improved results.





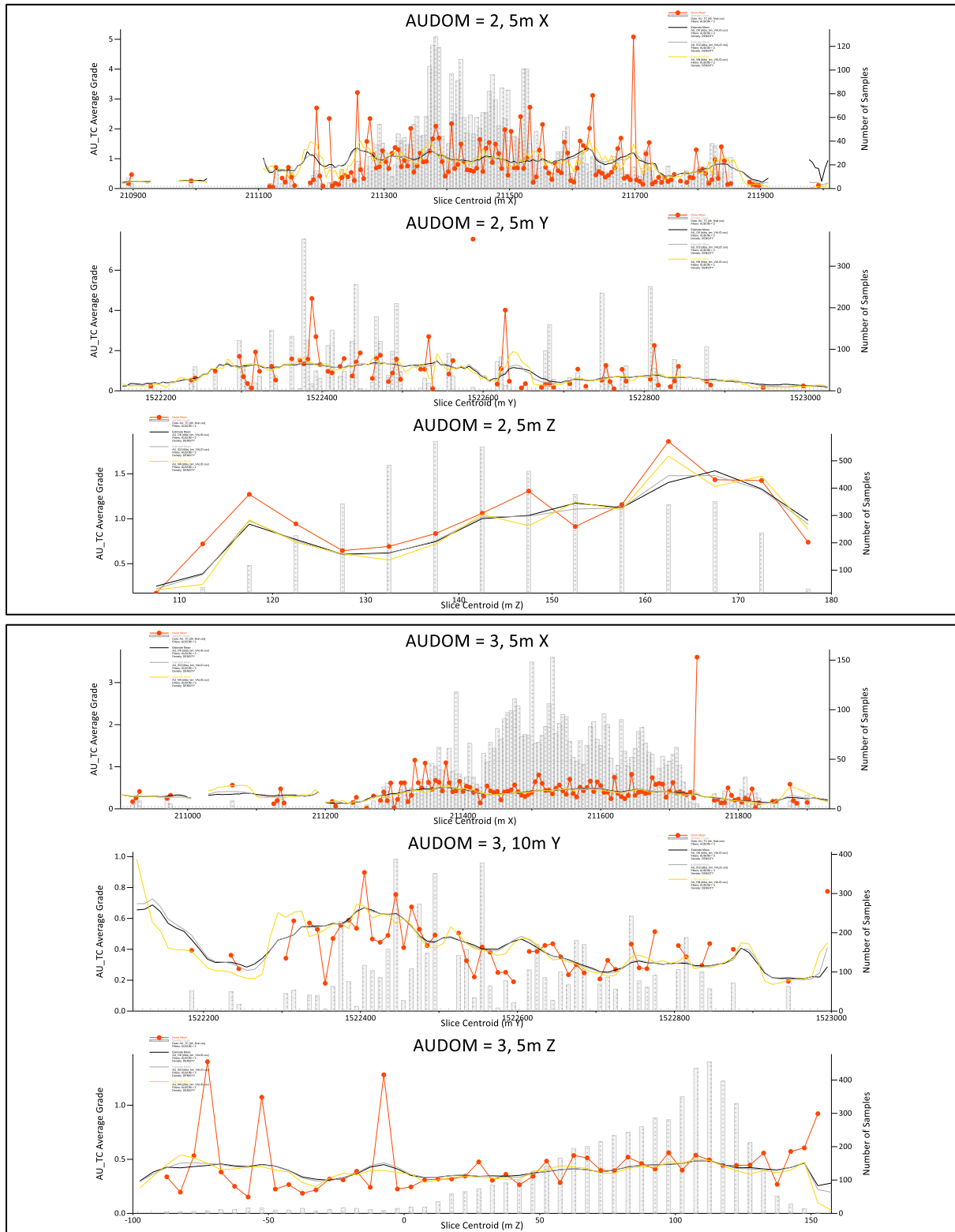


Figure 46 – Swath plots for each mineralised domain Top: Laterite (AUDOM1), middle: Saprolite (AUDOM2) and bottom: Metasediments-Intrusive (AUDOM3)



Mining Plus considers the estimated block model grades (locally and globally) are reasonable estimates of the sample data from which they were derived. The compositing, capping and sample controls applied to the data ensure that high grades are not adversely interpolated into blocks surrounding outlier sample grades.

#### 14.1.9 Classification

Based on the continuity of the grade shells, and the continuity of the Au grade inside the shells, Mining Plus classified the mineralised blocks as Inferred or Indicated Mineral Resources, based on average drill density and search pass (Pass) used to estimate each block as specified in Table 35.

Table 35 – Classification rules used for the Diba project.

Category	rescat	Drill density		Pass	Other
		X	Z		
<b>Indicated</b>	2	70m	1m	1, 2	Contained in mineralised wireframes, average distance to sample <35m
<b>Inferred</b>	3	70m	1m	2, 3	Contained in mineralised wireframes, average distance to sample >35m

Best practice requires that the different classified volumes form contiguous zones that can be outlined manually by wireframes (Figure 47), in order to avoid the ‘spotted-dog’ classification problem. The classification was also confined to not extend beyond a maximum of one quarter of the drill hole spacing at the ends of drill fences.



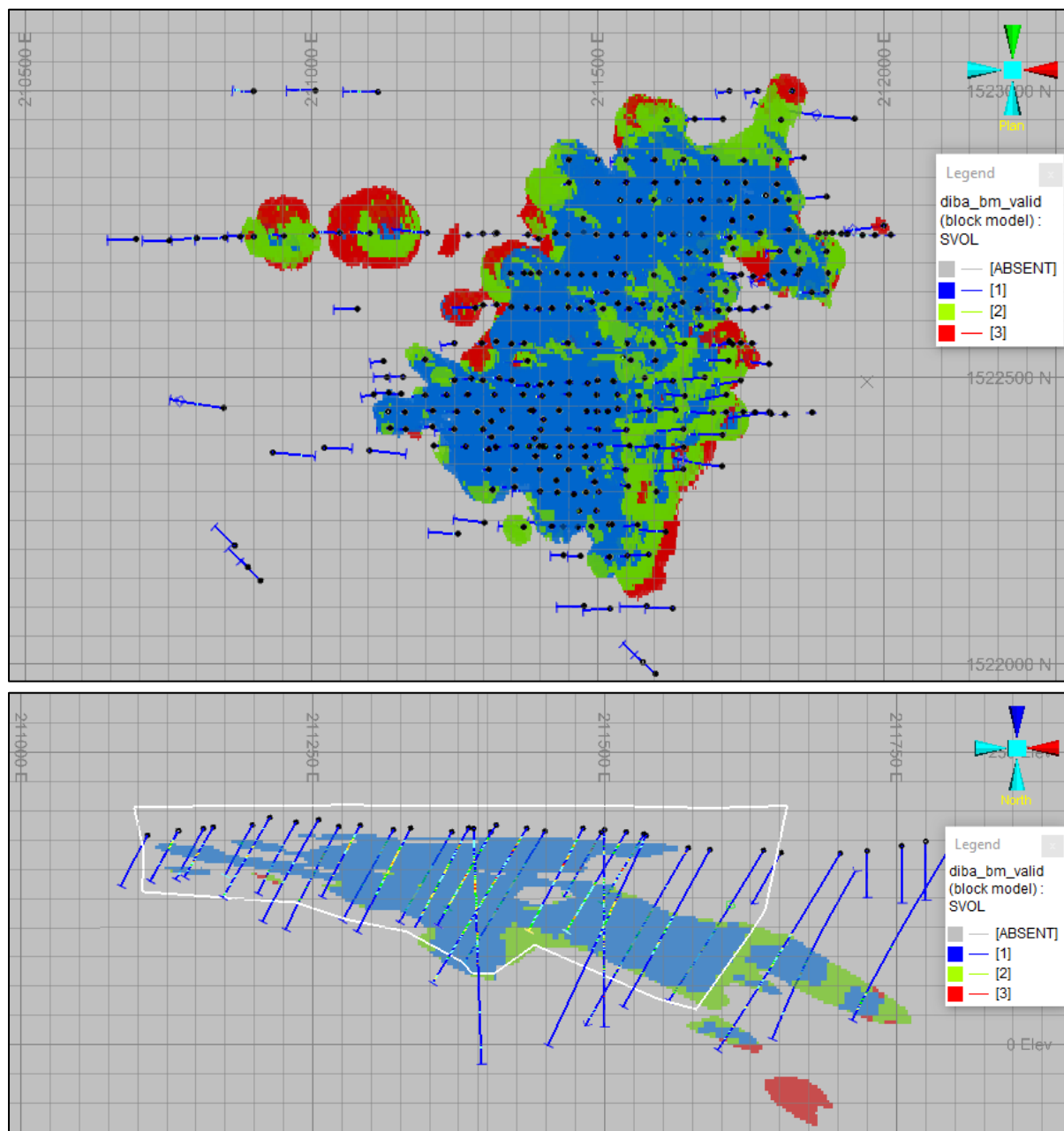


Figure 47 – Top: Block model plan view. Bottom: block model E-W section with Indicated Mineral resource wireframe (white line). Blocks coloured by SVOL (search ellipse number).

#### 14.1.10 Mineral Resource Statement

The Mineral Resources were classified in accordance with the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves. Mr Julian Aldridge, CGeol (Geological Society of London), a former employee of Mining Plus, is responsible for the Mineral Resource estimate. The estimate has an effective date of 15 April 2022. Mineral Resources are reported within an optimised pit shell and are reported to a base-case grade cut-off of 0.5 g/t Au.



Table 36 – Mineral Resource Statement for Diba.

Diba										
Domain	Cut-Off	Indicated			Inferred			Total Resource (Indicated + Inferred)		
	(g/t Au)	Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz
Oxide	0.5	4.07	1.52	199	0.11	0.84	2.9	4.18	1.50	201.8
Trans	0.5	0.66	1.18	25	0.05	0.78	1.2	0.70	1.15	26.0
Fresh	0.5	3.10	0.88	88	4.69	0.90	135.4	7.79	0.89	223.2
<b>Total</b>	<b>0.5</b>	<b>7.83</b>	<b>1.24</b>	<b>312</b>	<b>4.84</b>	<b>0.90</b>	<b>139.5</b>	<b>12.67</b>	<b>1.11</b>	<b>451.1</b>
The preceding statements of Mineral Resources conforms to the Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects. All tonnages reported are dry metric tonnes. Minor discrepancies may occur due to rounding to appropriate significant figures										

#### 14.1.10.1 Assessment of Reasonable Prospects of Economic Extraction

Mining Plus assessed the Mineral Resource model for reasonable prospects for eventual economic extraction (RPEEE) by applying preliminary economics for open pit mining methods to the Indicated and Inferred blocks.

Pit optimization analysis was done using the Datamine NPV Scheduler optimisation tool. The optimiser uses the 3D Lerch-Grossmann algorithm to determine the economic pit limits based on input of mining and processing costs and revenue per blocks classified in both the Indicated and Inferred categories were used to drive the pit optimizer for RPEEE purposes. The following parameters were used:

- Mining costs for oxide, transitional and fresh rock is \$1.41/t, \$1.65/t and \$2.15/t with an adjustment per additional bench of mining.
- Mining recovery of 95% of ore and external mining dilution of 5%.
- Processing costs of \$11.55/t, \$14.20/t and \$15.89/t plus Site G&A of \$4.69/t, \$5.21/t and \$6.25/t for oxide, transitional and fresh ore respectively. Additionally open pit grade control costs of \$1.31/t and ore rehandle to mill of \$0.42/t were included.
- A gold price of \$2150/oz, and selling costs of \$10/oz were assumed.

Royalties of 6% for the Mali government and 1% for Altus were included

For the purposes of resource statement, a reporting cut-off grade of 0.5g/t Au has been used, and a pit shell wireframe was created to contain all the Indicated and Inferred blocks considered to have reasonable prospects of economic extraction. The assessment of RPEEE



for the Mineral Resources contains the assumptions based on benchmarked and analogous operations by Mining Plus. Mining Plus considers them reasonable given the current state of project knowledge. However, as more detailed site-specific metallurgical, geotechnical, environmental and engineering data become available, these assumptions are likely to change.

#### 14.1.10.2 Grade-tonnage sensitivity analysis

The grade-tonnage curves (Figure 48) indicate that the orebody is only moderately sensitive to changes in cut-off grade.

Table 37 – Grade-tonnage table of Diba.

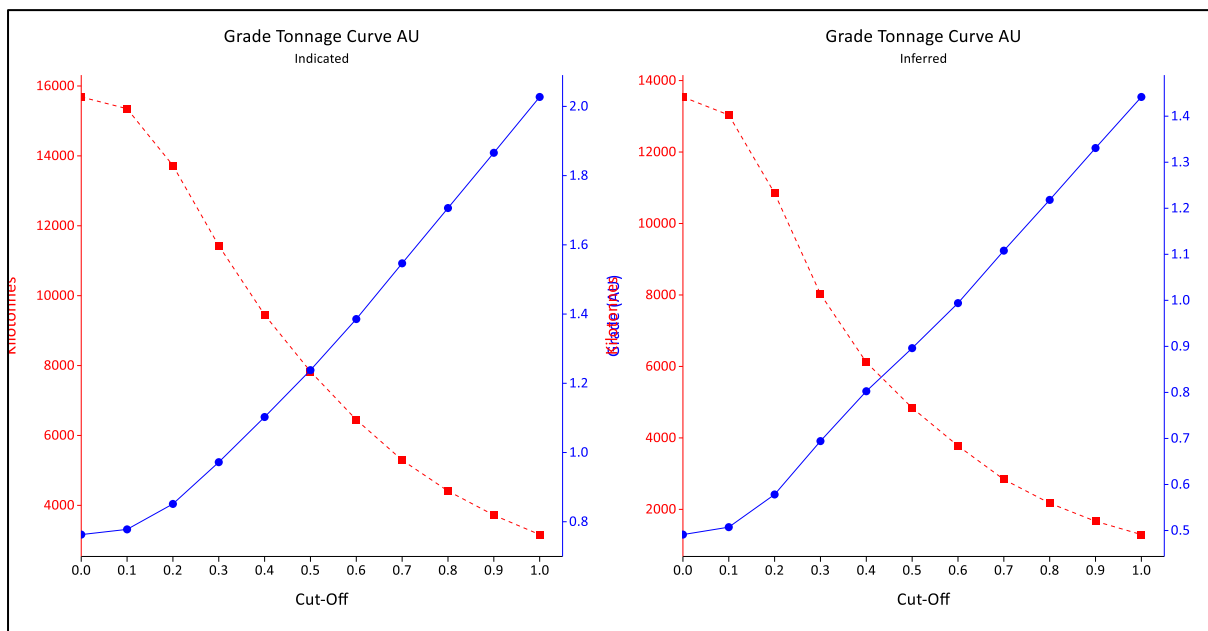


Figure 48 – Grade Tonnage curves - LEFT: Total Indicated, RIGHT: Total Inferred

#### 14.1.11 Comparisons to Previous Mineral Resource Estimates

Mining Plus (2020) completed the previous Mineral Resource Estimate for Diba. A comparison between that estimate and the update presented here is provided in Table 38.

Table 38 – Comparison between the May 2020 and April 2022 Mineral Resource Estimates

Mineral Resource Estimate for Diba – May 2020										
Doma in	Cut-Off	Indicated			Measured + Indicated			Inferred		
	(g/t Au)	Tonnes (Mt)	Au Grade (g/t)	Au koz	Tonnes (Mt)	Au Grade (g/t)	Au koz	Tonnes (Mt)	Au Grade (g/t)	Au koz
Oxide	0.5	3.9	1.46	183	3.9	1.46	183	0.9	1.1	33
Fresh	0.5	0.9	1.12	34	0.9	1.12	34	4.5	1.05	153



Total	0.5	4.8	1.39	217	4.8	1.39	217	5.5	1.06	187
-------	-----	-----	------	-----	-----	------	-----	-----	------	-----

Difference May 2020 and April 2022										
Doma in	Cut-Off	Indicated			Measured + Indicated			Inferred		
	(g/t Au)	Tonnes (Mt)	Au Grade (g/t)	Au koz	Tonnes (Mt)	Au Grade (g/t)	Au koz	Tonnes (Mt)	Au Grade (g/t)	Au koz
Oxide	0.5	0.2	0.06	16	0.2	0.06	16	-0.8	-0.26	-30
Fresh	0.5	2.9	-0.19	79	2.9	-0.19	79	0.2	-0.15	-16
Total	0.5	3.0	-0.15	95	3.0	-0.15	95	-0.7	-0.16	-48

This comparison shows that the overall tonnage has increased by 2.3 Mt, most of which is in the Indicated Mineral Resource category, but this is accompanied by a slight decrease in grade, but an increase in contained gold of 47 koz. Note that in the previous Mineral resource estimate, transitional material was included in fresh ore.

#### 14.1.12 Mining Plus Comments

Additional drilling since the previous MRE in 2020 has resulted in an improvement in the confidence in the Mineral Resources at Diba as is shown by the increase in tonnage in the Indicated Mineral Resource category. Since an 8-metre waste interval has been permitted in the compositing process that precedes the construction of the mineralisation wireframes, this means that the overall grade is reduced. This is the chief reason that the mean estimated grades are lower than the mean sample grades. In future updates of the MRE this permitted inclusion should be reviewed again.

In addition the following technical issues should be addressed to further improve the MRE:

- A high resolution topographic surface (corrected for vegetation) should be surveyed during the next stage of project development.
- There is some sensitivity in the model to changes in geological interpretation, and with additional drill information, there may be changes to the understanding of the mineralized structures, interpreted grade shells, and therefore to the estimates.
- The bulk density values used for the Mineral Resource estimate are within the expected ranges for the types of materials considered, however Mining Plus recommends measurement of significant further density samples as this is a major risk to the total and distribution of tonnage in the Dina NW deposit.
- The economic and technical parameters used for the conceptual pit optimization were benchmarked by Mining Plus from similar projects. Given the current state of project knowledge, these are considered reasonable. However, as more detailed site-specific



metallurgical, geotechnical, environmental and engineering data become available, these assumptions are likely to change.

## 14.2 Diba NW

The Mineral Resource estimate was prepared by Sean Lapham (Senior Geologist, Mining Plus UK Ltd) who was guided by Julian Aldridge a former employee and Principal Geologist of Mining Plus UK Ltd, and Lawrence Sullivan (Mining Engineer, Mining Plus UK Ltd) supervised by Dan Tucker CEng (Mining Plus UK Ltd). Dr Matthew Field is the QP for the estimate.

The resource estimate was made using Leapfrog Geo, Snowden Supervisor and Datamine Studio RM geological and mining software. The resource estimate was completed on 12 April 2022.

### 14.2.1 Database

The database that was used for Diba NW comprises drilling data, a topographic surface and various maps and other documents.

The drillhole database is summarised in Table 39 and the layout of the drillholes in Figure 49

Table 39 – Summary of drilling used for MRE at Diba NW

Hole Type	Naming	Number of Holes	Metres Drilled
DDH	MIDH07_049 to 083	14	1825
RC	20KSR01_017 to MIRC08_101	85	9256.5
Total		99	11081.5



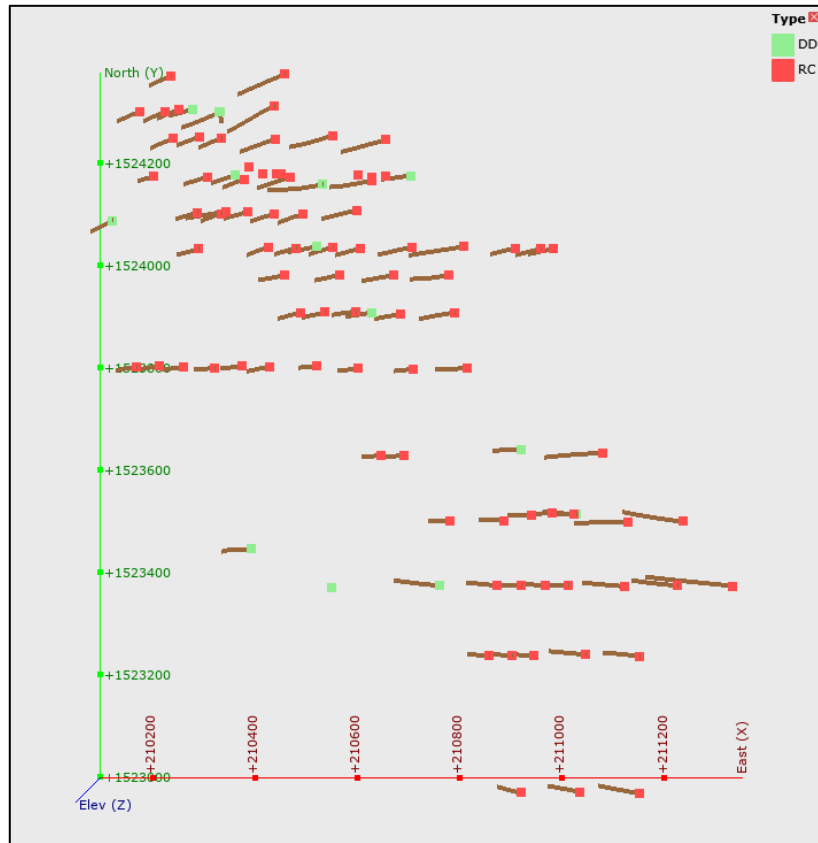


Figure 49 – Plan view of the different drilling types at Diba NW

### 14.2.2 Topographic Surface

Altus Strategies provided topographic maps from the Shuttle Radar Topography Mission (SRTM) that have 5-metre resolution. Mining Plus modified the topographic surface for the project using the drill hole collar elevations measured by DGPS to ensure that the topography coincides with drillhole collars (Figure 50). The notable difference between Diba and Diba NW is the lower general elevation of the deposit that is the consequence of the erosion of the laterite plateau that caps Diba. A small remnant of a laterite plateau can be seen in the northwestern corner of the deposit in Figure 50.



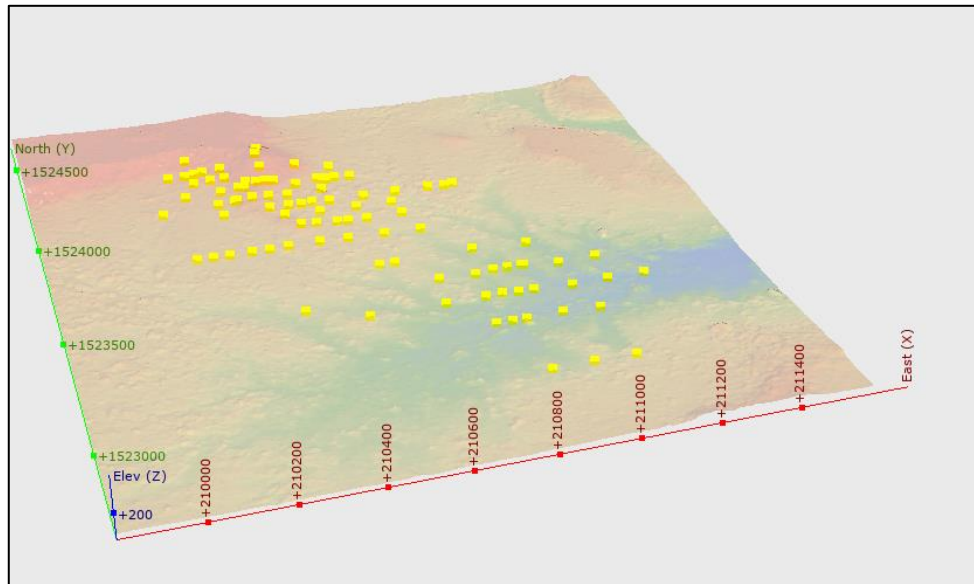


Figure 50 – The Diba NW topographic surface, coloured by elevation. The dGPS surveyed drill hole collars (yellow squares) are also shown.

### 14.2.3 Geological Model

Mining Plus grouped the logged lithologies in Leapfrog Geo into major lithological units, comprising laterite, saprolite, metasediments and intrusives before performing lithology contact modelling to construct a lithological model (**Error! Reference source not found.**) ensuring that the lithological units are snapped to the drillhole intercepts. The lithological units were used to code Lith\_type into the Datamine wireframes and block models throughout the estimation process.

Weathering drill data was used by Mining Plus to generate a base of complete oxidation (BOCO) surface and top of fresh (TOFR) surface in Leapfrog Geo (Figure 52) using surface contact modelling function. The weathering surfaces were used to code Oxide, Transition and Fresh into the block model used throughout the estimation process.



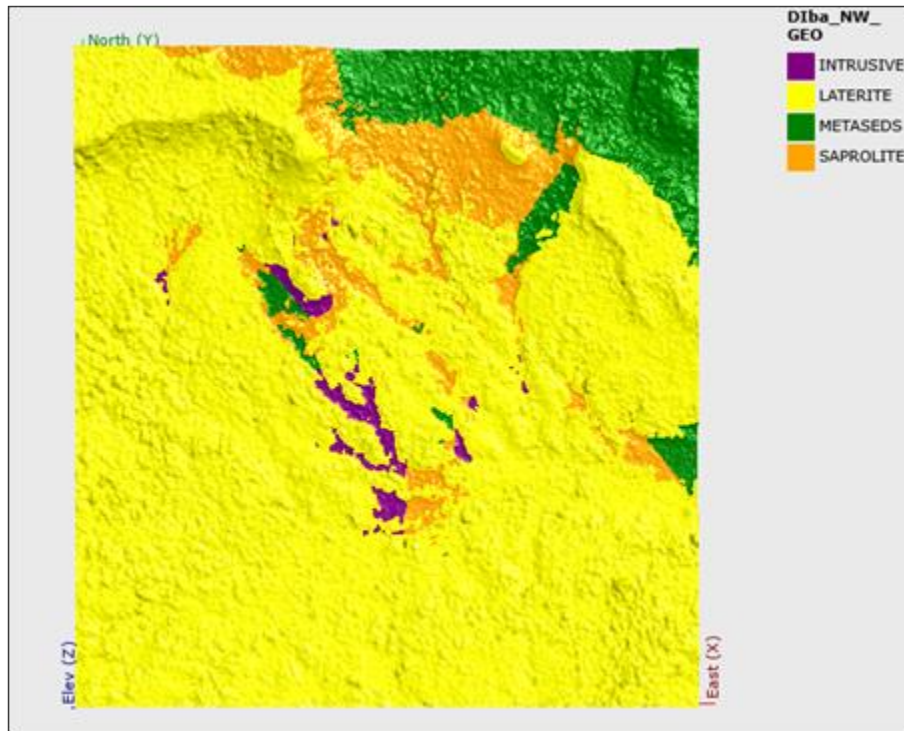


Figure 51 – Lithologic model clipped to topography coloured by grouped lithological units

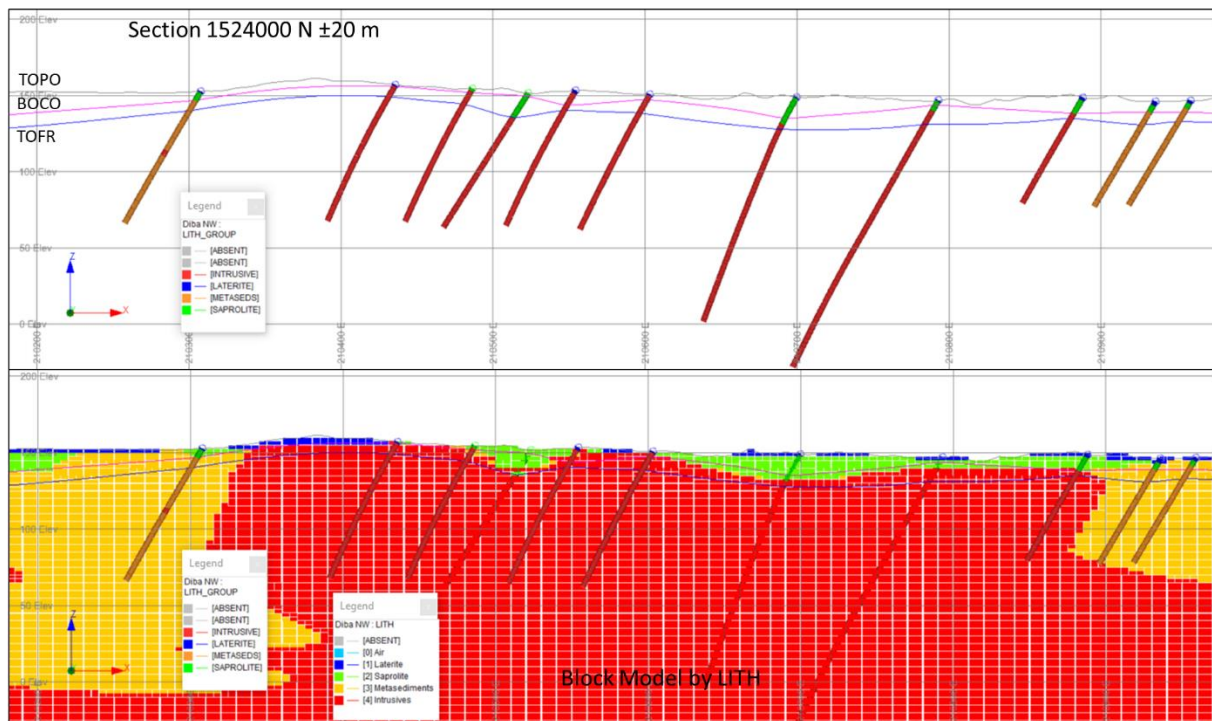


Figure 52 –Vertical E-W section showing lithology and weathering surfaces and coded block model.

A noteworthy feature of Diba NW is the very thin nature of the oxidised horizon when compared to Diba. This is because at Diba NW the laterite covering has been removed by



erosion. Thus fresh rock and mineralisation is at a relatively shallower depth. Mining Plus confirmed these observations in the field and in core and RC drill chips examined during the site visit in June 2022.

Mining Plus coded the weathering intervals into the assay file and performed contact analysis between the lithological units to confirm that grade modelling should be constrained within lithological units. The contact plots (Figure 53) confirm that grade shells should be modelled using lithological units as hard boundaries.

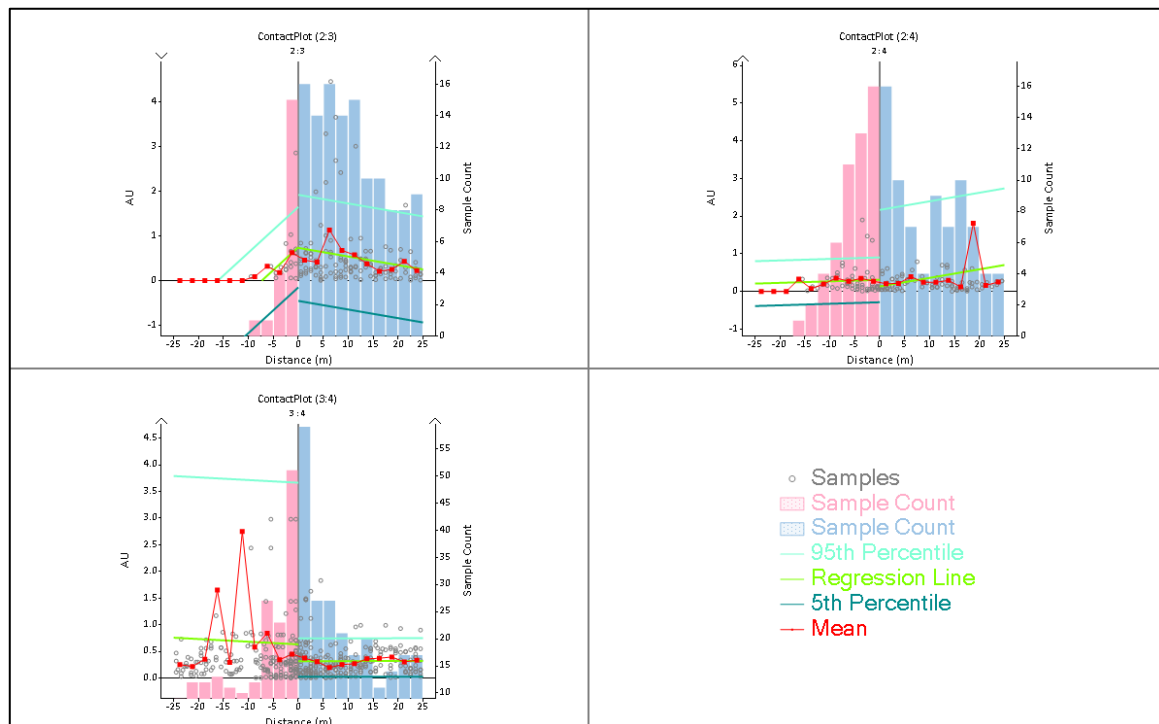


Figure 53 – Contact boundary analysis between lithological units, 2=Saprolite, 3=Metasediments and 4=Intrusive

After review of natural breaks in the assay data, 0.2g/t Au was chosen as the lower grade limit for modelling the mineralised shells. Mining Plus composited the assay data to 1m, applied a cut-off grade at 0.2 g/t Au and set the maximum included waste intervals to 8m to ensure continuity with sparse data in Leapfrog Geo to use for numerical modelling.

Indicator RBF grade interpolation was then performed within the lithological boundaries for saprolite, metasediments and intrusive units (Figure 54 and Figure 55). These grade shells serve as the estimation domains for Diba NW. These were based on consistent behaviour (stationarity) of gold grade distribution, and a requirement to have enough samples to model variability.

- Saprolite Domain (MINDOM2): Inside the mineralised grade shell (>0.2g/t Au), and inside the Saprolite lithological solid.



- Metasediment Domain (MINDOM3): Inside the mineralised grade shell (>0.2g/t Au), and inside the Metasediment lithological solid.
- Intrusive Domain (MINDOM4): Inside the mineralised grade shell (>0.2g/t Au), and inside the Intrusive lithological solid.

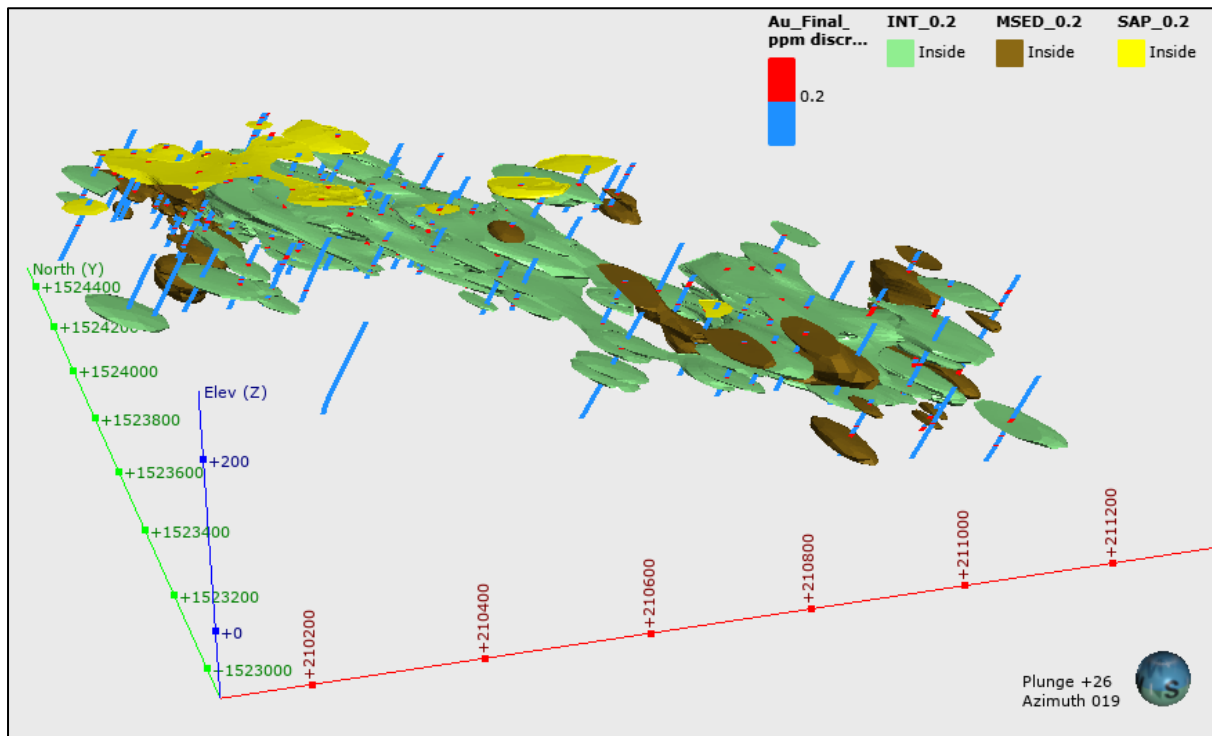


Figure 54 – Oblique view of grade shells



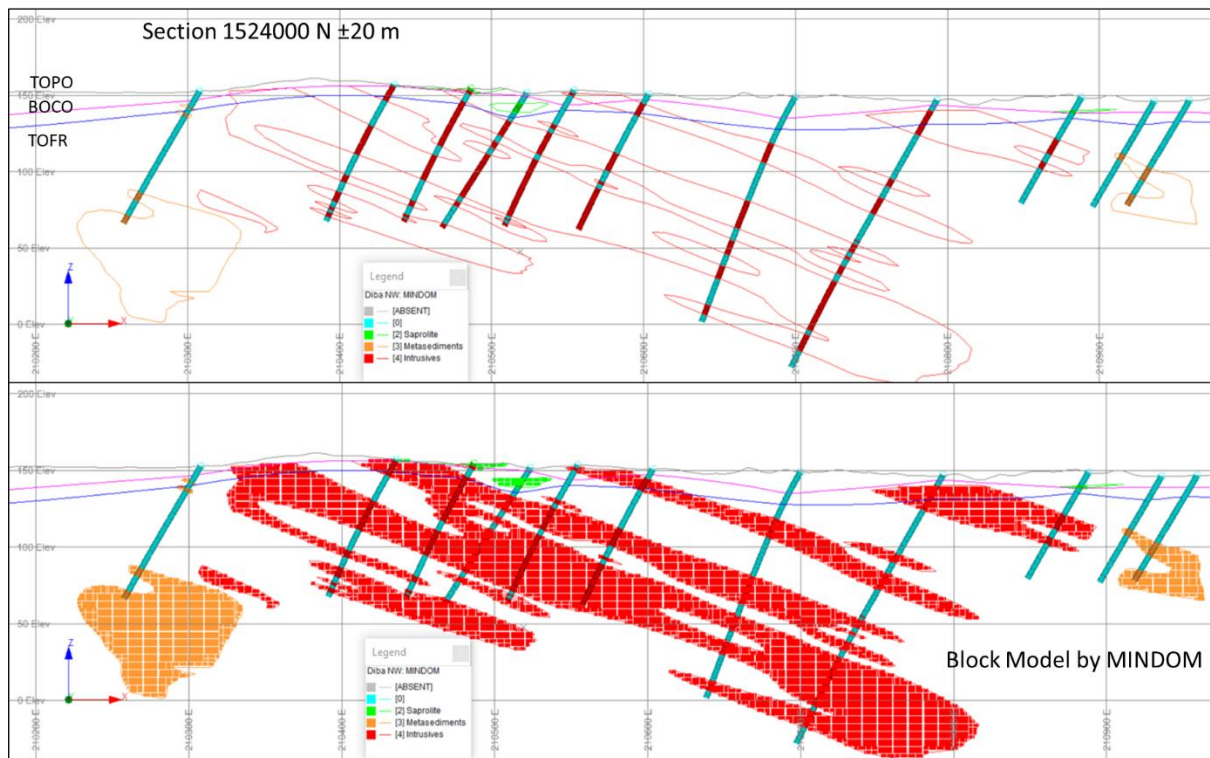


Figure 55 – Vertical E-W cross section with drillhole intersection and modelled grade shells (top) and coded block model (bottom)

The grade shells have the appearance of lenses, most prominently in the intrusive rock type. This confirms that these lens-shaped occurrences of mineralisation are associated with structural features and are not “stratabound” primary sedimentary features.

#### 14.2.4 Exploratory Data Analysis

The raw assay data were selected and coded inside each of the mineralisation domains in Datamine Studio RM software. Then, the classified data were imported into Snowden Supervisor for exploratory data analysis (EDA) on the raw assay data flagged as inside the modelled grade shells.

##### 14.2.4.1 Compositing

The original sample lengths are predominantly 1m in length, so Mining Plus applied an overall composite of 1m (Figure 56). This both honours the majority intercept length, and allows enough definition to estimate thin zones of gold. The effects of the compositing process on numbers of samples and raw gold grades are summarised in Table 40.



Table 40 – Statistics of the pre- and post-composited drill hole intercepts.

Domain	Number of Samples		Mean Grade			Std Dev		Coeff Variation	
	Raw	Composite	Raw	Composite	% Diff	Raw	Composite	Raw	Composite
2	126	121	0.31	0.31	0%	0.39	0.4	1.26	1.27
3	863	845	0.42	0.42	0%	0.93	0.94	2.2	2.22
4	2934	2872	0.35	0.35	0%	1.06	1.07	3.06	3.06

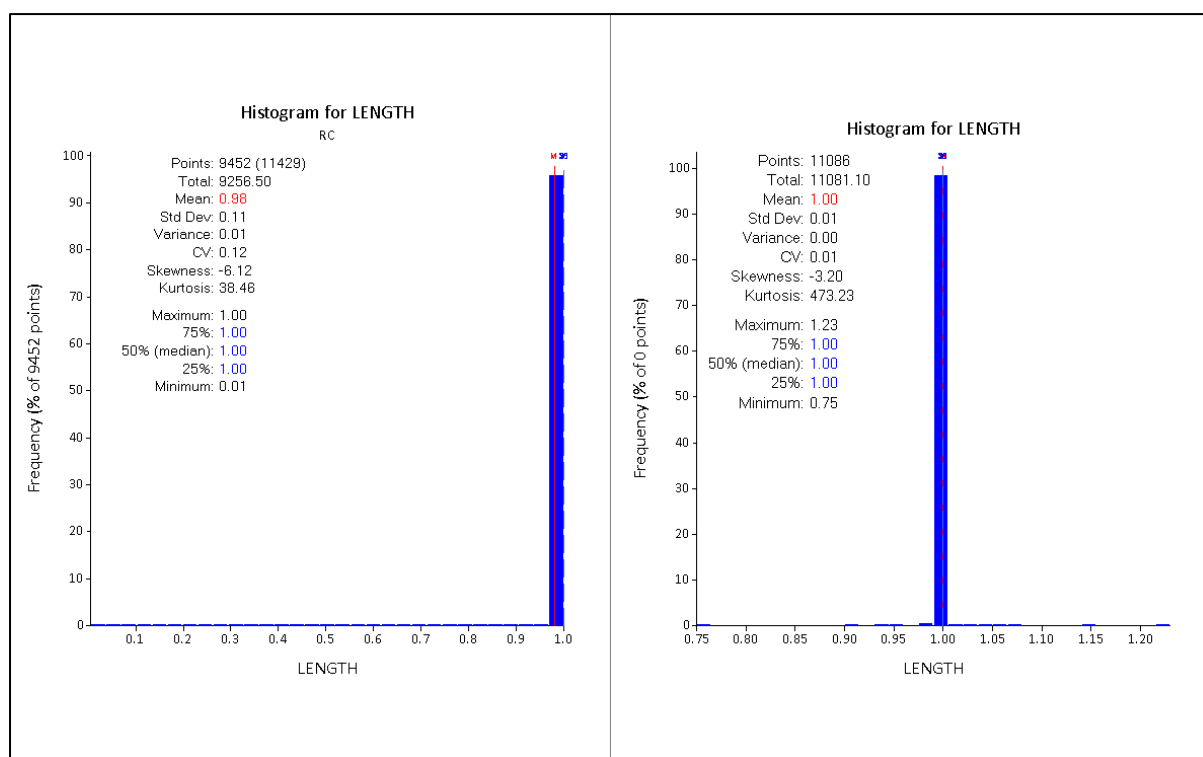


Figure 56 – Histograms of length pre (left) and post compositing (right).

#### 14.2.4.2 Top-cuts

Top cutting was performed on the composited samples. There are a significant number of outlier values, and the coefficient of variation was high in the originally composited samples indicating top-cutting is required. On the basis of the different grade cumulative distributions for each estimation domain, Mining Plus decided to apply grade capping or top-cutting as summarised in Table 41.

Table 41 – Top-cutting parameters for the Diba NW drill hole data.

Domain	Number of Samples		Mean Grade			Top-Cut Value	Standard Deviation		Coeff of Variation		Max Un-Cut Grade	Top-Cut %ile
	Un-Cut	Top-Cut	Un-Cut	Top-Cut	% Diff		Un-Cut	Top-Cut	Un-Cut	Top-Cut		
2	121	121	0.31	0.31	0%	100	0.4	0.4	1.27	1.27	2.86	100%
3	845	841	0.42	0.39	-7%	3.8	0.94	0.52	2.22	1.34	16.3	99.5%
4	2872	2867	0.35	0.32	-9%	6.6	1.07	0.49	3.06	1.51	37.4	99.8%



#### **14.2.4.3 De-clustering**

Mining Plus reviewed declustering during the estimation process, and made the decision not to apply it prior to block model estimation. This is based mainly on the mostly regular spacing of drillholes and samples.

#### **14.2.4.4 Variography**

Mining Plus used Snowden Supervisor software to calculate downhole and directional variograms (Figure 57) using the 1m capped gold composites located inside the grade shells. The variography was performed on the three domains; Saprolite, Metasediments and Intrusives.

The downhole variogram was used to define the nugget portion of the variograms; it ranges between 0.22 and 0.43, which is low but not unusual for this type of low grade structurally-hosted gold deposit. Details of the variogram model parameters are shown in Table 42.

For the Saprolite domain there were too few samples (121) to obtain meaningful variography, and for this domain inverse distance estimation methods were used that do not require variograms.



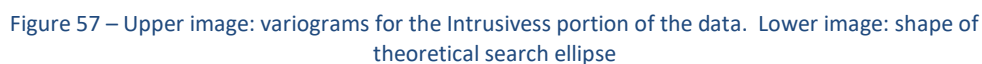




Table 42 – Diba NW Variogram parameters

Domain	Element				Variographic parameters - back transformed						
		Dir 1	Dir 2	Dir 3	C0	C1		A1	C2		A2
3	Au	45	30	180	0.43	Dir 1	0.21	44	Dir 1	0.37	77
						Dir 2		47	Dir 2		80
						Dir 3		2	Dir 3		4
4	Au	70	20	-25	0.43	Dir 1	0.27	72	Dir 1	0.30	112
						Dir 2		58	Dir 2		70
						Dir 3		4	Dir 3		5

#### 14.2.4.5 Density

To calculate block tonnages, Mining Plus assigned bulk density values to the lithology zones (Table 43). These data are the mean values of measurements made on Diba, as no additional measurements were made specifically on samples from Diba NW.

Table 43 – Densities chosen for use in the block model based on lithology type.

Domain	DENSITY
Laterite	1.78
Saprolite	1.72
Metasediments	2.69
Intrusive	2.71

#### 14.2.5 Kriging Neighbourhood Analysis

The geological software used for Kriging Neighbourhood Analysis (KNA) was Snowden Supervisor. Mining Plus made the following decisions for estimation parameters, based on the results of the KNA:

- *Block Size:* There was very little difference between the Kriging Efficiency (KE) and Slope of Regression (SR) of block sizes between 10m and 15m, so a parent block size of 10m x 15m x 5m was chosen to fit the wireframes effectively, and honour a planned bench height of 5m. Sub-celling to 5m x 5m x 2.5m was chosen.
- *Min-Max Samples:* The sample range for block grade estimation was chosen as 6-20 samples, based on the shape of the KE and SR curves over a 2-30 sample range.
- *Search Ellipse size:* the first search ellipse was chosen as half the variogram range, with the second search ellipse at the variogram range, the third search ellipse at twice the variogram range.
- *Discretisation:* this showed little difference in KE or SR above a 2 x 2 x 2 discretisation; 3 x 3 x 3 was chosen for use in this estimation.



Table 44 – Estimation parameters.

KNA Summary	Block Size	No. of Samples		Primary Search Ellipse			Discretisation
Lode		Min	Max	Major	S-Major	Minor	
Saprolite (2)	10m x 15m x 5m	6	20	70	100	14	3, 3, 3
Metasediments (3)	10m x 15m x 5m	6	20	55	60	15	3, 3, 3
Intrusive (4)	10m x 15m x 5m	6	20	112	70	11	3, 3, 3

### 14.2.6 Estimation Methodology

The software used for block model grade estimation was Datamine Studio RM. The block model was initially prepared from a prototype generated with the parameters in Table 45. The blocks were then populated in the mineralised wireframes and coded by MINDOM wireframe number (MINDOM). They were subsequently also coded by oxide and lithology.

Table 45 – Block model parameters

	Scheme	Parent
Block Model Origin	X	210,000
	Y	1,522,750
	Z	- 100
Block Model Maximum	X	211,410
	Y	1,524,505
	Z	210
Parent Block Size	X	10
	Y	15
	Z	5
Sub-Cell Block Size	X	5
	Y	5
	Z	2.5



Table 46 – Columns coded into the block model.

Variable	Type	Default Value	Description
ESTDOM	Integer (Integer * 4)	-99	Unique estimation domain code 2-4
LITH	Integer (Integer * 4)	-99	Lithology Code 1-4
DENSITY	Float (Real * 4)	0	bulk density assignment
MAT_TYPE	Integer (Integer * 4)	-99	00 = air, 10 = oxide, 20 = transitional, 30 = fresh
RESCAT	Integer (Integer * 4)	4	1 = Measured, 2 = Indicated, 3 = Inferred, 4 = Unclassified
TOPO	Integer (Integer * 4)	1	0 = air, 1 = fresh rock
AU	Float (Real * 4)	-99	Estimated Grade - OK - Gold - ppm - mindom2= ID2, mindom3&4= OK
AU_OK	Float (Real * 4)	-99	Estimated Grade - OK - Gold - ppm
AU_ID2	Float (Real * 4)	-99	Estimated Grade - ID2 - Gold - ppm
AU_NN	Float (Real * 4)	-99	Estimated Grade - NN - Gold - ppm
PASS	Integer (Integer * 4)	-99	estimation pass number - -1-3 and 99
KE	Float (Real * 4)	-99	kriging efficiency – OK 0-1
BV	Float (Real * 4)	-99	block variance - OK - -0-1
KV	Float (Real * 4)	-99	kriging variance - OK - -0-1
LGM	Float (Real * 4)	-99	lagrange multiplier - OK -
SLOPE	Float (Real * 4)	-99	slope of regression - -0-1
FVAL	Float (Real * 4)	-99	F value used in calculations

Mining Plus estimated gold grades using Ordinary Kriging (OK), with check estimates using Inverse Distance Squared (ID2), Inverse Distance Cubed (ID3) and Nearest Neighbour (NN). Estimation was performed only on cells within the mineralised wireframes. Grade was estimated in three passes, using increased search ellipse sizes each time (see KNA section). Details of the estimation parameters are given below in Table 47. To prevent smearing of high and low grade zones, a 2 octant (of search ellipse) constraint was introduced having a minimum 1 and maximum 4 samples permitted in each octant. There was also a drill hole limit of 4 samples maximum from a single drill hole in each block estimate.



Table 47 – Estimation parameters for Diba NW

Domain	Search			# Samples		DH	Second Pass			# Samples		DH	Third Pass			# Samples		DH	Forth Pass			# Samples		DH
	Major	Semi-Major	Minor	Min	Max	Limit	Major	Semi-Major	Minor	Min	Max	Limit	Major	Semi-Major	Minor	Min	Max	Limit	Major	Semi-Major	Minor	Min	Max	Limit
2	63	28	1	6	20	4	126	56	2	6	20	4	252	112	4	4	12	4	1260	560	20	2	14	0
3	38.5	39.75	2	6	20	4	77	79.5	4	6	20	4	154	159	8	4	12	4	770	795	40	2	14	0
4	56	34.75	2.25	6	20	4	112	69.5	4.5	6	20	4	224	139	9	4	12	4	1120	695	45	2	14	0



### 14.2.7 Block Model Validation

Mining Plus performed validation of the gold grade estimate by visual inspection on vertical E-W cross sections of the estimated blocks and Au capped composites drill hole samples. These sections show the internal distribution of grade within the mineralised shells, and show that the gold grade has not been smeared into internal waste zones. Example sections are shown in Figure 58 and Figure 59.

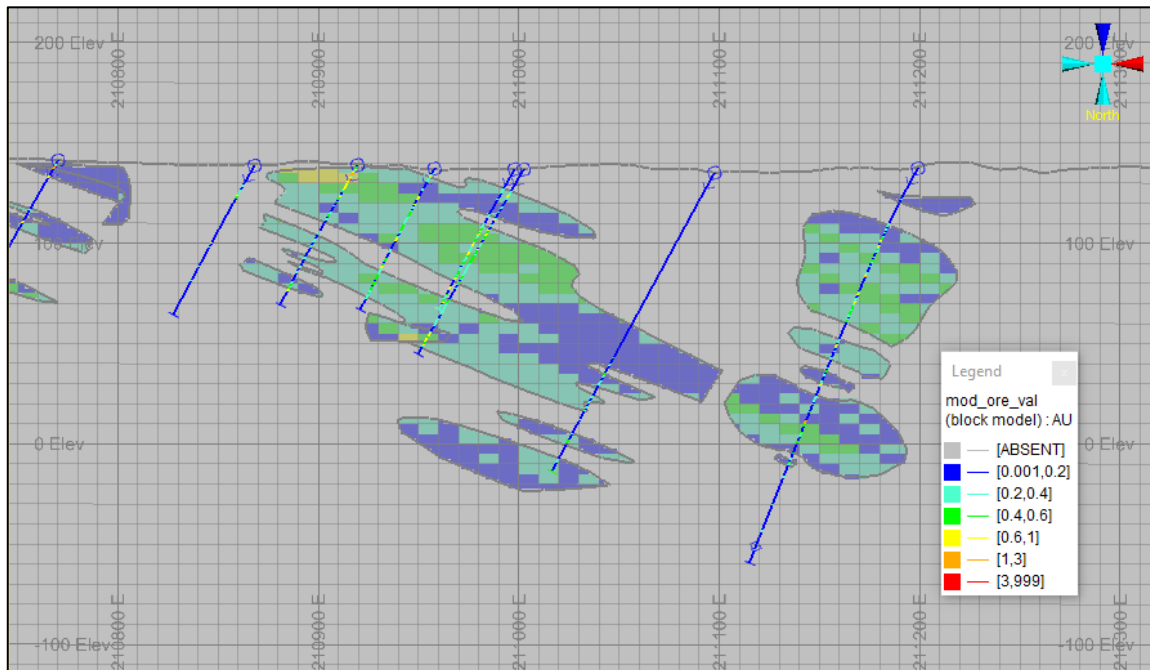


Figure 58 – E-W cross section (1523520 N) in the southern part of the Diba NW deposit looking North.



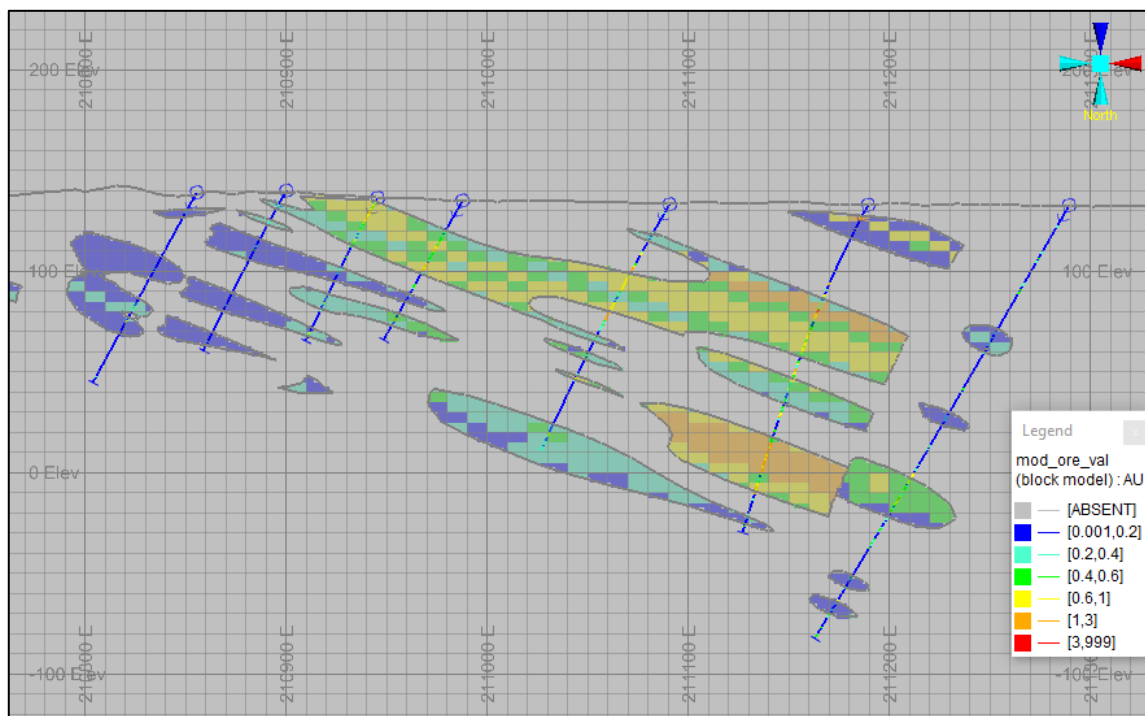


Figure 59 – E-W cross section in the northern part of the Dina NW deposit looking North.

A volume validation was also performed for each of the estimation domains (Table 48) and global grade validations for each estimated domain (Table 49). In the two smaller domains (Saprolite and Metasediments) the estimated grade is some 20% lower than mean composite grades, whereas in the Intrusive domain there is better agreement.

Table 48 – Volume validation of each estimation domain

Domain	Wireframe Volume	Block Model Volume	% Difference	Comments
Saprolite (2)	395,909	395,673	-0.06%	Close fit
Metasediments (3)	3,850,570	3,865,414	0.39%	Close fit
Intrusive (4)	17,859,487	17,876,984	0.10%	Close fit

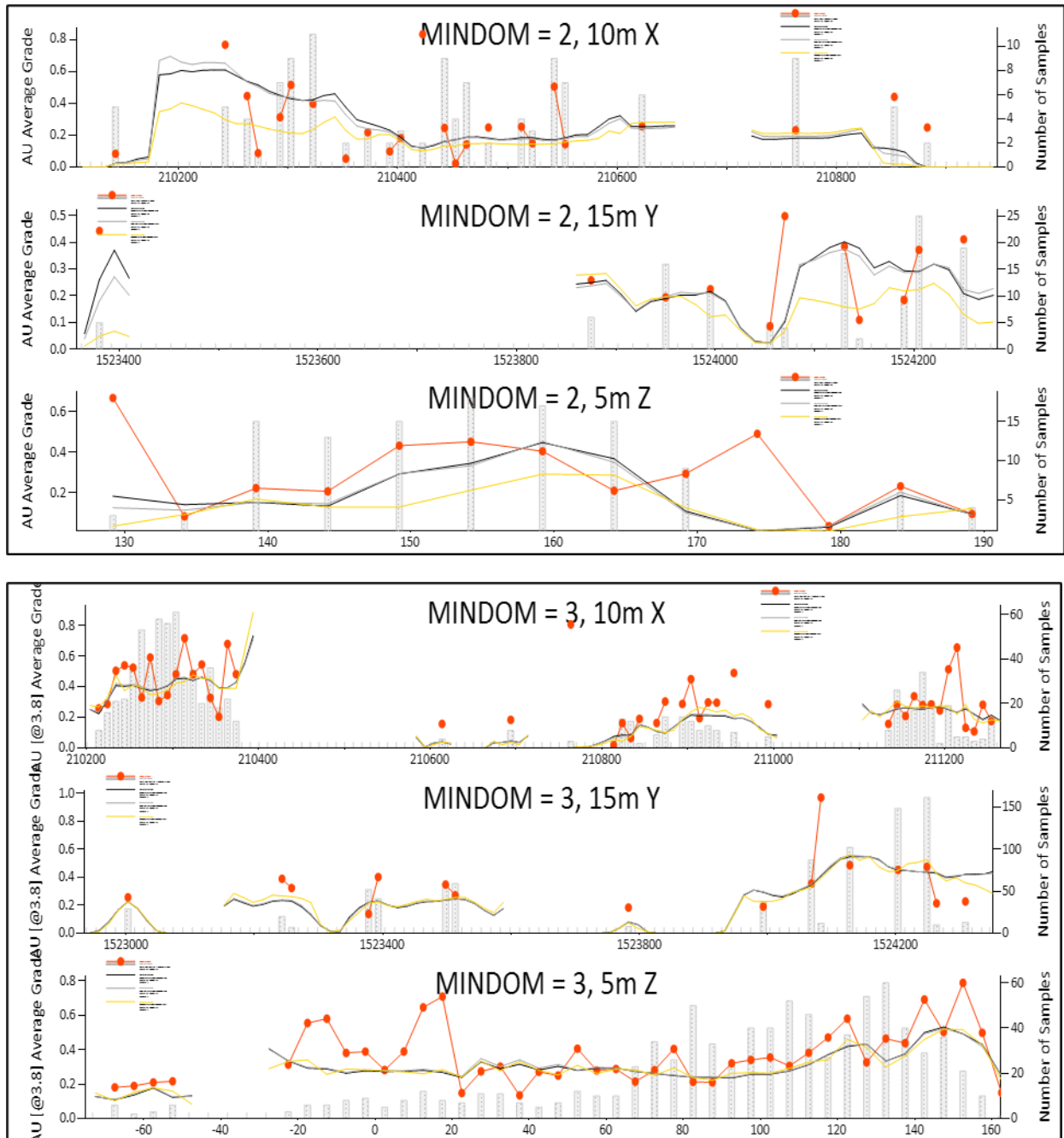
Table 49 – Grade validation for each estimation domain

Domain	Estimated Tonnes	Estimated Grade (cut)	No. of Composites	Composite Grade (cut)	Tonnes per composite	% Diff Est Grade vs Composite	Comments
2	69,640	0.25	121	0.31	576	-20%	Small tonnage
3	267,007	0.31	845	0.39	316	-21%	Small tonnage
4	1,490,399	0.33	2,872	0.32	519	2%	

Swath plots shown in Figure 60, comparing the OK (black line), ID2 (grey line) and NN (yellow line) estimates and naive composite sample mean (red line) for each domain, along the east,



north, and vertical directions, show that the composite spatial grade distribution is adequately reproduced by the Au kriged block model.





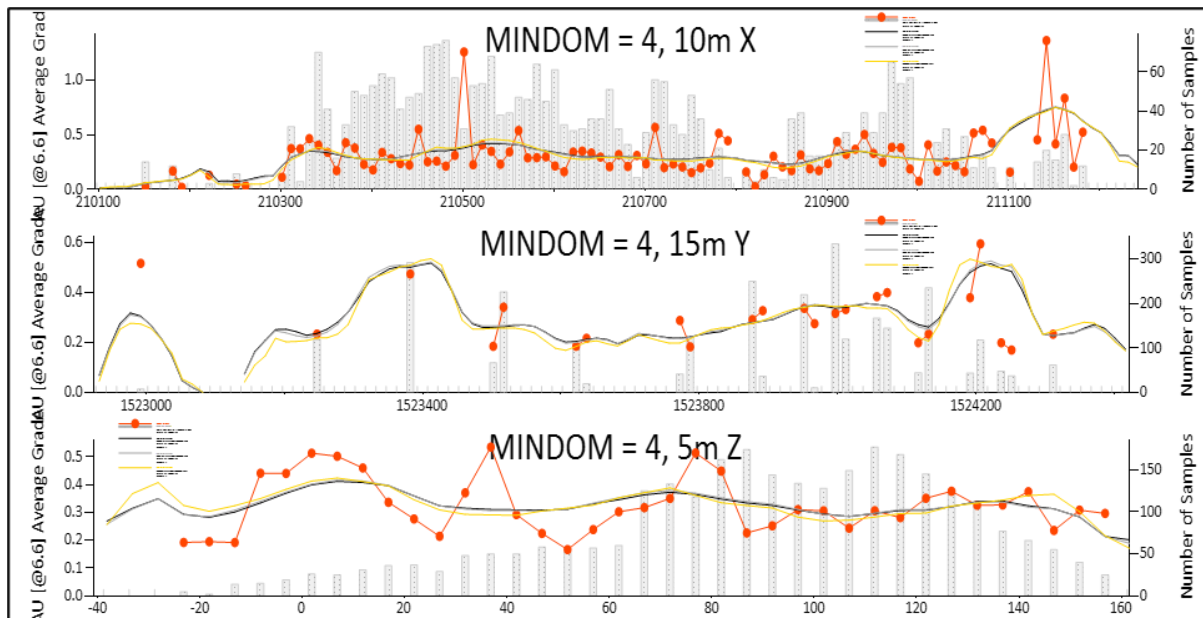


Figure 60 – Swathe plots for Saprolite (MINDOM=2), Metasedment (MINDOM=3) and Intrusive domains (MINDOM=4)

Mining Plus considers the estimated block model grades (locally and globally) to reflect the composited and top cut sample data from which they were derived.

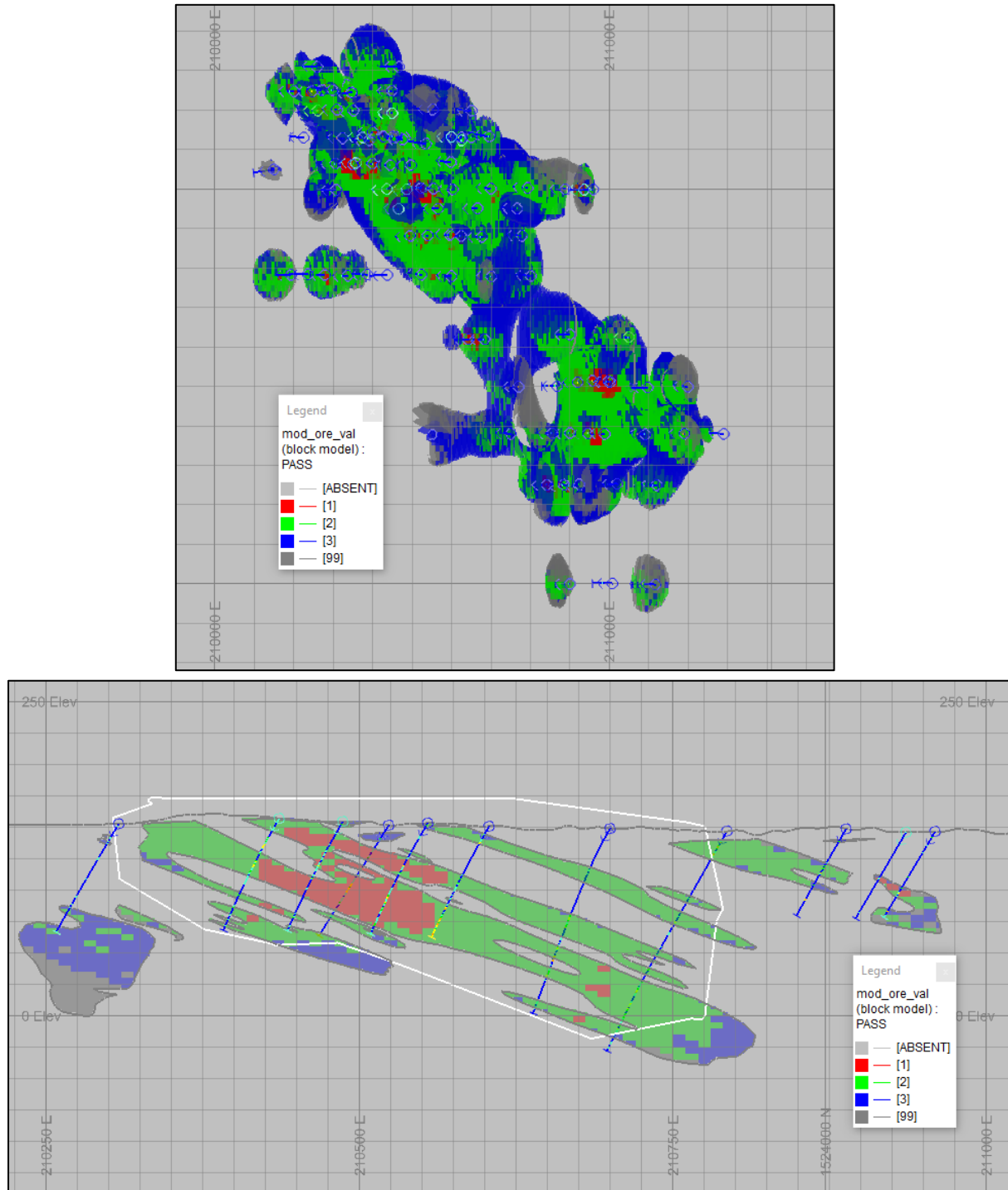
The Nearest Neighbour estimation mirrors most closely the primary drill hole data, and does not show the smoothing typical of kriged and inverse distance estimation methods.

#### 14.2.8 Classification

Mining Plus considers that most of the Diba NW deposit should be classified as an Inferred Mineral Resource, and some areas to remain unclassified. This is due largely to the absence of density measurements on any Diba NW material, this despite the fact that some blocks have sufficient sample spatial separations to be estimated using the first or second pass (i.e. half or the full range of the variogram – see Figure 61).

The outline that has been used to separate Inferred Mineral Resource blocks from unclassified is shown in Figure 61. The classification also extends to a maximum of a quarter of drill hole spacing at the ends of drill fences.





#### 14.2.9 Mineral Resource Statement

The Mineral Resources were classified in accordance with the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves. Mr Julian Aldridge, CGeol (Geological Society of London), a former employee of Mining Plus, oversaw and is responsible for the estimate. The



estimate has an effective date of 12 April 2022. Mineral resources are reported within a pit shell and are reported to a base-case grade cut-off of 0.5 g/t Au. This is the first Mineral Resource Estimate for Diba NW.

Table 50 – Mineral Resource Statement for Diba NW.

Diba NW										
Domain	Cut-Off	Indicated			Inferred			Total Resource (Indicated + Inferred)		
	(g/t Au)	Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz
Oxide	0.5				0.10	0.63	2.0	0.10	0.63	2.0
Trans	0.5				0.41	0.69	9.0	0.41	0.69	9.0
Fresh	0.5				3.64	0.91	106.5	3.64	0.91	106.5
<b>Total</b>	<b>0.5</b>				<b>4.14</b>	<b>0.88</b>	<b>117.5</b>	<b>4.14</b>	<b>0.88</b>	<b>117.5</b>
The preceding statements of Mineral Resources conforms to the Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects. All tonnages reported are dry metric tonnes. Minor discrepancies may occur due to rounding to appropriate significant figures										

#### 14.2.9.1 Assessment of Reasonable Prospects of Economic Extraction

Mining Plus assessed the Mineral Resource model for reasonable prospects for eventual economic extraction (RPEEE) by applying preliminary economics for open pit mining methods to the Inferred Mineral Resource blocks, which is permissible for RPEEE purposes.

Pit optimization analysis was done using the Datamine NPV Scheduler optimising tool. The optimiser uses the 3D Lerch-Grossmann algorithm to determine the economic pit limits based on input of mining and processing costs and revenue per block. The assumed input parameters for the RPEEE pit optimisation process were as follows:

- Mining costs for oxide, transitional and fresh rock is \$1.41/t, \$1.65/t and \$2.15/t with an adjustment per additional bench of mining.
- Mining recovery of 95% of ore and external mining dilution of 5%.
- Processing costs of \$11.55/t, \$14.20/t and \$15.89/t plus Site G&A of \$4.69/t, \$5.21/t and \$6.25/t for oxide, transitional and fresh ore respectively. Additionally open pit grade control costs of \$1.31/t and ore rehandle to mill of \$0.42/t were included.
- A gold price of \$2150/oz, and selling costs of \$10/oz were assumed.
- Royalties of 6% for the Mali government and 1% for Altus were included.



For the purposes of the resource statement, a reporting cut-off grade of 0.5g/t Au has been used, and a pit shell wireframe was created to contain all the Indicated and Inferred blocks considered to have reasonable prospects for eventual economic extraction.

The QP is of the opinion that the RPEEE parameters have been made using reasonable benchmarks made against similar operations in Mali. However, the question that remains is given that the vast majority of the Mineral Resources are in fresh rock whether the additional capital required for an appropriate ore processing capability can be justified from this Mineral Resource.

#### 14.2.9.2 Grade-tonnage sensitivity analysis

The grade-tonnage curves for Oxide and Fresh material (Figure 62) indicate that the orebody is only moderately sensitive to changes in cut-off grade.

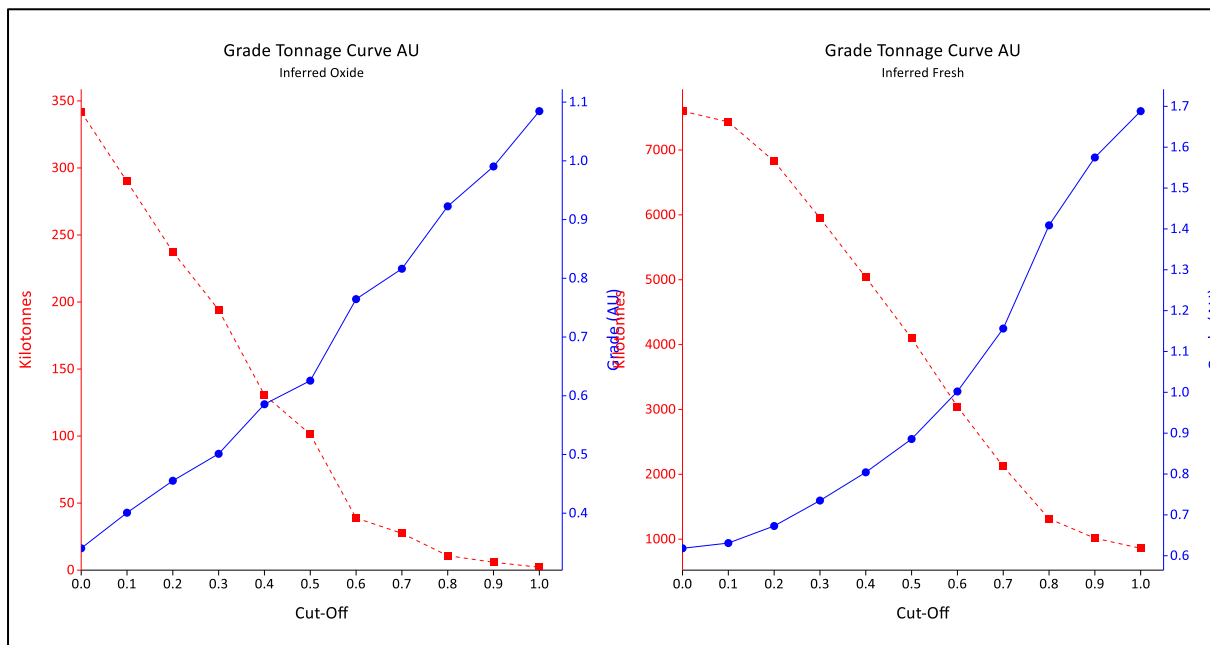


Figure 62 – Grade Tonnage curves - LEFT: oxide Inferred, RIGHT: oxide Inferred

#### 14.2.10 Mining Plus Comments

In the QP opinion the Diba NW deposit is correctly classified as an Inferred Resource only, and one of the key reasons for this classification is the low amount of heap-leachable oxide ore in the defined Mineral Resource. Other factors that could be improved to potentially raise the level of classification include:

- A high resolution topographic surface (corrected for vegetation) should be surveyed during the next stage of project development, as geotechnical and engineering studies will require it.



- A better suite of bulk density samples should be measured on newly recovered drill cores. These measurements must include measurement of moisture content.
- There is some sensitivity in the model to changes in geological interpretation, and with additional drill information, there may be changes to the understanding of the mineralized structures, interpreted grade shells, and therefore to the Mineral Resource Estimates.

The economic and technical parameters used for the conceptual pit optimization were benchmarked by Mining Plus from similar projects. Given the current state of project knowledge, these are considered reasonable. However, as more detailed site-specific metallurgical, geotechnical, environmental and engineering data become available, these assumptions are likely to change.

### **14.3 Lakanfla**

The Mineral Resource estimate was prepared by Julian Aldridge (formerly Principal Geologist of Mining Plus UK Ltd) and Lawrence Sullivan IEng (Mining Engineer, Mining Plus UK Ltd) supervised by Dan Tucker CEng (Mining Plus UK Ltd). Dr Matthew Field is the QP for the estimate.

The Mineral Resource Estimate (MRE) was made using Leapfrog Geo, Snowden Supervisor and Datamine Studio RM geological and mining software. The Mineral Resource Estimate was completed on 19 April 2022.

#### **14.3.1 Database**

The drilling database used in the estimation was compiled by Mining Plus from MS Excel workbooks provided by Altus in March 2022.

- LKF\_DD and RC - Drill Master File (273 holes)

These holes were compiled into DrillholeDB.xls (Table 51), and subsequently imported into Leapfrog Geo as COLLAR, SURVEY, ASSAY and WEATHERING csv files, to produce a representation of the three-dimensional drill hole trace. Figure 63 below shows the drill locations. Core and RC holes have downhole survey measurements;

- Each of the diamond drill holes has a collar survey measurement and a measurement every 50m downhole.
- All the RC drill holes have a collar survey measurement and no downhole measurements.



The majority of drilled metres were sampled for assaying. There are 18,033 core and RC samples averaging 1.5m in length. On average, core samples are 1.1m in length (0.4m – 6m min-max), and the RC samples are 1.68m in length (1m-2m –min-max).

Table 51 – Total metres of drilling in each campaign.

Hole Type	Naming	Number of Holes	Metres Drilled
DDH	04KDD-01 to KN-012	27	3796.6
RC	03KRC-01 to KT-021	246	23461.43
<b>Total</b>		<b>273</b>	<b>27258.03</b>

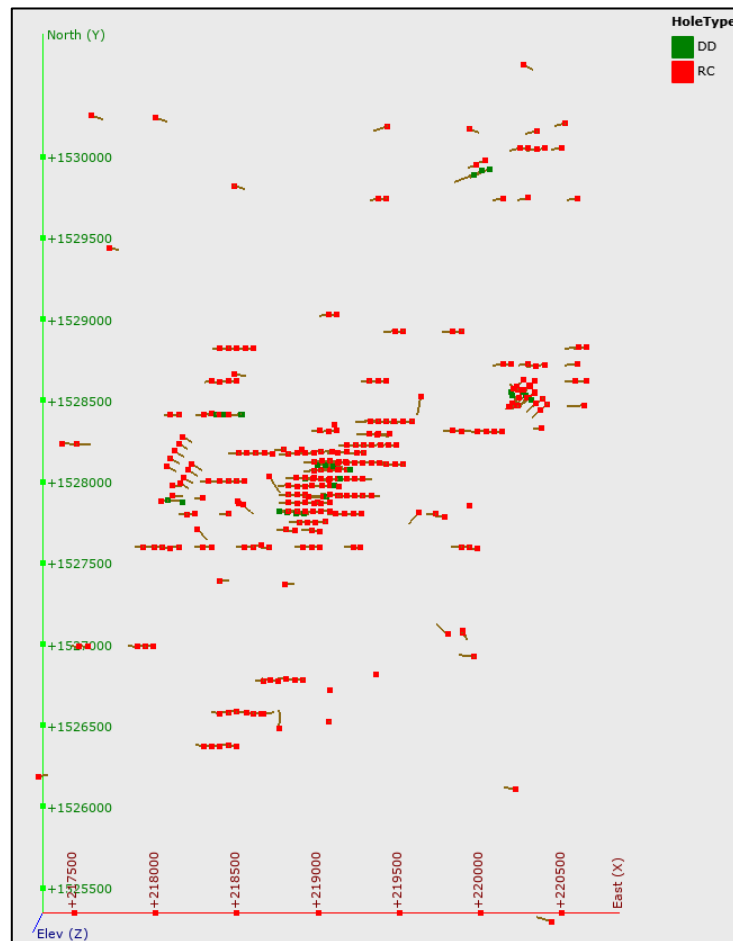


Figure 63 – Plan view of the different drilling types at Lakanfla

Mining Plus comments:

- There are very few drill hole database errors
- A good proportion of the holes drilled since 2020 have been checked in the field using a handheld GPS and were found to be within reasonable proximity of the collar co-ordinates provided from dGPS measurements made by Altus.



### ***14.3.2 Topographic Surface***

Topographic surfaces were provided by Altus Strategies in SRTM and Geoeye format. Mining Plus used the drillhole collars to modified the surface (see Figure 64) so that the surveys matched the surface. Although this surface is not high quality it does provide a sense of the relatively flat-lying terrain where the Lakanfla deposit is located. Ideally a higher resolution topographic surface should be obtained.



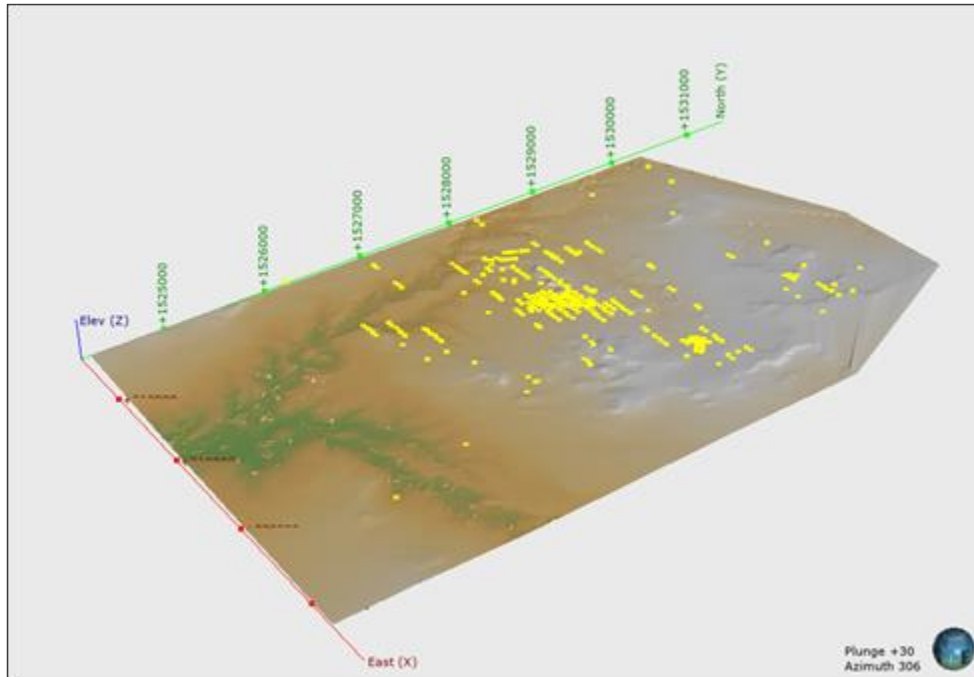


Figure 64 – Mining Plus-created topographic surface, coloured by elevation, using the dGPS surveyed drill hole collars

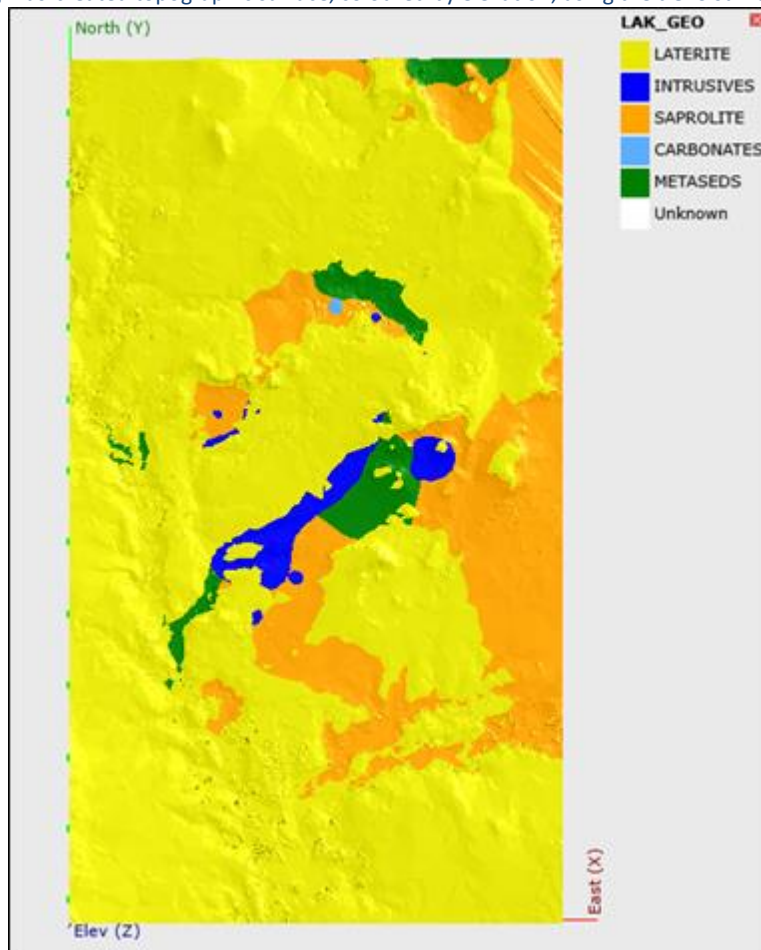


Figure 65 – Mining Plus created lithologic model clipped to topography coloured by grouped lithological units







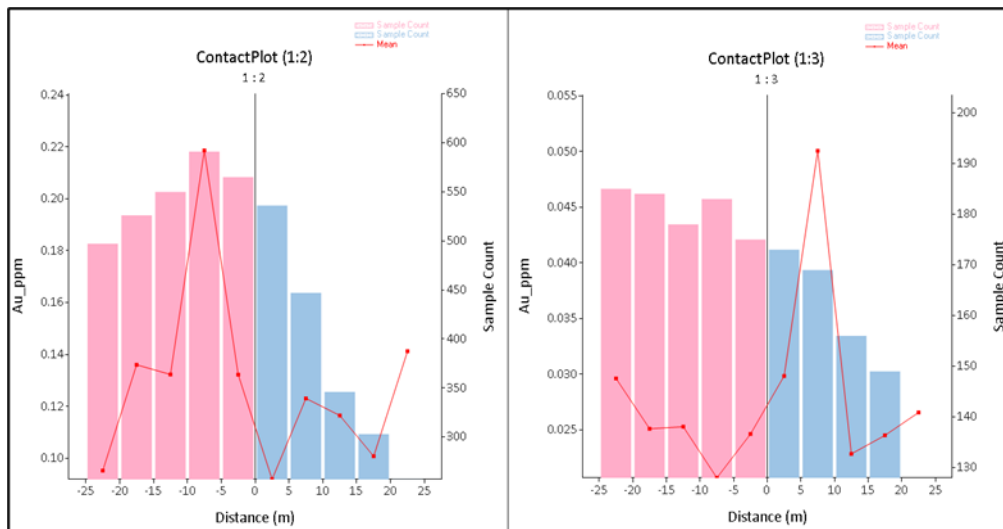


Figure 67 – Contact boundary analysis between weathering boundaries 1=Oxide, 2=transition, 3=Fresh

After review of natural breaks in the assay data, 0.1g/t Au was chosen as the threshold lower grade limit for modelling the mineralised shells. Mining Plus composited the assay data to 1m, applied a cut-off grade at 0.1 g/t Au and set the maximum included waste intervals to 8m to ensure continuity with sparse data in Leapfrog Geo to use for numerical modelling.

Mining Plus performed Indicator RBF grade interpolation within the lithological boundaries for laterite, metasediments+carbonate and intrusive units (Figure 68). Mining Plus imported raw assay data into Snowden Supervisor for trend analysis in each lithological unit and used the trend data to refine the grade interpretation.



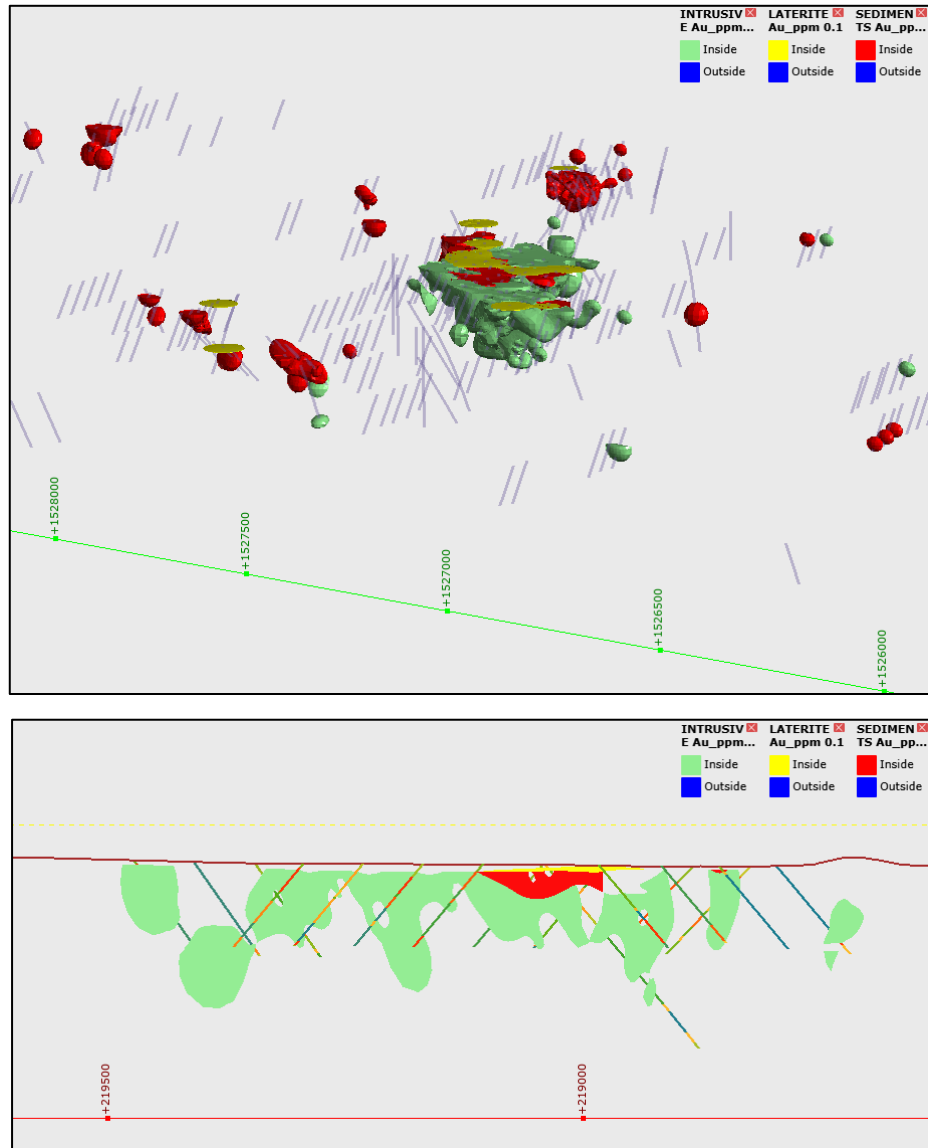


Figure 68 – Oblique view of grade shells Bottom: E-W section view of grade shells

#### 14.3.4 Estimation Domains

Mining Plus defined three estimation domains for analysis and variography during the resource estimation. These were based on consistent behaviour (stationarity) of gold grade distribution, and a requirement to have enough samples to model variography.

- Laterite Domain (AUDOM11): Inside the mineralised grade shell (>0.1g/t Au), and inside the Laterite lithological solid.
- Oxide sediments Domain (AUDOM12): Inside the mineralised grade shell (>0.1g/t Au), inside the sediments and carbonate lithological solid and inside the oxide weathering solid.
- Oxide intrusive Domain (AUDOM13): Inside the mineralised grade shell (>0.1g/t Au), inside the intrusive lithological solid and inside the oxide weathering solid.



- Fresh sediments Domain (AUDOM32): Inside the mineralised grade shell ( $>0.1\text{g/t Au}$ ), inside the sediments and carbonate lithological solid and inside the transition and fresh weathering solid.
- Fresh intrusive Domain (AUDOM33): Inside the mineralised grade shell ( $>0.1\text{g/t Au}$ ), inside the intrusive lithological solid and inside the transition and fresh weathering solid.

#### 14.3.5 Exploratory Data Analysis

Mining Plus performed exploratory data analysis (EDA) on the raw assay data flagged as inside the modelled grade shells.

##### 14.3.5.1 Compositing

The original sample lengths are predominantly 1m in length, so Mining Plus applied an overall composite of 1m (Table 52). This both honours the majority intercept length, and allows enough definition to estimate thin zones of gold

The drill holes were composited prior to being used for wireframing, and prior to applying capping values.

Table 52 – Statistics of the pre- and post-composited drill hole intercepts.

AUDOM	Number of Samples		Mean Grade		% Diff	Std Dev		Coeff Variation	
	Raw	Composite	Raw	Composite		Raw	Composite	Raw	Composite
11	53	85	0.38	0.4	5%	1.18	1.26	3.13	3.12
12	2055	2669	0.32	0.38	19%	1.62	1.74	5.02	4.57
13	2931	4549	0.33	0.39	18%	0.73	0.78	2.23	2.02
32	231	245	0.23	0.24	4%	1.01	1	4.46	4.2
33	707	779	0.37	0.36	-3%	0.45	0.44	1.23	1.23



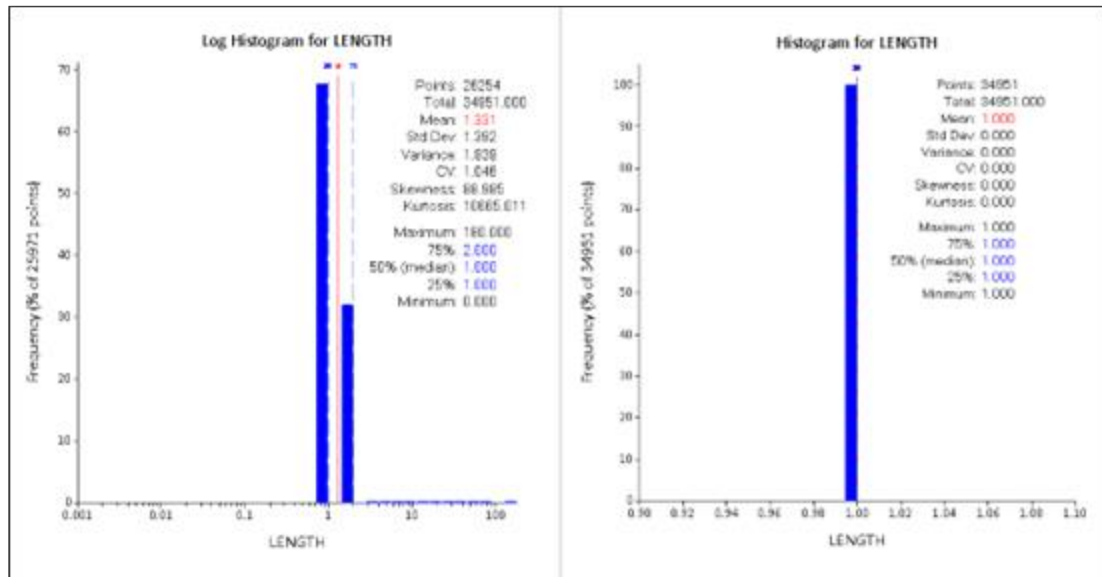


Figure 69 – Histograms of length pre (left) and post compositing (right).

#### 14.3.5.2 Top-cuts

Top cutting was performed on the composited samples. There are a significant number of outlier values, and the coefficient of variation was high in the originally composited samples indicating a top-cut is required (Table 53). On the basis of the different grade cumulative distributions for each estimation domain, Mining Plus decided to apply grade capping or top-cutting at different thresholds.

After review of the saprolite, metasediments and intrusive domains, the grades were capped accordingly:

- Laterite (11) – no grade cutting as only 53 points
- Oxide Sediments (12) capped at 11.5 g/t Au
- Oxide Intrusive (13) capped at 8.5 g/t Au
- Fresh Sediments (32) capped at 3.4 g/t Au
- Fresh Intrusive (33) capped at 2.4 g/t Au

Table 53 – Grade cutting at Lakanfla

Domain	Number of Samples		Mean Grade			Top-Cut Value	Standard Deviation		Coeff of Variation		Max Un-Cut Grade	Top-Cut %ile
	Un-Cut	Top-Cut	Un-Cut	Top-Cut	% Diff		Un-Cut	Top-Cut	Un-Cut	Top-Cut		
12	2669	2044	0.38	0.29	-24%	11.5	1.74	0.93	4.57	3.19	61.05	99.5%
13	4549	2926	0.39	0.32	-18%	8.5	0.78	0.63	2.02	1.96	18.2	99.8%
32	245	229	0.24	3.4	1317%	3.4	1	0.52	4.2	2.88	13.7	99.1%
33	779	704	0.36	0.36	0%	2.4	0.44	0.4	1.23	1.11	5.06	99.6%



#### 14.3.5.3 De-clustering

Mining Plus reviewed declustering during the estimation process, and made the decision not to apply it prior to block model estimation.

#### 14.3.5.4 Variography

Mining Plus used Snowden Supervisor software to calculate downhole and directional variograms (Figure 70) using the 1m capped gold composites located inside the grade shells. The variography was split into five domains; 11, 12, 13, 32 and 33, which allowed sufficient samples for variography, and split the domains with different grade distributions, in all but domain 11 (laterite).

The downhole variogram was used to define the nugget portion of the variograms; it ranges between 0.59 – 0.62, which is low but not unusual for this type of low grade structurally-hosted gold deposit. Details of the variogram model parameters are shown in Table 54 below.

Mining Plus considers the orientations of the variograms, and the range of each axis, to be appropriate, and to closely match the thickness of the lenses, and orientation along-strike and down-dip of the mineralised lenses.



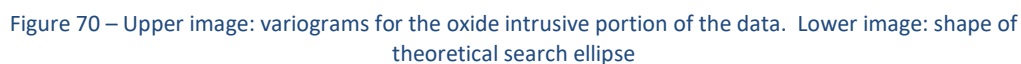




Table 54 – Variogram parameter files

Domain	Element				Variographic parameters - back transformed						
		Dir 1	Dir 2	Dir 3	C0	C1		A1	C2		A2
12	Au	-160	90	120	0.59	Dir 1	0.31	30	Dir 1	0.10	55
						Dir 2		22	Dir 2		48
						Dir 3		24	Dir 3		40
13	Au	0	0	-40	0.62	Dir 1	0.19	64	Dir 1	0.19	103
						Dir 2		62	Dir 2		63
						Dir 3		8	Dir 3		48
32	Au	-160	90	120	0.59	Dir 1	0.31	30	Dir 1	0.10	55
						Dir 2		22	Dir 2		48
						Dir 3		24	Dir 3		40
33	Au	0	0	-40	0.62	Dir 1	0.19	64	Dir 1	0.19	103
						Dir 2		62	Dir 2		63
						Dir 3		8	Dir 3		48

#### 14.3.5.5 Density

To calculate block tonnages, Mining Plus assigned bulk density values to the lithology zones (Table 55). These are average values calculated from measurements made of Diba drill core samples, as no samples from Lakanfla have been measured.

Table 55 – Densities chosen for use in the block model based on lithology type.

Domain	DENSITY
Oxide metasediments, intrusive and laterite	1.72
Transition metasediments and intrusive	2.28
Fresh metasediments and intrusive	2.70

#### 14.3.6 Kriging Neighbourhood Analysis

The geological software used for Kriging Neighbourhood Analysis (KNA) was Snowden Supervisor. Mining Plus made the following decisions for estimation parameters, based on the results of the KNA:

- **Block Size:** There was very little difference between the Kriging Efficiency (KE) and Slope of Regression (SR) of block sizes between 10m and 15m, so a parent block size of 10m x 10m x 10m was chosen to fit the wireframes effectively, and honour a planned bench height of 5m. Sub-celling to 2.5m x 2.5m x 2.5m was chosen.
- **Min-Max Samples:** The sample range for block grade estimation was chosen as 8-26 samples, based on the shape of the KE and SR curves over a 2-70 sample range.
- **Search Ellipse size:** the first search ellipse was chosen as half the variogram range, with the second search ellipse at the variogram range and the third search ellipse at twice the variogram range.



- *Discretisation*: this showed little difference in KE or SR above a 2 x 2 x 2 discretisation; 5 x 5 x 5 was chosen for use in this estimation.

Table 56 – Estimation parameters.

KNA Summary	Block Size	No. of Samples		Search Ellipse			Discretisation
Domain		Min	Max	Major	S-Major	Minor	
11	10m x 10m x 10m	8	26	0	0	0	5, 5, 5
12	10m x 10m x 10m	8	26	-160	90	120	5, 5, 5
13	10m x 10m x 10m	8	26	0	0	-40	5, 5, 5
14	10m x 10m x 10m	8	26	-160	90	120	5, 5, 5
15	10m x 10m x 10m	8	26	0	0	-40	5, 5, 5

### 14.3.7 Estimation Methodology

The software used for block model grade estimation was Datamine Studio RM. The block model was initially prepared from a prototype generated with the parameters in Table 57. The blocks were then populated in the mineralised wireframes and coded by AUDOM wireframe number (AUDOM). They were subsequently coded by oxide and lithology.

Table 57 – Block model parameters

	Scheme	Parent
Block Model Origin	X	217,400
	Y	1,526,000
	Z	- 200
Block Model Maximum	X	221,000
	Y	1,530,000
	Z	250
Parent Block Size	X	10
	Y	10
	Z	10
Sub-Cell Block Size	X	2.5
	Y	2.5
	Z	2.5



Table 58 – Columns coded into the block model.

Variable	Type	Default Value	Description
AUDOM	Integer (Integer * 4)	-99	Unique estimation domain code
LITHDOM	Integer (Integer * 4)	-99	Lithology Code
DENSITY	Float (Real * 4)	0	bulk density estimate/assignment
OXDOM	Integer (Integer * 4)	-99	1 = oxide, 2 = transitional, 3 = fresh
RESCAT	Integer (Integer * 4)	4	1 = Measured, 2 = Indicated, 3 = Inferred, 4 = Unclassified
MINED	Integer (Integer * 4)	0	0 = un-mined (in situ), 1 = mined OP, 2 = mined UG, 3 = sterilised, 4 = man-made structures (waste dumps etc), 5 = backfill
TOPO	Integer (Integer * 4)	1	0 = air, 1 = fresh rock
AU	Float (Real * 4)	-99	Estimated Grade - OK - Gold - ppm - mindom2= ID2, mindom3&4= OK
AU_OK	Float (Real * 4)	-99	Estimated Grade - OK - Gold - ppm
AU_ID2	Float (Real * 4)	-99	Estimated Grade - ID2 - Gold - ppm
AU_ID3	Float (Real * 4)	-99	Estimated Grade - ID3 - Gold - ppm
AU_NN	Float (Real * 4)	-99	Estimated Grade - NN - Gold - ppm
SVOL	Integer (Integer * 4)	-99	estimation pass number - --1-4
NS	Float (Real * 4)	-99	Number of samples
TDIS	Float (Real * 4)	-99	Distance to sample
KV	Float (Real * 4)	-99	kriging variance - OK - --0-1

Mining Plus estimated gold grades using Ordinary Kriging (OK), with check estimates using Inverse Distance Squared (ID2) and Nearest Neighbour (NN). Estimation was performed only on cells within the mineralised wireframes. Grade was estimated in two passes, using increased search ellipse sizes each time (see KNA section). Details of the estimation parameters are given below in Table 59.

Search volume 1 is the half variogram range, search volume 2 is full variogram range and search volume 3 double the variogram range. There is a 2 octant (of search ellipse) minimum with each octant having a minimum 1 and maximum 4 samples. There is also a drill hole limit of max 4 samples from a single drill hole in each block estimate. These were used to tightly control smearing of high and low grade zones.



Table 59 – Search ellipse parameters

Domain	Search			# Samples		DH	Second Pass			# Samples		DH	Third Pass			# Samples		DH
	Major	Semi-Major	Minor	Min	Max	Limit	Major	Semi-Major	Minor	Min	Max	Limit	Major	Semi-Major	Minor	Min	Max	Limit
11	104	4	4	8	26	5	208	8	8	8	26	5	416	16	16	2	26	5
12	28	24	20	8	26	5	56	48	40	8	26	5	112	96	80	2	26	5
13	52	32	24	8	26	5	104	64	48	8	26	5	208	128	96	2	26	5
14	28	24	20	8	28	5	56	48	40	8	28	5	112	96	80	2	28	5
15	52	32	24	8	26	5	104	64	48	8	26	5	208	128	96	2	26	5



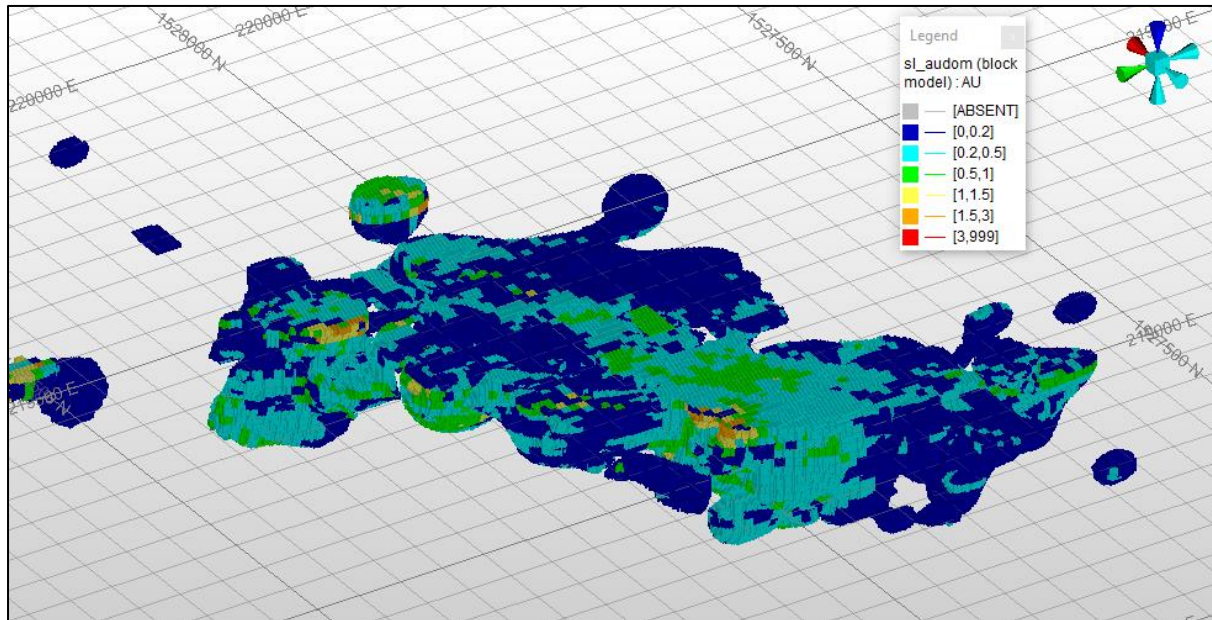


Figure 71 – Block model coded by Au grade (Isometric view northwest).

#### 14.3.8 Block Model Validation

Mining Plus performed validation of the gold grade estimate by visual inspection on vertical E-W cross sections of the estimated blocks and Au capped composite drill hole samples. These sections show the internal distribution of grade within the mineralised shells, and show that the gold grade has not been smeared into internal waste zones. Example sections are shown in Figure 72 and Figure 73.

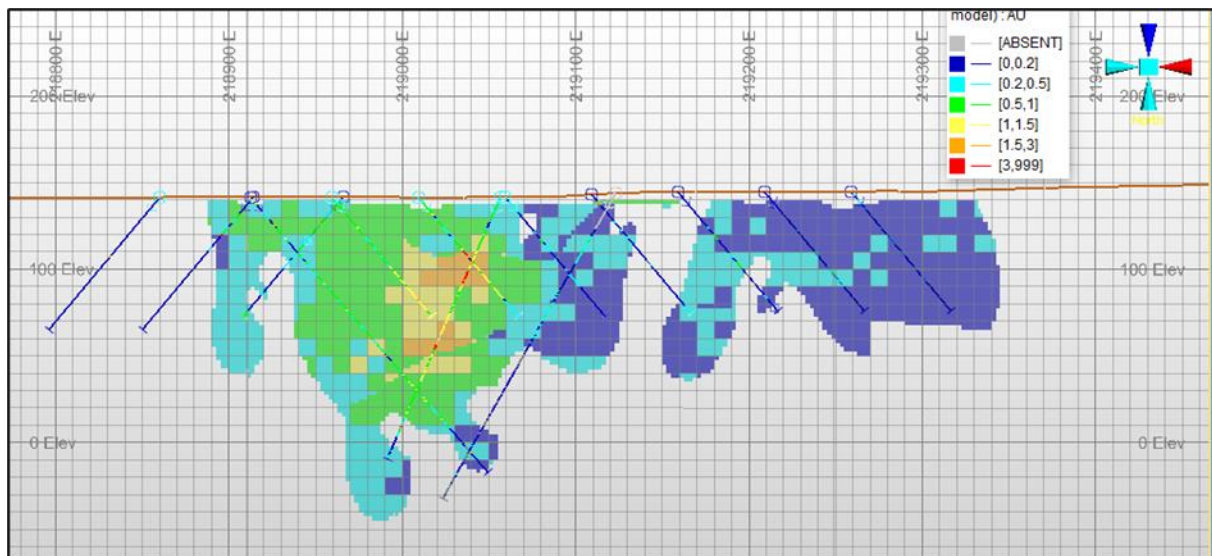


Figure 72 – E-W cross section in the southern part of the Lakanfla deposit looking North.



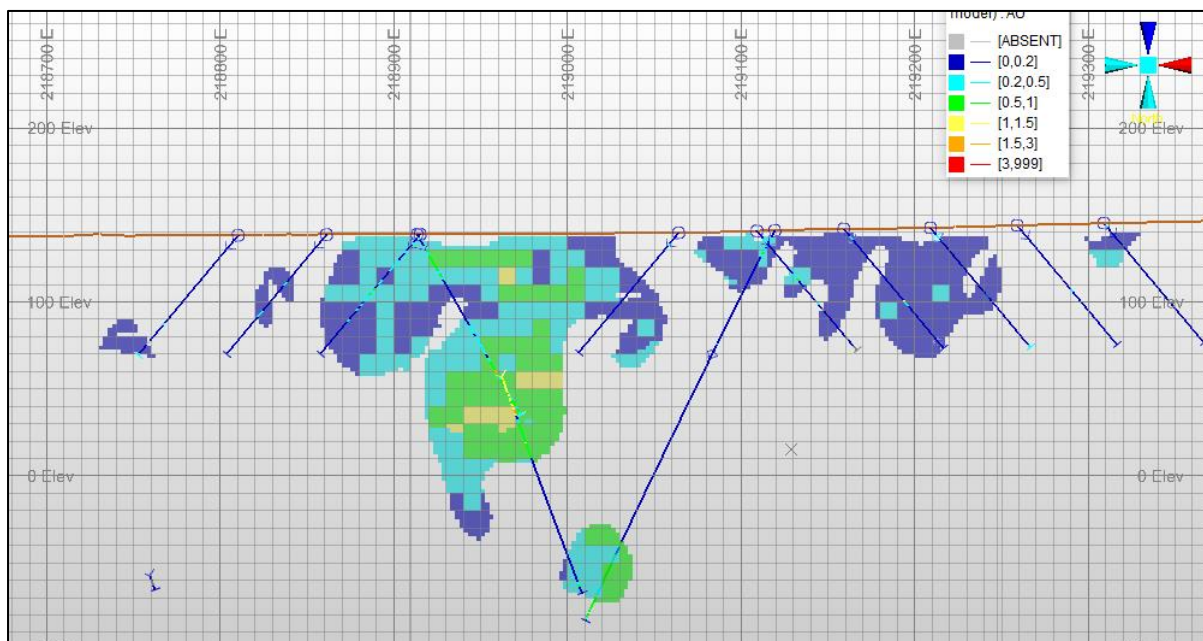


Figure 73 – E-W cross section in the northern part of the Lakanfla deposit looking North.

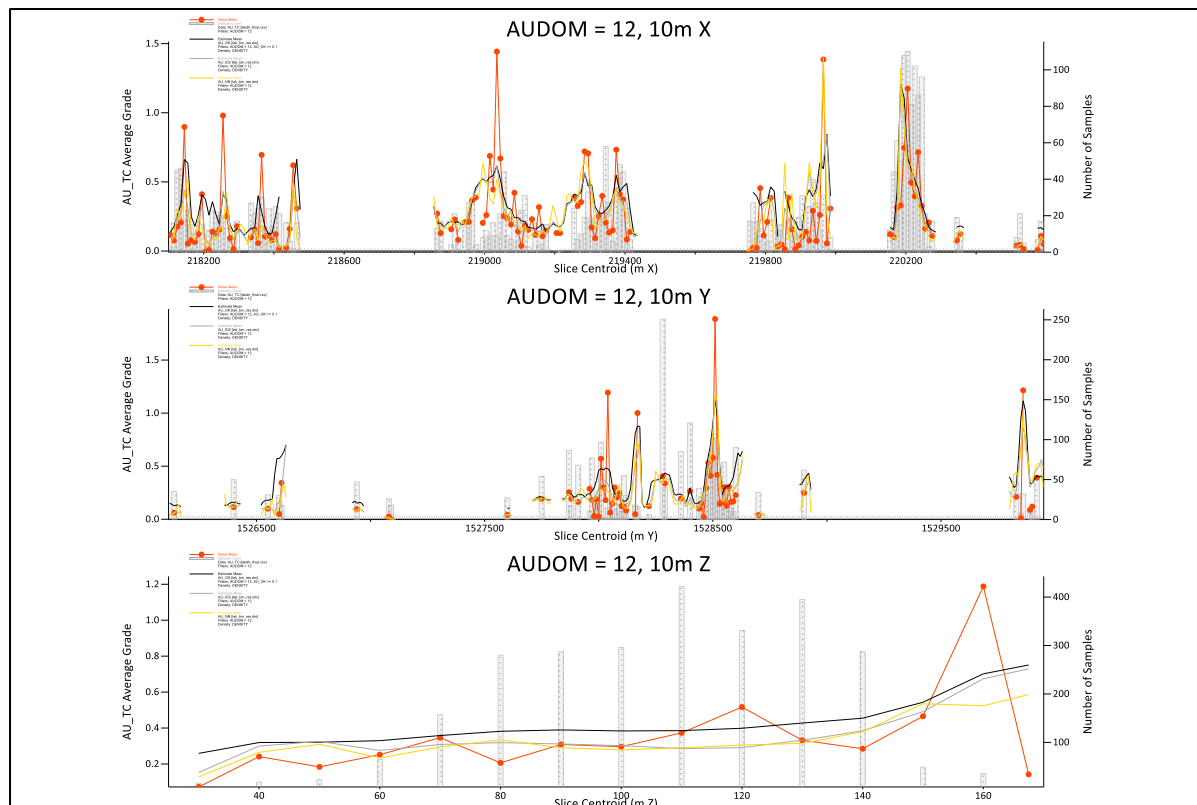
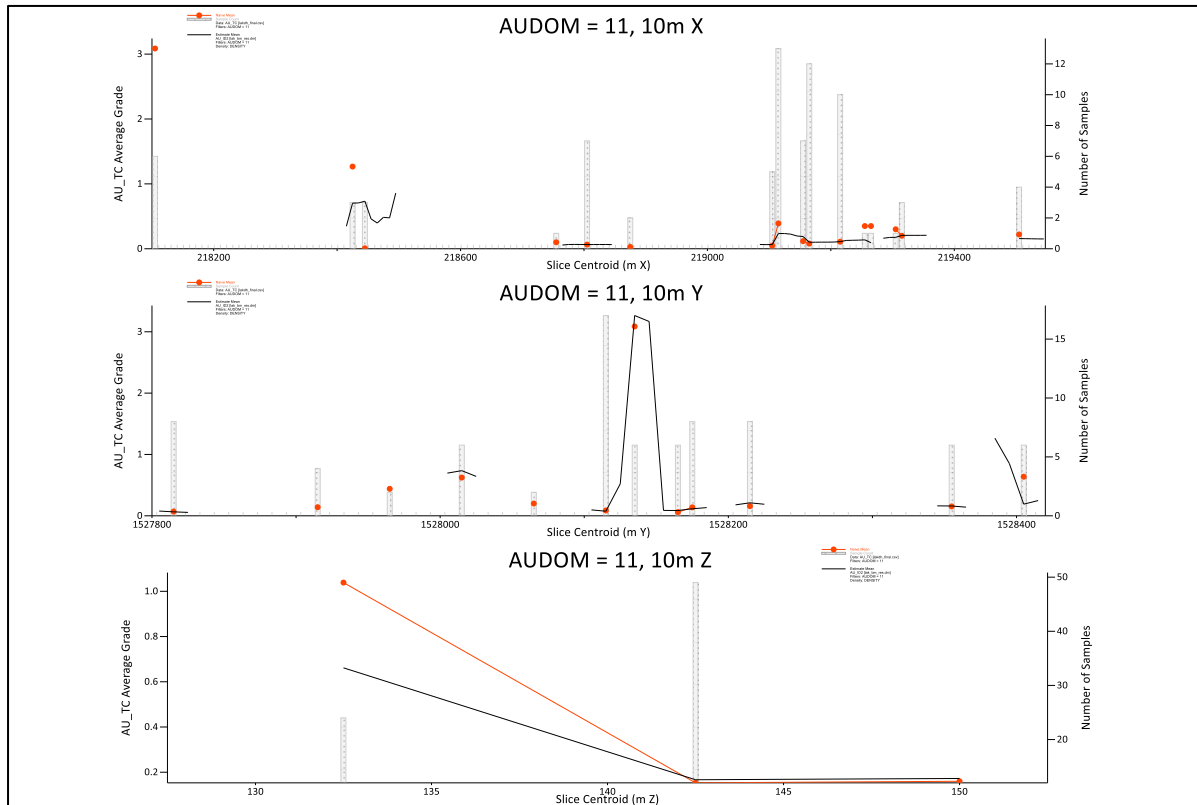
A global grade validations for each estimated domain is shown in Table 60. There is a decrease in the estimated grade that is discussed later in this section.

Domain	Estimated Tonnes	Estimated Grade (cut)	No. of Composites	Composite Grade (cut)	Tonnes per composite	% Diff Est Grade vs Composite	Comments
11	329,998	0.09	85	0.40	3882	-76%	Small tonnage
12	6,310,111	0.31	2,669	0.35	2364	-9%	
13	17,004,413	0.35	4,549	0.37	3738	-6%	
32	1,542,417	0.24	245	0.20	6296	22%	
33	5,437,336	0.28	779	0.36	6980	-21%	

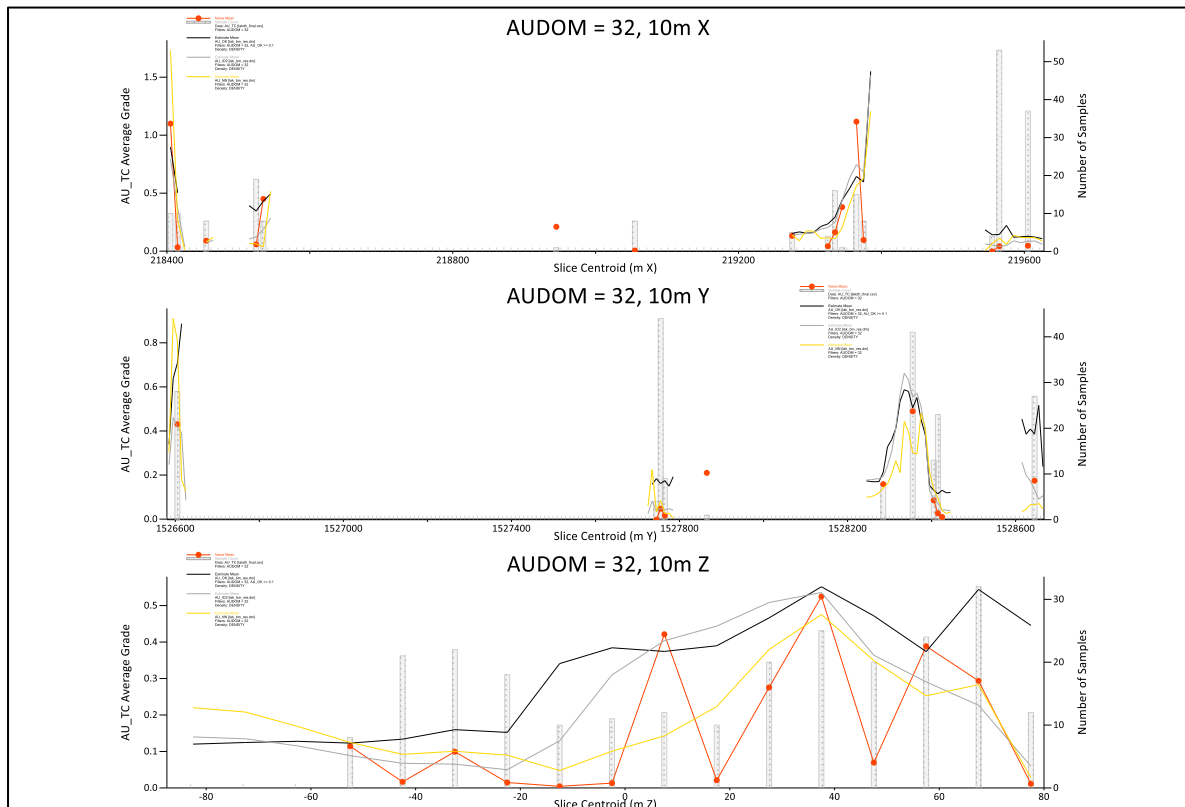
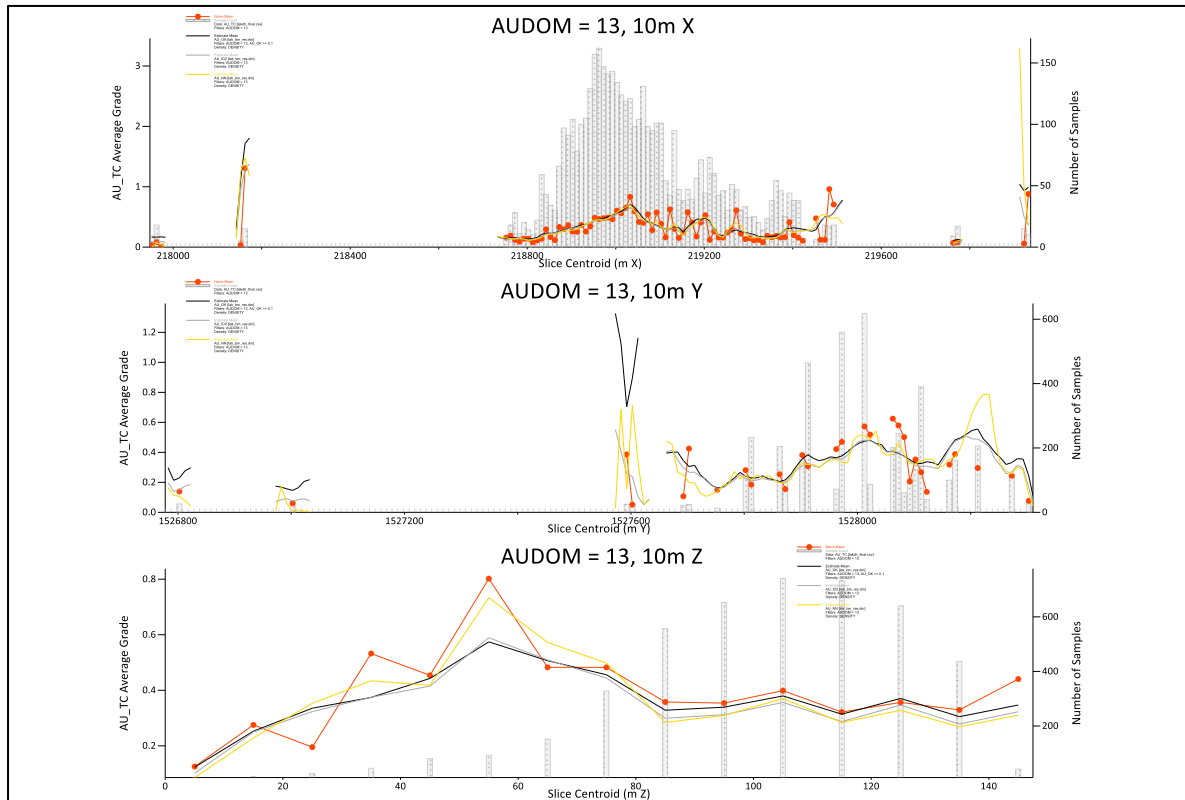
Table 60 – Grade validation for each estimation domain

Swath plots shown in Figure 74, comparing the OK (black line), ID2 (grey line) and NN (yellow line) models and naive mean (red line) within the 0.1 g/t Au grade wireframes within the portion of the deposit for each estimated domain, along the east, north, and vertical directions, show that the composite spatial grade distribution is adequately reproduced by the Au kriged block model.











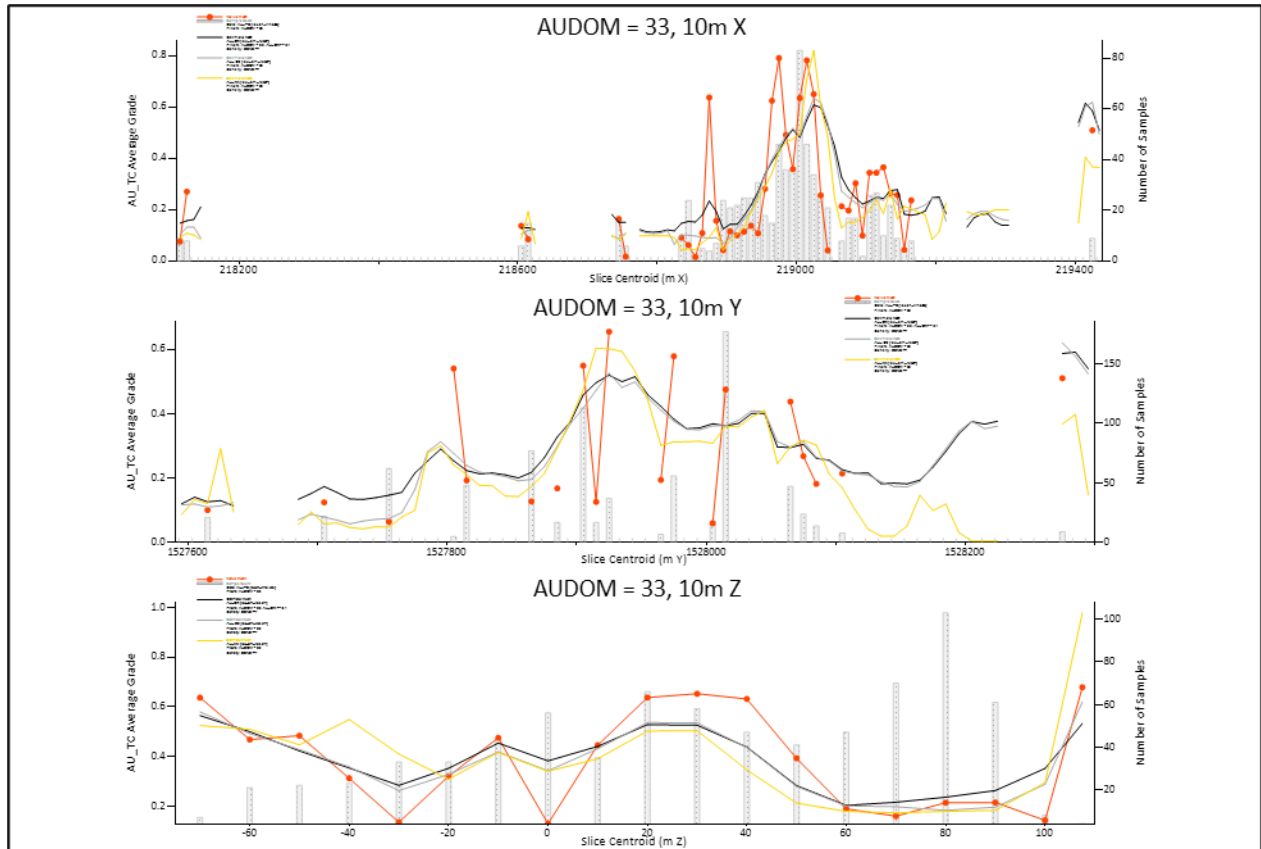


Figure 74 – Swath plots for Audom 11, 12, 13, 32, 33

The swath plots for the well sampled oxide domains indicate that the estimation processes have produced reasonable representation of the grades of the samples from which they were derived. In the more poorly sampled domains (AUDOMs 11 laterite, 32 fresh metasediments and 33 fresh intrusives) there are significant differences between the estimated and sample data. This clearly illustrates that if these latter domains are to be included in further mine planning, significant additional sampling will be required.

#### 14.3.9 Classification

Based on the continuity of the grade shells, and the continuity of the grade inside the shells, Mining Plus classified the mineralised blocks as either Inferred Mineral Resources or as unclassified, based on average drill density and within search pass (Pass in Table 61).

Table 61 – Classification rules used for the Lakanfla project.

Category	rescat	Drill density		Pass	Other
		X	Z		
Inferred	3	70m	1m	1, 2	Contained in mineralised wireframes, average distance to sample >35m

Mining Plus also required these to form contiguous zones that could be outlined manually by wireframes (Figure 75), in order to avoid the ‘spotty-dog’ classification problem. The



classification was also extended to a maximum of a quarter of the drill hole spacing at the ends of drill fences.

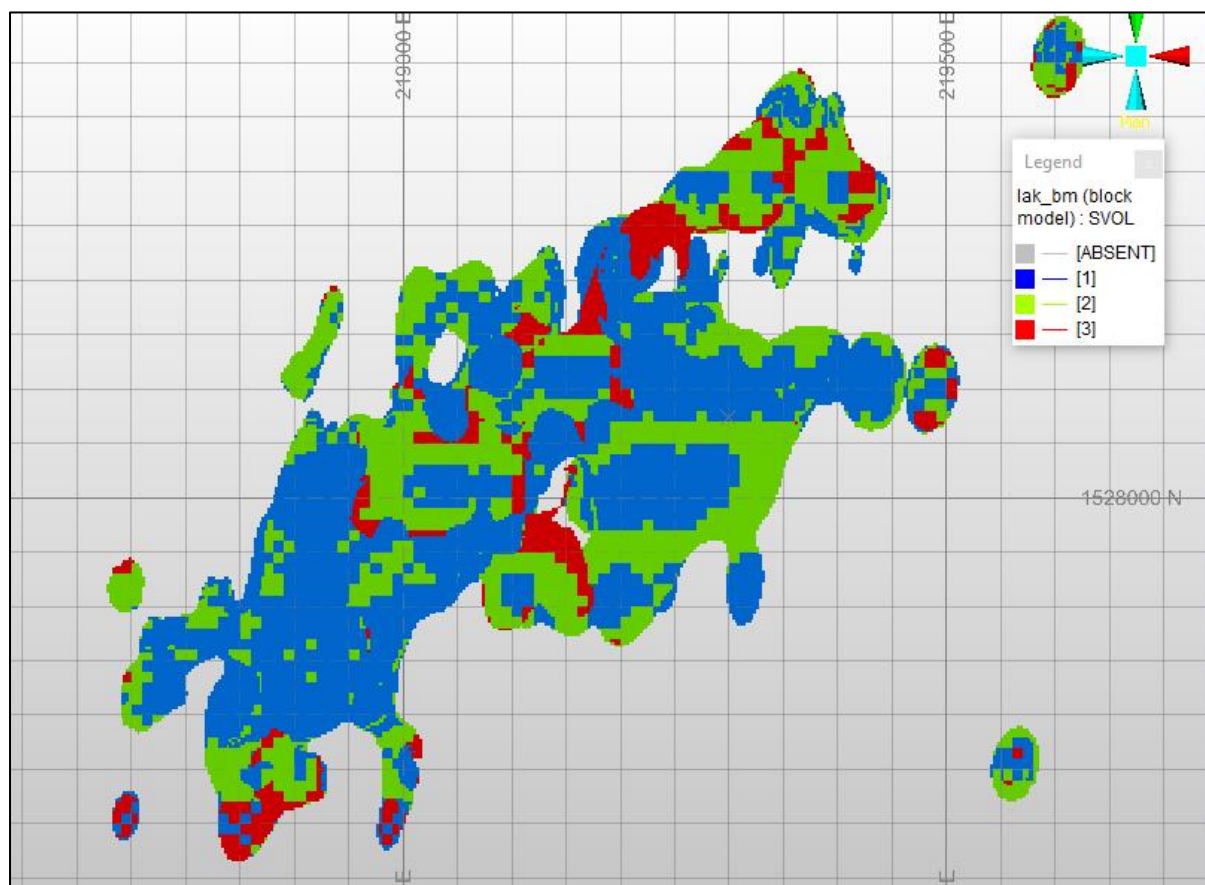


Figure 75 – Blocks coloured by pass (maximum search ellipse diameter).



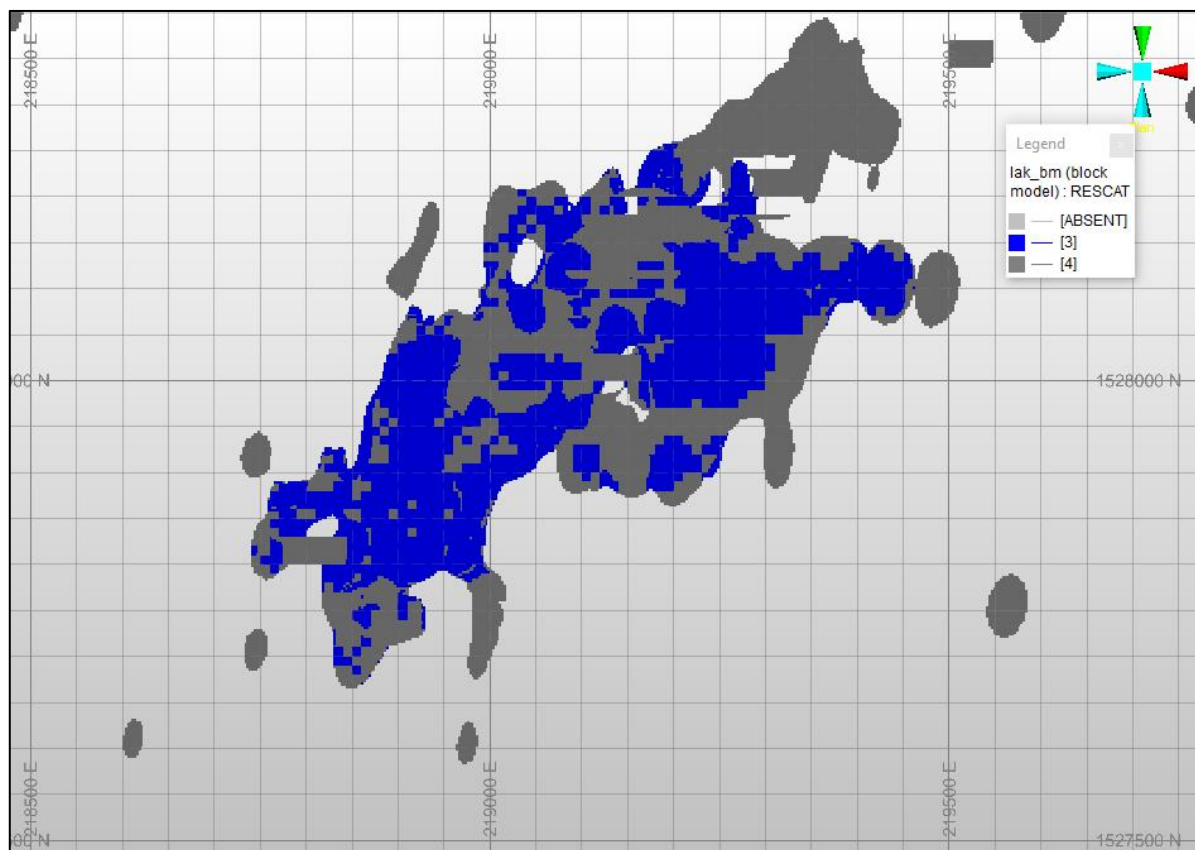


Figure 76 – Block model plan view. Blocks coloured by RESCAT with 3 = Inferred and 4 = unclassified

#### 14.3.10 Mineral Resource Statement

The mineral resources were classified in accordance with the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves. Mr Julian Aldridge, CGeol (Geological Society of London), a former Mining Plus employee, is responsible for the estimate. The estimate has an effective date of 12 April 2022. Mineral Resources are reported within a pit shell and are reported to a base-case grade cut-off of 0.5 g/t Au.

Table 62 – Mineral Resource Statement for Lakanfla

Lakanfla										
Domain	Cut-Off	Indicated			Inferred			Total Resource (Indicated + Inferred)		
	(g/t Au)	Tonnes (Mt)	Grade (g/t)	Au kOz	Tonnes (Mt)	Grade (g/t)	Au Koz	Tonnes (Mt)	Grade (g/t)	Au Koz
Oxide	0.5				2.47	0.87	69.2	2.47	0.87	69.2
Trans	0.5				0.78	0.90	22.7	0.78	0.90	22.7
Fresh	0.5				0.50	0.80	12.7	0.50	0.80	12.7
<b>Total</b>	<b>0.5</b>				<b>3.74</b>	<b>0.87</b>	<b>104.6</b>	<b>3.74</b>	<b>0.87</b>	<b>104.6</b>
The preceding statements of Mineral Resources conforms to the Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects. All tonnages reported are dry metric tonnes. Minor discrepancies may occur due to rounding to appropriate significant figures										



#### 14.3.10.1 Assessment of Reasonable Prospects of Economic Extraction

Mining Plus assessed the resource model for reasonable prospects of economic extraction by applying preliminary economics for open pit mining methods to the Indicated and Inferred blocks. Pit optimization analysis was done using NPV Scheduler optimising tool. The optimiser uses the 3D Lerch-Grossmann algorithm to determine the economic pit limits based on input of mining and processing costs and revenue per block. The input parameters used are the same as those used for Diba (Section 14.1.10.1) and Diba NW (Section 14.2.9.1).

For the purposes of resource statement, a reporting cut-off grade of 0.5g/t Au has been used, and a pit shell wireframe was created to contain all the Indicated and Inferred blocks considered to have reasonable prospects of economic extraction. The assessment of reasonable prospects of economic extraction for the mineral resources contains the assumptions based on benchmarked and analogous operations by Mining Plus. Mining Plus considers them reasonable given the current state of project knowledge. However, as more detailed site-specific metallurgical, geotechnical, environmental and engineering data become available, these assumptions are likely to change.

#### 14.3.10.2 Grade-tonnage sensitivity analysis

The grade-tonnage curves (Figure 77) indicate that the orebody is only moderately sensitive to changes in cut-off grade.

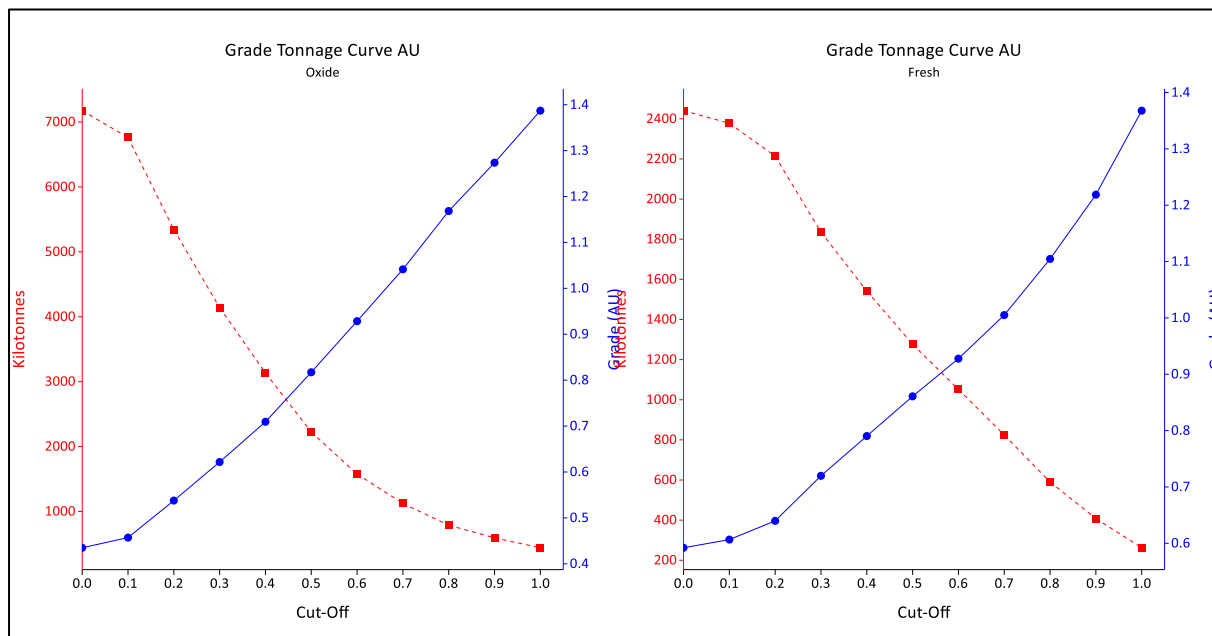


Figure 77 – Grade Tonnage curves - LEFT: oxide Inferred, RIGHT: Fresh Inferred



**14.3.11 Mining Plus Comments**

The Lakanfla deposit differs somewhat from the Diba and Diba NW deposits in that it is developed almost exclusively in weathered and fresh granitic intrusives, and the current geological interpretation is that the structures that control mineralisation are steep dipping. Sampling and hence the MRE has focussed mostly on the weathered (oxidised) intrusive portion of the deposit, and hence this is where the most confident estimates can be made. The fact that the RPEEE pit is constrained in the oxide zone confirms this.

The classification of the Mineral Resource as Inferred, and a large portion as unclassified is the consequence of a combination of aspects beyond just drillhole and sample spacing and includes the low resolution of the topographic surface and especially the absence of bulk density measurements.

In order to advance the project a high resolution topographic surface (corrected for vegetation) should be surveyed during the next stage of project development. More core drilling should be undertaken for the purposes of obtaining a representative suite of bulk density and moisture content measurements and structural measurements to better constrain the structural features that control mineralisation and geotechnical measurements to assist mine planning. The latter will require conducting orientation marking of the drill cores.

The economic and technical parameters used for the conceptual pit optimization were benchmarked by Mining Plus from similar projects. Given the current state of project knowledge, these are considered reasonable. However, as more detailed site-specific metallurgical, geotechnical, environmental and engineering data become available, these assumptions are likely to change.



## 15 MINERAL RESERVE ESTIMATES

---

The Project does not have a Pre-Feasibility or Feasibility Study (PFS / FS) completed, therefore this section is not applicable to this Technical Report.



## 16 MINING METHODS

### 16.1 Introduction

Mine design, production planning, operating and capital cost estimates have been developed for an open-pit operation. Production planning is based on a processing capacity of 2 million tonnes per year of Inventory (PMI) material.

All currency values are stated in US Dollars.

The mine plan was developed based on the Mineral Resource on the block models “dibanw\_apr2022\_eng” and “lak\_bm\_res”. These models had unnecessary fields for the mining study removed and were issued as “diba\_bm\_eng” and “lak\_bm\_eng”

The final pit limit was designed around an optimised shell generated with Datamine Software’s Studio NPV Scheduler software. The subset of PMI contained in the final pit designs is shown in Table 63 for Diba, Table 64 for Lakanfla and a combined inventory in Table 65. This subset includes a proportion (39%) of Inferred Mineral Resources primarily from the Lakanfla deposit.

Table 63 – Diba summarised in-pit inventory

Material	Indicated (kt)	Au grade (g/t)	Inferred (kt)	Au grade (g/t)	Waste (kt)
Oxide	4,945	1.29	126	0.60	6,417
Transitional	573	1.14	25	0.79	141
Fresh	0	0.00	0	0.00	60
<b>Total</b>	<b>5,518</b>	<b>1.27</b>	<b>151</b>	<b>0.63</b>	<b>6,618</b>

Table 64 – Lakanfla summarised in-pit inventory

Material	Indicated (kt)	Au grade (g/t)	Inferred (kt)	Au grade (g/t)	Waste (kt)
Oxide	0	0.00	3,028	0.65	4,260
Transitional	0	0.00	322	0.87	36
Fresh	0	0.00	0	0.00	10
<b>Total</b>	<b>0</b>	<b>0.00</b>	<b>3,350</b>	<b>0.67</b>	<b>4,306</b>



Table 65 – Combined summarised in-pit inventory

Material	Indicated (kt)	Au grade (g/t)	Inferred (kt)	Au grade (g/t)	Waste (kt)
Oxide	4,945	1.29	3,153	0.65	10,677
Transitional	573	1.14	347	0.86	178
Fresh	0	0.00	0	0.00	69
<b>Total</b>	<b>5,518</b>	<b>1.27</b>	<b>3,501</b>	<b>0.67</b>	<b>10,924</b>

## 16.2 Block Model

The resource block models presented in the Mineral Resource section (file name “DIBA\_MIN\_200427\_MD” and “lak\_bm\_res”) have formed the basis for all mine planning work. Variables (or attributes) contained in the block model are summarised in Table 66.

Table 66 – Resource model details

Resource Model Details			
Deposit	Unit	Diba	Lakanfla
<b>Name</b>	-	diba_bm_eng.dm	lak_bm_eng.dm
<b>Origin:</b>			
X Origin	m	210300	217400
Y Origin	m	1521600	1526000
Z Origin	m	-250	-200
<b>Parent Cell Size:</b>			
X Max	m	5	10
y Max	m	10	10
Z Max	m	5	10
<b>Rotated Model:</b>			
Question Yes/No?	Yes/No	No	No
<b>Sub-Block Cell Size:</b>			
X Min	m	2.5	2.5
y Min	m	5	2.5
Z Min	m	2.5	2.5
<b>Rock type</b>		OXDOM	OXDOM
<b>Density</b>		DENSITY	DENSITY
<b>Elements – Principal Grade Field</b>		AU	AU
<b>Geotype/type/domain</b>		AUDOM/LITHDOM	AUDOM/LITHDOM
<b>Rescat</b>		RESCAT	RESCAT

## 16.3 Geotechnical Parameters

Three overall slope angles have been considered in the pit optimisation: 35° in oxide, 40° in transitional and 45° in fresh rock. these angles have been estimated based on Mining Plus experience of similar sized open pits in the region.



## 16.4 Pit Optimisation

The pit optimisation analysis uses economic criteria to determine to what extent each deposit can be mined profitably.

The pit optimization analysis was completed using Datamine Software's NPV Scheduler optimising tool. The optimiser uses the 3D pseudoflow (Lerch-Grossmann equivalent) algorithm to determine the economic pit limits based on input of mining and processing costs and revenue per block. In order to comply with NI 43-101 guidelines regarding the Standards of Disclosure for Mineral Projects, blocks classified in the Measured and Indicated and Inferred categories are allowed to drive the pit optimiser for a PEA Study.

The pit optimisation was completed based on a selling price of USD\$1750/oz Au. Table 67, Table 68, Table 69, Table 70, Table 71 and Table 72 present the parameters that were used for pit optimisation analysis. All parameters were benchmark values based on other sites near the Diba project. Costs used in the previous PEA were escalated for inflation and price increases.

Table 67 – Open pit optimisation mining cost parameters

Mining Costs				Comments
Deposit	Unit	Diba	Lakanfla	
<b>Drill and Blast (by material type)</b>				Oxide free-digging. 15% D&B Cost for ferrocrete/Duricrust
Oxide	\$/BCM	0.36	0.36	
Transitional	\$/BCM	2.81	2.81	
Fresh	\$/BCM	3.67	3.67	
<b>Mining: (not D&amp;B)</b>				Where ΔZ is distance to pit crest
Ore	\$/BCM	$0.0205 \cdot \Delta Z + 5.9298$	$0.0205 \cdot \Delta Z + 5.9300$	
Waste	\$/BCM	$0.0205 \cdot \Delta Z + 5.9298$	$0.0205 \cdot \Delta Z + 5.9300$	

Table 68 – Open pit optimisation mining parameters

Mining Parameters			
Deposit	Unit	Diba	Lakanfla
Mining Recovery		95%	95%
Mining Dilution		5%	5%



Table 69 – Open pit optimisation processing cost parameters

Processing Cost			
Deposit	Unit	Diba	Lakanfla
<b>Heap Leach:</b>			
Oxide/Trans	\$/t	6.94	6.94
Ore rehandle to mill	\$/t	0.51	0.51
Surface Road Haulage (\$ t/km)	(\$ t/km)	0.08	0.08
Surface Haul Distance (Assumed)	km	3	10
Open Pit Grade Control	\$/t	1.45	1.45
Site G&A			
Oxide	\$/t	3.13	3.13
Transitional	\$/t	3.13	3.13

Table 70 – Open pit optimisation processing parameters

Processing Parameters			
Deposit	Unit	Diba	Lakanfla
<b>Recovery Heap Leach</b>			
Oxide/Trans	%	95%/80%	95%/80%
Processing Rate Heap Leach	Mt/annum	2.0	2.0

Due to the nature of the proposed processing method (Heap Leach), only oxide and transitional material is suitable for processing. Fresh material has been treated as waste. Due to a lack of processing recovery test work on transitional material a more conservative recovery estimate has been applied.

Table 71 – Open pit optimisation geotechnical parameters

Geotechnical Parameters			
Deposit	Unit	Diba	Lakanfla
<b>Wall Angles</b>			
Oxide	deg	35	35
Transitional	deg	40	40
Fresh	deg	45	45

Table 72 – Open pit optimisation revenue parameters

Revenue			
Deposit	Unit	Diba	Lakanfla
Sell Price	\$/unit	1,750	1,750
Selling Cost/other deductions	\$/unit	10	10
State Royalty - Mali Gov	%	3%	3%

Using the cost and operating parameters identified, a series of pit shells were generated by varying the profit factor of the optimiser from 1% to 100% in 1% increments.



At Diba, Pit 99 with a profit factor of 100% and at Lakanfla, Pit 57 with a profit factor of 83%, were chosen for the basis of this PEA. An evaluation of these pit shells is presented in Table 73.

Table 73 – Evaluation within the ultimate pit shells

Deposit	NPV8	Total PMI	Total Waste	Strip	Au Recovered	In-situ Au Grade
Unit	M USD	M Tonnes	M Tonnes		koz	g/t
Diba	119.2	6.1	6.3	1.04	213.0	1.23
Lakanfla	30.9	3.4	3.4	0.99	68.2	0.70
Total	150.1	9.5	9.7	1.02	281.2	1.04

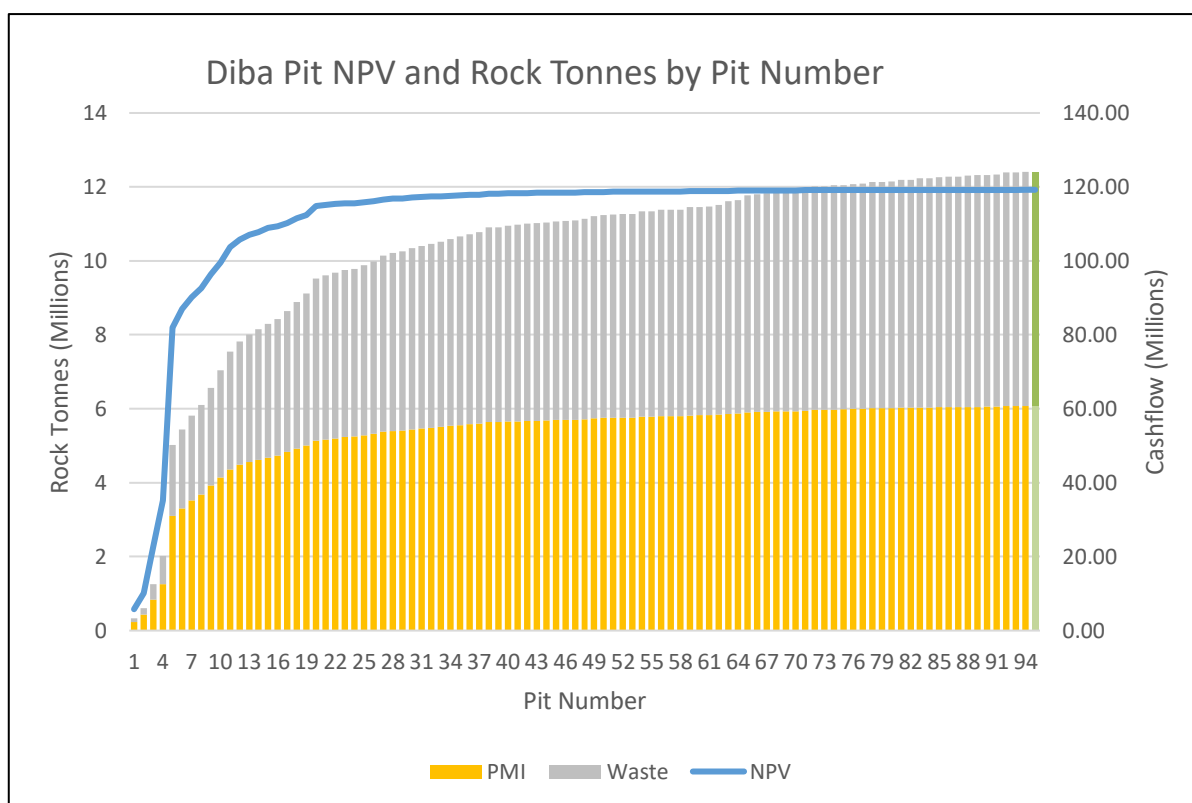


Figure 78 – Diba Pit shell rock tonnes and discounted cash flow by profit factor



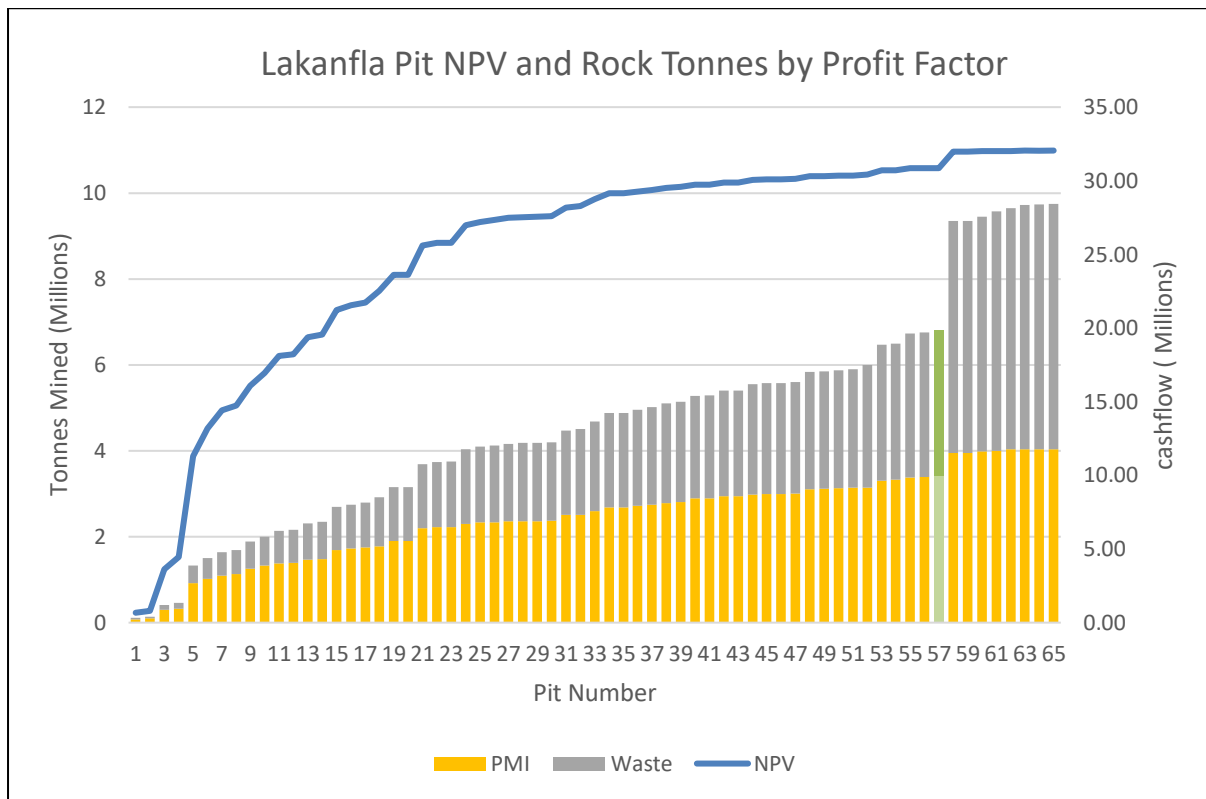


Figure 79 – Lakanfla Pit shell rock tonnes and discounted cash flow by profit factor



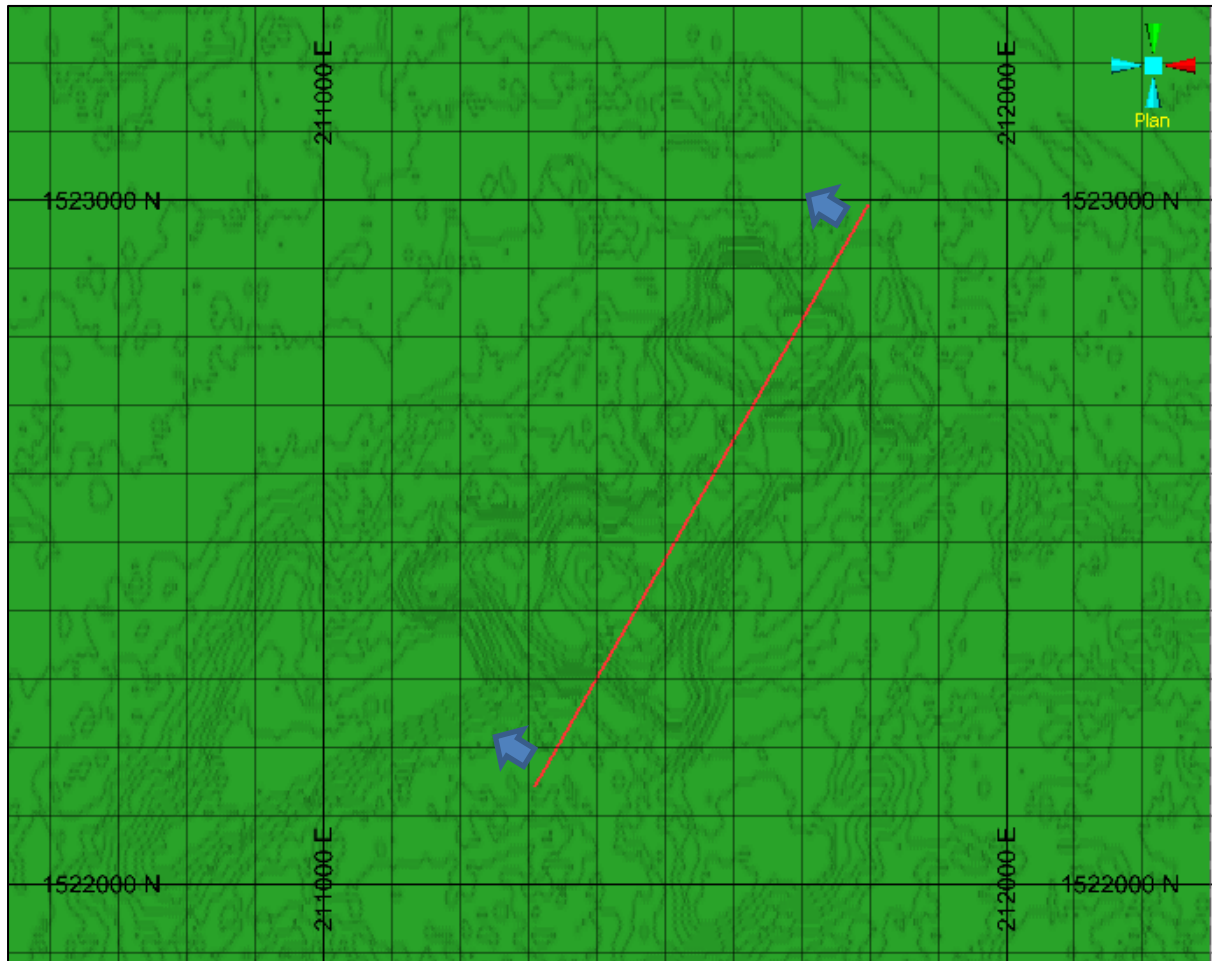


Figure 80 – Plan view of the Diba optimised pit shell with the section and view direction used in Figure 81 marked in red

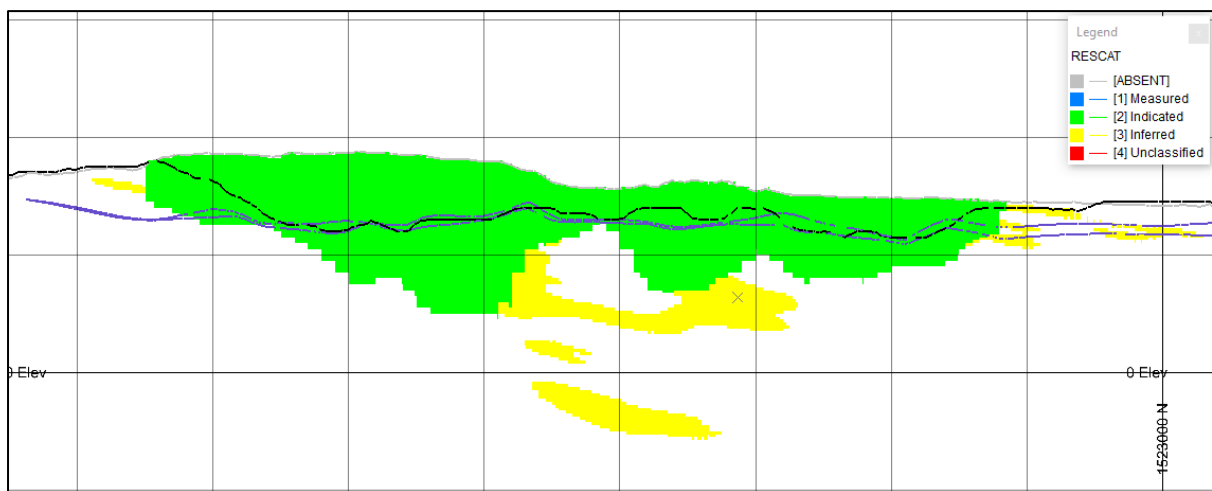


Figure 81 – Section through optimised shell showing indicated and inferred block model cells. Original topography – grey, pit shell – black, base of complete oxidation and top of fresh rock – purple.



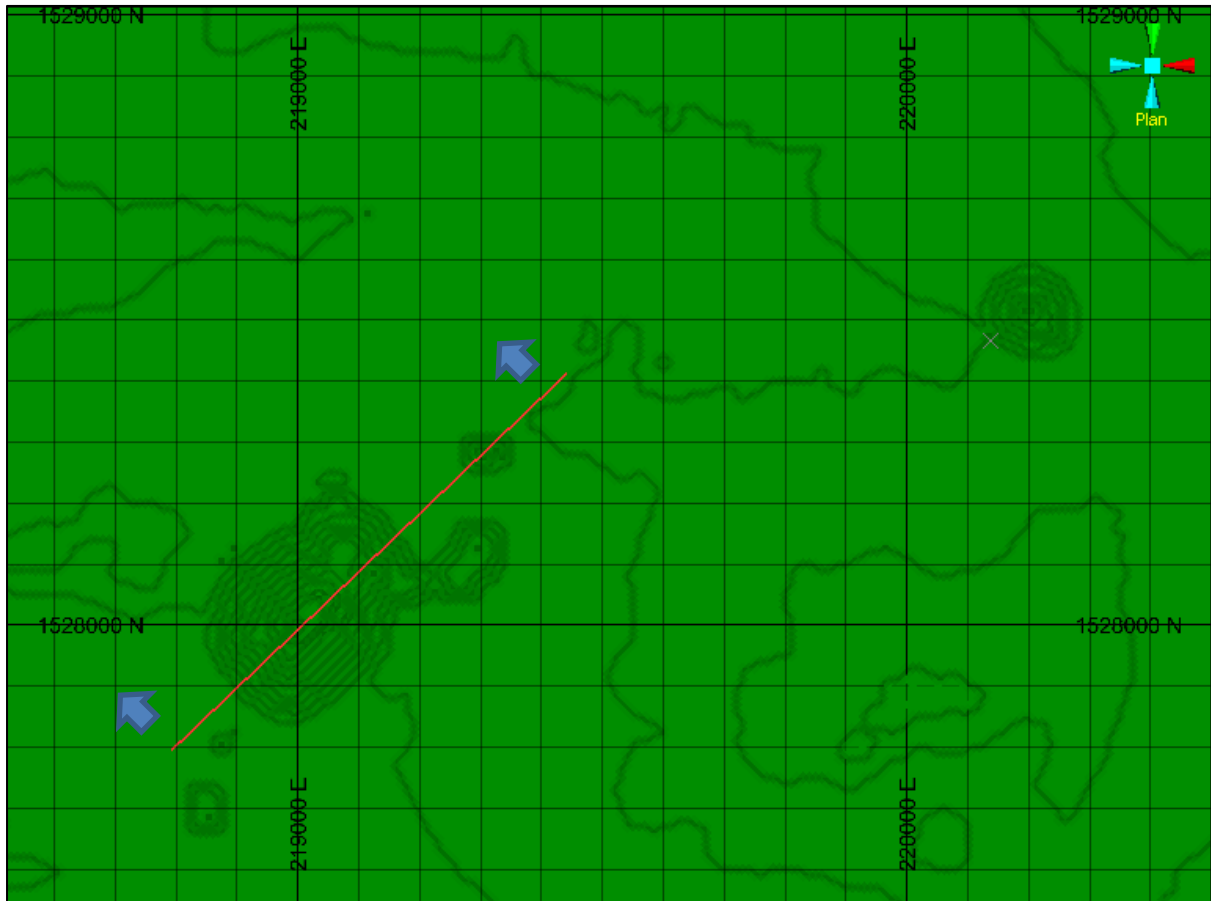


Figure 82 – Plan view of the Lakanfla optimised pit shell with the section and view direction used in Figure 83 marked in red



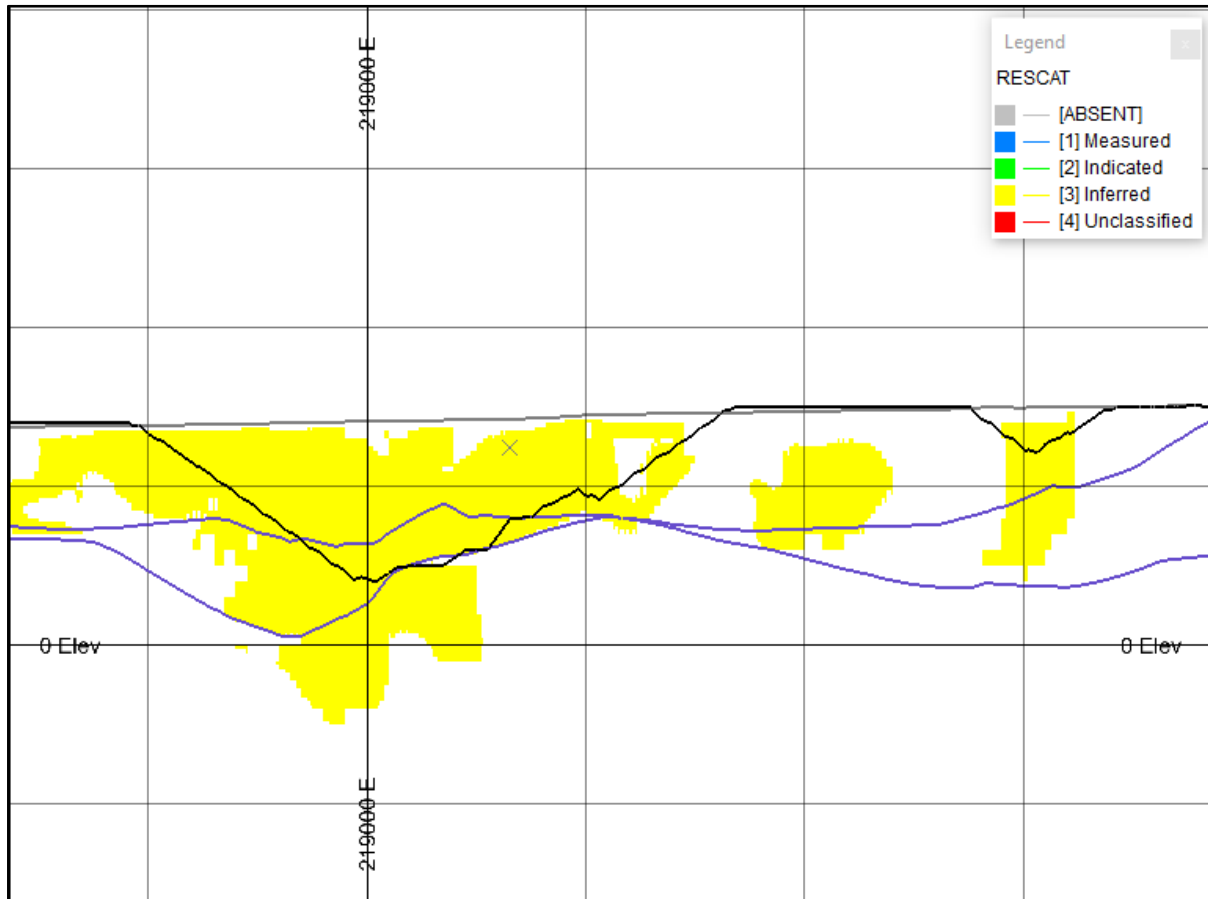


Figure 83 – Section through optimised shell showing indicated and inferred block model cells. Original topography – grey, pit shell – black, base of complete oxidation and top of fresh rock – purple

## 16.5 Mine Design

Mine design has been based on the optimal pits and considered the use of Komatsu HD785-7 or similar during mining operations. Design parameters are summarised in Table 74.

Table 74 – Mine design parameters

Design Parameters	Value			Unit
	Oxide	Trans	Fresh	
Face Angle	50	60	65	°
Berm Width	5	5	4	m
Bench Height		10		m
Catch Berm Width (x 4 benches)		8		m
Ramp Width Single Lane		16		m
Ramp Width Dual Lane		25		m
Gradient		10		1:n
Minimum Mining Width		30		m



### 16.5.1 Diba Mine Design

The final pit design is presented in Figure 84 (plan view), Figure 85 (cross-sectional view A-A' in Figure 84), Figure 86 (cross-sectional view B-B' in Figure 84) and Figure 87 (cross-sectional view C-C' in Figure 84).

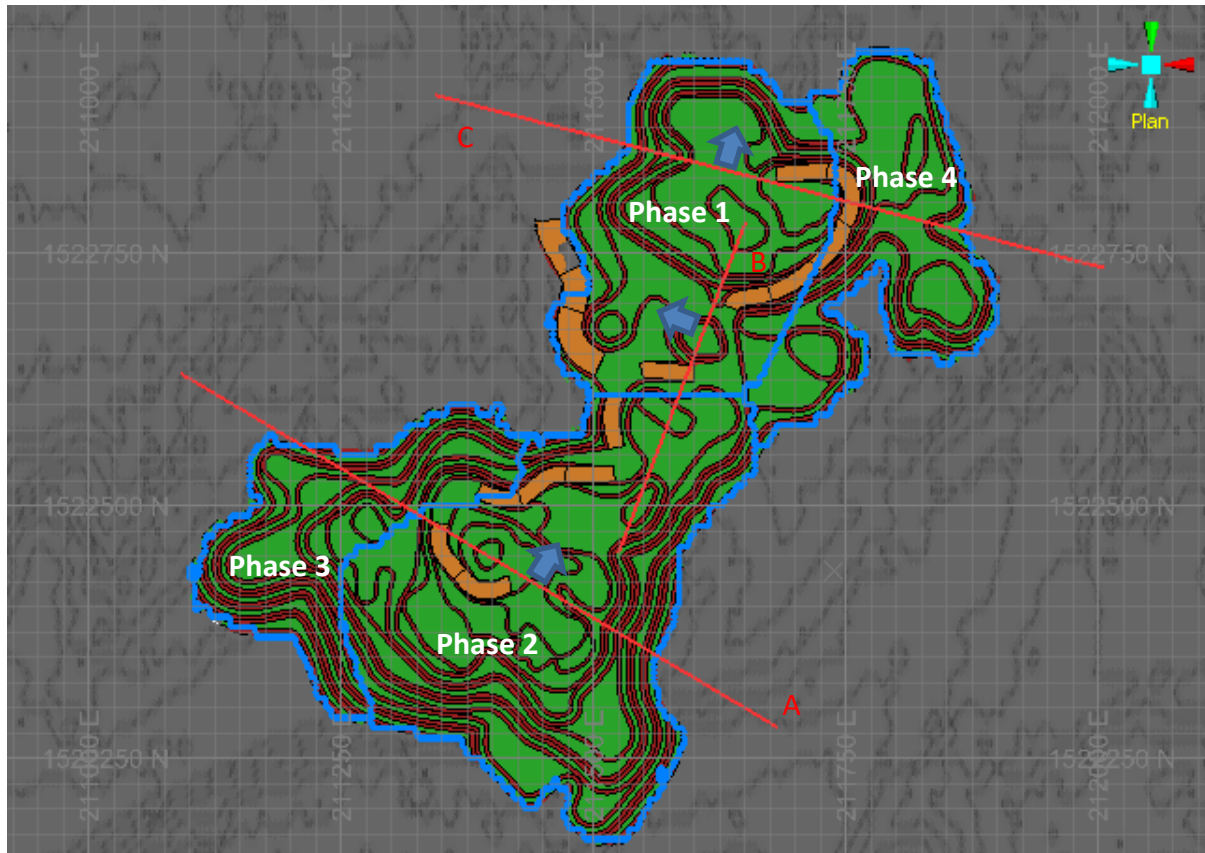


Figure 84 – Plan view of final Diba pit design

The final design has a pit exit to the northwest which allows for access to all of the pit phases.

The lower elevation of the first phase of the pit is 120mRL and the maximum depth is 40m. The lower elevation of the second phase is 140mRL. The third phase includes cutback to the western pit wall and mining of the phase 2/3 area down to the 110mRL. The fourth phase includes a cutback of the North Eastern pit wall and mining of the phase 1 and 4 area down to the 115mRL.

The inclusion of ramps and accesses in the pit design, reduced the contained PMI by 6.77% and increased waste by 4.63%. Differences in PMI, Au grade and waste are summarized in Table 75.



Table 75 – Differences between the ultimate pit shell and operational pit design

Differences	Optimum Pit	Pit Design	Differences in tonnage	Differences in gold fines
PMI	6,080	5,669	-6.77%	-4.58%
Au grade	1.23	1.26		
Waste	6,325	6,618	4.63%	

Modelled grades for each mineralised zone within the pit design are shown Table 76.

Table 76 – Diba Pit design inventory

Material	Indicated (kt)	Au grade (g/t)	Inferred (kt)	Au grade (g/t)	Waste (kt)
Oxide	4,945	1.29	126	0.60	6,417
Transitional	573	1.14	25	0.79	141
Fresh	0	0.00	0	0.00	60
<b>Total</b>	<b>5,518</b>	<b>1.27</b>	<b>151</b>	<b>0.63</b>	<b>6,618</b>

The production plan considers four mining phases which were generated using NPV Scheduler Pushback Generator. This groups mining areas into achievable mining phases with the target of maximising project value.

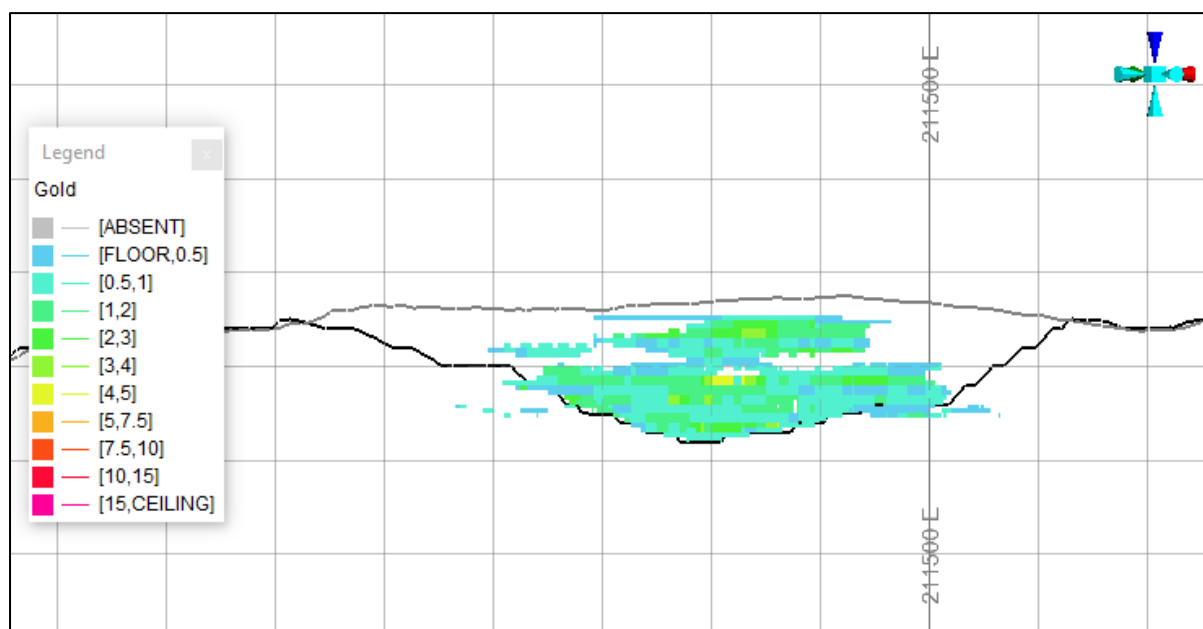


Figure 85 – Cross section A-A' through the final pit design Phase 2-3



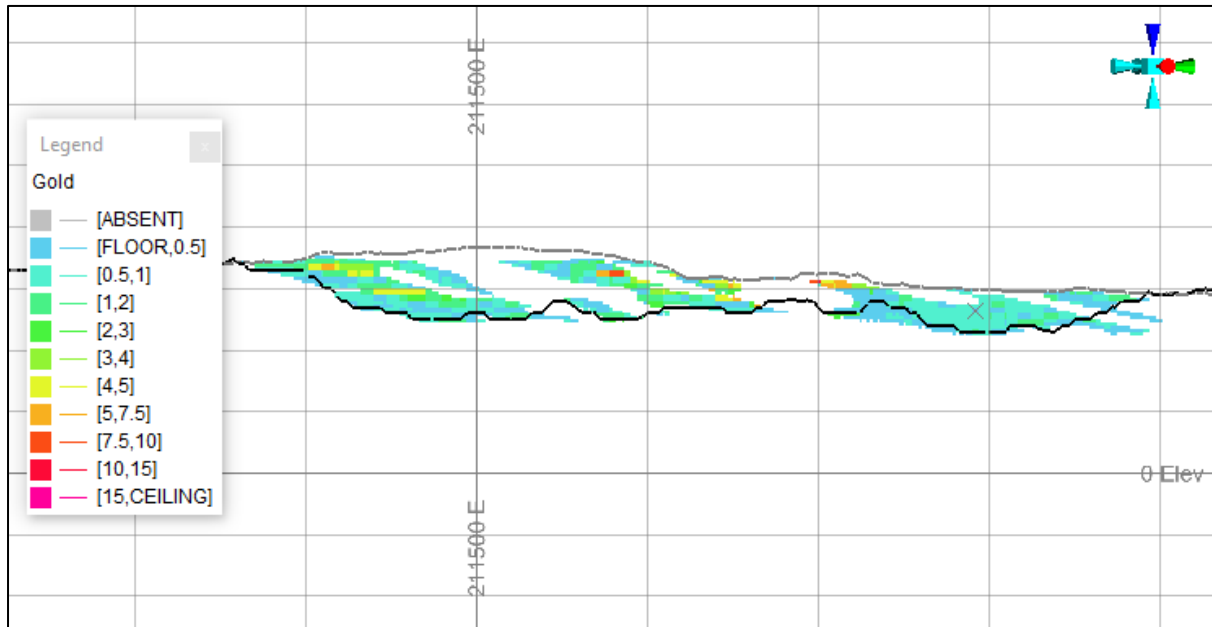


Figure 86 – Cross section B-B' through the final pit design Phase 2

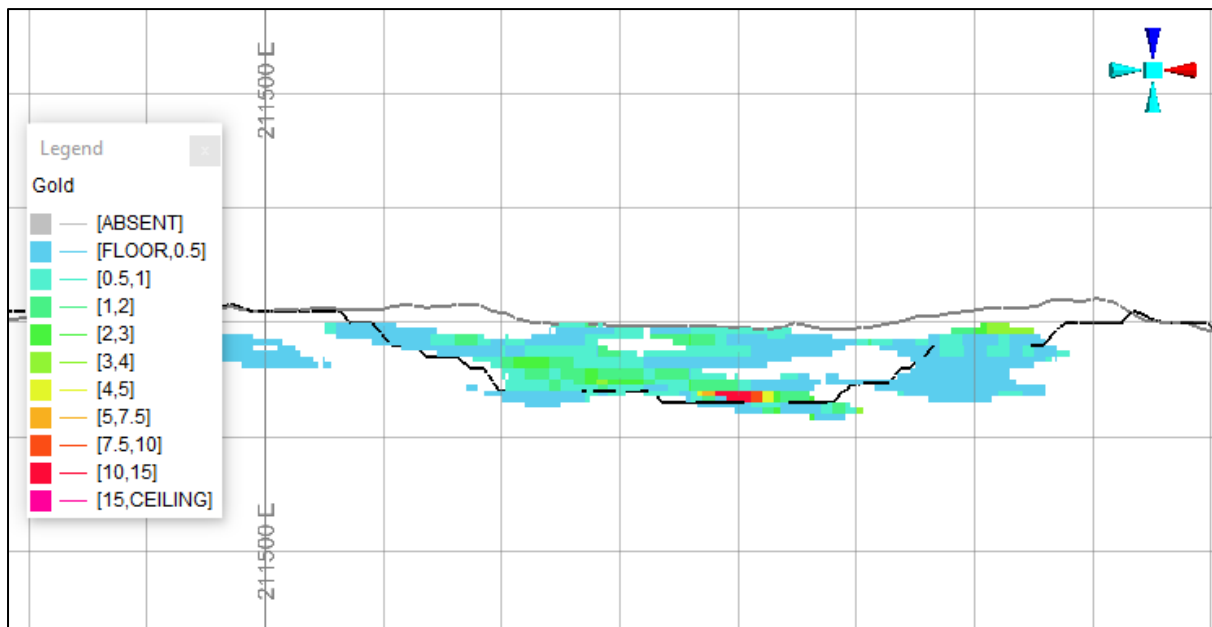


Figure 87 – Cross section C-C' through the final pit design Phase 3

Phase 1 contains approximately 21% of the life of mine PMI; Phase 2 contains 41%; Phase 3 contains 30%; and Phase 4 contains 9%.

Table 77 summarizes PMI by phase including mining recovery and mining dilution.



Table 77 – Diba Material content by phase

Material	Phase 1	Phase 2	Phase 3	Phase 4	Total
PMI Tonnes (kt)	1,178	2,291	1,690	496	5,655
Au grade (g/t)	0.99	1.44	1.03	1.13	1.20
Waste Tonnes (kt)	1,014	2,841	1,798	979	6,632
Strip ratio	0.86	1.24	1.06	1.97	1.17

Note: 95% recovery and 5% dilution have been assumed

### 16.5.2 Lakanfla Mine Design

The final pit design is presented in Figure 88 (plan view), Figure 89 (cross-sectional view A-A' in Figure 88) and Figure 90 (cross-sectional view B-B' in Figure 88).

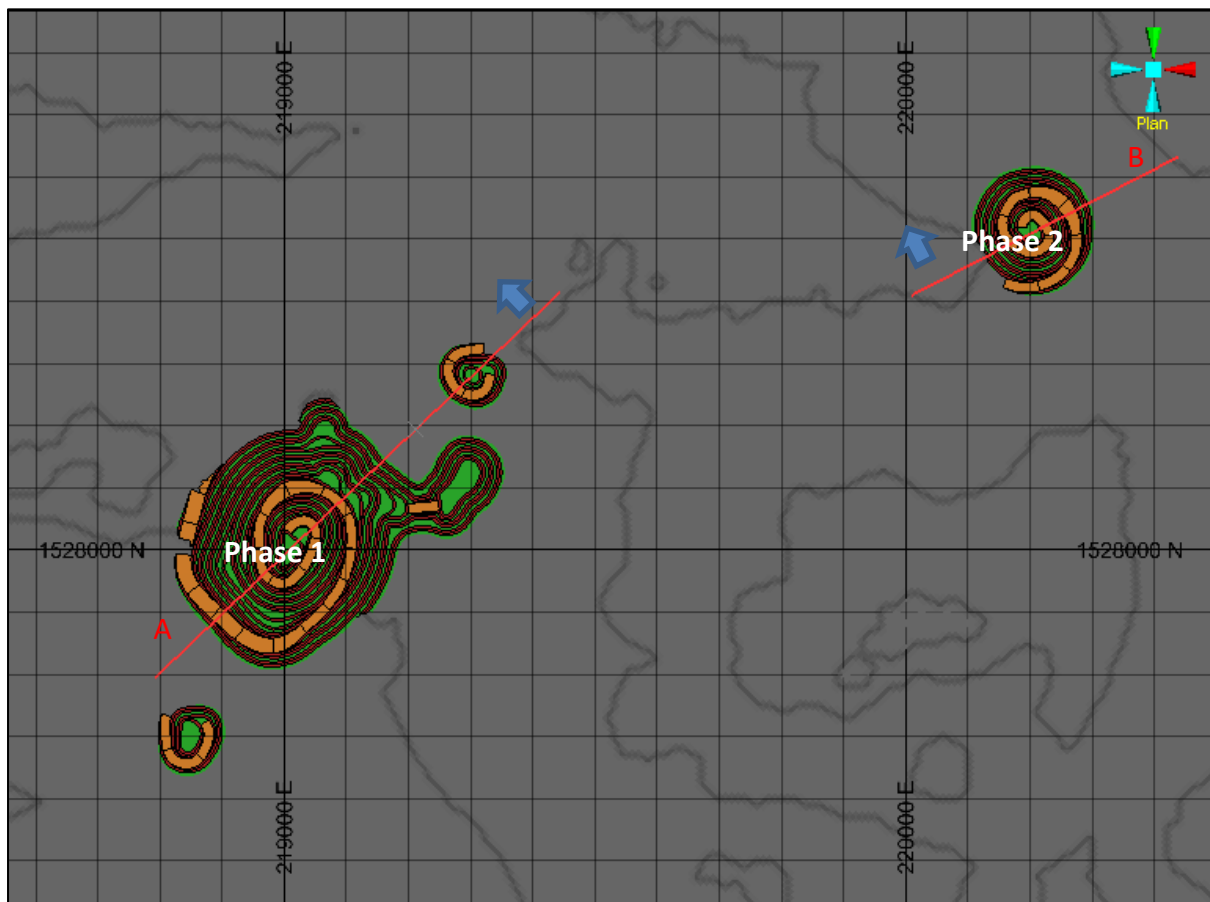


Figure 88 – Plan view of final Lakanfla pit design

The final design has a pit exit to the East which allows for access to the Phase 1 pit. Phase 2 is a separate pit to the North East and two small pits near Phase 1.

The lower elevation of the first phase of the pit is 50mRL and the maximum depth is 100m. The lower elevation of the second phase of the pit is 115mRL.



The inclusion of ramps and accesses in the pit design, decreased the PMI by 2.05% but due to lower grades the difference in gold fines was a reduction of 6.36%. Total waste movement was increased significantly (26.85%) despite designing with single lane ramps for the first 50 vertical metres with a passing bay. Differences in PMI, Au grade and waste are summarized in Table 78.

Table 78 – Differences between the ultimate pit shell and operational pit design

Differences	Optimum Pit	Pit Design	Differences in tonnage	Differences in gold fines
PMI	3,420	3,350	-2.05%	-6.36%
Au grade	0.70	0.67		
Waste	3,394	4,306	26.85%	

Modelled grades for each mineralised zone within the pit design are shown in Table 79.

Table 79 – Lakanfla pit design inventory

Material	Indicated (kt)	Au grade (g/t)	Inferred (kt)	Au grade (g/t)	Waste (kt)
Oxide	0	0.00	3,028	0.65	4,260
Transitional	0	0.00	322	0.87	36
Fresh	0	0.00	0	0.00	10
<b>Total</b>	<b>0</b>	<b>0.00</b>	<b>3,350</b>	<b>0.67</b>	<b>4,306</b>

The production plan considers two mining phases which were generated using NPV Scheduler Pushback Generator. This groups mining areas into achievable mining phases with the target of maximising project value.



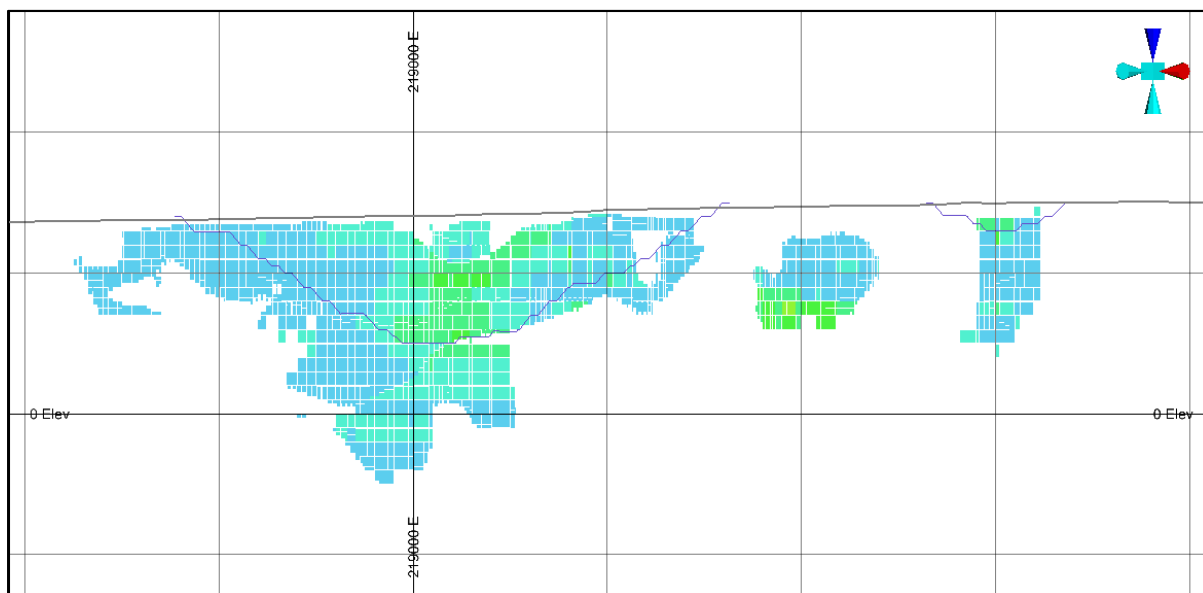


Figure 89 – Cross section A-A' through the final pit design Phase 1

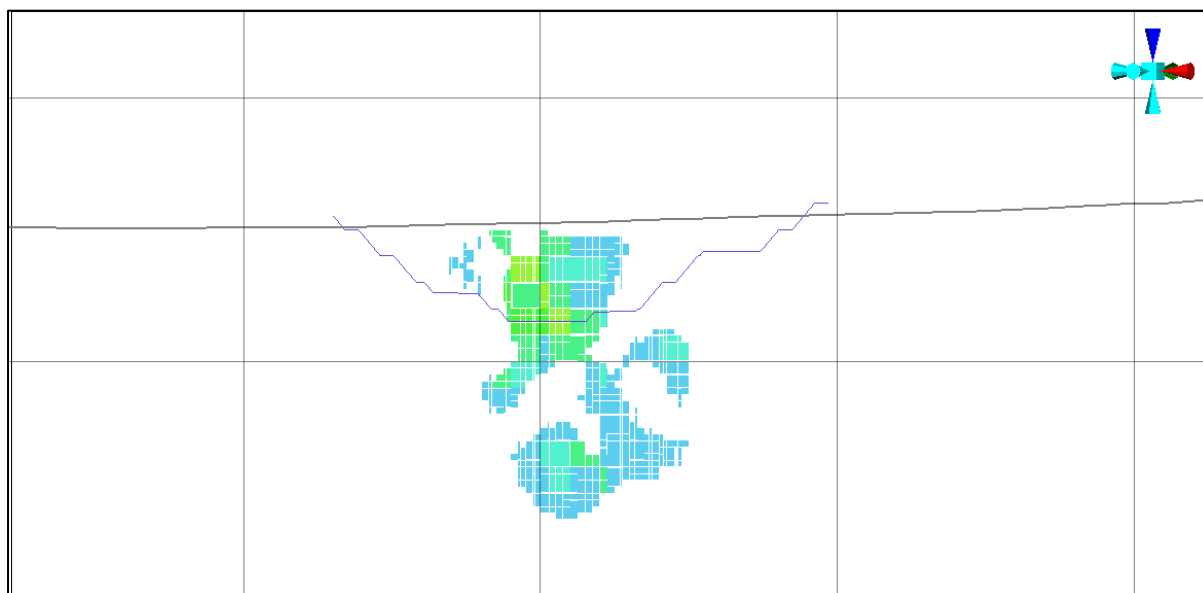


Figure 90 – Cross section B-B' through the final pit design Phase 2

Phase 1 contains approximately 91% of the life of mine PMI; Phase 2 contains 9%.

Table 80 – Lakanfla Material content by phase

Material	Phase 1	Phase 2	Total
PMI Tonnes (Kt)	3,032	309	3,341
Au grade (g/t)	0.60	1.03	0.64
Waste Tonnes (Kt)	3,523	791	4,314
Strip ratio	1.16	2.56	1.29

Note: 95% recovery and 5% dilution have been assumed



## 16.6 Mine Plan

The mine plan has been developed on monthly intervals considering 2 Million tonnes of annual PMI delivered to the plant.

Mining would be via conventional open-pit methods (drilling, blasting, loading, haulage and ancillary services). It is expected that oxide material is free dig and will not require blasting, however a blasting cost has been applied to 15% of oxide tonnage in case of any difficult ground. The use of a mining contractor for earth movement has been assumed for both mine plans.

### 16.6.1 PEA Mine Production Schedule

This study only considers PMI and waste movement. Strategic cut-off grades, the use of stockpiles, and PMI and waste unloading have not been considered.

To achieve the annual rate of feed to the leaching pad, it is necessary to mine PMI at a rate of 167ktpm (thousand tonnes per month). From the second month of mining sufficient PMI will be exposed to maintain the required production levels. At an annual production rate of 2.0Mt the life of mine is 57 months.

Figure 91 shows the monthly movement of material in the mine plan and Table 78 presents a quarterly summary of material movement.

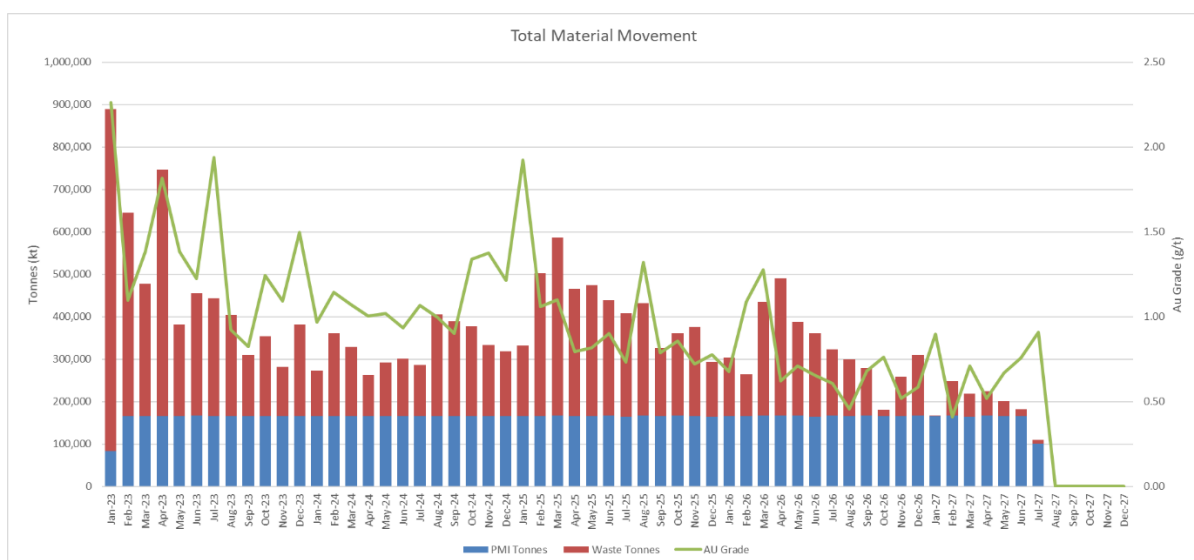


Figure 91 – Total material movement



Table 81 – Quarterly material movement

Period	PMI	AU Grade	Waste
Qtr 1	415,628	1.44	1,596,554
Qtr 2	499,108	1.47	1,084,955
Qtr 3	498,679	1.23	659,684
Qtr 4	498,572	1.28	519,578
Qtr 5	498,679	1.06	464,760
Qtr 6	498,755	0.99	357,092
Qtr 7	498,808	0.99	581,404
Qtr 8	498,948	1.31	529,973
Qtr 9	498,732	1.36	922,239
Qtr 10	499,805	0.84	880,274
Qtr 11	497,677	0.95	669,165
Qtr 12	498,678	0.78	532,783
Qtr 13	499,522	1.01	503,072
Qtr 14	497,819	0.66	742,054
Qtr 15	499,483	0.58	400,880
Qtr 16	499,673	0.62	249,245
Qtr 17	497,358	0.67	135,237
Qtr 18	499,286	0.65	108,076
Qtr 19	100,634	0.91	9,115

Figure 92 shows PMI extraction by phase.



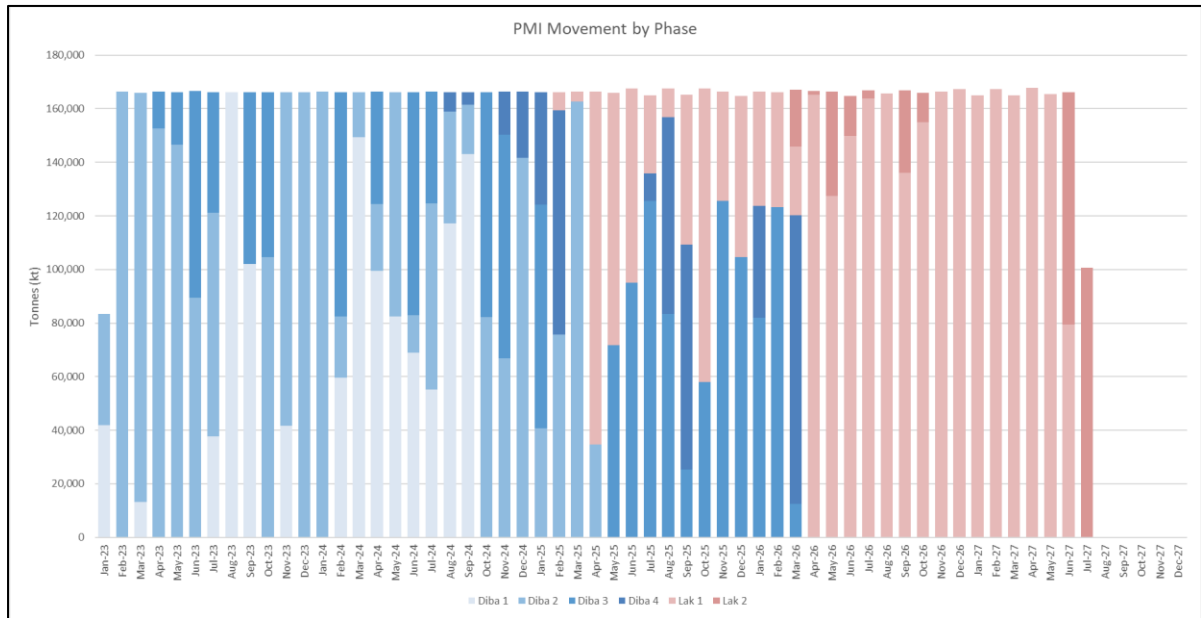


Figure 92 – PMI movement by phase

## 16.7 Mining Equipment

### 16.7.1 Mining Fleet

Considering the anticipated production rates It has been determined that a CAT365 excavator (or similar) and a Komatsu PC1250SP-8 (or similar) would be required. With the larger excavator being used for waste movement and the smaller machine mining ore with the required selectivity.

The use of Komatsu HD785-7 (or similar) trucks has been forecast.

### 16.7.2 Drill and Blast

Table 82 to Table 84 present the drilling and blasting parameters considered for the Diba & Lakanfla project. Parameters vary by material type.

Blasting parameters were prepared for oxide material even though this is expected to be free dig. Some localised blasting may be required in oxide therefore this blasting cost was applied to 15% of the oxide tonnage.



Table 82 – Technical drilling parameters for oxide material

Parameters	Units	Value
<b>Drilling</b>		
Hole diameter	mm	102.0
Bench height	m	5.0
Jacking and Sampling time	min	1.8
Tram speed	m/min	40.0
Rod change and Relocation time	min	2.0
Rod change required		1.0
Instantaneous penetration rate	m/h	48.0
Average penetration rate	m/ Eng.h	34.5
Burden	m	3.2
Spacing	m	4.3
Subdrill	m	0.8
<b>Blasting</b>		
Hole diameter	mm	102.0
Stemming length	mm	2.3
Stemming cost per tonne	\$/t	25.0
Stemming tonnes per metre	t/m	0.016
Stemming cost per metre	\$/t	0.4
Density of explosives	g/cc	1.2

Table 83 – Technical drilling parameters for transitional material

Parameters	Units	Value
<b>Drilling</b>		
Hole diameter	mm	102.0
Bench height	m	5.0
Jacking and Sampling time	min	1.8
Tram speed	m/min	40.0
Rod change and Relocation time	min	2.0
Rod change required		1.0
Instantaneous penetration rate	m/h	35
Average penetration rate	m/ Eng.h	27.3
Burden	m	3.2
Spacing	m	3.7
Subdrill	m	0.8
<b>Blasting</b>		
Hole diameter	mm	102.0
Stemming length	mm	2.2
Stemming cost per tonne	\$/t	25.0
Stemming tonnes per metre	t/m	0.016
Stemming cost per metre	\$/t	0.4
Density of explosives	g/cc	1.2



Table 84 – Technical drilling parameters for fresh material

Parameters	Units	Value
<b>Drilling</b>		
Hole diameter	mm	102.0
Bench height	m	5.0
Jacking and Sampling time	min	1.8
Tram speed	m/min	40.0
Rod change and Relocation time	min	2.0
Rod change required		1.0
Instantaneous penetration rate	m/h	30.0
Average penetration rate	m/ Eng.h	24.1
Burden	m	2.8
Spacing	m	3.2
Subdrill	m	0.7
<b>Blasting</b>		
Hole diameter	mm	102.0
Stemming length	mm	2.3
Stemming cost per tonne	\$/t	25.0
Stemming tonnes per metre	t/m	0.016
Stemming cost per metre	\$/t	0.4
Density of explosives	g/cc	1.2

### 16.7.3 Load and haul

The PC1250SP-8 excavator (or similar) will load 91t rigid dump trucks. With a 6.7m<sup>3</sup> bucket capacity, ten passes are required to fill each truck. PC1250SP-8 excavators have maximum reach of 15m, which is ideal when working on 10m and 5m benches.

The CAT 365 excavator (or similar) will load 91t rigid dump trucks. With a 4.6m<sup>3</sup> bucket capacity, 16 passes are required to fill each truck. CAT 365 excavators have maximum reach of 11m, which is ideal when working on 10m and 5m benches.



Table 85 – Loading parameters by material type

Description	Unit	Oxide	Transitional	Fresh
<b>Material Detail</b>				
Dry Density	(t/bcm)	1.80	1.80	2.70
Moisture Content	(%)	2%	2%	2%
Swell Factor	(%)	25%	25%	35%
Wet Density Loose	t/m3	1.47	1.47	2.04
Wet Bank Density	t/m3	1.84	1.84	2.75
<b>Excavator Details</b>				
Bucket Heaped Cap.	(m3)	4.60	4.60	4.60
Fill Factor	(%)	95%	95%	90%
Bucket Cap. Volume	(bcm)	3.50	3.50	3.07
Bucket Cap. Weight	(t)	6.76	6.76	9.38
Bucket Cap. Adopted	(bcm)	3.13	3.13	2.25
Bucket Cap. Adopted	(wt)	5.75	5.75	6.21
<b>Excavator Productivity</b>				
Cycle Time	(sec)	23	23	23
Efficiency Factor	(%)	95%	95%	95%
Truck Exchange	(sec)	38	38	38
Loading Time	(min)	2.32	2.32	2.32
Max. Productivity	(bcm/OH)	385	385	268
Effective Utilisation of op hours	(%)	83%	83%	83%
Productivity	(bcm/OH)	320	320	222
Productivity	(t/OH)	575	575	600

Table 86 – Haulage parameters by material type

Description	Unit	Oxide	Transitional	Fresh
<b>Truck Details</b>				
Tray Capacity	(m3)	20.0	20.0	20.0
Truck Fill Factor	(%)	100%	100%	100%
Volume Limit	(bcm)	16	16	15
Rated Payload	(t)	30	30	30
Assumed Overload	(%)	0%	0%	0%
Adjusted Payload	(t)	30	30	30
Weight Limit	(bcm)	16	16	11
Adopted Capacity	(bcm)	16	16	11
Min. Bucket Fill	(%)	25%	25%	25%
Calc Passes Per load		5.11	5.11	4.83
Calc Passes Per load	(rounded)	5.0	5.0	5.0
Actual Truck Load	(bcm)	16	16	11
Actual Truck Load	(wt)	29	29	30
Dump Time	(min)	0.8	0.8	0.8



## 17 RECOVERY METHODS

---

### 17.1 Introduction

Based on the limited metallurgical test work, commissioned by Etruscan in 2012 and conducted by Endeavour Mining's Tabakoto mine, and on other operations in the region, the Diba & Lakanfla project oxide zone appears to be amenable to conventional cyanide leaching utilizing either agitated tank leach or heap leach technology. For the purposes of this PEA, the gold extraction method envisaged is heap leaching. The following key factors have been considered in the decision to assume heap leaching rather than agitated leaching:

- Lower capital and operating costs
- Reduced project complexity and shorter time required for project construction and implementation

At this preliminary stage, no detailed design for the heap leaching has been completed, so the proposed system must be considered as conceptual only at this point in time.

The proposed conceptual heap leaching system is similar to existing and operating heap leach mines processing similar material under comparable conditions. The processing facilities proposed for the Diba & Lakanfla project include:

- Two-stage crushing, screening, and agglomeration
- Heap stacking and leaching
- Gold recovery by Carbon-in-Column processing.

The processing plant concept is based on a typical metallurgical flowsheet for the production of gold doré at optimum recovery while minimizing initial capital expenditure and operating costs. A simplified conceptual flowsheet for the heap leach process is shown in Figure 93.

The heap leach concept envisages processing of 2.0 million tpa of oxide material, equivalent to a throughput rate of approximately 4,100 t/d. The crushing, leaching and gold recovery will operate 24 hours per day, seven days per week. The stacked material on the heap leach pad will be leached continuously all year-round.



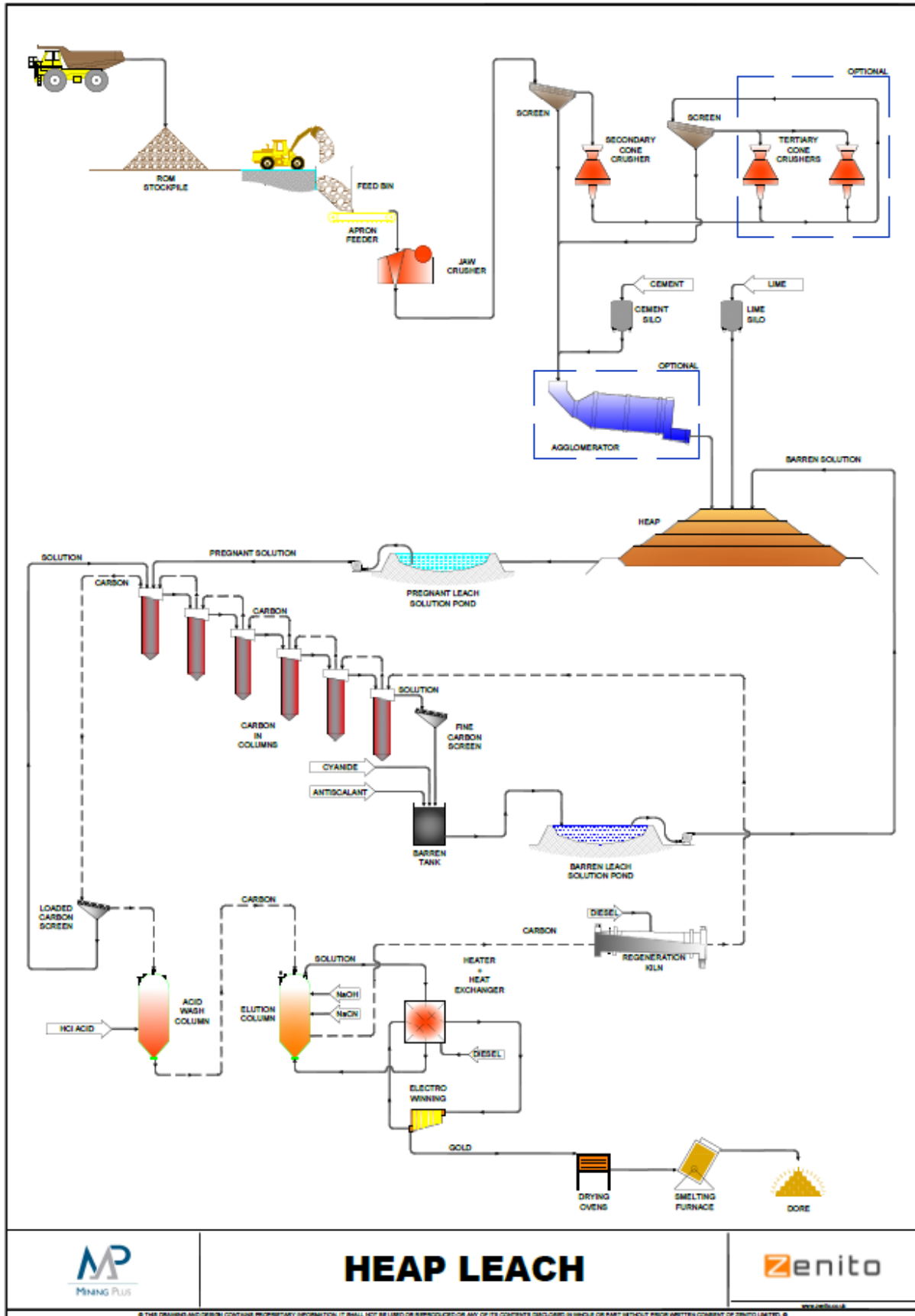


Figure 93 – Typical gold heap leach process flow diagram (Produced by Zenito)



## 17.2 Process Plant Description

The process for the extraction of gold from the Diba & Lakanfla project oxide material will utilise heap leach technology currently used globally for gold mining operations and Carbon-in-Column (CIC) processing for gold from the Pregnant Leach Solution (PLS).

### 17.2.1 Crushing

A two-stage crushing circuit has been proposed to reduce the Run-Of-Mine (ROM) oxide material to finer than 25 mm. The crushing circuit will include a jaw crusher, a vibrating screen, a cone crusher, an optional agglomerator and related mobile conveyors.

The ROM material will be transported from the open pit to the crushing plant by haul trucks. The haul trucks will dump into the ROM bin which will feed mineralised material onto a belt conveyor for transport to the primary jaw crusher. A Front-End Loader (FEL) will also be used to reclaim the stocked ROM material into the ROM bin according to the mine plan. The jaw crusher product will be discharged onto a second belt conveyor and fed onto a vibrating screen to remove undersize material from the feed to the secondary cone crusher. Screen oversize will report into a surge bin ahead of the secondary cone crusher. The surge bin enables feeding of the cone crusher at a steady rate, which improves the crusher operating efficiency. The discharge of the cone crusher is planned to be finer than 25 mm.

Further studies are required to test the crushing circuit and understand the size fractions likely to be produced at each stage of crushing. If significant fine material is produced then an agglomerator will need to be added to the process. The undersize material from the vibrating screen and the crushed material from the cone crusher will feed onto a common conveyor that will transport the material to an agglomerator. Cement will be added to the content on the conveyor as it feeds into the agglomerator, which will cause the fine particles to agglomerate with the coarser particles. Spray water will be added into the agglomerator to improve agglomeration efficiency. The agglomeration before placing the crushed material onto the heap leach pad will improve the permeability of the heap and therefore enhance the effectiveness of gold extraction in the heap leach operation. Lime will also be added to the crushed material before placement to control the alkalinity of the heap leach. The agglomerated material will discharge onto a crushed material stockpile adjacent to the crushing plant for curing.

### 17.2.2 Heap Leaching

The heap leach pad will be an engineered structure that will consist of a gravel or sand base covered with a clay liner, covered with an impermeable synthetic geomembrane. Impermeable berms will surround the perimeter of the leach pad. The pad will gently slope



to a central PLS collection pond on the downside of the pad. The solution collection pond will also have an impermeable geotextile liner.

The leach pad will be designed to withstand the loading of crushed material and the movement of heavy equipment on top. A Leak Detection and Recovery System (LDRS) including ground wells, will be installed at the heap leach pad and the solution ponds to detect any solution leakages.

The crushed and agglomerated material will be reclaimed from the stockpile with an FEL and loaded into a haul truck for transport to the heap leach pad. The material will be stacked onto the heap pad in 5m lifts. A bulldozer will be used to spread the material evenly on the leach pad. The final heap is expected to cover an area of approximately 250,000 m<sup>2</sup>, with an average vertical height of 15 m (i.e. 3 x 5m high lifts). A detailed stacking plan and irrigation plan will be developed for the next level of study.

Barren Leach Solution (BLS) will be pumped to the top of the heap leach pad and distributed through drip emitters onto the surface. The BLS is distributed over the leach pad at an overall solution feeding rate of approximately 8 to 10 L/h/m<sup>2</sup>, leaching the gold during a 100-day cycle.

The cyanide solution will percolate down through the heap, dissolving the gold. The gold-bearing leachate is collected in the pregnant leach solution pond.

Four lined solution ponds are planned for the project, including one PLS pond, one BLS pond, one event or overflow solution pond and one polishing pond. The PLS pond will collect the gold-bearing pregnant solution draining from the heap leach pad. The BLS pond will be used to store the gold depleted solution returned from the CIC facility. The event pond will temporarily store excess process solution that may occur during seasonal conditions such as the annual rainy season. The solution contained in the event pond will be recycled back into the heap leach circuit when regular operation resumes.

The solution from the barren solution pond will be pumped to the leach heap. Concentrated cyanide solution will be added to the barren solution pond where it will be mixed to give a controlled cyanide concentration of approximately 0.5 to 1.0 g/L sodium cyanide strength. The pH will be maintained at 10.5 or higher.

The solution from the PLS pond can overflow into the BLS pond should this be required. The solution from the BLS pond can also overflow into the event or overflow solution pond.

This event pond will also collect excess water and drainage solution from the heaps and the plant areas. The overflow solution pond will also supply makeup water to the process by pumping the water back to the BLS pond. Alternatively, the excess solution from this pond which is collected during the wet season will be treated with calcium hypochlorite and



discharged into the polishing pond to reduce the cyanide levels to acceptable limits before discharge to the environment, or reusing this water as process water.

This proposed height for the heap would require geotechnical verification and further metallurgical test work confirmation. The preliminary site layout and available space, site drainage, and pad size are designed according to the area topography and the best available information.

### ***17.2.3 Carbon-in-Column Recovery and Refining***

The PLS will be pumped from the PLS pond to the Carbon-in-Column (CIC) facility for gold recovery. The resulting BLS discharged from the CIC facility will be pumped back to the BLS pond for reuse at the heap leach pad.

The PLS will be pumped from the PLS pond to a PLS holding tank at the CIC facility. The PLS will then be pumped from the holding tank to a pressure clarifier to remove suspended solids. The clear PLS from the clarifier will go to a de-aeration tower operating under vacuum to remove oxygen. From the de-aeration tower, the PLS will flow into a series of Carbon columns which are charged with activated carbon.

The PLS will flow through the carbon columns and the gold will adsorb onto the surface of the carbon. The loaded carbon will be periodically removed from the columns, and sent to the stripping circuit. The carbon will then be subjected to a heated solution of sodium hydroxide and cyanide and the gold will be re-dissolved and removed from the carbon surface. At this point, the NaOH/CN solution will be sent to electrowinning cells, where the gold will be plated onto stainless steel cathodes. The gold will be removed from the cathodes using a high-pressure water spray. The fine, powdered gold will then be melted in a smelting furnace and poured into moulds to produce doré bars. This doré is the final product from the mine site and will be sent to an off-site refinery to produce high purity gold products. The slag from the furnace is collected, and occasionally will be re-smelted to recover small amounts of gold that accumulates in the slag.

Once the carbon has been stripped, it is reused after recharging it in a kiln, by heating it to around 1300 degrees F. The carbon is then cooled, screened to remove fines and is ready for reuse.

The BLS from the CIC facility will be pumped to the BLS pond where the solution will be conditioned with lime and cyanide prior to being recycled to the heap leach. The cyanide concentration will be adjusted to approximately 0.5 to 1.0 g/L sodium cyanide while the solution pH value will be adjusted to 10.5 or higher. The BLS will be monitored to ensure levels are maintained at the specified design criteria.



#### **17.2.4 Water Supply**

Two separate water supply systems for freshwater and process water will support the operation.

Freshwater will be supplied to a fresh/fire water storage tank from the pits, nearby river and/or from wells. Freshwater will be used primarily for:

- Fire water for emergency use
- Slurry pumps
- Reagent makeup

The fresh/fire water tank will be equipped with a standpipe which will ensure that the tank is always holding sufficient freshwater, equivalent to a 2-hour supply of fire water. Potable water supply will be supplied from nearby river separately and will be treated and stored in the potable water storage tank prior to delivery to various service points.

Process water will be required for agglomeration and heap leach pad irrigation. The BLS from the CIC circuit will be reused for the heap leach irrigation. Due to water loss and evaporation water loss, freshwater will also be required to supplement the process water, especially during the dry months. The additional freshwater is expected to be from the pit, runoff catchment, and wells

#### **17.2.5 Air Supply**

Separate air service systems will supply air to the following areas:

- High-pressure air from a portable air compressor for the crushing area
- High-pressure air by dedicated air compressors for the CIC circuit
- Instrument air will come from the air compressors at the CIC facility and will be dried and stored in a dedicated air receiver.



## 18 PROJECT INFRASTRUCTURE

---

### 18.1 Existing Infrastructure

The project is currently isolated from public infrastructure. Except for the dirt road that connects Kéniéba with Kayes, the Project area has little or no infrastructure. However, the project is in the proximity of the Sadiola gold mine, where some essential services (food, accommodation, hospital, communication, fuel supply, workshops, and small commerce) can be found. Support for other basic needs should be sought from Kayes or Bamako. Historically, exploration activities are conducted from an exploration camp near the Kantela village.

### 18.2 Project Site Layout

The Diba & Lakanfla project is located in a rural area with limited infrastructure; the majority of the infrastructure works will be new development. The preliminary infrastructure layout for the site is shown in Figure 94.

### 18.3 Site Development

The preliminary locations for the project infrastructure presented in this report are based on limited topographic data, location of water bodies, roads and settlements, plus limits imposed by the positioning of the pit.

Site preparation is envisioned to consist of the removal of sparse vegetation and clearing of areas to accommodate the main processing area, administration buildings, and the maintenance complex. Sites will be levelled and graded only in areas where construction will take place. Cut-and-fill will be utilised where large, level areas are required.

The location of the infrastructure will require detailed geotechnical investigations during the next phase of the Diba & Lakanfla project to determine the suitability of the proposed areas.

### 18.4 Project Infrastructure

A summary of the infrastructure requirements to support the mining and processing operations is as follows:

- Maintenance workshop area, including
  - Supplies warehouse
  - Equipment laydown areas
  - Fuel storage area
  - Waste management facilities
- Administrative building area, including
  - Offices, meeting rooms and training rooms



- Emergency first aid room
- Kitchen mess room
- Assay laboratory
- Washrooms and changing rooms for employees
- Security
- Secure explosive storage area
- Site lighting equipment
- Substation and power distribution
- Heap leach pad
- Open pit
- Waste Rock Storage Facility
- CIC recovery plant
- Solution ponds & water management
- Access and site roads

#### **18.4.1 Maintenance Workshop Area**

The maintenance facility will comprise of a roofed structure, with a concrete floor. This facility will be used for mobile equipment maintenance and miscellaneous equipment repairs and is likely to house tools and a tyre replacement and compressor facility.

The facility will include a bunded area for storage of fuel, lubricants and other fluids used in equipment operation and maintenance. The bunded fuel storage area will be large enough to accommodate 110% of the volume of the fuel tank.

The equipment laydown area is required for storage of large and/or bulk equipment and supplies used in operations. The laydown area may include a shift change parking area for mobile mine equipment. The equipment laydown area will include a brake check facility, such that before each shift a brake check can be performed on the mobile equipment, before the equipment descending into the pit.

A waste management facility will be required to deal with all solid waste. During the next phase of the Diba project, investigations will be needed to identify design specifications. However, the facility is expected to include a collection and sorting area for waste before off-site disposal by a suitably licenced contractor.

#### **18.4.2 Administrative Building Area**

A site office in the form of mobile office units and built structures is proposed. The offices and camp will include the following infrastructure:

- Reception, meeting room, offices and training rooms
- Storage areas
- First aid room



- Kitchen and mess facility
- Toilets, washrooms and changing rooms
- Parking area
- Limited accommodation
- Assay laboratory
- Security offices

Studies to determine whether all, some or no workers will be accommodated on-site during working rotations have yet to be undertaken.

#### ***18.4.3 Secure Explosive Storage***

Explosives will be stored in a suitable structure away from any inhabited or active area. Explosive storage will be carried out as per Malian regulations and/or international best practice. The explosive storage will include two areas, namely ammonium nitrate prill storage and magazines for detonators and cartridges. No sensitive explosives, including heat-sensitive or flame-sensitive explosives, will be used on site. All explosives will be of the type that requires a detonation charge for detonation.

#### ***18.4.4 Power Supply and Distribution***

The Diba & Lakanfla projects power supply is planned to be via a combination of the national grid and on-site generators. However, investigations during the next phase of the Diba & Lakanfla project to determine the suitability of this proposal will be required. It is assumed that the main supply will eventually be taken off the local power lines, through a branch of overhead lines, for the offices. Power supply for the mining operations and processing will be from diesel-powered generators. The use of solar electricity generation will also be investigated during the next phase of the project.

Backup diesel-powered generators are also included for critical infrastructure and process equipment, and required buildings and communications systems.

#### ***18.4.5 Heap Leach Pad***

A lined heap leach facility with berms has been proposed. The conceptual plan includes a 3,000,000 m<sup>3</sup> heap leach facility. Details of the heap leach pad are provided in Section 17.2.2.

#### ***18.4.6 Waste Rock Storage Facility***

Waste rock will be hauled to a designated area to form the Waste Rock Storage Facility (WRSF) located west of the open pit. The locations of the WRSF will require detailed geotechnical investigation during the next phase of the Diba & Lakanfla project to determine the suitability of the proposed area.



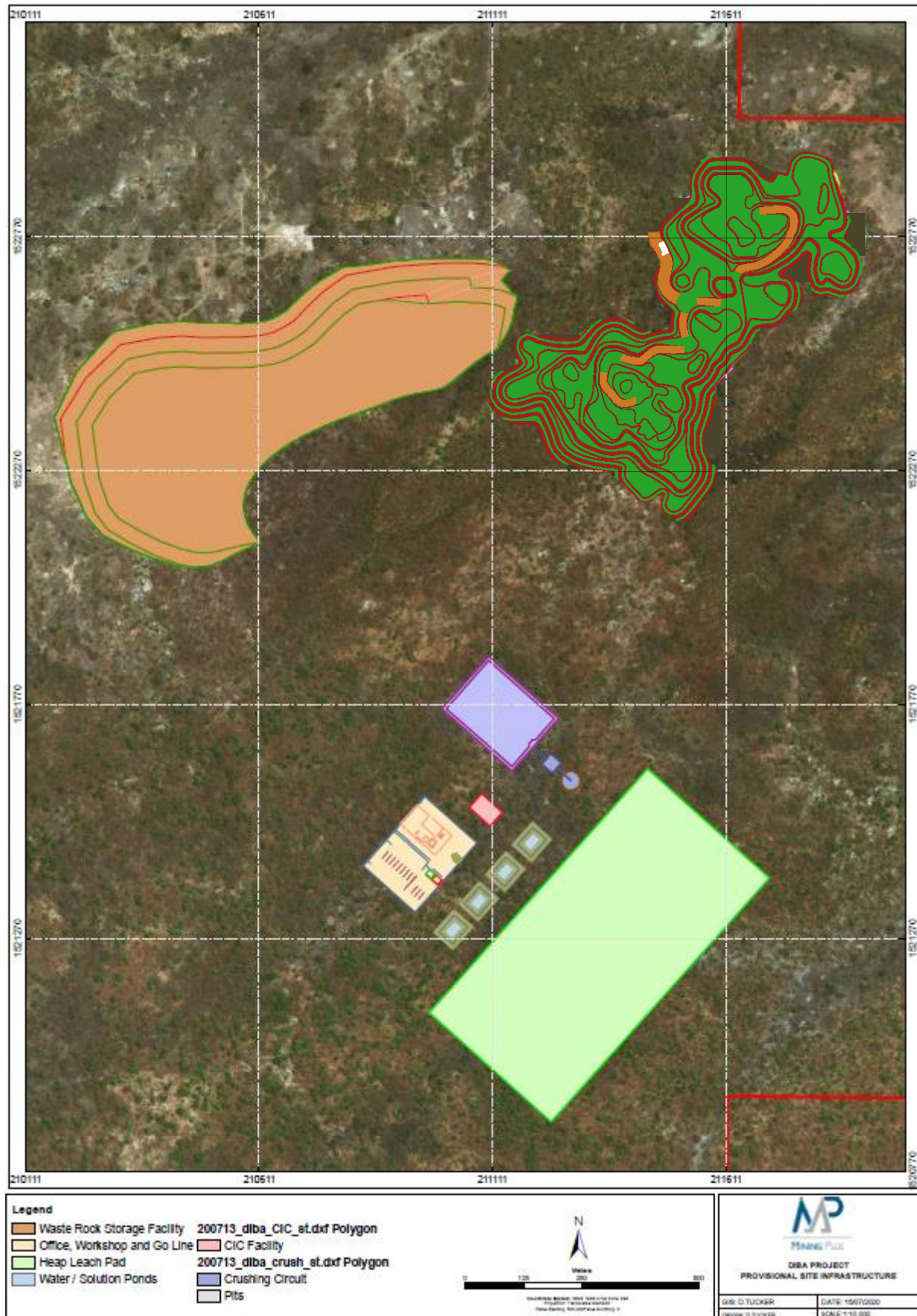


Figure 94 – Preliminary site layout



#### **18.4.7 Carbon-in-Column Facility**

This facility will house the CIC gold recovery system and refinery room, including the furnace, as detailed in section 17.2.3. The facility is likely to be a steel-framed structure with a hardstanding concrete floor. Reagents used in the CIC process would be stored securely in a bunded environment. On top of standard mine security personnel, additional security personnel and infrastructure is likely to be required at the refinery.

#### **18.4.8 Solution Ponds and Water Management**

Water management at the site is considered to be the interaction between the pit, WRSF, crushing facility, heap leach and solution ponds. The heap leach and the solution ponds are considered to be the most significant aspect of water management. Section 17.2.2 details the preliminary specifications of the operations and the safety precautions to be designed into the system. Hydrological investigations, including groundwater and stormwater management, will be required during the next phase of the Diba & Lakanfla project to determine the suitability of the proposed plan.

Water supply for both fresh and process water is discussed in Section 17.2.4. A localised sewer treatment, probably a containerised solution, is recommended for the administration and maintenance area.

#### **18.4.9 Access and Site Roads**

Access roads and haul roads will be required around the site; these are planned to be maintained laterite roads. The locations and specification of the roads will require further investigation during the next phase of the Diba & Lakanfla project.

#### **18.4.10 Tailings Containment Facility**

The Diba & Lakanfla project envisions utilizing a heap leach processing operation and as such no tailings would be produced from the operation. Therefore, a tailing containment and storage facility is not required.



## 19 MARKET STUDIES AND CONTRACTS

---

This Preliminary Economic Assessment (PEA) has assumed that gold doré bars will be the commercial product and it will be on a contract basis with contract terms as per industry regulations. No detailed Market Supply and Demand studies have been conducted as part of this study.

### 19.1 Gold Price

This PEA has assumed a gold price of US\$1,750/oz. This is considered reasonable given the current gold price and the estimated time for this project to move into production.



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

---

As part of the application process for the Koralí Sud small scale mining authorisation an Environmental & Social Impact Assessment (ESIA), Community Development Plan (CDP), Training Plan and Site Closure and Rehabilitation Plan was prepared by independent Malian Consultant EBEF Mali in consultation with the communities affected and the relevant local and national authorities. The ESIA, CDP, Training Plan and Site Closure and Rehabilitation Plan were all authorised as part of the grant of the small scale mining authorisation.

The Company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger MRE. Further Environmental and Socio-Economic studies would be required if the Company applies for a full-scale mining licence.

No environmental or social studies have taken place on the Lakanfla project at this time. There are no foreseeable restrictions or issues. However, Altus are aware that these studies need to commence soon, and this currently is considered a considerable risk to the project.



## 21 CAPITAL AND OPERATING COSTS

---

Mining capital and operating costs have been developed based on benchmarking of mines near to the Diba & Lakanfla project with similar characteristics.

All costs are presented in US Dollars (\$).

### 21.1 Capital Cost

According to the completed benchmarking with other projects of similar size and type of gold recovery process, the total initial capital expenditure (CAPEX) for the project would be approximately \$26M. An additional sustaining capital cost of \$2M has been spread across the life of mine at a rate of \$36k per month.

This CAPEX would include the construction of the heap leach pad and the necessary infrastructure.

Mining will be completed by a contractor so purchasing the mining fleet has not been considered in the CAPEX estimation.

### 21.2 Operating Cost

Operating costs (OPEX) have been estimated using costs obtained by Mining Plus during studies completed for other operations in close proximity to the Diba & Lakanfla project or by using benchmarking to similar projects. Due to recent increases in global costs since the costs were originally generated they have been escalated to remain accurate in 2022. The original costs, escalation factors and the new costs applied in this PEA are presented in Table 87. The sources of the escalation factors are a mix of Mining Plus cost database and S&P Global Market Intelligence.



Table 87 – Original cost inputs and their escalation to 2022

Item	Unit	2019 Cost	Escalation Factor Estimate 2019-2022	Escalated Cost	Escalation Factor Source
Oxide D&B	\$/BCM Blasted	1.41	1.703	2.40	50% at Mining Plus cost database Drilling Cost factor 1.398 50% at Mining Plus cost database Diesel Cost factor (Primary Emulsion cost component is Diesel) 2.007
Trans D&B	\$/BCM	1.65	1.703	2.81	
Fresh D&B	\$/BCM	2.15	1.703	3.67	
Mining L&H Base	\$/BCM	4.1595	1.428	5.9398	Mining Plus cost database Hydraulic Backhoe Operating Cost factor
Mining L&H Incremental	\$/BCM/m	0.0126	1.626	0.0205	Mining Plus cost database Dump Truck Operating Cost factor
Heap Leach Processing	\$/t Plant Feed	6.5	1.067	6.94	Mali CPI 2019-2022 (S&P Global Capital IQ)
Item	Unit	2021 Cost	Escalation Factor Estimate 2021-2022	Escalated Cost	Escalation Factor Source
Site G&A Oxide	\$/t Plant Feed	2.5	1.25	3.13	Altus Strategies Assumption
Site G&A Trans	\$/t Plant Feed	2.5	1.25	3.13	
Site G&A Fresh	\$/t Plant Feed	2.5	1.25	3.13	
Plant Feed rehandle to Mill	\$/t Plant Feed	0.42	1.21	0.51	Mining Plus cost database Wheel Loader Operating Cost factor 2021-2022
Surface Road Haulage	\$/t Plant Feed/km	0.05	1.525	0.08	Mining Plus cost database Diesel Cost factor 2021-2022
Open Pit Grade Control	\$/t Plant Feed	1.31	1.106	1.45	Mining Plus cost database Drilling Operating Cost factor (Assumed assay cost has risen similarly)



## 21.2.1 Mining Cost

### 21.2.1.1 Drilling and Blasting

A drill spacing of 3.2 x 4.3 has been assumed for oxide material, and 2.8 x 3.20 for fresh material. The drilling cost will be applied to 15% of the total oxide material to account for any blasting necessary when close to transitional material and any laterite/ferricrete which may be found during operation, as the majority of this material is free-digging.

Table 88 – Drilling cost by material type

Parameters	Units	Oxide material	Transitional material	Fresh material
Hole diameter	mm	102.00	102.00	102.00
Bench height	m	5.00	5.00	5.00
Jacking and Sampling time	min	1.80	1.75	1.75
Tram speed	m/min	40.00	40.00	40.00
Rod change and Relocation time	min	2.00	2.00	2.00
Rod change required		1.00	1.00	1.00
Instantaneous penetration rate	m/h	48.00	35.00	30.00
Average penetration rate	m/ Eng.h	34.50	27.30	24.06
Burden	m	3.20	3.20	2.80
Spacing	m	4.30	3.70	3.20
Subdrill	m	0.80	0.80	0.70
BCMs per hole:	bcm/hole	68.80	58.88	45.08
BCMs per metre drilled:	bcm/m	13.76	11.78	9.02
Metres drilled per BCM	m/bcm	0.13	0.13	0.13
Cost of drilling	US\$/m	7.85	7.85	7.85
<b>Cost of drilling</b>	<b>US\$/bcm</b>	<b>0.57</b>	<b>0.67</b>	<b>0.87</b>

Table 89 – Blasting Cost by material type

Parameters	Units	Oxide material	Transitional material	Fresh material
Stemming length	m	2.35	2.35	2.35
Stemming cost per tonne	US\$/t	25.00	25.00	25.00
Stemming tonnes per metre	t/m	0.016	0.016	0.016
Stemming cost per metre	US\$/m	0.409	0.409	0.409
Density of explosives	g/cc	1.20	1.20	1.20
Explosives volume per hole	m <sup>3</sup>	0.028	0.028	0.028
Quantity explosives per hole	kg	33.87	33.87	33.87
Powder factor	kg/bcm	0.49	0.57	0.73
Stemming cost	US\$/hole	0.96	0.96	0.96
Cost of blasting	US\$/hole	57.86	57.86	57.86
<b>Cost of blasting</b>	<b>US\$/bcm</b>	<b>0.84</b>	<b>0.98</b>	<b>1.28</b>



### 21.2.1.2 Loading and Hauling

Loading and hauling costs have been estimated based upon recently obtained contractor costs for a similar sized project nearby the Diba & Lakanfla project.

Incremental haulage costs related to the deepening of the pit have been considered.

Estimated costs are reported in \$/bcm and were calculated based on the following formula:

$$L\&H\ cost = 0.0205 * \Delta h + 5.9398$$

Where:  $\Delta h$  = Difference in elevation between a reference level and mining depth.

### 21.2.2 Processing Cost

Based on benchmarking estimated operating processing (heap leach) costs are \$6.94/t PMI which has been escalated from previous work.

### 21.2.3 General and Administrative Cost

Based on benchmarking and assumed production rate, administrative costs have been assumed to be \$3.13/t of PMI.



## 22 ECONOMIC ANALYSIS

---

Mining Plus has completed a preliminary economic assessment of the Diba & Lakanfla project using Discounted Cash Flow (DCF) analysis to assess the viability of developing the project. Following the DCF analysis Altus have provided a financial model that calculates the NPV after tax and depreciation. The financial model has been verified by Mining Plus and the results are reported here.

### 22.1 Introduction

The economic evaluation presents an estimate of the net present value (NPV) after taxes, payback period (time in months to recoup the initial capital investment), and the internal rate of return (IRR) for the project. Monthly cash flow projections were estimated over the life of mine based on the estimates of capital expenditures, production cost, and sales revenue. Revenues are based on the gold production.

### 22.2 Mine Production Statistics

Mine production is reported as PMI and waste from the mining operation. The annual production figures were obtained from the mine plan as reported earlier in this report. A total of 9.00 million tonnes of PMI are mined at an average grade of 0.99 g/t Au. A total of 10.95 million tonnes of waste are mined giving a stripping ratio of 1.22 tonnes of waste per tonne of PMI.

### 22.3 Plant Production Statistic

The estimated life of mine gold production is 271.9 thousand ounces.

### 22.4 Capital Expenditure

#### 22.4.1 Initial Capital

The financial indicators have been determined using the assumption of 100% equity financing of the initial capital. The total initial capital estimate for the project is US\$ 26 million, provided by Altus Strategies. That includes the necessary investment required for the processing plant and other infrastructure.

#### 22.4.2 Sustaining Capital

Sustaining capital was estimated at US\$ 2 million for the life of mine.



### 22.4.3 Revenue

Monthly revenue is determined by applying estimated gold prices to the monthly payable metal scheduled for each operating month. Sales prices have been applied to all life of mine production without escalation or hedging. The gold price assumption used in the economic model is \$1750/oz.

### 22.5 Total Operating Cost

The average Total Operating Cost over the life of the mine has been estimated on a “per tonne of PMI” processed basis at \$20.50/tonne. Total Operating Costs include; mine operations, process plant operations, general and administrative costs, selling costs and royalties. Table 90 shows the total operating costs.

Table 90 – Total operating cost

Description	2.0 MTPY	
	US\$ (Million)	US\$/t PMI
Mining	76.9	8.55
Processing	62.4	6.94
G&A	28.2	3.13
Selling and refining	2.7	0.30
Royalties	14.2	1.58
<b>Total</b>	<b>184.4</b>	<b>20.50</b>

#### 22.5.1 Total Cash Cost

Average Total All-in Sustaining Cash Cost over the life of the mine is estimated to be \$686 per ounce of payable gold. The All-in Cost (including initial capital) over the life of the mine is estimated to be \$781 per ounce of payable gold.

### 22.6 Net Present Value, Internal Rate of Return, Payback

The economic analyses (based on a discount rate of 8% pa) for the project are summarised in Table 91.

Table 91 – Financial analysis results after tax

US\$ Million	Before Tax	After Tax
NPV @ 8%	224.6	157.7
IRR	1,343%	749%
Payback Months	4.9	5.7



## 22.7 Sensitivity Analysis

The results of the sensitivity analysis for the project are shown in Table 92 (before taxes) and Table 93 (after taxes), and Figure 95 (before taxes) to Figure 96 (after taxes). The Project shows greater sensitivity to gold prices and recovery, followed by operating cost and finally capital cost.

Table 92 – NPV sensitivity @ 8% - before taxes

NPV (US\$ 000) - Before tax							
Variation	Au price	Mining cost	Processing Cost	G&A	Capital cost	Gold Recovery	Operating cost
85%	165,008	234,522	232,508	228,164	222,545	165,348	248,187
90%	184,870	231,213	229,870	226,974	220,895	185,097	240,323
95%	204,733	227,904	227,233	225,785	219,245	204,846	232,459
100%	224,595	224,595	224,595	224,595	217,595	224,595	224,595
105%	244,458	221,286	221,958	223,406	215,945	244,344	216,731
110%	264,320	217,977	219,320	222,216	214,295	264,093	208,867
115%	284,182	214,668	216,682	221,026	212,645	283,842	201,003

Table 93 – NPV sensitivity @ 8% - after taxes

NPV (US\$ 000) - After tax							
Variation	Au price	Mining cost	Processing Cost	G&A	Capital cost	Gold Recovery	Operating cost
85%	116,005	164,674	163,262	160,221	156,218	116,243	174,240
90%	129,911	162,357	161,416	159,388	155,007	130,070	168,734
95%	143,817	160,040	159,569	158,555	153,797	143,897	163,229
100%	157,723	157,723	157,723	157,723	152,586	157,723	157,723
105%	171,627	155,406	155,876	156,890	151,375	171,548	152,217
110%	185,532	153,088	154,030	156,057	150,164	185,373	146,710
115%	199,436	150,770	152,183	155,224	148,953	199,198	141,202



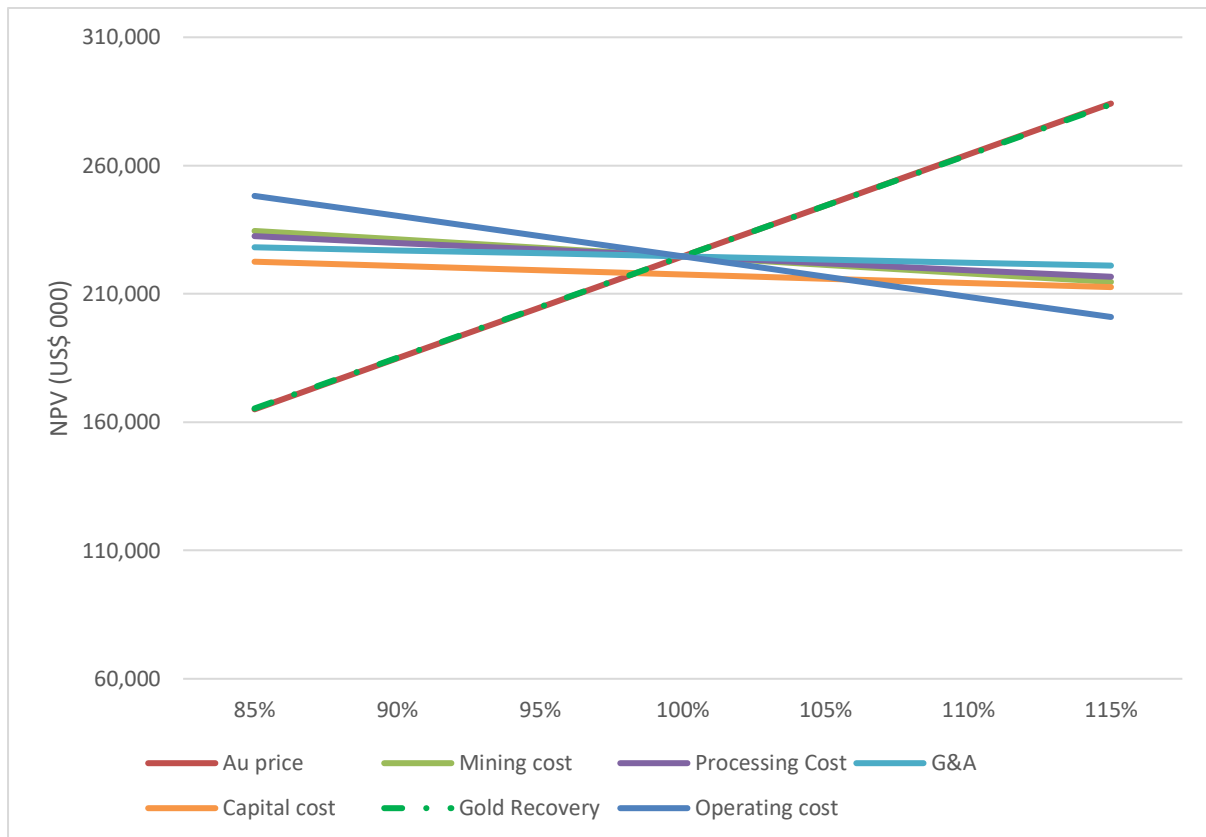


Figure 95 – NPV Sensitivity Analysis @ 8% - Before taxes



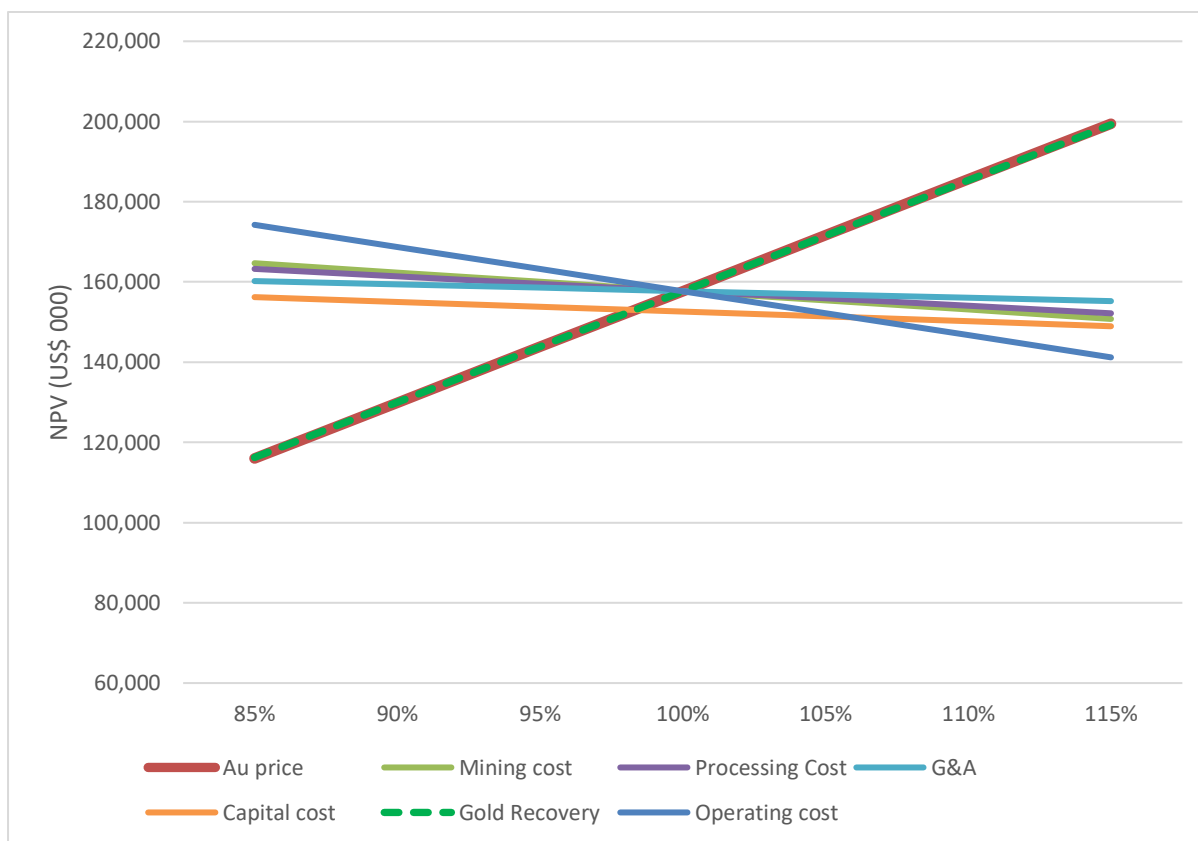


Figure 96 – NPV Sensitivity Analysis @ 8% - After taxes

In addition to the % based sensitivity analysis presented above the sensitivity to gold price was evaluated at \$50/oz increments and at the spot price at the time of writing (\$1,718/oz – 14/07/2022). The results of this evaluation are presented in Table 94.

Table 94 – NPV8 sensitivity analysis to the gold price (US\$)

2.0 Mtpa Gold Price \$/oz	Before tax		After tax	
	NPV (US\$000)	TIR (%)	NPV (US\$000)	IRR (%)
	224,595	1,343%	157,723	749%
1600	190,545	962%	133,884	562%
1650	201,895	1,077%	141,831	620%
1700	213,245	1,204%	149,777	683%
1,718 (Spot 14/07/22)	217,331	1,253%	152,638	706%
1750*	224,595	1,343%	157,723	749%
1800	235,945	1,494%	165,668	820%
1850	247,295	1,659%	173,614	896%
1900	258,645	1,840%	181,559	977%

Note: \* US\$1,750 is the base case gold price used for the financial valuation

## 22.8 Detailed Economic Model

The economic model was developed monthly, however, in this report the summary is presented annually in Table 95 which shows the economic model.



Table 95 – Economic model

Total			Dec-23	Dec-24	Dec-25	Dec-26	Dec-27
Production Schedule			Year 1	Year 2	Year 3	Year 4	Year 5
<b>MINING SCHEDULE</b>							
Ore oxide	BCM	4,691,835	1,111,620	1,062,836	1,044,398	1,019,071	453,909
Ore Transitional	BCM	436,547	0	87,718	98,846	111,143	138,840
Ore fresh	BCM	0	0	0	0	0	0
Total ore	t	8,995,845	1,911,987	1,995,190	1,994,893	1,996,497	1,097,278
Mined Au grade	g/t	0.99	1.35	1.09	0.98	0.72	0.68
Waste oxide	BCM	6,217,509	2,244,411	1,096,914	1,700,758	1,053,023	122,403
Waste Transitional	BCM	82,407	125	20,689	26,154	20,466	14,973
Waste fresh	BCM	25,813	0	906	6,563	15,469	2,875
Total waste	BCM	6,325,728	2,244,536	1,118,509	1,733,475	1,088,958	140,251
Total waste	t	10,946,141	3,860,772	1,933,230	3,004,461	1,895,251	252,428
Total material	BCM	11,454,109	3,356,156	2,269,063	2,876,719	2,219,172	733,000
Total material	t	19,941,986	5,772,759	3,928,419	4,999,354	3,891,748	1,349,706
Strip		1.22	2.02	0.97	1.51	0.95	0.23
G'Lak Schedule' mined	g	8,902,079	2,585,907	2,167,664	1,960,423	1,438,405	749,680
Total ore to process	t	8,995,845	1,911,987	1,995,190	1,994,893	1,996,497	1,097,278
Au grade to process	g/t	0.99	1.35	1.09	0.98	0.72	0.68
G'Lak Schedule' fines to process	g	8,902,079	2,585,907	2,167,664	1,960,423	1,438,405	749,680
G'Lak Schedule' fines to process	Oz	286,208	83,139	69,692	63,029	46,246	24,103
<b>PROCESS SCHEDULE</b>							
G'Lak Schedule' produced and s'Lak Sched Oz		271,898	71,388	67,623	62,156	44,842	25,889
<b>Revenue</b>							
Total Revenue	US\$	475,821,277	124,928,917	118,341,109	108,772,989	78,472,729	45,305,532
<b>Operating costs</b>							
<b>Mining Costs per BCM</b>							
Drilling & Blasting - oxide	US\$	3,927,364	1,208,171	777,510	988,256	745,954	207,473
Drilling & Blasting - Trans	US\$	1,460,148	352	305,016	351,705	370,302	432,773
Drilling & Blasting - Fresh	US\$	94,689	0	3,324	24,073	56,744	10,546
Load & Haul	US\$	71,459,509	19,972,188	13,734,640	17,960,423	14,468,311	5,323,947
Total mining cost	US\$	76,941,710	21,180,711	14,820,490	19,324,458	15,641,311	5,974,739
Total mining cost	US\$/t	3.86					
<b>Processing Costs per Tonne</b>							
Processing Cost	US\$	62,431,162	13,269,188	13,846,617	13,844,558	13,855,688	7,615,110
<b>G&amp;A</b>							
Total G&A	US\$	28,156,994	5,984,519	6,244,944	6,244,015	6,249,035	3,434,480
<b>Selling cost</b>							
Selling and refining	US\$	2,718,979	713,880	676,235	621,560	448,416	258,889
Royalty - Gov of Mali	US\$	14,193,069	3,726,451	3,529,946	3,244,543	2,340,729	1,351,399
Royalty - Altus	US\$	0	0	0	0	0	0
<b>Total Operating Costs</b>	US\$	<b>184,441,913</b>	<b>44,874,749</b>	<b>39,118,233</b>	<b>43,279,134</b>	<b>38,535,180</b>	<b>18,634,617</b>
<b>Fixed Asset Schedule</b>							
<b>Capital Expenditures</b>							
Capex	US\$	26,000,000	26,000,000	0	0	0	0
Sustaining Capex	US\$	1,964,286	428,571	428,571	428,571	428,571	250,000
<b>Total Capital Expenditures</b>		<b>27,964,286</b>	<b>26,428,571</b>	<b>428,571</b>	<b>428,571</b>	<b>428,571</b>	<b>250,000</b>
<b>Unlevered free cash flow</b>	US\$	<b>263,415,079</b>	<b>53,625,597</b>	<b>78,794,305</b>	<b>65,065,284</b>	<b>39,508,978</b>	<b>26,420,915</b>
<b>After Tax Cash Flow</b>		<b>185,804,841</b>	<b>33,536,221</b>	<b>57,494,192</b>	<b>47,923,477</b>	<b>28,431,310</b>	<b>18,419,641</b>
All-in Sustaining Cost	US\$/oz Prod	686					
All in Cost	US\$/oz Prod	781					
<b>Before-tax NPV @ 8%</b>	US\$	<b>224,595,118</b>					
<b>Before-tax IRR @ 8%</b>	(%)	<b>1,343%</b>					
<b>Payback period</b>	Months	<b>4.9</b>					
<b>After-tax NPV @ 8%</b>	US\$	<b>157,722,638</b>					
<b>After-tax IRR @ 8%</b>	(%)	<b>749%</b>					
<b>Payback period</b>	Months	<b>5.7</b>					



## 23 ADJACENT PROPERTIES

Various producing mines are located within the Kéniéba-Kédougou Inlier, in approximately similar geological environments as the Project. The closest and largest being the Sadiola gold mine, owned by Allied Gold Corp. who purchased the mine from AngloGold Ashanti and IAMGOLD for USD\$205m. Mining Plus has not been able to verify the information presented on the Sadiola operation from public domain sources (as noted in the text), and the QP cautions that this information is not necessarily indicative of or comparable to the mineralisation on the Korali Sud or Lakanfla licences.

The Sadiola gold mine is located near Sadiola, 20 km north of the Korali Sud Property, and approximately 70 km south of the town of Kayes. This operation is jointly owned by Allied Gold Corp (80% each) and the Government of Mali (20%)<sup>3</sup>. The first gold bullion was produced in December 1996.



Figure 97 – General view of the Sadiola open pit.

A brief description of the operation was previously provided by IAMGOLD on its web page. Gold mineralisation occurs along the N-S-striking Sadiola Fracture Zone (SFZ), which has been interpreted as a brittle-ductile splay off the Senegal-Mali Shear Zone. The SFZ is bounded by

<sup>3</sup> [en.wikipedia.org/wiki/Sadiola\\_Mine](https://en.wikipedia.org/wiki/Sadiola_Mine)



a greywacke sequence to the west and a carbonate sequence to the east. Discontinuous diorite and quartz-feldspar-porphyry dykes intrude the SFZ and the wall-rock formations.

Gold mineralisation occurs along the SFZ, over a strike length of approximately 2,500 m, and remains open to the north and south. Gold grades range from 2 g/t to 20 g/t. High-grade mineralisation appears to be controlled by the intersection of the SFZ with the NNE-SSW-striking splays. Gold mineralisation is pervasively represented in all major rock types (marbles, greywackes, diorite and quartz-feldspar porphyry). Various alteration assemblages have been identified (calc-silicate, potassic, chlorite–calcite and carbonate), which has been interpreted as a possible meso-thermal origin for the gold mineralisation.

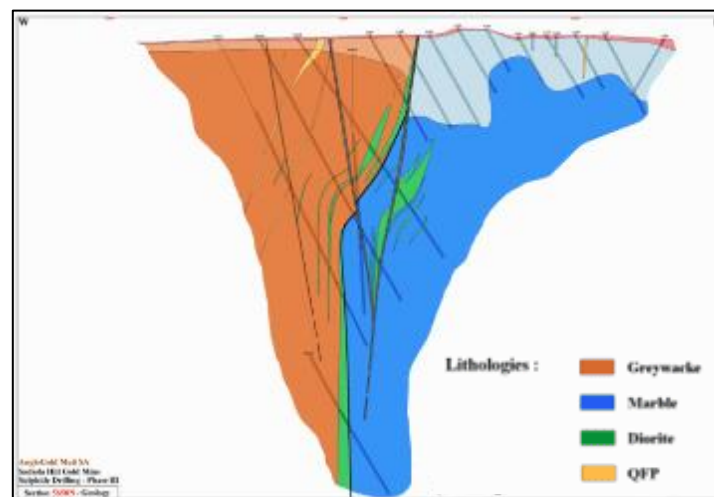


Figure 98 – Geological cross-section of the Sadiola deposit

Gold is associated with both As and Sb sulphide assemblages, including arsenopyrite, pyrrhotite, pyrite and stibnite. Primary gold is very fine grained, usually less than 15 µm, with rare grains up to about 50 µm. Intense weathering reaches up to 220 m depth. The operation has advanced mainly in oxide ore, but significant sulphide mineral resources occur below the final Sadiola open-pit design.

There are currently five open pits in the operation. Approximately 90% of ore is stockpiled before processing, to allow for separate treatment and blending of the ores with differing oxide and sulphide mineralogy, gold grades, hardness and viscosity levels. Ore is then fed into the carbon-in-pulp processing plant. The Sadiola processing plant has two identical parallel circuits, collectively capable of treating approximately 5.3 Mt of saprolite ore per year. As of 31 December 2019, the Probable Mineral Reserves were estimated at 59.6 Mt at 2.0 g/t Au (using a US \$1,200/oz gold price). The attributable gold production for 2017 was 154 koz with an AISC of \$1066/oz.



## 24 OTHER RELEVANT DATA AND INFORMATION

---

No other relevant data and information is available to be presented.



## 25 INTERPRETATION AND CONCLUSIONS

---

Based on the data provided by Altus Strategies from two major campaigns of drilling and exploration at the Diba & Lakanfla project, Mining Plus has prepared a Mineral Resource estimate that uses the Mineral Resource definitions and categories under Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards (2010). For the whole Diba & Lakanfla project (i.e. including the Diba, Diba NW and Lakanfla prospects, at a 0.5 g/t Au cut-off, the estimated Mineral Resource totals 7.8 Mt of Indicated Resources @ 1.24 g/t Au, and 20.4 Mt of Inferred Resources @ 1.01 g/t Au (Table 96).



Table 96 – Mineral Resource Statement for Diba & Lakanfla Project.

Mineral Resource Estimate for the Diba Project - April, 2022											
Prospect	Domain	Cut-Off (g/t Au)	Indicated			Inferred			Total Resource (Indicated + Inferred)		
			Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz	Tonnes (Mt)	Grade (g/t)	Au koz
Diba	Oxide	0.5	4.1	1.52	199	0.1	0.84	3	4.2	1.50	202
Diba NW	Oxide	0.5				0.1	0.63	2	0.1	0.63	2
Lakanfla	Oxide	0.5				2.5	0.87	69	2.5	0.87	69
<b>Total</b>	<b>Oxide</b>	<b>0.5</b>	<b>4.1</b>	<b>1.52</b>	<b>199</b>	<b>2.7</b>	<b>0.86</b>	<b>75</b>	<b>6.7</b>	<b>1.26</b>	<b>271</b>
Diba	Trans	0.5	0.7	1.18	25	0.05	0.78	1	0.7	1.15	26
Diba NW	Trans	0.5				0.4	0.69	9	0.4	0.69	9
Lakanfla	Trans	0.5				0.8	0.90	23	0.8	0.90	23
<b>Total</b>	<b>Trans</b>	<b>0.5</b>	<b>0.7</b>	<b>1.18</b>	<b>25</b>	<b>1.2</b>	<b>0.83</b>	<b>33</b>	<b>1.2</b>	<b>0.83</b>	<b>33</b>
Diba	Fresh	0.5	3.1	0.88	88	4.7	0.90	135	7.8	0.89	223
Diba NW	Fresh	0.5				3.6	0.91	106	3.6	0.91	106
Lakanfla	Fresh	0.5				0.5	0.80	13	0.5	0.80	13
<b>Total</b>	<b>Fresh</b>	<b>0.5</b>	<b>3.1</b>	<b>0.88</b>	<b>88</b>	<b>8.8</b>	<b>0.90</b>	<b>255</b>	<b>11.9</b>	<b>0.89</b>	<b>341</b>
Diba	Total	0.5	7.8	1.24	312	4.8	0.90	139	12.7	1.11	451
Diba NW	Total	0.5				4.1	0.88	118	4.1	0.88	118
Lakanfla	Total	0.5				3.7	0.87	105	3.7	0.87	105
<b>Total</b>	<b>Total</b>	<b>0.5</b>	<b>7.8</b>	<b>1.24</b>	<b>312</b>	<b>12.7</b>	<b>0.87</b>	<b>362</b>	<b>20.6</b>	<b>1.01</b>	<b>673</b>



Following the completion of the Mineral Resource, Mining Plus has prepared a Preliminary Economic Assessment of the Diba & Lakanfla project. The basis of the PEA is that only the oxide and transitional material will be mined and processed using conventional excavator and truck mining and a heap leach processing method.

The PEA is an early stage study, and many of the assumptions in this study will need refining after further work. The next phase of metallurgical test work has been completed and has refined the estimated heap leach recovery. The test work has also demonstrated that there is potential for processing using a CIL processing plant, giving the benefit of being able to process the fresh material proportion of the deposit in addition to the oxide. This option will be investigated in a future PEA update.

A summary of the PEA results can be seen in Table 97.

Table 97 – Summary of the economic analysis

Description	Unit	2.0Mtpa
Ore mined	Kt	8,996
Strip ratio (waste: ore)		1.22
Gold Grade	g/t	0.99
Mined Gold	oz	286,208
Produced Gold	oz	271,898
Recovery	%	95
Avg Production/year	oz	54,380
AIC	US\$/oz	781
AISC	US\$/oz	686
Avg Free Cash Flow/year	US\$000	2,446
Total capex (pre-prod + sustaining)	US\$000	28,000
IRR % before taxes		1,343%
NPV (8% discount) before taxes	US\$000	224,595
IRR % after taxes		749%
NPV (8% discount) after taxes	US\$000	157,723

The NPV sensitivity has been tested and it was found that the project is most sensitive to gold price and metallurgical recovery. Table 98 and Table 99 show how the NPV and IRR behave with adjustments to these variables.



Table 98 – NPV and IRR sensitivity to gold price

2.0 Mtpa Gold Price \$/oz	Before tax		After tax	
	NPV (US\$000)	IRR (%)	NPV (US\$000)	IRR (%)
	224,595	1,343%	157,723	749%
1,600	190,545	962%	133,884	562%
1,650	201,895	1,077%	141,831	620%
1,700	213,245	1,204%	149,777	683%
1,718 (Spot 14/07/22)	217,331	1,253%	152,638	706%
1,750	224,595	1,343%	157,723	749%
1,800	235,945	1,494%	165,668	820%
1,850	247,295	1,659%	173,614	896%
1,900	258,645	1,840%	181,559	977%

Table 99 – NPV and IRR sensitivity to metallurgical recovery

2.0 Mtpa Recovery (%)	Before tax		After tax	
	NPV (US\$000)	IRR (%)	NPV (US\$000)	IRR (%)
	224,595	1,343%	157,723	749%
70%	120,654	444%	84,949	287%
75%	141,442	568%	99,505	357%
80%	162,230	715%	114,060	436%
85%	183,018	891%	128,614	526%
90%	203,807	1,098%	143,169	630%
95%	224,595	1,343%	157,723	749%
100%	245,383	1,631%	172,275	882%

The Mining Plus QP has reviewed the data for the project and can make the following conclusions:

- Information received from Altus Strategies supports that the Korali Sud Small Scale Mining Authorisation is valid for four years effective from 15 April 2022, renewable for successive four year periods until the deposit is depleted. The Company retains the option to apply for a full-scale mining licence at a later date, subject to the delineation of a larger MRE.
- Exploration to date has been conducted in accordance with the appropriate Malian regulatory requirements.
- Altus does not hold surface land rights. No formal environmental assessment has been made. While there are no known environmental liabilities associated with previous artisanal mining activities, there is an expectation that with detailed surveys, some minor environmental issues may be identified.



- Altus have the right to extract water for use at their exploration camp and during drilling. The permit holders do not currently hold water rights in connection with the Project.
- Additional permits, including surface and water rights, as well as environmental permits, will be required for any future development.
- As of 21 August 2019, the Malian government have announced a new mining code. The new mining code and amendments are currently being implemented. All new mineral titles issued after February 2012 are governed by the 2012 Mining Code and related 2012 Decrees. This includes the Korali Sud & Lakanfla licences owned by Altus Strategies.
- Conflict events have not extended over Western Mali, where the Tuareg population has a minor representation, although the country appears to be dealing with ongoing political instability. The QPs recognize that such events may result in interruptions to planned exploration activities.
- To the extent known to the QPs, no other significant factors and risks may affect access, title, or the right or ability to perform work on the project.
- Exploration activities and future mining operations could be conducted year-round.
- Sufficient non-qualified labour is available in the region for exploration and future mining activities, but specialised labour may have to be provided from Kayes, Bamako or abroad.
- The Property area is sufficiently large to accommodate any future tailing and waste disposal areas, as well as potential leach pads and processing plant sites.
- Electricity for any future operation is not currently available from the national grid.
- The interpreted orogenic-gold deposit model is appropriate for guiding the exploration and development of the Diba & Lakanfla project, although some aspects of the controls to mineralisation are not fully understood. Additional ongoing exploration work will result in a more accurate interpretation of controls on mineralisation. Mining Plus noted during wireframing and modelling of the mineralisation that there is a poorly mineralised E-W trending zone in the middle of the deposit that may represent a structural discontinuity. There is also a NE-SW trending high-grade portion of the deposit defined in the upper portion of the oxide zone, which is not understood at this stage.



- Significant multi-campaign exploration took place on the licence under previous ownership, resulting in the discovery and definition drilling of the Diba & Lakanfla project.
- Mining Plus has been able to visit site to review the drill core, RC samples, as well as collection and preparation procedures. Mining Plus was not present during the drilling campaigns, although after reviewing the drill hole databases and the NI43-101 report of Simon and Pizarro (Simon, 2013), Mining Plus is of the opinion that the 2006-2008 Etruscan diamond and RC drilling appear to have followed industry-standard procedures. Mining Plus is of the opinion that the 2014 drilling campaign also followed industry-standard procedures. Mining Plus holds the same opinion of the more recent drilling completed at the Project.
- RAB and aircore (AC) drilling has not been included in the resource estimation done by Mining Plus; only the RC and diamond drilling that took place during this time is used.
- Mining Plus reviewed the logging, sampling, and assaying procedures used by Etruscan, Legend Gold and Altus Strategies, and considers them to be industry standard and suitable for resource estimation. The implemented QAQC programmes are also of industry standard.
- Drill core and samples were kept on secured locations, both at the camp and at the companies' Bamako premises.
- Adequate chain-of-custody procedures have been followed to keep track of the sample shipments.
- Abilab, Analabs, and SGS Mali, the three laboratories used during the 2006-2008 exploration campaigns, are independent from Etruscan, and belong to some of the highest-standard laboratory companies in the world. Described and audited internal QC procedures were industry-standard, and results were customarily reported.
- Previous AMEC independent collar checks confirmed that the drill-hole collars were adequately surveyed.
- The down-hole survey information is sufficiently reliable to be used in mineral resource estimation.
- Mining Plus has not identified any significant errors during the drilling database checks, and considers the checks performed by AMEC to be acceptable. The current



database is sufficiently reliable, and the Au assay data are sufficiently precise and accurate, to be used for mineral resource estimation.

- Mining Plus found significant discrepancies between measured densities and expected values for the type of lithologies found at Diba.
- The topographic surface provided by Altus from the 2013 AMEC estimate was completely unusable as it had been vertically translated by an unknown amount. Mining Plus suspect this is due to a mix-up in coordinate systems used during the estimation. Mining Plus created a new topographic surface from interpolating between drill hole collars.
- Mining Plus completely re-modelled the mineralisation wireframes and geological surfaces to include the 2014 RC drilling. After review of natural breaks in the assay data, 0.3g/t Au was chosen as the threshold lower grade limit for modelling the mineralised shells.
- The base of transition and base of oxidation were extracted from the drill holes as points and used to interpolate surfaces. These were used to code Oxide, Transition and Fresh zones into the wireframes and block models throughout the estimation process.
- Mining Plus defined two estimation domains for analysis and variography during the resource estimation; OXIDE and FRESH. These were based on consistent behaviour (stationarity) of gold grade distribution, and a requirement to have enough samples to model variography.
- Compositing, top-cutting and declustering of the drill hole data was investigated and implemented (no declustering). Variography and KNA was successfully performed on the data prior to estimation.
- Mining Plus estimated gold grades using Ordinary Kriging (OK), with check estimates using Inverse Distance Squared (ID2) and Nearest Neighbour (NN). Estimation was performed only on cells within the mineralised wireframes. Grade was estimated in two passes, using increased search ellipse sizes each time.
- Validation of the block model highlighted that the estimated block model grades (locally and globally) to reflect the real gold grades in the deposit, and that the difference between the drill hole sample grades and the block grades is entirely due to high grade gold clusters, that have been effectively dealt with during the estimation process.



- Mining Plus recognised that there is a second high-grade population of Au (strong NE-SW trend) within the OXIDE portion of the deposit that needs to be domained separately.
- Mining Plus classified the mineralised blocks as either Indicated or Inferred. These were classified on the basis of average block to sample distance, and minimum block to sample distance.
- The assessment of reasonable prospects of economic extraction for the mineral resources contains the assumptions based on benchmarked and analogous operations by Mining Plus. Mining Plus considers them reasonable given the current state of project knowledge. However, as more detailed site-specific metallurgical, geotechnical, environmental and engineering data become available, these assumptions are likely to change.
- Grade-tonnage sensitivity analysis indicates that the Diba & Lakanfla project is only moderately sensitive to changes in cut-off grade.
- There is some sensitivity in the model to changes in geological interpretation, and with additional drill information, there may be changes to the understanding of the mineralised structures, interpreted grade shells, and therefore to the estimates.

Significant risks to the project are summarised below:

- *Geological / Structural model:* Additional ongoing exploration work will result in a more accurate interpretation of controls on mineralisation. Changes in the geological model of the deposit poses a moderate risk to tonnage and grade (particularly spatial location), although the overall contained gold is unlikely to fluctuate dramatically.
- *High grade mineralised zone:* Mining Plus recognised that there is a second high-grade population of Au (strong NE-SW trend) within the OXIDE portion of the deposit that needs to be domained separately. This has significant upside potential if it is modelled separately.
- *Topographic surface:* there are requirements for a high resolution and accurately located surface for processing engineering, geology, tailings design, plant design, and pit engineering
- *Political Instability:* conflict events have not yet extended over Western Mali, although there is always a risk that exploration and development will be interrupted suddenly and over a potentially long term.



- *Community engagement:* There is significant opportunity to engage the local communities around the Diba & Lakanfla project at this early stage of the project, through employment opportunities and direct communication. Failure to do this adequately poses significant negative risk, as much investment in mining projects now requires a very high standard of ESG.



## 26 RECOMMENDATIONS

---

All the recommendations listed below can be included as items in the work programme during the next phase of project development. In the case of the Diba & Lakanfla project, the next phase of work would be a Pre-Feasibility Study (PFS) incorporating the updated resource numbers. Recommendations are as follows:

- Detailed geological modelling and structural modelling is recommended; aspects of the mineralization controls remain poorly understood.
- Mining Plus recommends that declustering is investigated during the next iteration of estimating the block model.
- Mining Plus recommends that some check assays are performed at an internationally accredited independent lab, to support the assaying done at the three Mali-based labs during the drilling campaigns.
- A high resolution topographic surface (corrected for vegetation) should be surveyed during the next stage of project development; there are requirements from processing engineering, geology, tailings design, plant design, and pit engineering that need a high veracity surface.
- A programme of detailed metallurgical test work needs to be continued to assess optimal process parameters for gold recovery and gold recovery levels via heap leaching, as well as further assessing the potential to use a Carbon in Leach (CIL) plant, which would also allow processing of the sulphide resource at Diba.
- Geotechnical drilling and studies should be completed, to determine appropriate pit wall design parameters, together with hydrological and hydrogeological studies to assess requirements for management of groundwater and surface water.
- Appropriate PFS-level mine planning, process engineering and design, heap leach pad design and non-process infrastructure design work needs to be completed to support declaration of Ore Reserves at end of PFS.
- A full PFS-level Environmental and Social Impacts Assessment (ESIA) will be required.

PFS studies overall range from USD\$1M to USD\$2M depending on the total amount of work required to advance the project. An estimated order of magnitude budget is shown in Table 100 below. Mining Plus has used benchmarked costs for similar projects and studies in West Africa; actual costs may vary significantly.



Significant further infill drilling will also be required for project advancement; at this stage Mining Plus will not budget for this, as it is dependent on ongoing results from PFS level work.

Table 100 – Estimated cost for PFS programme items

Activity	Proposed Work	Estimated Cost (USD)
PFS-Level Environmental/Social Impacts	Site Visit, baseline field studies, impact assessment and mitigation, monitoring, social impact assessment, reporting	180,000
Geological Modelling & Mineral Resources	Update geological modelling, check assays, density measurements, QAQC, update Mineral Resource Estimate	80,000
Geotechnical Studies (Mining)	Site visit, geotechnical program supervision, geotechnical drilling laboratory test work, numerical modelling, reporting	200,000
Metallurgy, Test work and Process & Infrastructure Engineering	Metallurgical test work, process design, process engineering, plant design, infrastructure design, plant capex & opex Estimation	300,000
Heap Leach Design Studies	Heap Leach pad design, test work, site visit, material properties assessment (mechanical and chemical), leach dynamics	90,000
Hydrogeology and Hydrology Studies	Site visit, baseline field studies, groundwater study, surface water management study, geochemistry assessment (waste rock ARD potential), reporting	100,000
Mine Engineering and Mineral Reserves	Pit optimisation, pit design, LOM scheduling, mining capex and opex estimates	100,000
Project Management, Reporting	Project Management, Site Visits, Data Collation and LIDAR Surveys, Preparation of PFS Report	350,000
<b>Total</b>		<b>1,400,000</b>



## 27 REFERENCES

---

- Lawrence, D. e. (2013). Geology and Mineralogy of the Loulo Mining District, Mali. *Economic Geology*, v. 108, 199–227.
- Perkins, D. (2014). *NEWS RELEASE #2014-06*.
- Simon, A. a. (2013). *Technical Report and Mineral Resource Estimate Diba-Badiazila Gold Property, Mali, West Africa*.
- Slater, W. (2020). *Diba RC Drilling Summary 2014*.
- Woodman, K. a. (2007). *Technical Report, Kéniébandi Property, Mali, West Africa. Unpublished internal report prepared for Etruscan Resources Inc.*