
FIREFINCH TO PRODUCE 180,000 OUNCES OCTOBER 2022 - MARCH 2024

- **Production Target of 180,000 ounces defined for the 18 month period to March 2024**
 - **Medium term production plan (MTPP) based on recently updated Mineral Resources**
 - **AISC averages US\$1,425/oz – US\$1475/oz over the period of the MTPP**
 - **August production from Morila totalled 8,122 ounces of gold, a new record for the mine under Firefinch’s ownership**
 - **Updates to Ore Reserves and longer term Life of Mine Plan to be finalised in Q4 CY2022**
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Firefinch Limited (ASX: FFX) (**Firefinch** or **the Company**) is pleased to present a Production Target for forthcoming production from the Morila Gold Project in Mali (**Morila**).

The Production Target covers the period from October 2022 (Q4 CY2022) to March 2024 (Q1 CY2024) and is based on the recent update of the Mineral Resources for Morila¹.

The Production Target has been derived from Stages 1, 2 and 3, being sub-stages of the Phase 1 open pit of the Morila Super Pit (**MSP**) where Ore Reserves were previously defined in May 2021².

The 2021 Stage 1 and 2 designs have been modified to bring them in-line with the open pit optimisations recently completed by Orelogy Mine Consulting (**Orelogy**) utilising the new Morila Mineral Resource and updated modifying factors. Accordingly, a medium term production plan (**MTPP**) has been able to be rapidly optimised.

The new MTPP envisages a target production rate of 30,000 ounces of gold per quarter on average for the 18 month period via the processing of 4.17 million tonnes of ore at an average grade of 1.54g/t gold and at a rate of 700,000 tonnes per quarter.

Importantly, the input costs and consumption rates used in the MTPP based current, actual costs at Morila. The AISC over the 18 month period is forecast to be between US\$1,425/oz – US\$1,475/oz. The project is anticipated to be cashflow positive in Q4 CY2023 (December Quarter).

The updated pit design for the Phase 1 Pit at the MSP is currently being completed by Orelogy. This will enable updated Ore Reserves to be published for Morila and a full Life of Mine Plan (**LOMP**) to be scheduled and costed. Following completion of the LOMP, studies will commence into the expansion of the mine life for Morila, either via a cut back to the Phase 1 pit (Phase 2) or via underground mining.

¹ Refer ASX Announcement 31st August 2022 and Appendix 1.

² Refer ASX Announcement 5th May 2021

Table 1: Mineral Resources underpinning the Production Target for the Morila Gold Deposit ^{1,2}

Deposit	Measured			Indicated			Total		
	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)
Viper ³				0.59	1.49	28	0.59	1.49	28
Morila Stage 1 ⁴	1.32	1.56	66	0.49	1.18	19	1.81	1.45	85
Morila Stage 2 ^{2,4}	1.01	1.48	48	2.32	1.34	100	3.33	1.38	148

¹ The Mineral Resources in this Table have been adjusted for the modifying factors detailed below incl. dilution & ore loss.

² Not all of Stage 2 is mined in the 18 month period, therefore the Production Target does not equal the sum of these resources.

³ The Viper Production Target is derived using a 0.75g/t gold cut-off grade, refer to body text and Appendix 2 for details.

⁴ The Morila Production Targets are derived using a 0.55g/t gold cut-off grade, refer to body text and Appendix 2 for details.

Operational Update

Safety is Firefinch's number one priority. There were no serious injuries or incidents during the months of July and August.

Gold production was 5,339 ounces of gold for the month of July and 8,122 ounces of gold for the month of August. The August monthly production is the highest monthly production for Morila under Firefinch's ownership with improved production driven by increases in head grade to 1.52g/t (vs 0.61g/t in the June quarter) and recovery to 90.3% (vs 84.3% in the June Quarter)³. Ore from the Morila Super Pit comprised approximately 40% of the mill feed in July and 70% of the mill feed in August.

Operations have successfully pivoted to the new project plan, with mining only undertaken at the Morila and Viper pits since early July. The larger fleet at Morila has assisted in minimising the impacts of the wet season and equipment downtime during the month. Total material moved (TMM) improved in August due to greater equipment availability with movement at the MSP being only 3% below target. Tonnes processed was 9% below target for August but mitigated by both grade and recovery being above target with a number of initiatives implemented to improve reliability and throughput.

Medium Term Production Plan (MTPP)

The new MTPP envisages mining and processing of 4.17 million tonnes at 1.54 g/t gold to end March 2024 for a total of 189,000 recovered ounces of gold and a target quarterly production of 30,000 ounces of recovered gold (average).

The MTPP assumes that mining is only carried out at the MSP and the Viper open pit. The predominant ore feed will be from the MSP during the MTPP with Stage 1 ore being mined to Q2 CY2023 in parallel with Stage 2 waste stripping. Stage 2 ore mining is anticipated to commence in Q1 CY2023 and continue until after the end of the MTPP (Figure 3). No ore is mined from Stage 3 during the MTPP. Waste stripping from Stage 3 has been scheduled within the 18 month period to ensure ore is available as planned in the previous LOMP⁴. Activity at Viper will decrease to enable mining to proceed in a safe and orderly manner. Mining at Viper is scheduled to be completed by end Q1 2023 (end March 2023).

³ Refer ASX Announcement 1st August 2022.

⁴ Refer ASX Announcement 5th May 2021

The MTPP covers the period from Q4 CY2022 to Q1 CY2024 (inclusive) and is based on the recently updated Mineral Resources for Morila and Viper⁵. The Mineral Resources which underpin the MTPP are classified as Measured and Indicated of which 44% are in the Measured category (114,000 ounces, Table 1, also refer Figure 4). Inferred Resources which fall within the Stage 1 and Stage 2 pit designs have been treated as waste and not included in the Production Target.

To derive a robust Production Target the Mineral Resources have been modified for mining factors such as ore loss and dilution and a pit optimisation study completed using a gold price of US\$1700/oz and current costs for mining, processing, and other activities at Morila.

The Production Target for Morila is quoted above a 0.55g/t cut off grade (vs a cut-off grade of 0.43 used in the May 2021 Ore Reserve⁶). The MTPP mining schedule prioritises Morila ore above a cut off of 0.75g/t with ore mined at grades 0.55 – 0.75g/t gold stockpiled and added to the mill feed if required to maintain throughput at capacity.

The MSP Phase 1 pit is being designed based on the pit shell selected as part of the recently completed optimisation study. The updated pit design (Phase 1 Pit) is currently being completed by Orelogy and will inform an update to the Ore Reserves for Morila enabling a full LOMP to be scheduled and costed. Ore Reserves were previously published for Morila in May 2021⁵ (note that Phase 1 in this announcement corresponds with Stage 1 in the May LOMP). Following completion of the LOMP, studies will commence into the expansion of the mine life for Morila, either via a cut back to the Phase 1 pit (Phase 2) or via underground mining.

Stages 1, 2 and 3 are sub-stages of the Phase 1 pit and Orelogy have undertaken design adjustments to these stages to bring them in-line with the latest optimisation (Figure 1). Accordingly, the MTPP has been based on these updated stages. Scheduling has been completed by the mining team onsite at Morila and reviewed by Orelogy. Key metrics from the MTPP are detailed in Table 2 below with a sensitivity analysis shown on Figure 2. The MTPP is illustrated graphically on Figures 3, 4 and 5.

The economic assumptions underpinning the Production Target are based on a range of financial inputs which the Company believes are likely to occur in the short term. These are set out in today's ASX announcement entitled "Recapitalisation package agreed with key stakeholders including A\$90 million equity raise to fund Morila Stage 1 and 2 production plan and provide working capital" and include an equity raise of A\$90 million, the forbearance by significant creditors including the conversion of those creditor debts into equity of approximately US\$28 million or deferred payment arrangements and cashflow from production of gold.

The capital of A\$81 million required to achieve the Production Target is detailed in the Use of Funds accompanying this raising. Sustaining capital has also been estimated and included in the MTPP as detailed in Table 2.

⁵ Refer ASX Announcement 25th March 2022, 31st August 2022 and Appendix 1.

⁶ Refer ASX Announcement 5th May 2021

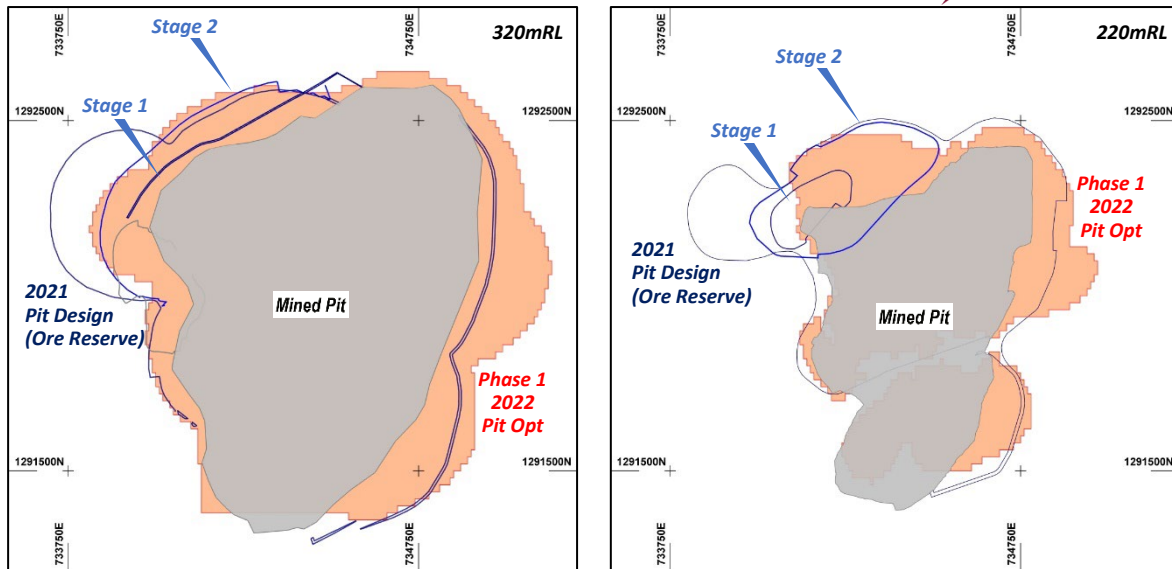


Figure 1. 2022 MSP pit shell compared to 2021 MSP pit design and Stages 1 and 2.
 LH = surface (320m RL) RH = 100m below surface (220m RL).

Table 2: Key metrics for the Medium Term Production Plan

	Unit	Value
MTPP Period (October 2022 to March 2024)	Months	18
Mining metrics		
Total Material Movement	'000 tonnes	58,100
Strip Ratio Total	Waste:Ore	8.7
<i>Viper</i>		3.0
<i>Morila Stg 1</i>		4.3
<i>Morila Stg 2</i>		9.2
<i>Morila Stg 3</i>		Waste mining only ¹
Processing metrics		
Ore tonnes processed	'000 tonnes	4,170
Quarterly processing rate	'000 tonnes	700
Recovery (average)	%	91.5
Total gold production	Ounces	189,000
Target quarterly gold production (average)	Ounces	30,000
Financial metrics		
Mining cost (including waste stripping)	US\$ /t mined	2.40 – 2.50
Processing cost	US\$ /t processed	25.0 – 26.4
Site Administration cost	US\$ /t processed	6.6 – 6.9
Royalties/production taxes	US\$ /t processed	4.7 – 5.0
Sustaining capex	US\$ /t processed	1.6 – 1.8
Unit cost summary ²		
All-in sustaining cost	US\$/oz	US\$1,425 – US\$1,475
Assumptions		
Gold price	US\$/oz	US\$1,700

¹ Ore from Stage 3 is currently scheduled to present in 2H 2024 accordingly waste stripping is scheduled in commence in Q3 2023 to ensure this schedule is met and the processing rate is maintained.

² 'All-in sustaining cost' (AISC) excludes investment in capitalised stripping, the impact of inventory movements and the accretion (or unwind) of rehabilitation provisions for the Morila Project.

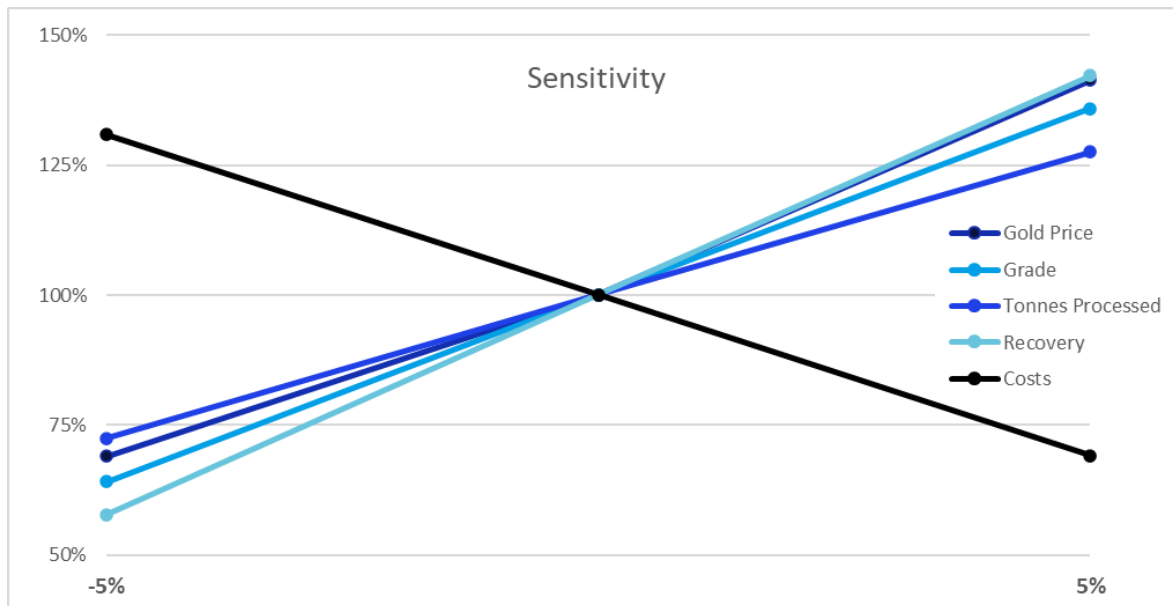


Figure 2. Sensitivity chart showing effect on operating cash flow of various factors

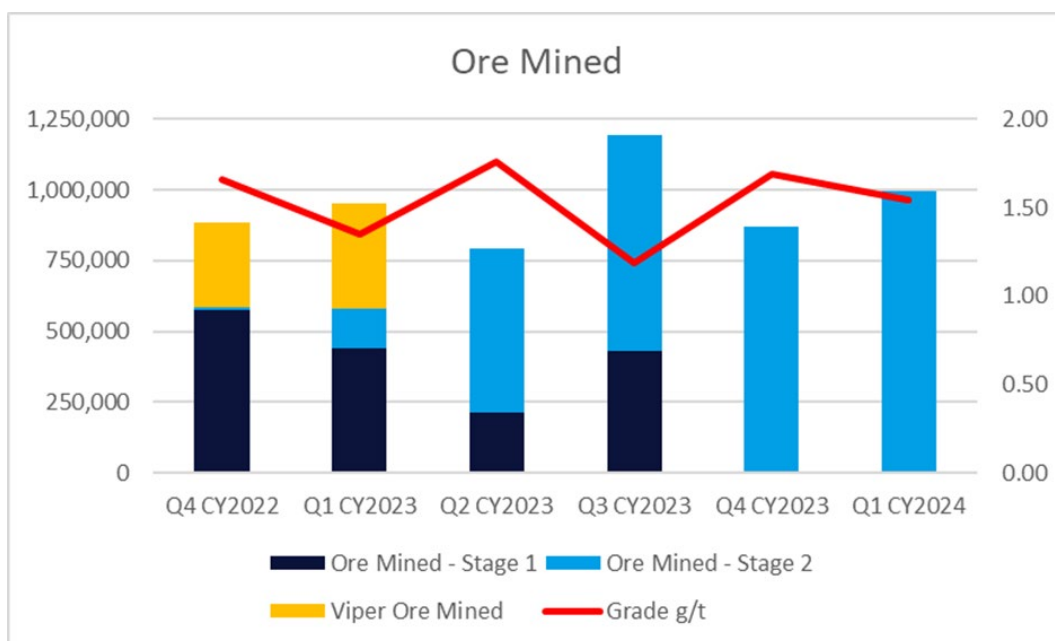


Figure 3. Tonnes mined per month by source and head grade

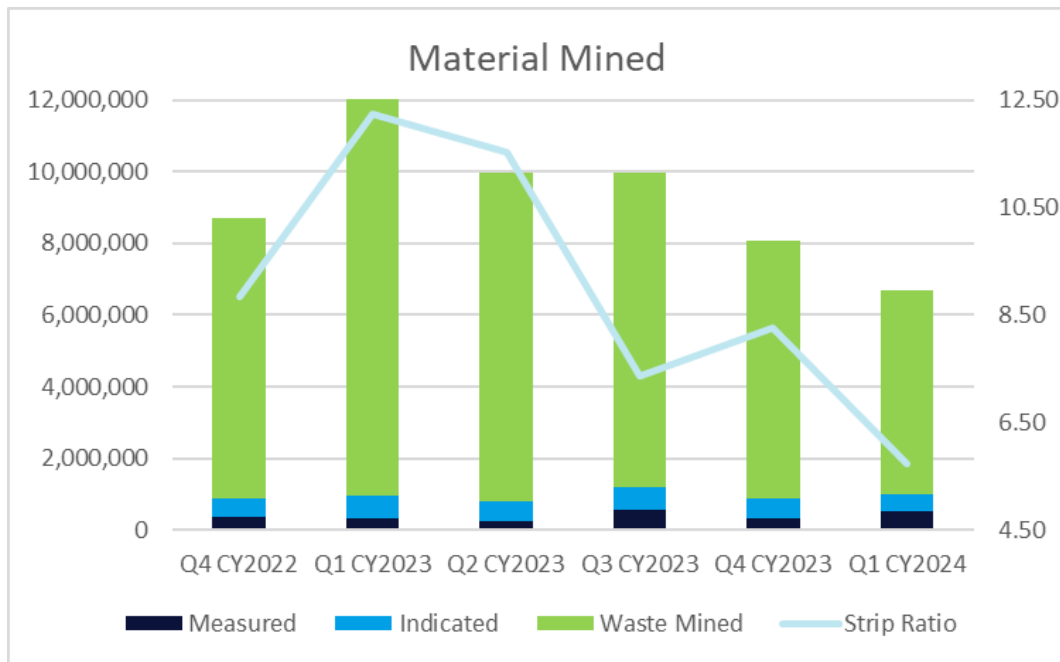


Figure 4. Material moved by classification (Measured, Indicated, Waste) and strip ratio

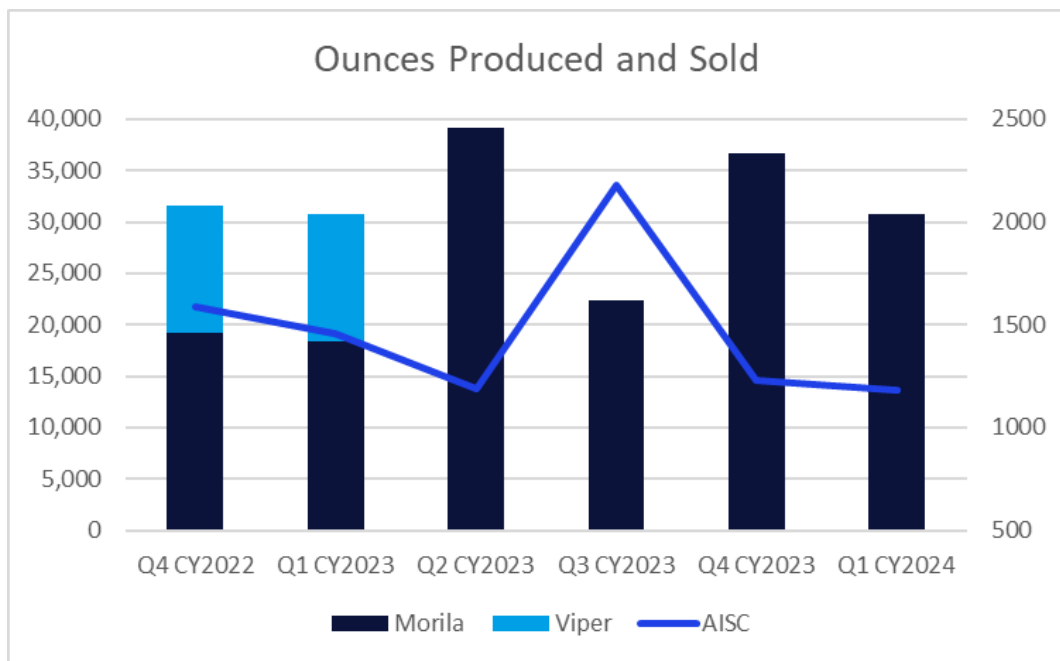


Figure 5. Ounces of gold produced by source and quarterly AISC.

Summary of Resource Estimation Parameters used in the Production Target

As per ASX Listing Rule 5.8 and the 2012 JORC Code, a summary of the material information used to estimate the Mineral Resource underpinning the Production Target is detailed below. Further details can be found in Appendix 2.

Geology & Geological Interpretation: The Morila Gold Deposit has been previously classified as an intrusion related vein hosted gold deposit. It is hosted within a sequence of meta-greywacke and metavolcaniclastic rocks that show a complexly folded sequence that includes a series of upright to overturned folds dissected by steep brittle faults.

Gold mineralisation is associated with variably deformed polymineralic veins, commonly with coarse arsenopyrite and occurs as free gold. Data analysis showed that there appeared to be a natural cut-off between background and anomalous mineralisation of 0.2 g/t gold. Using this natural cut-off, discrete intervals were delineated to produce geologically coherent vein models of each mineralised domain, excluding non-mineralised lithologies such as greywacke. Using this approach, the average mineralisation thickness within each domain was reasonably consistent in the exploration and advanced grade control drilling areas.

Drilling, Sampling and Sub-sampling Techniques: Mineralisation at the Morila Gold Deposit has been defined by both Reverse Circulation and diamond drilling. The deposit was initially drilled out on a 70m x 35m spacing utilising diamond core drilling, with later infill to 30m x 30m in most areas. Subsequent Reverse Circulation (RC) drilling was completed at a 20m x 20m and 10m x 10m spacing.

At the time of the Mineral Resource estimate, Firefinch has completed 237 holes for 38,891, primarily sited around the edge of the historic pit testing extensions to the mineralisation mined in the pit. Drilling results have been released to the ASX on 18 August 2021, 22 October 2021, 21 December 2021, 22 February 2022 and 31 August 2022. All available drilling data as at 30 June 2022 was used in the resource estimate.

Sample Analysis: All samples used in the resource estimates were analysed at accredited commercial laboratories. Standard sample preparation techniques were used with a 50g sub-sample fire assayed and the bead analysed by AAS. Quality control protocols for all drilling included the use of certified reference materials, blanks and duplicates.

Estimation Methodology: Block grades were estimated using Ordinary Kriging with interpolation of 1.0 metre composite data constrained within the mineralised lode interpretations. Search ellipses were based upon grade continuity models guided by variograms generated for the mineralised composites. The estimation block model size was 10m X by 10m Y by 2.5m Z, based on the selective mining units in use during mining operations at Morila. Top cutting was required to reduce the influence of outlier values, guided by log probability plots and the coefficient of variation generated for the mineralised composites within individual lodes.

Mining & Metallurgical Methods and Other Factors: The Production Target is based on open pit mining and does not include any material mined by underground methods. All mineralised material will be processed through the Morila processing plant which has been in continuous operation since 2000. Mining rates have been based on the budgeted fleet and associated productivities from the incumbent mining contractor. Processing rates, recoveries and other mining and metallurgical parameters for the open pit are based on a combination of historical and current performance.

The Production Targets are constrained by pit designs created by Orelogy for sub-stages of the planned open pit for Morila. The ultimate open pit design is still being completed however the sub-stages are constrained with the pit shell selected following a pit optimisation study by Orelogy. These designs are based on current mining methods and parameters as detailed below.

Deposits which are being actively mined (Morila and Viper) are depleted for mining using pit surveys completed by the Morila survey department as at 30 June 2022.

Classification & Cut-off Grade: The Mineral Resources underpinning the Production Target have been classified as Measured and Indicated. It is anticipated that the Indicated resources could achieve a higher level of classification with infill drilling and verification of the extent of historical mining. No Inferred Resources are contained within the Production Target and any Inferred Resources which fall within the Stage 1 and Stage 2 designs have been treated as waste. The cut-off grades for the Production Target are based on current costs at Morila along with the current and forecast gold price.

Methodology to derive the Production Target

The Production Target is based on Stages 1, 2 and 3 of the Morila Super Pit (**MSP**) which will be mined by open pit methods. Ore and waste will be mined using a conventional mining fleet provided by mining contractors. Firefinch will supervise mining and ore production and undertake grade control activities.

Firefinch has contracted the Mota Engil – Intermin JV (**MEIM**) as the primary mining contractor, who are assisted by Malian earthmoving contractors EGTF. MEIM has supplied a mining fleet of excavators (capacity of 350 tonne and 250 tonne) and trucks (capacities of 60 tonne, 90 tonne and 150 tonne) for load and haul from MSP which is predominantly direct tipped into the primary crusher, with some stockpiling at the crusher run of mine stockpiles. The majority of ore will require drill and blast via track mounted blasthole drill rigs with grade control undertaken with track mounted RC drill rigs.

Ore from Viper is hauled along a 22km dedicated haul road and stockpiled at the crusher from which it is reclaimed and blended with MSP feed.

The Viper Production Target is based on the May 2021 Ore Reserve design⁷ which has been updated and amended based on the Mineral Resource update in March 2022⁸, minor revisions by the operational team and depleted for mining and development to 30 June 2022. Dilution and ore loss have been applied to the Mineral Resource to arrive at the Production Target.

The Morila Production Target is based on the August 2022 resource model which has been regularised to a selective mining unit (**SMU**) of 5m East x 10m North x 2.5m RL to account for ore loss and dilution. Globally this resulted in approximately 8.7% ore loss and 6.6% dilution. This model was then imported to Whittle for optimisation purposes and a number of optimisation scenarios run for various price and cost parameters. The results of this optimisation were used to guide the updated Stage 1 and Stage 2 designs utilised for the MTPP.

Mining costs and ore haulage costs to the plant were based on the contract costs and applied on a bench by bench basis. Additional costs were applied for ore rehandle, grade control and other mining related oncosts.

Processing recovery is derived from current processing performance which has been cross checked against historical performance and metallurgical test work. Recovery has been estimated based on a regression formula linking recovery to grade, with a maximum recovery of 92%. Recovery within the 18 month period is forecast to average 91.5%.

⁷ Refer ASX Announcement 5th May 2021

⁸ Refer ASX Announcement 25th March 2022

Processing costs are derived from current operating costs at the Morila process plant. General and Administration costs are based on actuals at the Morila site. Malian state royalties and taxes are those currently applicable and payable by Morila.

Pit slopes adopted are based on recommendations by an independent geotechnical consultant based on data from the Morila geotechnical department, parameters used in the prior mining of the Morila pit and independent geotechnical assessments commissioned by the previous owners.

The pit shell used for the MSP pit design was selected on the basis of an economically robust shell selected which provides:

- an acceptable mining life at the processing rate of the Morila plant.
- maximises resource conversion by not leaving potential ore in unmineable pushbacks

As the initial focus for Firefinch is both on value and maintaining plant feed this was considered a prudent approach. A practical final pit design is being developed by Orelogy from the selected pit shell and will form the basis of an updated Ore Reserve estimate.

Due to the orebody morphology and the presence of a historical pit void a staged mining approach has been used to improve the economics of the open pit. This approach was also used in the May 2021 LOMP and Ore Reserve. The designs for stages 1 and 2 have been able to be updated relatively quickly by Orelogy following the completion of the new Mineral Resource since these were effectively redesigns of the previous Stages 1 and 2 completed in May 2021. Accordingly these sub stages have been scheduled by the Morila mining department to enable financial modelling of the MTPP. Orelogy have reviewed the schedule and confirmed that it is suitable for this purpose, despite the ultimate pit design and LOMP mining schedule still being optimised.

Single lane ramps were utilised to provide access to the bottom benches for a maximum of 45 vertical metres (450 metres length). This was considered practical as mining production rates would be low at this point in the mining sequence.

Cut-off grade applied for the determination of the Production Target at Morila was 0.55g/t gold, and 0.75g/t gold for the satellite pits as there is a cost for overland haulage. The mining schedule prioritises Morila ore above a cut off of 0.75g/t with ore mined at grades 0.55 – 0.75g/t gold stockpiled and added to the mill feed to maintain throughput at capacity.

Waste dumps designs from the previous Life of Mine Plan for Morila were still valid to be utilised for the MTPP. They were based an overall slope of 18° to 20° to minimise recontouring requirement for rehabilitation.

The previous operator placed both waste rock and tailings into the pit in anticipation of the closure of the operation. The Company has made appropriate allowances with regards to cost and timing in the MTPP for removal of this material. The tailings will be repatriated from the pit to the tailings dam as mining progresses. This will be done initially by truck and excavator in areas where the tailings are dry and by hydraulic sluicing in other areas. The Company has consulted both tailings deposition experts and geotechnical consultants who made recommendations for the wall angle to be used for any mining of the tailings. The Company completed a study by independent experts into different methods of removing the tailings which concluded that hydraulic sluicing was the most technically and commercially attractive method. The amount of tailings that are required to be removed as part of Stages 1 and 2 is approximately 5 million m³. In-pit waste rock of approximately 4 million tonnes will also be removed by truck and excavator as part of mining. Lower mining rates can be expected in areas of waste rock and have been included in the financial model resulting in additional costs on a per unit basis.

Water removal from the pit has been largely completed with the water that remains being managed on a day-to-day operational basis. Water is able to be discharged as needed and as permitted.

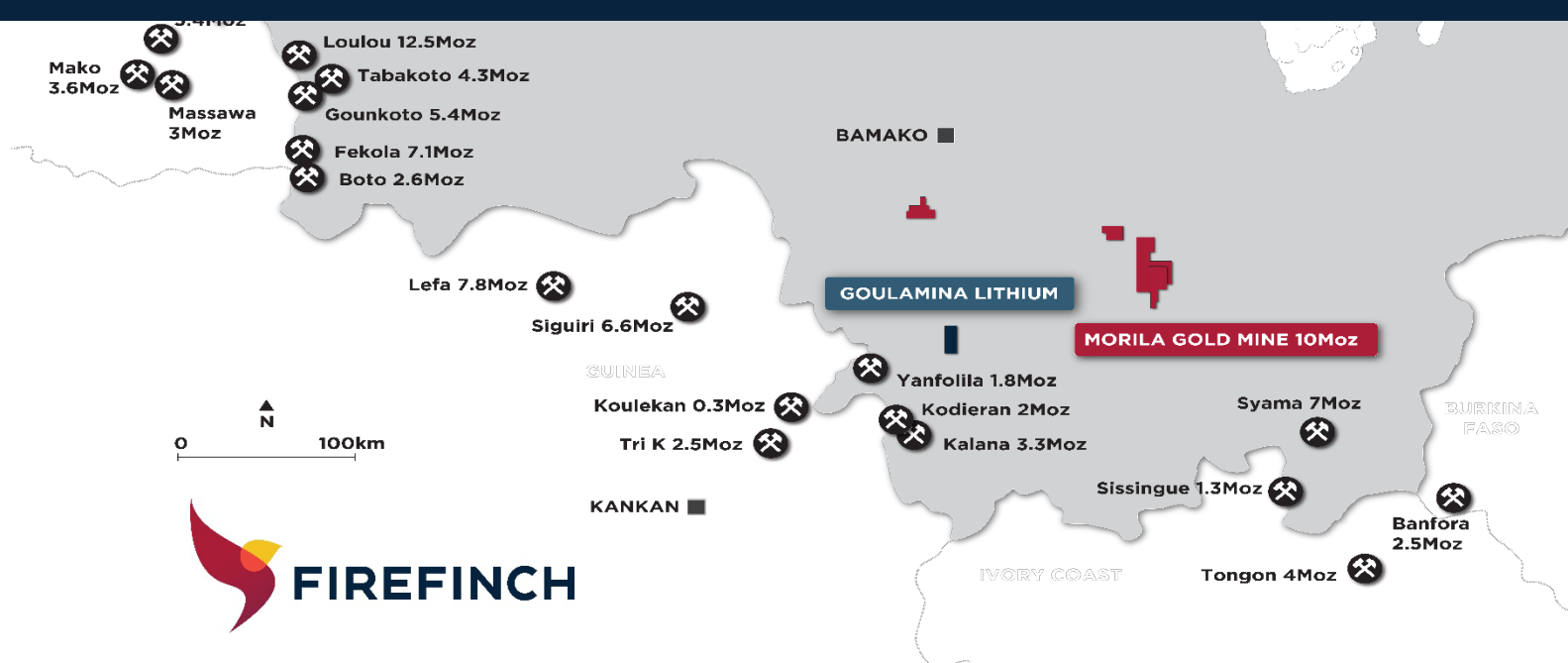
This announcement has been approved for release to the ASX by the Board.

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Forward Looking Statements

This announcement contains certain forward-looking statements with respect to Firefinch's financial condition, results of operations, production targets and other matters that are subject to various risks and uncertainties. Actual results, performance or achievements could be significantly different from those expressed or implied by those forward-looking statements. Such forward looking statement are no guarantees of future performance and involve known and unknown risks, uncertainties, and other factors beyond the control of Firefinch that may cause actual results to differ materially from those expressed in the forward-looking statements in this announcement.



Firefinch (ASX: FFX) is a gold miner focussed on the Morila Gold Mine in Mali. Morila is one of the world’s great open pit gold mines, having produced over 7.5 million ounces of gold since 2000 at grades that were among the highest in the world, earning it the moniker “Morila the Gorilla”. With a 17.61% retained stake in Leo Lithium, partners in the Goulamina Lithium Project, Firefinch also has exposure to lithium.

Firefinch acquired the Morila Gold Project in late 2020 and set about reviving the great mine which was slated for closure by its previous owners, mining majors Barrick and AngloGold. Firefinch has invested heavily to return Morila to full production.

Morila’s current Global Resource for the Project is 3.58 million ounces of gold (Measured: 10.7 million tonnes at 1.65g/t gold for 0.6 million ounces of gold, Indicated: 49.5 million tonnes at 1.38g/t gold for 2.2 million ounces of gold and Inferred: 13.2 million tonnes at 1.91g/t gold for 0.8 million ounces of gold). However, the limits of the Morila Deposit have not been defined or closed off. Firefinch aims to materially expand resource and reserves through drilling and exploration.

Firefinch is a responsible miner and we endeavour to make a difference to our local communities on multiple levels; by providing a safe and rewarding workplace, following best environmental practices and contributing economic benefits regionally by employing and buying locally.

The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources at the Morila Gold Project. The Company also confirms that all material assumptions and parameters underpinning the Mineral Resource estimates continue to apply and have not materially changed. Please refer to ASX Announcements of 8th February 2021, 31st March 2022 and 31st August 2022 (Morila Resource), 24th November 2020, 3rd May 2021, 10th August 2021 and 25th March 2022 (N’Tiola, Viper, Domba, Beledjo, Morila Pit 5).

APPENDIX 1: MINERAL RESOURCES FOR THE MORILA GOLD PROJECT

Deposit	Measured			Indicated			Inferred			Total		
	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)	Tonnes (millions)	Grade (g/t)	Ounces ('000)
Morila Pit ¹	10.7	1.65	566	44.3	1.41	2,009	3.79	0.99	121	58.8	1.43	2,696
Morila UG ²							7.88	2.51	636	7.88	2.51	636
N'Tiola ⁴				2.51	1.03	83	0.35	1.03	12	2.90	1.03	95
Viper ⁴				1.86	1.21	72	0.69	1.12	25	2.55	1.19	97
Domba ⁵				0.20	1.75	11	0.25	1.61	13	0.46	1.67	25
Beledjo ⁴				0.65	1.04	22	0.28	0.94	8	0.93	1.01	30
Total	10.7	1.65	566	49.53	1.38	2,198	13.24	1.91	814	73.44	1.52	3,579

¹ The Morila Open Pit resource is quoted using a 0.4g/t gold cut-off grade.

² The Morila Underground resource is quoted using a 1.8g/t gold cut-off grade.

³ The Tailings resource is quoted using a 0.3g/t gold cut-off grade.

⁴ The N'Tiola, Viper, Pit 5 and Beledjo resources are quoted above cut-off grades based on forecast costs (0.35 – 0.48g/t).

⁵ The Domba resource is quoted using a 0.5g/t gold cut-off grade.

⁶ Numbers in the above table may not appear to sum correctly due to rounding.

Competent Persons Declaration

The information in this announcement that relates to the Mineral Resources and underpinning the Production Target is based on information compiled by Mr Kerry Griffin. Mr Griffin is an employee of Firefinch Limited and a member of the Australian Institute of Geoscientists. Mr Griffin has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code. Mr Griffin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

APPENDIX 2: JORC CODE, 2012 EDITION – TABLE 1
EXPLORATION RESULTS & MINERAL RESOURCES, MORILA GOLD PROJECT, MALI

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Samples were collected using diamond core (DD) drilling and reverse circulation (RC) drilling. For DD drilling half core samples were collected an approximately 1 metre intervals with the entire sample crushed and pulverised at an external laboratory prior to sub sampling for assay. The core size for the mineralised intervals was NQ2 (50.6mm diameter). For RC drilling samples were on one metre intervals using a ~140mm bit. The entire sample is collected from the cyclone on the rig in plastic bags and then split by hand using a riffle splitter to collect a sample for analysis of between 2 and 3 kg in a prenumbered cotton sample bag. At the laboratory the entire sample is pulverized and a 30g charge is collected for fire assay/AAS analysis.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> Diamond drilling has been completed using conventional wireline diamond drilling techniques. HQ drilling (63.5mm diameter) was undertaken in the weathered profile. Once competent rock was encountered NQ2 (50.6mm) diameter drilling was used to continue the holes. RC drilling used a face sampling bit with a nominal 5.5" hole diameter.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Core recoveries were measured run by run and average 99.7% over the hole, with recoveries of 100% in the interval reported. Standard techniques are used to ensure all core is recovered from drilling. RC recoveries for the primary sample were observed and estimated qualitatively, with the sub samples weighed as a quantitative measure. The entire RC sample was collected from the cyclone and subsequently split by hand in a riffle splitter to maximise representivity.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> No relationship exists between sample recovery and grade in the results reported.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Drill core and RC chips have been geologically logged in their entirety by geologists. The logs are sufficiently detailed to support Mineral Resource estimation. Logged criteria included lithology, alteration, alteration intensity, weathering, grainsize and sulphides. Geological logging is qualitative in nature although percentages of sulphides and veins are estimated along with structural measurements.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> For core drilling, core was split into halves using a diamond saw, unless soft, in which case a chisel was used. The core was sampled at approximately 1m intervals (taking care to observe contacts and other geological features) then placed in a cloth bag and submitted to an external laboratory. RC samples are either split using a cone or riffle splitter mounted on the rig or split by hand using a stand-alone riffle splitter. These techniques are appropriate for collecting statistically unbiased samples. Samples are weighed to ensure a sample weight of between 2 and 3 kg. Samples of between 2 and 3 kg are considered appropriate for determination of contained gold using the fire assay technique. All techniques were appropriate for collecting statistically unbiased samples. Certified reference standards, Blanks, and duplicates are inserted into the sample stream as the samples are collected at a rate of 10%. Field duplicates are inserted every 20 samples. Blanks (derived from unmineralized river sand) and Certified reference material standards (CRMs) are inserted alternately every 20 samples. Both duplicates (two aliquots of 50g from the same 200g sub sample) and replicates (two samples from the same raw sample) were used to test the laboratory precision (repeatability) and the homogeneity of the sample respectively.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors 	<ul style="list-style-type: none"> DD samples were analysed for gold at the laboratory at Morila. The laboratory is located on site but is operated by MSALABS, an independent third party. Sample preparation comprised of the following: <ul style="list-style-type: none"> drying all samples and crushing (for core samples).

Criteria	JORC Code explanation	Commentary
	<p><i>applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> • <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> ○ Pulverise entire sample to 95% passing 75 microns (all samples). ○ A 30g sub sample analysed by fire assay with AAS finish. • QA/QC programme comprises Certified Reference Materials, replicates, duplicates, and blanks. • Laboratory checks include <ul style="list-style-type: none"> ○ Every 50th sample is screened to confirm % passing 2mm and 75 microns. ○ 1 reagent blank every 84 samples ○ 1 preparation blank every 84 samples ○ 2 weighed replicates every 84 samples ○ 1 preparation duplicate (re split) every 84 samples ○ 3 SRMs every 84 samples ○ Certified reference standards, Blanks, and duplicates are inserted into the sample stream as the samples are collected at a rate of 10%. • Field duplicates are inserted every 20 samples. • Blanks (derived from unmineralized river sand) and Certified reference standards (CRMs) are inserted alternately every 20 samples. • Replication (two samples from the same raw sample) and duplication (two aliquots from the same sub-sample) tests were also carried out by the laboratory.
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Firefinch drill hole data was compiled and digitally captured by Company geologists at the drill rig. Drilling and sampling procedures have been developed to ensure consistent sampling practices are used by site personnel. • All drilling and exploration data are stored in the company database which is hosted by an independent geological database consultant. The compiled digital data is verified and validated by the consultant before loading into the database. • QAQC reports are generated regularly to allow ongoing reviews of sample quality. • Twinned holes were not used to verify results, infill drilling has been used to increase confidence.
Location of data points	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • Drill hole collars are located using DGPS or RTK GPS. • Down hole dip and azimuth are collected using a Gyro measuring every 20 to 50m for RC drilling. • Coordinates are recorded in UTM WGS84 29N and Morila PT58 grid. • Topographic control is maintained by the

Criteria	JORC Code explanation	Commentary
		Morila mine survey department with a mixture of survey pickups and aerial data and is considered adequate for mine planning purposes.
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Drilling data is at sufficient spacing to establish grade and geological continuity and define a Mineral Resource. • No sample compositing has been applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • Mineralisation at Morila is hosted in a sequence of relatively flat lying stacked veins located 70 - 700m below surface. Drilling is generally vertical or steeply dipping, resulting in intersection angles on the mineralised zone being almost perpendicular. • The relationship between drilling orientation and structural orientation is not thought to have introduced a sampling bias.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Samples are delivered from the drilling site in batches for each drill hole to the laboratory with appropriate paperwork to ensure the chain of custody is recorded.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • QAQC checks of individual assay files are routinely made when the results are issued. • A QAQC report for the entire program is generated and reviewed to document any laboratory drift or assay bias.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Morila, N'Tiola and Viper Deposits lie within the Morila license (PE 99/15) which is owned by Société des Mines de Morila SA, a Malian registered company with 80% held by Firefinch and 20% held by the Malian Government.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Focused systematic regional exploration of the Morila area began in the mid 1980s. Soil anomalies were followed up in the early 1990s by BHP through limited diamond drilling which intersected ore grade mineralisation. Subsequent acquisition of the permit by Randgold Resources Ltd. in the late 1990s resulted in renewed exploration activity. Trenching was carried out across the oxide outcrop of the orebody with the "Discovery Trench" intersecting 8.90 g/t over 209 metres. This was followed by the completion of 178 diamond holes to define a maiden Mineral Resource. Based on a positive feasibility study, construction was initiated in mid 1999. Commissioning of the plant began on the 4th October 2000 and first gold was poured on 16th October 2000. Anglogold Ashanti became a JV partner in the project at the construction phase and was the manager of the operation until February 2008, when Randgold resumed operational responsibility for the project. Randgold was acquired by Barrick Gold in a US\$6.5 billion transaction which completed in January 2019.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Morila permit is situated in the northern portion of the West African craton between the NNE trending Birimian volcano-sedimentary belts of Kalana-Yanfolila and Syama. The region is underlain predominantly by Lower Proterozoic meta-volcanic and meta-sedimentary sequences (Birimian) and large areas of granitoids. The whole package of rocks has been deformed by the Eburnean Orogeny. The permit area locates along a contact between Birimian metasediments and the Eburnean granitoids. The Morila orebody is developed within upper greenschist to amphibolite facies of pelitic and psammitic rocks. Their mineralogy is

Criteria	JORC Code explanation	Commentary
		<p>dominated by biotite (30%), plagioclase (30%) and quartz (30%).</p> <ul style="list-style-type: none"> • The package has been intruded to the southwest by a tonalite body similar in composition to the Morila sediments. The sediments have been locally metasomatised by the tonalite to produce a feldspar porphyroblastic texture. • Arsenopyrite is generally associated with mineralisation and is by far the most dominant sulphide (80%) followed by lesser amounts of pyrrhotite (15%) and pyrite (5%) The pyrrhotite is ubiquitous throughout the metasediments and occurs as irregular grains which often contain inclusions of chalcopyrite. It is not uncommon for visible gold to be present. • Gold mineralisation is predominantly associated with coarse arsenopyrite, occurring as individual grains on arsenopyrite grain boundaries or as intergrowths or as free gold in a silicate mineral matrix in the proximity of arsenopyrite grains. A small percentage of the gold occurs as inclusions within the sulphides and occasionally the gold is locked within silicate minerals (<5%). • Mineralisation is hosted in a sequence of relatively flat lying stacked veins located 70 - 130m below surface. Mineralisation does steepen due to shearing and faulting in certain places. • Various theories have been derived for the genesis of mineralisation at Morila and several internal and academic studies have been completed and published. Most agree that the key factors influencing the location of mineralisation are competency contrasts in the host sediments (fine grained vs coarse grained), fluid and heat from proximal granitoids, and proximity to regional structures. • Surficial geology within the project area typically consists of indurated gravels forming plateau, and broad depositional plains consisting of colluvium and alluvial to approximately 5m vertical depth. Lateritic weathering is common within the project area. The depth to fresh rock is typically 35m vertical.

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> All drill hole information from Firefinch and historical drilling has been extensively detailed in Appendix 2 and previous ASX Announcements. The Company confirms that there are no material changes to any of the information previously released.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> All intersections have been weighted based on sample intervals, which are approximately 1m in length. Top cuts have not been used. Metal equivalent grades have not been stated.
Relationship between mineralisation on widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’). 	<ul style="list-style-type: none"> Mineralisation is relatively flat lying with drilling being generally vertical, with some holes oriented -70 degrees to the west. Due to the attitude of the orebody intersection angles on the mineralised zone are at a high angle and almost perpendicular but further data will be required to determine true width.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Appropriate maps and sections are provided in the text
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> All drillhole intersections have been reported.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> The Morila Project has been in operation since 2000 with exploration activities completed prior to that. As a consequence there is a large quantity of data including exploration data (geochemical and geophysical surveys, trenching, drilling), production data (grade control drilling, mining and processing), as well as associated data such as environmental and geotechnical, which is used in the exploration and development of the project. None of this information is meaningful or material for the current release.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> As detailed in the text

Section 3. Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> All drilling and exploration data are stored in an SQL database hosted by an independent geological database consultant. Logging and sampling data are collected using datasheets and validated on completion of logging then on import into the database. Data was subsequently validated upon import into the modelling software. The Competent Persons have reviewed the database via import into Micromine & Surpac and visual checks against the model and other data provided.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Person has visited Morila and reviewed available material including drill data, sections, assay records and core, as well as completing site and plant tours.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. 	<ul style="list-style-type: none"> The Morila deposit is an extensively studied body of mineralisation which has been drilled to a relatively close spacing in and around the open pit limits; as a consequence, the geological interpretation of the mineralisation envelope has a relatively high degree of confidence. The distribution of high grades within the mineralisation envelope is well mapped but is less well understood, despite various studies.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The factors affecting continuity both of grade and geology.</i> 	<p>This is unlikely to materially affect the Mineral Resource estimate and is more of interest in targeting extensions to or repetitions of mineralisation.</p> <ul style="list-style-type: none"> The open pit clearly shows the complex structural controls on the mineralisation mined to date. The global architecture appears to be grossly domal, with the pit at the antiformal crest of the system, and the peripheral veining dipping away from the pits. Data analysis showed that there appears to be a natural cut-off between background and anomalous mineralisation of 0.2 g/t gold. Using this natural cut-off discrete intervals were delineated to produce geologically coherent vein models of each mineralised domain, with non mineralised lithologies such as greywacke and tonalite excluded. Using this method, the average interpreted mineralisation thickness is reasonably consistent.
Dimensions	<ul style="list-style-type: none"> <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i> 	<ul style="list-style-type: none"> The lateral dimensions of the Morila Mineral Resource are 1,800m north, 2,100m east, with a distinct northwest extension from the current pit due to the interpreted Samacline lodes. The resource extends from near surface adjacent to the pit to 700m below surface in the Samacline region. The dimensions of the mined pit are approximately 1,300m x 800m and averages 170m deep.
Estimation and modelling techniques	<ul style="list-style-type: none"> <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> 	<ul style="list-style-type: none"> The resource models were produced using GEOVIA Surpac software based on 1m sample composites constrained by the mineralised lode wireframes produced using Leapfrog Software. Grades were estimated into 10m x 10m x 2.5m using Ordinary Kriging techniques inside wireframes generated from geological interpretation. This block size is consistent with the selective mining unit previously used at these deposits and likely to be used again. Mineralisation zones were modelled as hard boundaries with search ranges and orientations determined for larger, well informed lodes with the aid of kriging neighbourhood analysis. Grades were estimated into 10m by 10m by 2.5m blocks per estimation zone using top-cut ordinary kriging inside wireframes generated using Leapfrog Software. Primary search volumes ranged from 45m to 410m in the mineralised plane, with dynamic anisotropy ellipsoidal searches used. The same approach

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<p>was applied to the remaining areas even though data spacing widens rapidly. Four expanding search passes were applied to ensure all mineralised volumes were informed with a grade estimate.</p> <ul style="list-style-type: none"> • Top-cuts were assigned by lode using combined analysis of the log probability curves and estimates of the coefficient of variation (CV) by lode. Top-cuts varied between 5 and 100 g/t gold. Some lodes did not require top-cutting. • Deleterious elements such as organic carbon are not present at the Morila Deposit. • Small quantities of silver are recovered as by-products in the refining process; however, these are not significant enough to warrant inclusion in the resource nor is there sufficient assay data to inform such an estimate. • Previous resource estimates have been completed for the Morila deposit and interpretation and conclusions from these estimates have been incorporated for the current resource estimate, in particular the February 2021 MRE. • Previous resource estimates were reconciled with grade control and production records on a regular basis. As further resource and grade control drilling is completed on the current model delineation of domains will become practical which will enable future models to be reconciled in more detail.
Moisture	<ul style="list-style-type: none"> • Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> • Tonnages have been estimated on a dry in situ basis.
Cut-off parameters	<ul style="list-style-type: none"> • The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> • The cut off grade for the potential open pitable resource is based on open pit optimisation of the Mineral Resource in accordance with RPEEE principles. Costs used in this were derived from the long term mining, processing and G&A costs for the Morila operation. A revenue factor of 1 was used based on a gold price of US\$1800/oz. • For the potential underground resources an order of magnitude estimate of likely operating costs was generated and compared with similar operations globally to arrive at the cut off grade. The Company intends to complete a detailed economic study which can then be used to refine the cut off grade for future resources.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> The resource model assumes that open cut mining is the extraction technique, with a similar level of mining selectivity achieved as in previous mining. It is assumed that grade control techniques and procedures will mirror those which were successful during previous mining operations at Morila. Parameters for the underground resources were evaluated on the basis of appropriate stope dimensions and associated dilution. The underground resources will require further mine design work to confirm the appropriate underground mining method and consequently refine the cut off grade and other parameters for these resources.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<ul style="list-style-type: none"> Metallurgical recoveries have been assumed to be the same as the current processing plant recoveries.
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> No assumptions have been made regarding environmental factors. The Company will work to mitigate environmental impact as a result of any future mining or mineral processing.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that 	<ul style="list-style-type: none"> Relative density measurements were completed on 4,161 samples of core taken at 5m downhole intervals for oxides and 10m intervals for sulphides. The core was divided into oxide, transitional and sulphide core. Relative density determinations on core used the weight in air/weight in water method. In-situ bulk density tests were carried out on

Criteria	JORC Code explanation	Commentary
	<p><i>adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></p> <ul style="list-style-type: none"> • <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<p>each ore blast from 2002 onwards. The water displacement method was used.</p>
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> • <i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> • The resource for the Morila Deposit was classed as Measured, Indicated and Inferred based on data quality, geological confidence and sample spacing. • Measured Resources are assigned in areas of very good geological understanding, where the blocks estimated fall within 1/3 of the variogram range and within the first variogram structure, are estimated with a minimum of six drillholes and have a slope of regression greater than 0.80, kriging efficiency of 0.50 or better and kriging variation of less than 0.30. • Indicated Resources are assigned in areas of good geological understanding, where the blocks estimated fall within 2/3 of the variogram range, are estimated with a minimum of four drillholes and have a slope of regression greater than 0.40. • Inferred Resources are assigned in areas of reasonable geological understanding, where the blocks estimated fall within 1 variogram range and are estimated with a minimum of two drillholes. • The resource estimate appropriately reflects the view of the Competent Persons, that the data quality and validation criteria, as well as the resource methodology and check procedures, are reliable and consistent with criteria as defined by the JORC Code.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • No audits or review of the Mineral Resource estimate has been conducted.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> • <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> • <i>The statement should specify whether it relates to global or local estimates,</i> 	<ul style="list-style-type: none"> • The Mineral Resource statement relates to global estimates of tonnes and grade. Local accuracy is dependent on local data spacing. Drill spacing is good around the pit limits but inadequate for local grade estimation elsewhere.

Criteria	JORC Code explanation	Commentary
	<p><i>and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <ul style="list-style-type: none">• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	