

# **NEWS RELEASE**

# PERSEUS EXTENDS LIFE OF YAOURÉ GOLD MINE TO 2035

**Perth, Western Australia/September 18, 2023/**Perseus Mining Limited (ASX/TSX: PRU) is pleased to announce an updated Life of Mine Plan ("**LOMP**") for its Yaouré Gold Mine in Côte d'Ivoire, West Africa ("**Yaouré**").

# **HIGHLIGHTS**

- Perseus has extended Yaouré's operational life to 12+ years (to at least 2035), with potential for further
  extension through additional discoveries adjacent to existing infrastructure and further resource
  definition drilling of known deposits, including the Yaouré open pit and CMA underground ("CMA UG")
  structure.
- Yaouré's updated LOMP incorporates for the first time an UG mining operation below the CMA Open Pit, as well as the existing CMA Open Pit and an expanded Yaouré Open Pit.
- Yaouré Gold Mine **Ore Reserves**<sup>1,2</sup> now total 37.2 million tonnes of ore grading 1.73 g/t gold, containing **2.07 million ounces of gold** from open pits and underground.
- Updated **Measured and Indicated Mineral Resources**<sup>1</sup> are estimated at 54.7 million tonnes grading 1.59 g/t gold, containing **2.80 million ounces** of gold. **Inferred Resources**<sup>1</sup> are estimated at 11.3 million tonnes, grading 1.9 g/t gold, containing **0.70 million ounces** of gold.
- CMA UG Ore Reserves are based on drilling to 185m below the base of the CMA open pit, with Inferred
  Mineral Resources extending to 350m below the base of the pit and remaining open down plunge and
  at depth.
- Key parameters arising from the revised LOMP for Yaouré Gold Mine are as follows:

Key Parameters	Units	Annual Average FY24 – FY29	Annual Average FY30 – FY35	September 2023 LOMP <sup>1,2</sup>
Total Ore + waste mined	Mt	28.6	1.04	176.4
Strip ratio	t:t	4.7 : 1	0.2:14	3.8:1
Ore processed	Mt	3.5	3.4	41.9
Head grade	g/t gold	2.0	1.1	1.58
Gold recovery rate	%	91.6	89.8	90.8
Gold production	Moz	0.210	0.110	1.93
Production costs	US\$/oz	949	1,002	969
Royalty <sup>3</sup>	US\$/oz	87	85	86
Sustaining capital	US\$/oz	68	47	61
Average All-in site costs	US\$/oz	1,104	1,134	1,116
CMA UG pre-production & ongoing mine development <sup>5</sup>	US\$M	98.8	5.3	104.1
CMA UG infrastructure	US\$M	27.6	-	27.6
CMA UG Development Capital	US\$M	126.34	5.3	131.7

#### Notes:

- 1. For detailed disclosures on updated Mineral Resources and Ore Reserves estimates refer to ASX Release "Perseus Mining Announces Open Pit and Underground Ore Reserve Growth at Yaouré", dated 23 August 2023. Mineral Resources are inclusive of Ore Reserves.
- $2. \quad \text{Assumes gold price of US$1,500/oz for Reserve calculation in September 2023 LOMP.} \\$
- 3. Assumes a flat gold price of US\$1,700 /oz for royalty calculation in September 2023 LOMP.



- 4. CMA UG Mining in September 2023 LOMP ends in FY34 hence average is calculated over 5 years FY30 to FY34.
- 5. All CMA UG Mining costs are capitalised in accordance with IFRS up to declaration of Commercial Production in H2 FY27.

#### Perseus's Managing Director and CEO Jeff Quartermaine said:

"Our increase to the life of Yaouré Gold Mine to 12+ years announced today ensures Yaouré will continue to be an important part of Perseus's geopolitically diverse asset portfolio for many years to come and will enable us to continue delivering on our Corporate Mission of generating material benefits for all of our stakeholders, including our host governments and communities.

When Perseus acquired Yaouré as a development project in 2016, the possibility of extending the life of the mine through development of an underground operation was not part of the plan. However, our discovery, and subsequent engineering and planning, that has led to today's announcement, bears testament to Perseus's in-house ability to create significant value through organic growth.

An underground mine planned for Yaouré, will be Perseus's first foray into underground mining, with all previous operations having been open cut operations. While the underground mine represents a new style of mining and a new challenge for us as a company, it is certainly not new to many of our technical team members, who are very keen to demonstrate their skills in an underground mining setting.

With the prospect of further extending the mine life through further exploration success, we expect that the Yaouré Mine will live up to its reputation as one of the leading mines in Côte d'Ivoire, if not in all of West Africa."

# **OVERVIEW OF YAOURÉ**

Yaouré is located in a rural area in central Côte d'Ivoire, West Africa, on the southern edge of Lake Kossou, 35 km north-west of the capital city of Yamoussoukro and 25 km east-north-east of the city of Bouaflé. The Kossou hydroelectric power station is located 6 km east of the mine site, while the villages of Angovia and Allahou-Bazi are adjacent to the mine site.

Perseus Mining poured first gold at the Yaouré Gold Mine in December 2020, becoming its third operation. Perseus declared commercial production at Yaouré in March 2021. Since 2020, ore at Yaouré has primarily been mined from the CMA open pit, with some contributions from minor satellite pits. CMA open pit stage 2 and stage 3 cutbacks are due to be completed during FY24 and FY25 financial years respectively, whereafter mining will move on to satellite pits and the recently expanded Yaouré open pit.

Perseus recently completed a CMA UG feasibility study (see ASX release dated 23 August 2023), proving the technical and economic viability of underground mining of the CMA orebody, down dip and down plunge of the stage 3 CMA open pit. Underground mining of the CMA orebody is expected to begin in early FY26, once all related approvals have been received.

Consistent with current operations at Yaouré, the LOMP calls for ore to be transported from various sources to the existing Yaouré processing plant. Waste is taken to a primary, large waste dump located to the west of the site, as well as to several supplementary waste dumping locations across the Yaouré lease. Tailings from the process plant are stored in a single, HDPE lined, tailings storage facility located to the south of the process plant.

Most of Yaouré's workforce live in five local communities located near the mine site. An on-site camp accommodates those who are not local residents. This camp will be substantially expanded (+75 senior and +14 junior rooms) to accommodate an underground workforce concurrent with the open pit operations. Infrastructure upgrades relating to underground mining, including establishment of underground offices and workshops, additional local high voltage power reticulation and processing plant engineering upgrades have been accounted for in the LOMP.



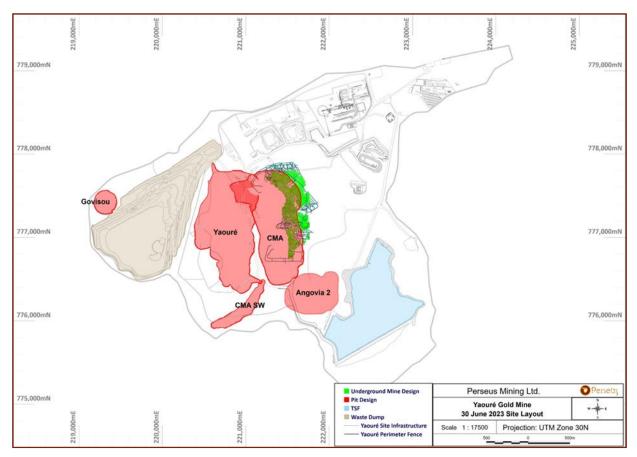


Figure 1: Yaouré Gold Mine Layout

# MINERAL RESOURCES AND ORE RESERVES SUMMARY

For further detail on Yaouré's Mineral Resources and Ore Reserves, please refer to Perseus's ASX release, Perseus Mining Announces Open Pit and Underground Ore Reserve Growth at Yaouré, dated 23 August 2023. *Table 1* to *Table 3* below summarise the currently estimated Mineral Resources and Ore Reserves for the Yaouré Gold Mine.

Table 1: Yaouré Gold Mine Measured & Indicated Mineral Resources 9,10,11

DEPOSIT	DEDOCIE TUDE	MEASU	RED RESOU	RCES	INDICAT	TED RESOURCES		MEASURED & INDICATED RESOURCES		
DEPOSIT	DEPOSIT TYPE DEPOSIT TYPE	QUANTITY	GRADE	GOLD	QUANTITY	GRADE	GOLD	QUANTITY	GRADE	GOLD
	Mt	g/t gold	'000 oz	Mt	g/t gold	'000 oz	Mt	g/t gold	'000 oz	
CMA <sup>1,3,4,6</sup>	Open Pit	-	-	-	16.7	1.32	710	16.7	1.32	710
Yaouré <sup>2,3,4,6</sup>	Open Pit	-	-	-	19.2	1.27	784	19.2	1.27	784
Satellite deposits <sup>5,6</sup>	Open Pit	-	-	-	6.6	0.97	206	6.6	0.97	206
Sub Total		-	-	-	42.6	1.24	1,700	42.6	1.24	1,700
CMA <sup>8</sup>	Underground	-	-	-	7.3	4.17	976	7.3	4.17	976
Heap Leach <sup>3,7</sup>	Stockpile	-	-	-	0.4	0.61	8	0.4	0.61	8
Stockpiles	Stockpile	4.4	0.84	119	-	-	-	4.4	0.84	119
TOTAL		4.4	0.84	119	50.3	1.66	2,684	54.7	1.59	2,804

Table 2: Yaouré Gold Mine Inferred Mineral Resource<sup>9,10</sup>

		II II	IFERRED RESOUR	RCES
DEPOSIT	DEPOSIT TYPE	QUANTIT	Y GRADE	GOLD
		N	t g/t gold	'000 oz
CMA <sup>1,3,4,6</sup>	Open Pit	2.	6 0.7	58
Yaouré <sup>2,3,4,6</sup>	Open Pit	3.	0 1.3	124



		INFERRED RESOURCES			
DEPOSIT	DEPOSIT TYPE	QUANTITY	GRADE	GOLD	
		Mt	g/t gold	'000 oz	
Satellite deposits 5,6	Open Pit	1.3	0.8	34	
CMA <sup>8</sup>	Underground	4.4	3.4	485	
TOTAL		11.3	1.9	701	

#### Notes:

- 1. Based on June 2022 Mineral Resource estimate.
- 2. Based on June 2023 Mineral Resource estimate.
- 3. Depleted for previous mining and to 30 June 2023 mining surface.
- 4. 0.4 g/t gold cut-off applied to in situ open pit material.
- 5. Based on Angovia 2 April 2021, Govisou June 2022, and CMA SW August 2022 Mineral Resource models.
- 6. In situ open pit resources constrained to US\$1,800/oz pit shells.
- 7. Heap leach resources are stated at 0 g/t gold cut-off; only heap leach components with average grade above 0.4 g/t included.
- 8. June 2023 Mineral Resource estimate, below Stage 3 pit and above 1.5 g/t block grade cut-off.
- 9. Mineral Resources current as of 30 June 2023.
- 10. Rounding of numbers to appropriate precision may result in summary inconsistencies.
- 11. Mineral Resources are reported inclusive of Ore Reserves.

Table 3: Yaouré Gold Mine Ore Reserves<sup>5,6</sup>

			PROVED		PROBABLE			PROVED + PROBABLE		
DEPOSIT	DEPOSIT TYPE	QUANTITY	GRADE	GOLD	QUANTITY	GRADE	GOLD	QUANTITY	GRADE	GOLD
		Mt	g/t gold	'000 oz	Mt	g/t gold	'000 oz	Mt	g/t gold	'000 oz
CMA <sup>1,2</sup>	Open Pit	-	-	-	11.9	1.81	692	11.9	1.81	692
Yaouré <sup>2,3</sup>	Open Pit	-	-	-	11.8	1.49	565	11.8	1.49	565
Satellite deposits <sup>2,3</sup>	Open Pit	-	-	-	4.1	1.03	137	4.1	1.03	137
Sub-Total		-	-	-	27.8	1.56	1,394	27.8	1.56	1,394
CMA <sup>4</sup>	Underground	-	-	-	4.9	3.51	559	4.9	3.51	559
Stockpiles	Stockpile	4.4	0.84	119	-	-	-	4.4	0.84	119
TOTAL		4.4	0.84	119	32.8	1.85	1,953	37.2	1.73	2,072

#### Notes:

- 1. Based on depletion to 30 June 2023 mining surfaces.
- 2. Variable gold grade cut-offs for each material type, ranging from 0.35 g/t to 0.75 g/t.
- 3. Pit designs are based on US\$1,300/oz gold price for satellites and US\$1,500/oz for CMA and Yaouré open pit.
- 4. Based upon cut-off for development and stoping of 0.5 g/t and 2.5 g/t.
- 5. Inferred Mineral Resource is considered as waste for optimisation purposes.
- 6. Rounding of numbers to appropriate precision may have resulted in apparent inconsistencies.

### LIFF OF MINF PLAN

Perseus's updated LOMP for Yaouré is based upon detailed mining and processing schedules for the current Yaouré Gold Mine, combined with feasibility-level studies of the CMA UG. The key parameters for the LOMP are summarised in *Table 4*, along with a comparison against the last published Yaouré LOMP, released in August 2021.

Open pit mining cost estimates in the updated LOMP are based on contracted prices provided by the Spanish mining contractor, EPSA, which has been carrying out mining activities on site since mining operations started in the September 2020 quarter. Where LOMP activities are within existing contracts, those rates have been used, otherwise current rates have been extrapolated to accommodate new waste dump and open pit material sources and destinations. EPSA currently perform the full mining, drilling and grade control service required at Yaouré. Explosive costs are based on the contracted prices provided by a subsidiary of the EPC Groupe, the existing explosives supplier at Yaouré.

Costs for CMA UG include contractor pricing estimates, capital costs generated by Perseus based upon experience in West Africa, and supplier cost quotes to feasibility level. Where possible, known costs from the Yaouré Gold Mine were included in the CMA UG study, including for local labour, site-based costs and consumables common to the underground and the existing open pit operation (such as diesel).

Gold recovery rates and processing costs are based on actual costs incurred and gold recoveries achieved, since processing of ore commenced in the December 2020 quarter, combined with forward projections based on a comprehensive metallurgical test work program for the CMA UG and supplementary ore sources which have not yet been processed. All processing assumptions are estimated to feasibility level. Processing operating costs include costs associated with all consumables including maintenance, electricity, fuel, labour and other processing overheads.



General & Administration ("G&A") and other costs are based on actuals and budget projections. G&A operating costs include all labour costs, Abidjan regional office costs, human resource, administration costs as well as all costs associated with the management of the environment, occupational health and safety, security, government and community relations, general administration including insurances and other contracts.

Sustaining capital costs include staged lifting of the TSF, closure costs, land and crop compensation, contractor demobilisation, and plant modifications. The total sum estimated for sustaining capital is US\$117 million, which equates to US\$61 per ounce, compared to US\$36 per ounce in 2021. The major variances are the increase in land compensation, waste dump construction and relocation of a tailings pipeline to make way for expanding operations activities.

Development capital includes underground development up until Commercial Production rates of 50 ktpm are achieved. The underground development and mobilisation accounts for US\$112.4 million of the overall LOMP development capital. Total development capital for the CMA UG is US\$131.7 million.

Table 4: LOMP Key Parameters

	Units	August 2021	September 2023	Annual Average	Annual Average	
	Offics	LOMP	LOMP	FY24 – FY29	FY30 - FY35	
Open Pit Mining						
Total ore + waste mined	Mt	158.8 <sup>1</sup>	170.0 <sup>1</sup>	28.1	1.74	
Vaste mined	Mt	129.9 <sup>1</sup>	138.2 <sup>1</sup>	22.9	1.14	
Ore mined	Mt	28.9 <sup>1</sup>	31.81	5.2	0.64	
Mined grade	g/t gold	1.71 <sup>1</sup>	1.32 <sup>1</sup>	1.4	1.84	
Strip ratio	t:t	4.6:11	4.3:11	5.0:1	1.8:14	
Jnderground Mining						
otal ore + waste mined	Mt	-	6.4	$0.8^{6}$	0.75	
Vaste mined	Mt	-	1.4	$0.3^{6}$	0.15	
Ore mined	Mt	-	4.9	$0.4^{6}$	0.65	
Mined grade	g/t gold	-	3.51	$3.4^{6}$	3.5 <sup>5</sup>	
Processing						
Quantity ore processed	Mt	28.9	41.9	3.5	3.4	
Head grade processed	g/t gold	1.71	1.58	2.0	1.1	
Contained gold	Kozs	1,583	2,123	229	123	
Gold recovery rate	%	90.4	90.8	91.6	89.8	
Gold production	Mozs	1.43	1.93	0.210	0.110	
Operating Costs						
Average open pit mining costs	US\$/t mined	2.83 <sup>2</sup>	3.93 <sup>2</sup>	3.76	10.14	
Average CMA UG mining costs	US\$/t mined	-	55.08 <sup>2</sup>	38.3	70.65	
Average processing costs	US\$/t processed	10.60	13.23	13.91	12.61	
Average G&A costs	US\$/t processed	6.01	7.05	7.41	6.73	
Production costs	US\$/oz	649	969	949	1,002	
Royalty <sup>3</sup>	US\$/oz	60	86	87	85	
Sustaining capital	US\$/oz	36	61	68	47	
All-in site costs	US\$/oz	745	1,116	1,104	1,134	
CMA UG pre-production & ongoing nine development <sup>7</sup>	US\$M	-	104.1	98.8	5.3	
CMA UG infrastructure	US\$M	-	27.6	27.6	0	
UG Development Capital	US\$M	-	131.7	126.4	5.3	



#### Notes:

- 1. Includes all ore and waste mined ex-pit plus ore drawn from stockpiles and Heap Leach pads.
- 2. Excludes pre-strip, pre-Commercial Production UG mining and capital development costs which have been capitalised.
- 3. Assumed gold price of US\$1,500/oz for the LOMP (2021), and US\$1,700/oz for the LOMP (2023)
- 4. Open Pit Mining scheduled to end in FY30 hence average reflects 1 year of Open Pit Mining operations in FY30.
- 5. CMA UG Mining in the LOMP (2023) ends FY34 hence the average is calculated over 5 years FY30 to FY34
- 6. UG Development is scheduled to commence FY26 hence average is calculated over 4 years FY26 to FY29
- 7. All CMA UG Mining costs are capitalised in accordance with IFRS up to declaration of Commercial Production in H2 FY27

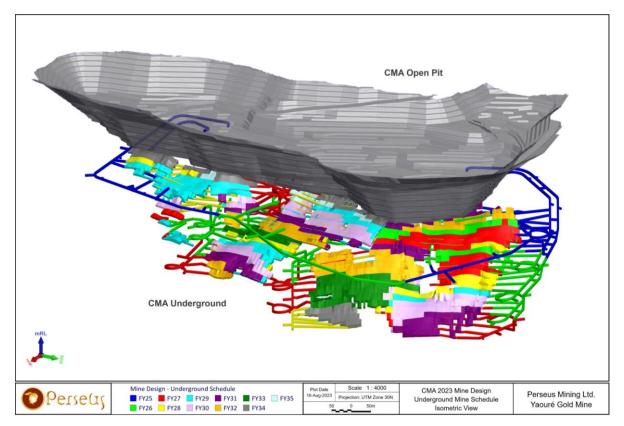


Figure 2: CMA Underground Mining Schedule

# MINING AND PROCESSING SCHEDULES

The life of the Yaouré Gold Mine has changed from planned cessation of processing in FY29 to an updated LOMP extending to the end of FY35. An average of more than 200 koz per annum is forecast to be produced over the first seven years of the LOMP until FY30.

LOMP strategy is aimed at maximising the NPV of Yaouré by optimising the mining sequence, including with respect to grade, cost, recovery and throughput. The mill feed profile has been scheduled accordingly, and annual processing throughput from 3.1 Mtpa to 3.8 Mtpa are forecast, with lower throughput coinciding with smaller grind size for the CMA UG, and increased hardness of the Yaouré open pit ore. The result of this optimisation strategy delivers solid cash flows with consistent gold production and low risk profile throughout the forecast mine life.

The Life of Mine schedule for Yaouré is based on Ore Reserve shown in *Table 3*, with the inclusion of some additional marginal mineralised material stockpiled over the course of the mine life. Ore Reserves are estimated at a gold price of US\$1,500 per ounce, while the LOMP revenue is evaluated at a gold price of US\$1,700 per ounce. Perseus LOMP are based upon Ore Reserves and therefore do not include Inferred Mineral Resources within the processing feed.



The mining production profile for Yaouré is shown in **Figure 3** below. Of note in the production profile is a production dip in FY27, which Perseus believes can be filled with additional drilling and technical work. Optimisation of the LOMP is underway, supported by additional studies and test work which is expected to substantially improve forecast production in year 4 of the plan.

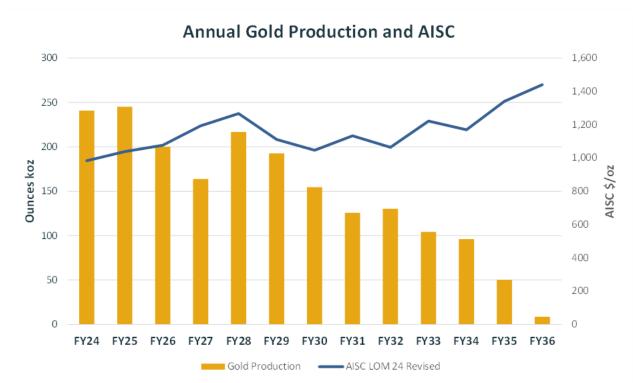


Figure 3: Yaouré Gold Mine Annual Gold Production and AISC

Yaouré LOMP ore and waste will be mined from 5 sources, including the CMA pit, Yaouré pit, CMA UG, satellite pits and stockpiles (see *Figure 4* and *Figure 5* below). LOMP open pit mining ceases in FY30, and underground mining is planned to be completed in FY34. Processing continues until the end of FY35. Resource definition drilling is underway to increase Mineral Resources and convert Ore Reserves at the CMA UG and Yaouré open pit during FY24, which are expected to further extend the LOMP.

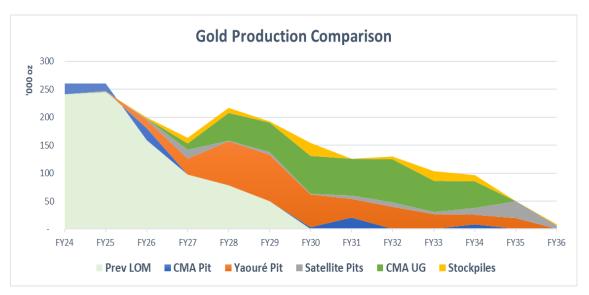


Figure 4: Yaouré Gold Mine – LOM additional ounce production contribution by ore source relative to August 2021 LOMP.



Perseus expects to produce over 1 Moz of gold from Yaouré over the next 5 years. The overall LOMP includes processing of 41.9 Mt of ore, at an average grade of 1.58 g/t, and average metallurgical recovery of 90.8%. Gold production is expected to be 1,929 koz of gold at an AISC of US\$1,116 per ounce.

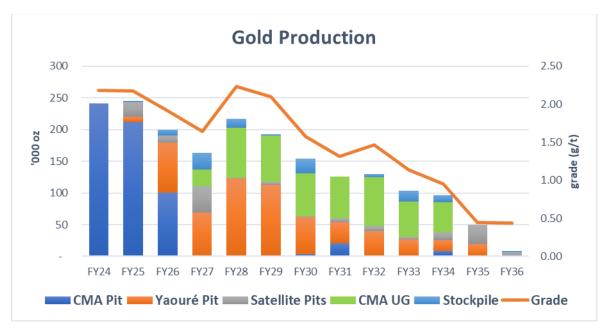


Figure 5: Yaouré Gold Mine – Annual tonnes by source and grade to mill

This announcement was authorised for release by Jeff Quartermaine, Managing Director and Chief Executive Officer



#### **Competent Person Statement:**

All production targets referred to in this report are underpinned by estimated Ore Reserves which have been prepared by competent persons in accordance with the requirements of the JORC Code.

The current Mineral Resources and Ore Reserves for the Yaouré Gold Mine have most recently been reported by the Company in a market announcement released on 23 August 2023. The Company confirms that all material assumptions underpinning those estimates and the production targets, or the forecast financial information derived therefrom, in that market release continue to apply and have not materially changed. The Company further confirms that material assumptions underpinning the estimates of Ore Reserves described in "Technical Report — Yaouré Gold Project, Côte d'Ivoire" dated 18 December 2017 continue to apply.

#### **Caution Regarding Forward Looking Information:**

This report contains forward-looking information which is based on the assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management of the Company believes to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. Assumptions have been made by the Company regarding, among other things: the price of gold, continuing commercial production at the Yaouré Gold Mine, the Edikan Gold Mine and the Sissingué Gold Mine without any major disruption, the receipt of required governmental approvals, the accuracy of capital and operating cost estimates, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used by the Company. Although management believes that the assumptions made by the Company and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. Forward-looking information involves known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, the actual market price of gold, the actual results of current exploration, the actual results of future exploration, changes in project parameters as plans continue to be evaluated, as well as those factors disclosed in the Company's publicly filed documents. The Company believes that the assumptions and expectations reflected in the forward-looking information are reasonable. Assumptions have been made regarding, among other things, the Company's ability to carry on its exploration and development activities, the timely receipt of required approvals, the price of gold, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers should not place undue reliance on forward-looking information. Perseus does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

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