

**TWO  
MINES,  
ONE  
FORCE**

**ANNUAL INFORMATION FORM**

Dated as of March 14, 2019

For the year ended December 31, 2018



INTERNATIONAL EXPERTISE®  
HUMAN ADVOCACY

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## ITEM 1 – GENERAL MATTERS

Where we say “**we**”, “**us**”, “**our**”, the “**Corporation**” or “**SEMAFO**”, we mean SEMAFO Inc. or SEMAFO Inc. and/or one or more or all of its subsidiaries, as it may apply.

This Annual Information Form (“**AIF**”) contains forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and assumptions and accordingly, actual results and future events could differ materially from those expressed or implied in such statements. You are hence cautioned not to place undue reliance on forward-looking statements. We disclaim any obligation to update or revise these forward-looking statements, except as required by applicable law. For further information regarding forward looking statements contained in this AIF, please refer to ITEM 23 – FORWARD-LOOKING STATEMENTS.

All dollar amounts contained in this AIF are expressed in US dollars unless otherwise specified.

## ITEM 2 - THE CORPORATION

### Name, Address and Incorporation

Created under the *Companies Act* (Québec) as a result of the amalgamation, effective January 31, 1994 of SEG Exploration Inc. and Orimar Resources Inc., SEMAFO is now governed by the *Business Corporations Act* (Québec) since it came into force on February 14, 2011. Having maintained the corporate name “Exploration SEG Inc.” subsequent to the amalgamation, the Corporation changed its name to “West Africa Mining Exploration Corporation Inc.” in June 1995. The Corporation further changed its name to its current name “SEMAFO Inc.” pursuant to a certificate and articles of amendment dated May 13, 1997. “SEMAFO” is the acronym of “Société d'exploration minière d'Afrique de l'Ouest”, the French version of the Corporation’s former name.

Our Corporate office is located at 100, boul. Alexis-Nihon, 7th Floor, Saint-Laurent, Québec, Canada, H4M 2P3. The addresses of our principal subsidiaries may be found under ITEM 21 – ADMINISTRATIVE OFFICES.

We are a reporting issuer in Québec, Ontario, Alberta and British Columbia and our common shares have been listed for trading on the Toronto Stock Exchange (“**TSX**”) since December 12, 1996 and on the NASDAQ OMX Stockholm Exchange (“**NASDAQ OMX**”) since October 20, 2011.

### Capital Structure

#### COMMON SHARES

Our capital structure is composed of an unlimited number of common shares and of an unlimited number of Class “A” and Class “B” preferred shares, all without nominal or par value. Holders of our common shares are entitled to one vote for each common share held at all our meetings of shareholders, to participate rateably in any dividend declared by the board of directors (the “**Board**”) on the common shares, and, subject to any rights attaching to the Class “A” and Class “B” preferred shares, to receive our remaining property in the event of the voluntary or involuntary liquidation, dissolution, winding-up or other distribution of our assets. As at March 5, 2019, 325,617,252 common shares and no Class “A” or Class “B” preferred share are issued and outstanding.

## RIGHTS

On March 15, 2011, the Board adopted a Shareholder Rights Plan (the “**Rights Plan**”) that is designed to provide shareholders and the Board with adequate time to consider and evaluate any unsolicited bid made for SEMAFO and to provide the Board with adequate time to identify, develop and negotiate value-enhancing alternatives, if considered appropriate, to any such unsolicited bid.

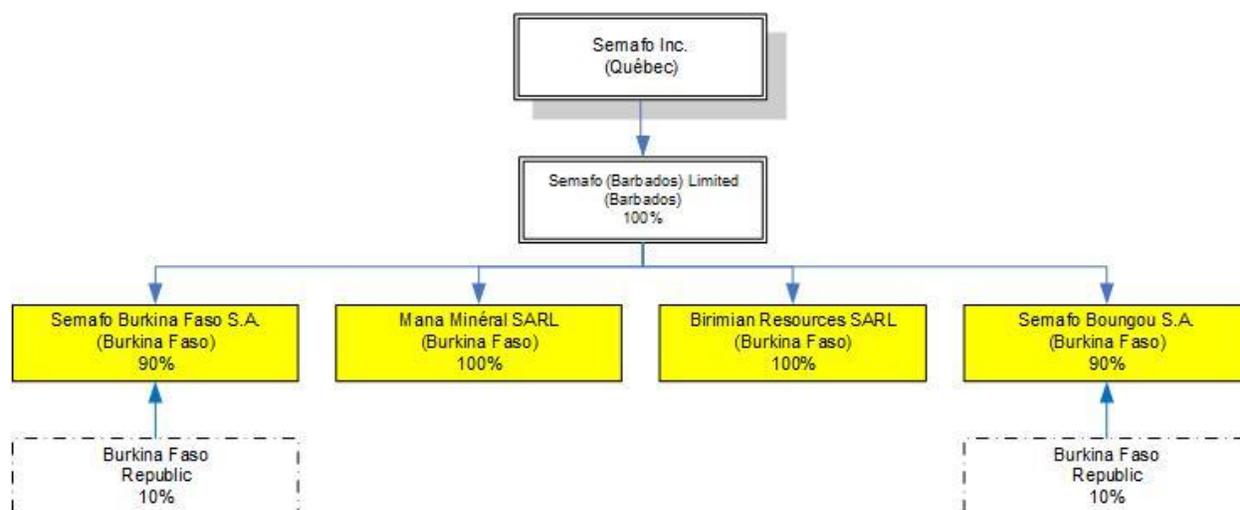
The Rights Plan encourages a potential acquirer who makes a take-over bid to proceed either by way of a “Permitted Bid” (as defined in the Rights Plan), which generally requires a take-over bid to satisfy certain minimum standards designed to promote fairness, or with the concurrence of the Board. If a take-over bid fails to meet these minimum standards and the Rights Plan is not waived by the Board, the Rights Plan provides that holders of our common shares, other than the Acquiring Person (as defined in the Rights Plan), will be able to purchase additional common shares at a significant discount to market, thus exposing the Acquiring Person to substantial dilution of its holdings.

The Rights Plan is initially not dilutive. However, if a “Flip-in Event” (as defined in the Rights Plan) occurs, holders of Rights not exercising their Rights after a Flip-in Event may suffer substantial dilution.

The Rights Plan was ratified at our annual general and special meeting of shareholders held on May 10, 2011 and was extended at our annual general and special meetings of shareholders held on May 15, 2014 and May 4, 2017, respectively.

## Intercorporate Relationships

The following diagram presents, as at December 31, 2018, the names of our material subsidiaries, where they were incorporated or continued as well as the percentage of votes attaching to all voting securities of each such subsidiary beneficially owned, controlled or directed by the Corporation.



## ITEM 3 - GENERAL DEVELOPMENT OF THE BUSINESS

We are a Canadian-based intermediate gold producer with over twenty years' experience building and operating mines in West Africa. We operate two mines, the Mana and Boungou Mines in Burkina Faso. We are committed to building value through responsible mining of its quality assets and leveraging its development pipeline.

### Three Year History

2016

#### Boungou Feasibility Study Highlights and Financing<sup>1</sup>

On February 25, 2016, we announced the results of a positive definitive feasibility study (“**DFS**”) for our Boungou gold project located 320 kilometers east of Ouagadougou in Burkina Faso. We also announced that we entered into a commitment letter with Macquarie Bank Limited to amend the \$90 million senior secured credit facility (the “**Facility**”).

#### BOUNGOU FEASIBILITY STUDY HIGHLIGHTS

- During the first three years
  - Average annual production of more than 226,000 ounces
  - Average total cash cost<sup>2</sup> of \$283/oz and all-in sustaining cost<sup>3</sup> of \$374/oz
  - Average head grade of 5.72 g/t at a gold recovery rate of 93.8%
- Production of some 1.2 million ounces at total cash cost of \$408/oz and a gold recovery rate of 92.9% over a projected life of mine (“**LOM**”) in excess of 7 years
- LOM all-in sustaining cost of \$518/oz including capitalized stripping and sustaining capital expenditures
- Maiden open pit mineral reserves of 9.6 million tonnes at a grade of 4.15 g/t Au for 1,276,000 ounces of contained gold
- Initial capital expenditures: \$219 million, which includes \$42 million in pre-stripping expenditures and an \$18-million contingency
- Project economics (base case at \$1,100/oz):
  - After-tax 5% NPV: \$262 million
  - After-tax internal rate of return (“**IRR**”): 48%
  - Payback period: 1.5 years
- Targeted construction start-up: year-end 2016
- Expected first gold pour: second half of 2018 with first year of full production in 2019

#### FINANCING

We entered into a commitment letter with Macquarie Bank Limited to amend our Facility. Thereafter, the development of the Boungou gold project was fully funded through an available credit facility of \$120 million, our cash position as well as anticipated cash flow from operations.

<sup>1</sup> The statements in this section are forward-looking. For more information on forward-looking statements, see ITEM 23-FORWARD-LOOKING STATEMENTS.

<sup>2</sup> Total cash cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the mining operation expenses and government royalties per ounce sold.

<sup>3</sup> All-in sustaining cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the total cash cost, plus sustainable capital expenditures and stripping costs per ounce.

#### Amendments to the Facility included

- Facility increased from \$90 million to \$120 million
- Incremental \$60 million drawn down by June 30, 2017 (\$30 million repayment due March 3, 2016)
- LIBOR + 4.75% per annum
- Quarterly repayments of \$15 million, from first quarter of 2019 to fourth quarter of 2020

(the “**Amended Facility**”)

Closing of the Amended Facility took place on March 29, 2016.

On April 22, 2016 we closed the bought deal financing announced on April 4, 2016 as increased on April 5, 2016. We issued a total of 26,450,000 common shares at a price of C\$4.35 per common share, which included the exercise of the underwriters’ over-allotment option in full, for aggregate gross proceeds of C\$115,057,500 (the “**2016 Offering**”). The 2016 Offering was completed by a syndicate of underwriters led by BMO Capital Markets as sole bookrunner and co-led by Clarus Securities Inc. The net proceeds of the 2016 Offering was used for exploration expenditures at Mana and Boungou, to further enhance our financial flexibility with respect to the Boungou gold project as well as for working capital and general corporate purposes.

On December 22, 2016, we announced that the Council of Ministers of the Government of Burkina Faso has approved our mining permit application for our Boungou gold project. Receipt of the mining permit enabled development of the Boungou gold project to proceed on schedule.

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## 2017

On April 24, 2017, we announced the revision of our 2017 guidance<sup>4</sup> in relation with our first quarter 2017 production results during which the mined grade was adversely affected by the geological interpretation of the upper portion of Zone 9, a mineralized zone in the south-west sector of the Siou pit that was first included in the 2017 mine plan. The upper portion presented a complex geometry as the area comprised the junction of three different zones: Zone 9 itself, and two subsidiary zones known as Zones 55 and 56. This resulted in misleading ore outlined and led to a significant variation in ore mined versus the mining plan (the “**Zone 9 grade issue**”). We therefor adjusted our 2017 guidance to between 190,000 and 205,000 ounces of gold, at a total cash cost<sup>5</sup> of between \$685 and \$715 per ounce and all-in sustaining cost<sup>6</sup> of between \$920 and \$960 per ounce. The reduction of 25,000 ounces had a minimal impact on our 2017 budgeted cash flow as it was offset by a positive variance between our budgeted gold price for the year of \$1,150 per ounce and the then current gold price.

On March 31, 2017, we announced that a ground-breaking ceremony was held for the Boungou Mine in the presence of Mr. Oumarou Idani, Minister of Mines and Carriers in Burkina Faso, who represented the President of Burkina Faso, His Excellency Roch Marc Christian Kaboré. The ceremony was held to mark the beginning of construction at the mine, which has now been named “**Boungou Mine**” after the closest village. Some 2,000 persons attended the event including Burkinabe government officials, representatives from the Canadian government, senior community figures and members, in addition to members of our management team.

On June 20, 2017, we announced that we drew down the incremental \$60 million of the Amended Facility with Macquarie Bank Limited for a total drawdown of \$120 million. The recent visits to the Mana and Boungou Mine sites by Macquarie Bank Limited were key conditions for drawing down the incremental \$60 million. The Amended Facility is repayable in eight equal quarterly installments of \$15 million, starting March 31, 2019.

In addition, we announced receipt of the mining convention for the future Boungou Mine from the Council of Ministers of the Government of Burkina Faso, which followed receipt of the mining permit in December 2016. The convention is

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<sup>4</sup> The 2017 revised guidance was based on the same assumptions as the 2017 prior guidance. See press release of February 1, 2017.

<sup>5</sup> Total cash cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the mining operation expenses and government royalties per ounce sold.

<sup>6</sup> All-in sustaining cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the total cash cost, plus sustainable capital expenditures and stripping costs per ounce.

valid for the seven-year mine life of the initial mineral reserves at Boungou and can be renewed for additional periods of five years.

On August 9, 2017, we reported our financial and operational results for the three-month period ended June 30, 2017 and referred to the Zone 9 issue, following which, we changed our method of grade control from channel sampling to RC drilling. We were pleased to be in a position to provide grade control results for Zone 9 which represented the ore expected to be mined from Zone 9 from May through December 2017. Such results were in line with our 2016 reserves and confirmed our expectation that the geometry was simpler and more rectilinear.

On September 18, 2017, we announced that ore mined from Zone 9 in the third quarter continued to provide good reconciliation to reserves.

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## 2018

On January 22, 2018, we reported 2017 production of 206,400 ounces at an all-in sustaining cost of \$943 per ounce.

On February 15, 2018, we announced positive pre-feasibility study (“**PFS**”) results at Mana, the addition of 188,000 ounces of reserves, primarily at Siou underground, and an increase of 203,000 ounces of reserves at Boungou. We also announced that the five-year average operational target of annual production (2019-2023) for Mana and Boungou totalled 413,000 ounces at an average all-in sustaining cost of \$696.

On May 17, 2018, we announced that commissioning of the Boungou Mine process plant was underway, with the first ore scheduled to be introduced to the mill circuit by month-end.

On May 24, 2018, we announced the signing of a mining services contract with *African Underground Mining Services* (“**AUMS**”) to provide turnkey mining services for Siou underground. The mining services contract has a term of 70 months. The economic terms of the mining services contract are consistent with the economics presented in the Mana pre-feasibility study filed March 29, 2018 on SEDAR.

On June 28, 2018, we reported completion of our first gold pour at the Boungou Mine, slightly ahead of the original schedule. The first pour yielded approximately 325 ounces of gold. We also announced that (i) dry and wet commissioning of the Boungou processing plant were completed, as was our construction, (ii) the vertimill and SAG mill are working according to design and have achieved the designed hourly throughput and grind size.

On September 4, 2018, we announced that commercial production was achieved at our Boungou Mine, effective September 1, 2018. Commercial production was declared when operations reached the internal commercial production measure of 30 consecutive days of mill throughput at 75% of nominal design capacity (4,000 tpd). During the 30-day period, the mill processed more than 90,000 tonnes of ore at an average grade of 2.4 g/t Au with a recovery rate of 83%. During that same period, the mill mainly processed lower grade ore sourced from the east pit. However, as the process was being optimized, higher grade ore was introduced and a recovery rate of more than 93% was reached at the end of the period. As previously announced, our Boungou Mine began processing ore at the end of May and achieved its first gold pour on June 28, 2018. During the pre-commercial period from June to end of August, Boungou produced 12,000 ounces of gold. In 2018, the Boungou Mine is expected to produce between 60,000 and 70,000 ounces of gold in commercial production.

On January 10, 2019, we reported our 2018 production of 244,600 ounces of gold, achieving our annual production guidance.

On February 11, 2019, together with Savary Gold Corp. (TSX-V: SCA) ("**Savary**"), we announced that we have entered into a non-binding letter of intent (the "**LOI**") contemplating the acquisition by SEMAFO of all of the outstanding common shares of Savary (the "**Savary Shares**") not already owned by SEMAFO (the "**Proposed Transaction**"). Under the terms of the LOI, all of the issued and outstanding Savary Shares will be exchanged on the basis of 0.0336 SEMAFO common shares (each whole share, a "**SEMAFO Share**") for each Savary Share (the "**Exchange Ratio**"). The Exchange Ratio implies consideration of C\$0.10 per Savary Share, based on the closing price of the SEMAFO Shares on the Toronto Stock Exchange ("TSX") on February 8, 2019. This represents a premium of 100% based on the closing price of Savary Shares on the TSX Venture Exchange on February 8, 2019. The Proposed Transaction value (excluding SEMAFO's existing 15.5% equity interest) is approximately C\$22.7 million on a fully diluted in-the-money basis, representing 2.2% dilution to SEMAFO shareholders.

Concurrently with this announcement, we also announced that a maiden inferred mineral resource for the Bantou Zone of 2,100,000 tonnes at 5.35 g/t Au for 361,000 ounces of gold. The Bantou Zone is located approximately 170 kilometers south of the Mana Mine in Burkina Faso. Bantou is one of several targets the Corporation explored in 2018 on the Dynikongolo permit. The 2018 program included a core drill program to test the down plunge extension of the Bantou area and an RC program to explore proximal targets and the Tankoro Zone.

On March 11, 2019, together with Savary, we announced that we entered into a definitive combination agreement (the "**Combination Agreement**") pursuant to which we will acquire all of the issued and outstanding Savary Shares not already owned by us. The Proposed Transaction is being carried out by way of a three-cornered amalgamation (the "**Amalgamation**"). Savary shareholders will vote on the Amalgamation at a special meeting of Savary shareholders (the "**Savary Meeting**") with closing expected to take place by the end of April 2019.

Pursuant to the Amalgamation, SEMAFO will issue approximately 7.26 million (based on the Exchange Ratio) SEMAFO Shares to Savary shareholders (other than itself) and Savary will amalgamate with a newly-incorporated wholly-owned subsidiary of SEMAFO to become a wholly-owned subsidiary of SEMAFO. The Amalgamation represents approximately 2.2% dilution to SEMAFO shareholders.

Implementation of the Amalgamation is subject to approval by (i) at least two-thirds of the votes cast by all Savary shareholders and (ii) a simple majority of the votes cast by Savary shareholders other than SEMAFO, all at the Savary Meeting. In addition to shareholder approval, completion of the Amalgamation is subject to the receipt of regulatory approvals, including stock exchange approvals, as well as certain other closing conditions customary in transactions of this nature.

The Combination Agreement contains customary non-solicitation provisions which are subject to Savary's right to consider and accept a superior proposal subject to a matching right in favour of SEMAFO. In the event that the Amalgamation is not completed as a result of a superior proposal or in certain specified circumstances, Savary will pay SEMAFO a termination fee in the amount of \$750,000.

All of Savary management and board and significant shareholders, together representing 29.3% of the Savary Shares, are supportive of the combination and have entered into support agreements with SEMAFO to vote their Savary Shares in favour of the Amalgamation.

## ITEM 4 – MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES

We have properties which are at different levels of advancement. The following estimates of mineral reserves and resources were estimated as at December 31, 2018, the whole in accordance with the provisions adopted by the Canadian Institute of Mining Metallurgy and Petroleum and incorporated into *National Instrument 43-101 – Standards of Disclosure for Mineral Projects* (“NI 43-101”). All reserve and resource estimates for the Tapoa, Mana, Yactibo and Kongolokoro gold deposits were prepared and approved by François Thibert. See ITEM 5 – MINERAL PROJECTS – Tapoa Property, Mana Property, Kongolokoro Property and Yactibo Property.

### Consolidated Reserves and Resources

PROPERTY	Mana <sup>1,2,5,6</sup>	Tapoa <sup>1,2,5,6</sup> (Boungou Project)	Yactibo <sup>1,3,5,6</sup> (Nabanga Project)	Kongolokoro <sup>1,4,5,6</sup> (Bantou Project)	Total
<b>MINERAL RESERVES</b>					
<b>Proven</b>					
<b>Tonnes</b>	7,405,000	2,680,000			<b>10,085,000</b>
<b>Grade (g/t Au)</b>	3.04	5.50			<b>3.69</b>
<b>Ounces</b>	723,800	474,000			<b>1,197,800</b>
<b>Probable</b>					
<b>Tonnes</b>	8,582,000	8,259,000			<b>16,841,000</b>
<b>Grade (g/t Au)</b>	2.89	3.44			<b>3.16</b>
<b>Ounces</b>	798,200	913,000			<b>1,711,200</b>
<b>TOTAL MINERAL RESERVES</b>					
<b>Tonnes</b>	15,987,000	10,939,000			<b>26,926,000</b>
<b>Grade (g/t Au)</b>	2.96	3.94			<b>3.36</b>
<b>Ounces</b>	1,522,000	1,387,000			<b>2,909,000</b>
<b>MINERAL RESOURCES (exclusive of reserves)</b>					
<b>Measured</b>					
<b>Tonnes</b>	8,683,000	118,000			<b>8,801,000</b>
<b>Grade (g/t Au)</b>	1.49	3.28			<b>1.51</b>
<b>Ounces</b>	415,600	12,000			<b>427,600</b>
<b>Indicated</b>					
<b>Tonnes</b>	34,784,000	3,502,000			<b>38,286,000</b>
<b>Grade (g/t Au)</b>	2.04	2.88			<b>2.12</b>
<b>Ounces</b>	2,279,700	324,000			<b>2,603,700</b>
<b>TOTAL M&amp;I</b>					
<b>Tonnes</b>	43,467,000	3,620,000			<b>47,087,000</b>
<b>Grade (g/t Au)</b>	1.93	2.89			<b>2.00</b>
<b>Ounces</b>	2,695,300	336,000			<b>3,031,300</b>
<b>Inferred</b>					
<b>Tonnes</b>	9,028,000	1,874,000	3,402,000	2,101,000	<b>16,405,000</b>
<b>Grade (g/t Au)</b>	2.66	2.78	7.69	5.35	<b>4.06</b>
<b>Ounces</b>	772,100	167,000	841,000	361,000	<b>2,141,100</b>

1 The Corporation indirectly owns a 100% interest in all of its permits, except for the permits held by SEMAFO Burkina Faso S.A. (“SEMAFO BF”) and SEMAFO Boungou S.A., respectively, in which the Government of Burkina Faso holds a 10% interest.

2 Mineral reserves and resources at Mana and at Tapoa (Boungou project) were estimated using a gold price of \$1,200 and \$1,400 per ounce, respectively.

3 Mineral resources at Yactibo Permit Group (Nabanga project) were reported above a 3.0 g/t Au cut-off grade.

4 Mineral resources at Kongolokoro Permit Group (Bantou project) were estimated using a gold price of \$1,500 per ounce.

5 Rounding of numbers of tonnes and ounces may present slight differences in the figures.

6 All mineral resources reported are exclusive of mineral reserves.

## Mana, Tapoa, Yactibo

DEPOSITS		DECEMBER 31, 2018								
		PROVEN RESERVES			PROBABLE RESERVES			TOTAL RESERVES		
		Tonnage	Grade (g/t Au)	Ounces <sup>5</sup>	Tonnage	Grade (g/t Au)	Ounces <sup>5</sup>	Tonnage	Grade (g/t Au)	Ounces <sup>5</sup>
MANA <sup>1,2,6</sup>	WONA-KONA	5,265,000	2.37	401,200	5,753,000	2.20	406,000	11,018,000	2.28	807,200
	NYAFÉ	265,000	5.81	49,600	6,000	3.96	700	271,000	5.77	50,300
	FOFINA	24,000	5.20	4,000	3,000	3.95	300	27,000	4.95	4,300
	SIOU OP	733,000	3.84	90,400	181,000	1.79	10,400	914,000	3.43	100,800
	SIOU UG	1,047,000	5.10	171,600	1,988,000	5.38	344,200	3,035,000	5.29	515,800
	YAMA	-	-	-	651,000	1.75	36,600	651,000	1.75	36,600
	ROMPAD	71,000	3.07	7,000	-	-	-	71,000	3.07	7,000
	<b>TOTAL</b>	<b>7,405,000</b>	<b>3.04</b>	<b>723,800</b>	<b>8,582,000</b>	<b>2.89</b>	<b>798,200</b>	<b>15,987,000</b>	<b>2.96</b>	<b>1,522,000</b>
TAPOA <sup>1,2,6</sup>	BOUNGOU OP	2,179,000	6.28	440,000	8,259,000	3.44	913,000	10,438,000	4.03	1,353,000
	ROMPAD	501,000	2.12	34,000	-	-	-	501,000	2.12	34,000
	<b>TOTAL</b>	<b>2,680,000</b>	<b>5.50</b>	<b>474,000</b>	<b>8,259,000</b>	<b>3.44</b>	<b>913,000</b>	<b>10,939,000</b>	<b>3.94</b>	<b>1,387,000</b>
<b>TOTAL</b>	<b>10,085,000</b>	<b>3.69</b>	<b>1,197,800</b>	<b>16,841,000</b>	<b>3.16</b>	<b>1,711,200</b>	<b>26,926,000</b>	<b>3.36</b>	<b>2,909,000</b>	

DEPOSITS		DECEMBER 31, 2018								
		MEASURED			INDICATED			TOTAL RESOURCES		
		Tonnage	Grade (g/t Au)	Ounces <sup>5</sup>	Tonnage	Grade (g/t Au)	Ounces <sup>5</sup>	Tonnage	Grade (g/t Au)	Ounces <sup>5</sup>
MANA <sup>1,2,6</sup>	WONA-KONA	1,307,000	2.07	87,100	21,619,000	2.55	1,775,400	22,926,000	2.53	1,862,500
	NYAFÉ	286,000	3.94	36,300	223,000	5.97	42,700	509,000	4.83	79,000
	FOFINA	292,000	4.25	40,000	253,000	4.45	36,100	545,000	4.34	76,100
	YAHO	5,738,000	0.91	168,500	11,636,000	0.88	330,800	17,374,000	0.89	499,300
	FILON 67	26,000	2.72	2,300	9,000	3.59	1,000	35,000	2.93	3,300
	FOBIRI	469,000	1.80	27,100	114,000	1.52	5,600	583,000	1.74	32,700
	SIOU OP	52,000	0.64	1,100	44,000	0.66	900	96,000	0.65	2,000
	SIOU UG	513,000	3.23	53,200	787,000	3.25	82,300	1,300,000	3.24	135,500
YAMA	-	-	-	99,000	1.56	4,900	99,000	1.54	4,900	
	<b>TOTAL</b>	<b>8,683,000</b>	<b>1.49</b>	<b>415,600</b>	<b>34,784,000</b>	<b>2.04</b>	<b>2,279,700</b>	<b>43,467,000</b>	<b>1.93</b>	<b>2,695,300</b>
TAPOA <sup>1,2,6</sup>	BOUNGOU	118,000	3.28	12,000	3,502,000	2.88	324,000	3,620,000	2.89	336,000
<b>TOTAL M&amp;I</b>		<b>8,801,000</b>	<b>1.51</b>	<b>427,600</b>	<b>38,286,000</b>	<b>2.12</b>	<b>2,603,700</b>	<b>47,087,000</b>	<b>2.00</b>	<b>3,031,300</b>

DEPOSITS		DECEMBER 31, 2018		
		Tonnage	Grade (g/t Au)	Ounces <sup>5</sup>
MANA <sup>1,2,6</sup>	WONA-KONA	3,465,000	2.96	329,600
	NYAFÉ	151,000	5.87	28,400
	FOFINA	67,000	4.20	9,100
	YAHO	223,000	0.78	5,600
	FILON 67	6,000	6.32	1,100
	FOBIRI	578,000	1.39	25,800
	MAOULA	2,628,000	1.62	137,100
	SIOU	1,852,000	3.91	232,900
YAMA	58,000	1.33	2,500	
	<b>TOTAL</b>	<b>9,028,000</b>	<b>2.66</b>	<b>772,100</b>
TAPOA <sup>1,2,6</sup>	BOUNGOU	1,874,000	2.78	167,000
YACTIBO <sup>1,3,6</sup>	NABANGA	3,402,000	7.69	841,000
KONGOLOKORO <sup>1,4,6</sup>	BANTOU	2,101,000	5.35	361,000
<b>TOTAL</b>		<b>16,405,000</b>	<b>4.06</b>	<b>2,141,100</b>

1 The Corporation indirectly owns a 100% interest in all of its permits, except for the permits held by SEMAFO Burkina Faso S.A. and SEMAFO Boungou S.A., respectively, in which the Government of Burkina Faso holds a 10% interest.

2 Mineral reserves and resources at Mana and at Tapoa (Boungou project) were estimated using a gold price of \$1,200 and \$1,400 per ounce, respectively.

3 Mineral resources at Yactibo Permit Group (Nabanga project) were reported above a 3.0 g/t Au cut-off grade.

4 Mineral resources at Kongolokoro Permit Group (Bantou project) were estimated using a gold price of \$1,500 per ounce.

5 Rounding of numbers of tonnes and ounces may present slight differences in the figures.

6 All mineral resources reported are exclusive of mineral reserves.

We are presenting 100% of the reserves and resources of the deposits in the above tables and hence excluding minority interests. Regarding open pit reserves, cut-off grades are established with the ultimate pit software in consideration of the rock type and haulage distance.

We are focusing on quality ounces. As of December 31, 2018, SEMAFO's total proven and probable mineral reserves were 2,909,000 ounces of gold. Measured and indicated resources totaled 3,031,300 ounces of contained gold. From December 31, 2017 to December 31, 2018, Mana reserves have varied from 1,710,300 ounces to 1,522,000 ounces with respective tonnage of 18,231,000 and 15,987,000 and respective grade of 2.92 and 2.96 g/t Au, including mining depletion.

As a result of an extensive in-fill drilling program and up-to-date modelling on the Boungou gold deposit, the open-pit proven and probable mineral reserves estimate was established at 10,939,000 tonnes averaging 3.94 g/t Au for 1,387,000 ounces of contained gold. Additionally, measured and indicated resources amounts to 336,000 ounces of contained gold.

The following table summarizes our existing mining and exploration permits in Burkina Faso and Ivory Coast.

<b>Summary of properties per permit group owned or under option (as at March 5, 2019)</b>					
<b>Property name</b>	<b>Permit type</b>	<b>Area (km<sup>2</sup>)</b>	<b>% of Ownership</b>	<b>Expiration dates</b>	<b>Comments</b>
<b>MANA</b>					
Wona-Nyafé	Mining	148.84	90%	March 20, 2027	
Bana	Exploration	136.77	100%	April 10, 2021	
Kokoi	Exploration	121.81	100%	April 10, 2021	
Fobiri 2	Exploration	212.34	100%	January 4, 2021	
Kona Blé	Exploration	72.8	100%	January 18, 2020	
Bombouela Nord	Exploration	82.32	100%	December 30, 2016	Awaiting renewal decree
Bombouela 2	Exploration	250.00	100%	May 6, 2019	
Momina	Exploration	222.79	100%	April 10, 2021	
Makongo (formerly Oula 2)	Exploration	195.39	100%	-	Awaiting decree for new permit
Pompoi Nord	Exploration	60.82	100%	February 17, 2020	
Saoura	Exploration	247.48	100%	April 15, 2019	
Pompoi	Exploration	174.20	100%	December 27, 2016	Awaiting transfer and renewal decrees
<b>TAPOA</b>					
Boungou	Mining	29.06	90%	January 23, 2024	Area included in Tawori permit
Tawori (formerly Boungou)	Exploration	219.22	100%	-	Awaiting decree for new permit
Pambourou	Exploration	175.3	100%	September 28, 2020	
Bossoari	Exploration	29.00	100%	November 20, 2020	
Dangou	Exploration	187.43	100%	December 15, 2018	Awaiting renewal decree
<b>YACTIBO</b>					
Nabanga	Exploration	178.50	100%	April 1, 2020	
Kamsongo	Exploration	184.24	100%	September 24, 2020	
Napade	Exploration	54.5	100%	September 12, 2020	
Kandagou	Exploration	246.44	100%	-	Awaiting decree for new permit
<b>KONGOLOKORO</b>					
Dynikongolo	Exploration	250.00	100%	December 16, 2020	
Milpo	Exploration	222.39	100%	May 19, 2021	
<b>KORHOGO CI</b>					
Korhogo-Ouest	Exploration	232.20	100%	March 25, 2020	
Korhogo-Sud	Exploration	150.44	100%	October 23, 2022	
Korhogo-Nord	Exploration	111.28	100%	-	Awaiting decree for new permit

## ITEM 5 - MINERAL PROJECTS

Reference is made to our definition section found on page 55.

### Tapoa Property

#### INTRODUCTION

Information in this section is based on the technical report entitled “Natougou Gold Deposit Project, Burkina Faso”, dated March 23, 2016 (the “**Tapoa Report**”), prepared under the supervision of Neil Lincoln, Vice-President, Business Development and Studies at Lycopodium Minerals Canada Ltd. (“**Lycopodium**”), with the participation of Marius Phillips, MAusIMM (CP), Principal Process Engineer at Lycopodium, Glen Williamson, Principal Mining Engineer at AMC Consultants (Canada) Ltd, John Graindorge, Principal Consultant – Applied Geosciences at Snowden Mining Industry Consultants Pty. Ltd. (“**Snowden**”), Jean-Sébastien Houle, Eng. from WSP Canada Inc. and Timothy Rowles, MAusIMM (CP) from Knight Piésold Consulting, all “qualified persons” for the purpose of the Tapoa Report. Portions of the following information are based on assumptions, qualifications and procedures which are not fully described herein. Readers should consult the Tapoa Report which is available under SEMAFO’s profile on SEDAR at [www.sedar.com](http://www.sedar.com) to obtain further particulars regarding the Boungou gold deposit. The Tapoa Report is not and shall not be deemed to be incorporated by reference in this AIF.

Unless otherwise indicated, technical information which has been disclosed since the release of the Tapoa Report has been prepared under the supervision of, or reviewed by, Mr. François Thibert, M.Sc.Geo, Manager, Estimate Group Resources and Reserves West Africa, our “qualified person”.

#### PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Tapoa permit group is located in Burkina Faso, West Africa. The project lies approximately 320 km east of Ouagadougou, the capital of Burkina Faso. We indirectly hold, through Birimian Resources Sarl, four contiguous exploration permits – Dangou, Pambourou, Boungou and Bossoari, collectively known as the Tapoa permit group, covering approximately 622 km<sup>2</sup> within the Diapaga greenstone belt in the southeast of Burkina Faso. The original vendor of each such permits retains a 0.5% to 1% net profit royalty, payable upon any future gold sales. On December 22, 2016, the Council of Minister of the Government of Burkina Faso approved and granted our mining permit covering an area of 29.06 km<sup>2</sup>. The permit is valid for a period of seven (7) years renewable for consecutive five-year periods until depletion of the deposits. The mining permit is held by SEMAFO Boungou S.A., a corporation held 90% by SEMAFO and 10% by the Republic of Burkina Faso. Access to the property is by means of Route Nationale RN04, an all-weather bitumen road from Ouagadougou, the capital of Burkina Faso, through Fada n’Gourma to the Ougarou junction. From there, travel is via a laterite road to the property 60 km to the southeast. Fada n’Gourma is the nearest town with basic hospital, hotel and limited supply facilities. Any significant supplies must be sourced from Ouagadougou. The property area is relatively flat and sits at an elevation of approximately 260 m above sea level. To the east and north of the property are mesas which rise approximately 10 m above the surrounding topography. A small hill is located in the very southern corner of the deposit. The land rises gently to the north, culminating in the height of land separating two watersheds. The main laterite access road into site is located along this ridge top. The road is reasonably well-drained and is accessible year-round to four-wheel drive vehicles. Numerous tracks allow for access to most places throughout the property area. During the rainy season (August to October), heavy rains may temporarily restrict vehicle movement in the immediate area of the deposit.

#### HISTORY

No exploration is known to have occurred on the Tapoa permits prior to 2010 when Orbis Gold Limited (“**Orbis Gold**”) commenced soil and rock chip sampling. The soil and rock chip sampling was followed up in 2012 with a regional RC drilling program which resulted in the discovery of the Boungou gold deposit. Resource drilling commenced at Boungou

in 2012 and culminated with an initial mineral resource estimate being completed by Snowden in August 2013, which was classified and reported in accordance with the 2004 edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (the “**JORC Code**”). Orbis Gold completed further infill drilling at Boungou in 2014 and the mineral resource estimate was updated by Snowden in August 2014 and was classified and reported in accordance with the 2012 edition of the JORC Code. A conversion of the resource from JORC Code to NI 43-101 was completed by Snowden in March 2015 for SEMAFO and reported in accordance with NI 43-101 regulations. Between March 2015 and August 2015, SEMAFO completed an infill drilling program at Boungou aimed at upgrading the confidence in the resource estimate along with exploring targets proximal to the resource area.

No modern production of gold has occurred within the Tapoa permit group. The central part of the Boungou exploration permit has artisanal activity along the north to south trending drainage system. Extraction of gold by the local community from artisanal workings has occurred for an unknown period of time, with free gold recovered by gravity methods in gold pans or through simple sluicing methods. The vertical extent of the workings is unknown, however it is believed to reach a maximum depth of approximately 20 m to 40 m, although the vast majority of the workings are less than 5 m deep. Snowden notes that the deeper workings are extremely localised and limited in extent. The total tonnage and grade of material extracted from artisanal workings at the Boungou gold deposit is unknown, however it is not considered to be material to the current mineral resource estimate.

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## GEOLOGICAL SETTING, MINERALIZATION AND DEPOSIT TYPES

The Boungou exploration permit, which contains the Boungou gold deposit, lies within the Diapaga greenstone belt, a northeast-southwest orientated belt that extends over 250 km in length and over 50 km in width. We hold four contiguous permits, collectively known as the Tapoa permit group, covering approximately 70 km in strike length along the Diapaga belt.

The stratigraphy at Boungou is relatively simple and quite consistent from hole to hole. The stratigraphy consists of two volcanic flows separated by a volcanoclastic unit. The footwall flow generally progresses upwards from a massive basalt flow to pillowed flows followed by flow breccia and volcanoclastics. The hangingwall is characterized by a medium grained volcanic flow (or sill). All these units are intruded by diorite and/or granodiorite sills, possibly originating from the felsic intrusion located immediately west of the deposit. Late dolerite dykes are also present and appear to be sub-vertical and strike northwest. The Boungou Shear Zone, which hosts the main gold mineralization at Boungou, is located at the contact between the footwall and hangingwall volcanic units, where the volcanic flow top breccias have formed and the volcanoclastics deposited. The contact zone is thought to have served as an area of weakness, focusing the deformation. While the volcanoclastic units are not always present (although the intensity of the alteration can make it difficult to identify), the flow top breccias are interpreted to be ubiquitous across the deposit area.

The Boungou gold deposit can be described as a West African shear zone hosted greenstone gold deposit. The main mineralized lode is interpreted as a flat-lying anticlinal shear that outcrops in the southeast and plunges gently to the northwest. The mineralization has a strike length of approximately 2 km, striking towards a bearing of 315° and an across-strike length of approximately 1 km (towards 045°). The mineralization is gently folded with the fold axis oriented along strike and the limbs dipping gently at approximately 15°.

Gold mineralization is associated with biotite and silica-sericite alteration, along with disseminated sulphides, such as pyrrhotite, pyrite and minor arsenopyrite and chalcopyrite, with occasional free gold. The mineralization is structurally controlled and is hosted primarily within a large shear zone and its associated alteration. Arsenopyrite is almost invariably associated with the presence of gold in assayed samples. The percent arsenopyrite logged can be used as an initial identification of the mineralized lode. Although not common, visible gold has been observed in core in some drill holes.

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## EXPLORATION

Stream sample geochemistry, airborne geophysics (helicopter-borne magnetic) and surface mapping are used to identify areas for detailed investigation. Ground geophysics is also used to test extensions of known large scale structures (ex: IP). Sampling via auger or rotary air blast drilling follows on fixed grids in order to reach the saprolite below the lateritic cover.

Trenching and/or RC drilling is then used as a first pass to test the auger drilling anomalies. Generally, exploration sample quality is considered as being sufficient to indicate significant gold mineralization but not representative of the overall grade associated with the deposit. Following positive results, RC drilling and core drilling are used to extend the information at depth and to delineate the mineralized bodies.

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## DRILLING

Drilling at Boungou was performed by a combination of RC and diamond drilling. The diamond drill holes were pre-collared using RC drilling down to approximately 10 m above the interpreted top of mineralization. Diamond tails (HQ diameter) were used to complete the holes. These are recorded as multi-purpose (MP) holes in the database. A limited number of diamond holes were cored from the surface, predominately on two 10 m by 10 m close spaced drilling panels.

At the end of 2018, the total dataset comprises 2,601 drill holes, of which 1,772 were used for the Boungou resource estimate. The objective of the 2018 exploration program on Boungou was to explore regional targets with the aim of identifying satellite deposits within trucking distance of the Boungou mill. SEMAFO drilled 529 holes in 2018 for a total of 56,127 meters. Of this total, 55,512 meters of RC and 615 meters of DD was completed over various exploration targets. Three different mineralized zones were discovered during the year, namely the Osaanpalo Zone located 5 kilometers north of the Boungou Mine, Dangou NE and Dangou Center. The Dangou area is located approximately 30 kilometers ENE of the Boungou Mine. Previous work at Dangou has shown that the area is underlain by intermediate to mafic intrusive rocks and mafic volcanic flows. Soil and auger sampling in the area uncovered a series of geochemical anomalous areas. Although the geometry of the anomalies was difficult to establish, RC drilling did confirm the presence of significant gold values in bedrock from the first pass of drilling. During follow-up work, values including 4.17 g/t Au over 129 meters and 2.75 g/t Au over 6 meters were obtained.

Drill hole collars were surveyed in 2017 and 2018 using a LEICA GS14 total station system (“TTS”). Data from the instrument is downloaded directly to a laptop and processed using Leica Survey Office software. The TTS has a reported accuracy of 10 mm horizontally and vertically. The coordinate system basis used is WGS84 Zone 31N.

Post-2015 drill holes were all surveyed downhole using a Reflex GYRO electronic surveying tool. Both the azimuth and dip were recorded at 5 m intervals (approximately) downhole. Pre-2015 drill holes were surveyed downhole using a Reflex EZ-shot electronic surveying tool. Both the azimuth and dip were recorded at 6 m intervals (approximately) downhole, within the PVC casing, and then at 30 m intervals until the bottom of hole was reached.

A topographical survey using an aircraft mounted LiDAR system was completed on November 18, 2014 by Southern Mapping to produce a digital terrain model of a portion of the Boungou exploration permit over an area that extends past the current resource estimate area. The survey was flown at a height of approximately 1,200 m. We noted some minor discrepancies in elevation between the drill hole collar survey and the LIDAR survey. Consequently, we elected to use the LIDAR coordinate as the collar elevation (i.e. Z coordinate) in the database for the current mineral resource estimate.

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## SAMPLING, ANALYSIS AND DATA VERIFICATION

Samples used for resource estimates at Boungou are from exploration and grade control drill chips from RC drilling or core from diamond drill drilling.

Reverse circulation samples are collected from every 1-meter drill run in pre-labelled plastic bags directly from the cyclone on the drill rig. Approximately 30 kg to 40 kg of material is reduced using a tiered riffle splitter to obtain a subsample of about 2 kg which is packed in a poly bag. Sample tickets are placed into each poly bag and the hole ID and sample depth recorded on the remaining ticket stub. The riffle splitter is cleaned after each sample with a brush. A second split of the same size is kept on-site for reference and the rest of the RC sampled material discarded. A small sample of chips from each 1 m interval is removed with a sieve, washed and placed in labelled chip trays for logging and future reference. RC samples are collected dry 99% of the time. Sample bags are then transported to the on-site preparation laboratory for crushing and pulverizing. Quality control samples, including reference materials and blanks are also submitted with these samples.

Diamond core samples are collected on a maximum of 1.2 m intervals or to the lithological/alteration/mineralization boundaries, with a minimum sample length of 0.2 m. The core is cut in half lengthwise using a diamond saw and the sampled half core placed in a plastic bag and labelled with the hole ID and depth. A sample ticket labelled with the hole ID and depth is also placed in the bag. Quality control samples are also submitted with these samples. The other half is kept for reference in core storage shelters at the Boungou exploration camp.

Sample pulps are transported to ALS Laboratory (“**ALS-OU**”) in Ouagadougou for assaying. Quality control samples, including reference materials and blanks are also submitted with these samples.

In 2018, SEMAFO used the following laboratories:

- ALS-OU – independent laboratory located in Ouagadougou, Burkina Faso. The laboratory does not have recognized accreditation, but is part of the ALS Group of laboratories that operates under a global quality management system under ISO 9001:2008, and participates in international proficiency testing programs.
- WESTAGO – Boungou on-site laboratory owned by SEMAFO and operated by WESTAGO. The laboratory is not accredited but regularly participates in international proficiency testing programs.
- Mana mine’s site laboratory facilities (“**SMF-Lab**”) owned and operated by SEMAFO. The laboratory is not accredited but regularly participates in international proficiency testing programs. The laboratory acted as referee lab for the annual check assay as part of the quality control process.

An on-site preparation lab, run and managed by ALS-OU, is set-up at the Boungou exploration camp. RC and core samples are first registered, ordered and then weighed. Samples are oven dried at a nominal 100°C for up to 12 hours depending on the material. The whole sample is crushed to 70% passing 2 mm. One in 50 samples is screened to ensure 70% passing 2 mm. The crushed sample is split for pulverization using a rotary or riffle splitter. The remaining material is stored as a coarse reject. A 250g split of the 2mm material is then pulverized to 85% passing 75 µm in a bowl and puck pulveriser. One in 20 samples is screened to ensure 85% passing 75 µm. The 250 g sub-sample is collected (by scooping) and conditioned for shipping to the Ouagadougou laboratory. Sample pulps are stored on-site in a secure locked room until shipment to Ouagadougou. Transportation occurs on a regular basis with security guards. Personnel releasing the samples for shipment to the laboratory assume responsibility for the sample security and paperwork with recorded sample numbers accounted for prior to shipment to the laboratory. The remaining material (pulp reject) is returned to the original bag (or a plastic bag if the original is not suitable) and stored on-site. All preparation equipment is flushed with barren material prior to the commencement of the job. Cleaning of equipment (e.g. crushers and pulverisers) is by compressed air which is done between each sample.

Gold content was determined at the ALS-OU using a standard 50g fire assay procedure with atomic absorption by spectrometry (“**AAS**”) finish with a detection lower detection limit of 0.01ppm gold and upper detection limit of 100ppm gold. A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6mg of gold-free silver and then cupelled to yield a precious metal bead. The bead is digested in 0.5ml dilute nitric acid in the microwave oven. 0.5ml concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 10ml with de-mineralized water, and analysed by atomic absorption spectroscopy against matrix-matched standards. ALS-OU internal quality assurance and quality control (“**QA/QC**”) process involves standards, blanks and duplicates. Each analysis batch consists of 84 samples, 78 of which are client samples and 6 are quality control (“**QC**”) samples, comprising two reference material, one duplicate (taken before crushing), two pulp duplicates, one blank (pulp). Additional pulp check assays are performed on all batches (depending on the number of anomalies present within a given batch). Assay reports from the primary laboratory are submitted as digital data files and as PDF certificates.

The WESTAGO laboratory is used for mine grade control samples. Preparation and analytical procedures are similar to the Man on-site analytical facilities. The samples are first registered, ordered and weighed before being dried for between 8 and 10 h depending on moisture. Every ±2 kg sample is crushed to 70% passing 2 mm (-10 mesh) and quartered to get a first 250-g split of crushed material. The 250-g riffle split is pulverized to 85% passing 75 µm (200 mesh) and quartered to get a 50-g split. All preparation equipment is flushed with barren material prior to the commencement of each run. Cleaning of equipment (e.g., crushers and pulverisers) is by compressed air between each sample. All samples are analysed using 50-g fire assay procedure with an AA finish with a detection lower detection limit of 0.01 ppm gold. Samples grading over 15 ppm gold are re-assayed using a 50-g fire assay procedure with gravimetric finish. The WESTAGO internal QA/QC process involves standards, blanks and duplicates. Each analysis batch consists of 25 samples, 20 of which are client samples and 5 are QC samples, comprising one reference

material, one duplicate (taken before crushing), two pulp duplicates, one blank (pulp). Assay reports from the mine laboratory are submitted as digital data files. All drill samples are collected under direct supervision of the project staff from the drill rig to the mine site laboratory.

The QA/QC measures include the insertion of blank samples (“**blanks**”), certified reference materials (“**CRM**”), field duplicates and lab replicates. Additionally, re-assaying of a set number of sample pulps at a secondary umpire laboratory is performed on a quarterly basis as an additional test of the reliability of assaying results. The CRMs are supplied by ROCKLABS Limited for a variety of gold grade ranges suitable for this type of deposit. QC results are monitored by SEMAFO geologists as part of the assay data validation process during data loading. Sample submissions falling outside of acceptable rejection limits are investigated and resubmitted for re-assay, if deemed necessary.

QA/QC results are reviewed by the company’s QP on a quarterly basis and an annual summary report is published which include the referee lab results. SEMAFO considers that the sampling and analytical methods and security procedures are adequate for the purposes of the resource estimation.

Exploration drilling data are entered directly into a laptop using Geobank Mobile software and thereafter synchronized and transferred into a central database using the Geobank data management system from Micromine. A set of predefined validation rules are run on the data as part of the importation process. Final data validation, including geological and survey data, is carried out by project geologists and/or database geologists. A separate set of validation steps is followed for assay data after it is imported into Geobank.

Grade control drilling data are handled through Datamine Fusion data repository and management suite. Data are transferred and stored through secure connection to local-based and central corporate servers.

Sampling and logging procedures were reviewed by SEMAFO QP and found them to be appropriate and conducted to industry standards. The genetic model adopted is appropriate and represents the mineralization at Boungou. The database used for the resource estimate was generated in a credible manner and properly assembled and is therefore suitable for use in estimating the mineral resource.

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## MINERAL PROCESSING AND METALLURGICAL TESTING

A detailed metallurgical testwork program was undertaken and was focused on primary ore from the Boungou gold deposit. Quantities of oxide ore presented to the process plant are expected to be around 1% of reserves and as such, this ore type was not included in the master composite work. However, it was tested in the variability work.

The detailed testwork was carried out from March 2013 to August 2015 under the direction of Lycopodium, with input from former property owner, Orbis Gold and later SEMAFO, using HQ and PQ (123 mm) drill core recovered from both resource and metallurgical drilling campaigns.

In general, the Boungou primary ore is an abrasive, competent ore with above average comminution energy requirements. The ore has a high gravity recoverable gold content; leach kinetics are very slow when gravity is not included in the flowsheet. High dissolved oxygen levels and lead nitrate are required to achieve fast leach kinetics and adequate gold recovery. Anticipated lime consumption for primary ore is low to moderate, provided good quality water can be provided on-site. Cyanide consumption is likely to be moderate. High lime consumption will be experienced if oxide ore forms part of the feed blend.

The variability testwork showed that overall gold recoveries for the Boungou primary ore ranged from 84 % to 99%. There was a distinct relationship between recovery in the gravity stage and overall recovery. LOM head grades for the process plant are expected to average 4.15 g/t with a gold recovery of 92.9%.

The results suggest that the residue grade is moderately correlated with the amount of coarse gold in the sample (measured by % gold in +75 micron fraction of the screen fire assay), arsenic head assay, and gold head assay. A constant tail relationship is not appropriate.

With consideration of the parameters currently in the geological model, a relationship between the residue grade and the gold head assay was developed to produce the following predictive equation:

$$\text{Gold Residue (g/t Au)} = 0.1378 + 0.0384 * \text{Gold Head Assay (g/t Au)}$$

For example, for a gold head assay of 4.36 g/t Au, the gold residue grade would be 0.31 g/t Au.

As silver residue grades are frequently at the assay detection limit, and no trend with head grade is apparent, it is recommended that a simple arithmetic average of all the silver recovery figures be used i.e. 67%.

Following the construction and commissioning of the site, commercial production was achieved on September 1<sup>st</sup>, 2018. For the remaining of the year, a total of 76,138 ounces were produced or 63,605 ounces excluding the commissioning period. So far, gold recovery appears to be slightly above the predicted model.

In 2019, approximately 1.3 million tonnes (“Mt”) will be processed with an average grade of 5.72 g/t Au and recoveries around 94%. Total gold production is expected to be between 220-240,000 ounces.

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## MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES

A resource block model has been created for the entire deposit. A three dimensional (3D) mineralized solid was first interpreted from drill hole data, limiting resources to the material inside the solid. The mineralized envelope has been interpreted using Micromine software. All blocks interpolated below the surface topography or the mine surface survey as of December 31, 2018 make up the mineral inventory at that date. Blocks are classified relative to proximity to composites and corresponding precision/confidence level. Technical and economic factors are then applied to the blocks in the form of pit-optimization, optimized stope designs and cut-off grades to constrain the resources to those that present a reasonable prospect of economic extraction. Variographic analysis was undertaken. Resources were modelled using Studio RM, NPV Scheduler and MSO (Mineable Shape Optimizer) software packages from Datamine.

SEMAFO’s QP that prepared the Boungou mineral reserve and mineral resource estimates is not aware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the mineral resource estimate.

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## MINING OPERATIONS

Mining will use a conventional open-pit mining method, with hydraulic excavators in backhoe configuration to mine the mineralized zone, and in face-shovel configuration to mine the majority of the waste. The majority of the rock requires blasting and only the softer material located within the top 5 m to 10 m of the deposit will be free digging and loaded directly by hydraulic excavators. The mining operations have been contracted out with SEMAFO overseeing management and the provision of the mining technical services.

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## PROCESSING AND RECOVERY OPERATIONS

The metallurgical treatment route selected has been based on the results of the testwork program and includes processing ore at 4,000 tpd via the following unit process operations:

- Single stage primary crushing with a jaw crusher to produce a crushed product size of 80% passing (P<sub>80</sub>) of 133 mm.
- Mill feed surge/overflow bin that overflows to a 8,000 tonne stockpile to provide 48 hours of capacity. During extended periods of up to two days for primary crusher equipment maintenance, ore from the stockpile will be reclaimed by an excavator or dozer to feed the grinding circuit.
- The grinding circuit is a SATMC type, which consists of a closed circuit semi-autogenous grinding mill (“SAG”), pebble crusher for SAG mill discharge oversize and a closed circuit tower mill to produce a P<sub>80</sub> grind size of 63 µm.
- A gravity gold recovery circuit.

- Hydrocyclones are operated to achieve a cyclone overflow slurry density of 27% solids to promote better particle size separation efficiency. Subsequently, a pre-leach thickener is included to increase slurry density to the leach circuit, minimize leach tank volume requirements and reduce overall reagent consumption.
- Leach circuit with five tanks to achieve the required 36 hours of residence time at nominal plant throughput. Carbon-in-pulp carousel circuit consisting of seven stages is a carbon adsorption circuit for recovery of gold dissolved in the leaching circuit.
- AARL elution circuit with gold recovery to doré. The circuit includes an acid wash column to remove inorganic foulants from the carbon with hydrochloric acid.
- Carbon regeneration kiln to remove organic foulants from the carbon with heat.
- Tailings thickener to increase slurry density for water recovery prior to tailings discharge to the tailings storage facility.

The processing facility also includes water, air and oxygen services (storage and distribution), and reagent and grinding media storage and usage.

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## INFRASTRUCTURE, PERMITTING AND COMPLIANCE ACTIVITIES

### Infrastructure

The major infrastructure at the site to support a 4,000 tpd (1.34 Mtpa) mining and processing facility includes a 15.4 Megawatt on-site power generation via a hybrid heavy fuel oil and light fuel oil generators, electrical distribution, bulk fuel storage, tailings storage facility (“TSF”), water storage dams for water harvesting, sediment ponds, raw water storage facility, main access road, reagents and consumables storage, plant operations and maintenance buildings, administration building, medical facilities, warehousing main kitchen and dining room, engineering and exploration offices, accommodation camps with services for operations and maintenance personnel, and security.

The TSF will have a capacity to store 10 Mt of tailings generated by the process plant is required for the LOM with tailings being produced at a rate of 1.34 Mtpa. The preferred site selected for the project is located 800 m to the north-east of the process plant. The tailings storage facility requires a single embankment along its south and western extents with a total embankment length of 1665 m and with a maximum embankment height of 23.6 m at the southwest corner. The eastern and northern margins of the storage facility are confined by a natural laterite ridge line and therefore no supporting embankment is required along these margins. The tailings beach surface at full capacity will cover an area of approximately 76.5 hectares. Tailings will be pumped to the TSF as a slurry at 62% to 65% solids and will be deposited sub-aerially to facilitate drying and consolidation of the tailings mass.

Geochemical testing of the two composite tailings samples were conducted and found to be non-acid forming but were highly enriched in arsenic which was soluble under the pH conditions anticipated in the TSF. As a result of the high arsenic in the tailings solids and supernatant a robust seepage control system comprising an above liner underdrainage system, a geomembrane liner overlying a compacted in-situ low permeability sub-base and a sub liner seepage recovery drains have been included in the design.

The total water demand for the site was estimated at between 1.1 and 1.4 million m<sup>3</sup> per year. The water demand for the process plant amounts to 0.75 million m<sup>3</sup>, which includes the process raw water requirement of 0.08 million m<sup>3</sup> but excludes water in ore. Other water demands include a provision of between 0.2 million m<sup>3</sup> and 0.6 million m<sup>3</sup> for dust suppression and wash down water and 0.04 million m<sup>3</sup> for potable water requirements. The demand will be met from TSF decant, pit dewatering (including precipitation on the pit area), runoff from the rompad and plant site and sediment impacted runoff collected in the sediment control ponds. The balance of the water demands will be made up of raw water harvested from the groundwater and the surface water sources.

Raw water demands at Boungou will be met from two creeks which are located to the east and west of the process plant and water which will be harvested from the sediment ponds located around the site. An East Water Supply Dam will be constructed approximately 1.5 km to the north east of the processing plant. The mean annual runoff at the dam site is estimated to be 0.95 million m<sup>3</sup> from a catchment area of 1902 Ha. A West Water Supply Sump will be constructed approximately 2.0 km to the west south west of the processing plant. The mean annual runoff at the dam site is estimated to be 1.15 million m<sup>3</sup> from a catchment area of 2262 Ha. The flat topography at the dam sites would result in

significant evaporation and seepage losses should this location be used to store water for extended periods of time and therefore a supplementary water storage facility, the Raw Water Pond, has been provided to store water more efficiently. Three major sediment ponds have been designed to capture runoff from the waste dumps with an upstream clean water diversion designed to carry non impacted water around the site. In light of the above described water infrastructure, the water demands at Boungou will be fully met.

### **Environmental, Permitting and Social or Community Impact**

Burkina Faso has a regulatory framework for environmental and social management. The relevant policies, laws and regulations of Burkina Faso were taken into account during the implementation of the Environmental and Social Impact Assessment (“ESIA”).

The application for an operating permit requires a feasibility study (“FS”) that must first be accepted by the *Ministère de l’environnement et du développement durable*<sup>7</sup>. The FS must include an ESIA which in turn must include a Resettlement Action Plan (“RAP”) that has been accepted by all stakeholders. Once in production, a mining permit holder is required<sup>8</sup> to open under his name a fiduciary account named *Fonds de préservation et de réhabilitation de l’environnement minier*<sup>9</sup> at the *Banque Centrale des États de l’Afrique de l’ouest*<sup>10</sup>. This account must be funded annually on January 1<sup>st</sup> by an amount equal to the total rehabilitation budget presented in the ESIA, divided by the number of years of production to cover the costs of mine reclamation, closure and rehabilitation.

Both the ESIA and the RAP were filed with the government of Burkina Faso in the second quarter of 2016. Our mining permit application for Boungou was approved on December 22, 2016 by the Council of Ministers of the Government of Burkina Faso.

Many baseline studies have been conducted from 2013 and 2015 in order to fully document the sensitive environmental and social components of Boungou.

The stakeholder information and consultation process was an integral part of the ESIA. Mechanisms and communication tools were put in place so that all those involved in, or affected by, the project could freely express themselves. The information collected during these consultations helped identify issues, risks, benefits, and opportunities in order for the project to avoid, minimize, or offset negative impacts and enhance the positive ones.

Our project will impact the physical, biological, social and economic components of the Boungou project area. The impacts on physical environment are moderate given the mining operations have a zero water discharge and that the project is engineered to protect ground water from potential cyanide contamination. The most significant impact is the social component with the resettlement of the population currently living on its site. The economic impact of the project at the local, regional, and national levels is positive as it will provide jobs during construction, operation and closure phases which will increase household incomes and improve living conditions. The revenues generated by the mining operation will also increase Burkina Faso’s internal revenue through taxes and royalties charged by the local authorities.

Boungou required the relocation of 165 concessions involving approximately 900 inhabitants and compensation was paid for 813 Ha of farmland.

Geochemical studies have been conducted to assess the potential for acid drainage (Acid Rock Drainage) and metal leaching of the waste rock and construction materials as well as CIP tailings and heap leach solids. It was found that the direct seepage from the waste dump will meet Burkina Faso’s Effluent Discharge Criteria for release to surface water.

A Conceptual Closure and Rehabilitation Plan was developed including work to be conducted from the closure of the mine, at the end of operational activities, as well as progressive rehabilitation work. The estimated cost for the direct closing, decommissioning and restoration cost, engineering and post closure monitoring is estimated at \$18 million.

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<sup>7</sup> Ministry of Environment and Sustainable Development

<sup>8</sup> Decree No. 2007-845/PRES/PM/MCE/MEF.

<sup>9</sup> Fund for the Preservation and the Rehabilitation of the Mining Environment

<sup>10</sup> Central Bank of West African States

When including contingencies and salvage value recovery, the cost for mine closure and remediation should be \$17.8 million. As of December 31, 2018, \$13.9 million has been provisioned in respect of the rehabilitation plan.

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## CAPITAL AND OPERATING COSTS

### Initial Capital Costs

As of December 31, 2018, development costs representing the total budget of \$231 million have been incurred.

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## PRODUCTION 2018

The following table presents 100% of the gold production statistics for the Boungou Mine for the financial year ended December 31, 2018. The Boungou Mine is owned and operated by SEMAFO Boungou S.A. in which we own a 90% equity interest.

<b>Production Update<sup>1</sup></b>	<b>Year ended December 31, 2018 (4 months)</b>
Gold production (ounces)	63,600
Plant ore processed (tonnes)	368,100
Weighted Head-grade (g/t Au)	5.75
Weighted Recovery (%)	94
Total Cash Cost (\$/ounce) <sup>2</sup>	403
All-in sustaining cost (\$/ounce) <sup>3</sup>	596

1 Commercial production started September 1, 2018.

2 Total cash cost is a non IFRS financial performance measure with no standard definition under IFRS and represents the mining operation expenses and government royalties per ounce sold.

3 All-in sustaining cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the total cash cost, plus sustainable capital expenditures and stripping costs per ounce.

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## TAXES AND ROYALTIES

Our tax rate is 27.5% at Boungou. All shipments with gold spot prices lower or equal to \$1,000 per ounce are subject to a royalty rate of 3%, a 4% rate is applied to all shipments with gold spot prices between \$1,000 and \$1,300 per ounce, and a 5% royalty rate is applied on all shipments with a gold spot price greater than \$1,300 per ounce.

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## TAPOA 2019 EXPLORATION BUDGET<sup>11</sup>

A budget of \$9 million has been allocated to Boungou, the main objective of which is to identify new resources within trucking distance of the mill. To this end, this year's program comprises 41,000 meters of RC, 1,200 meters of DD and 100,000 meters of auger drilling. The bulk of the RC drill work will follow up on recent discoveries at Dangou and test regional gold anomalies on the Pambourou and 045 Trend Sectors. The auger program will provide a complete coverage of the property and identify future exploration targets.

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<sup>11</sup> The statements in this section are forward-looking. For more information on forward-looking statements, see ITEM 23-FORWARD-LOOKING STATEMENTS.

## Mana Property

### INTRODUCTION

Below is a reproduction of the summary contained in the technical report entitled “Mana Property, Burkina Faso, NI 43-101 Technical Report, Disclosing the Results of the Siou Underground Prefeasibility Study”, dated March 26, 2018, with an effective date of December 31, 2017 (the “**Mana Report**”) and prepared under the supervision of Richard Gowans, B.Sc., P.Eng., President and Principal Metallurgist at Micon, with the participation of Christopher Jacobs, CEng MIMMM, Vice President and Mineral Economist at Micon, Eur Ing Bruce Pilcher, CEng, FIMMM, FAusIMM(CP), Senior Mining Engineer at Micon, Jane Spooner, M.Sc., P.Geo., Vice President at Micon, Charley Murahwi, M.Sc., P.Geo., FAusIMM, Senior Geologist at Micon, all “qualified persons” for the purpose of the Mana Report. Portions of the following information are based on assumptions, qualifications and procedures which are not fully described herein. Readers should consult the Mana Report which is available under SEMAFO’s profile on SEDAR at [www.sedar.com](http://www.sedar.com) to obtain further particulars regarding the Boungou gold deposit. The Mana Report is not and shall not be deemed to be incorporated by reference in this AIF.

Unless otherwise indicated, technical information which has been disclosed since the release of the Mana Report has been prepared under the supervision of, or reviewed by, Mr. François Thibert, M.Sc.Geo, Manager, Estimate Group Resources and Reserves West Africa, our “qualified person”.

The Mana Mine was opened in March 2008. Ore is mined using open pit methods from a number of deposits, Wona-Kona, Nyafé, Fofina and Siou. Exploration has identified the potential for underground mining at Siou.

The government of Burkina Faso has the right to hold a 10% free carried interest via a 10% equity interest in the local holding company. The local holding company is SEMAFO BF which is 90% owned by SEMAFO. The mining license for operations at Mana is held by SEMAFO BF. Exploration permits are held by Mana Mineral SARL (“**Mana Mineral**”) and Ressources Tangayen SARL.

The Mana gold deposits lie within the Mana permit group located in Burkina Faso, West Africa. The property lies approximately 200 km west of Ouagadougou, the capital of Burkina Faso. It is centred on UTM coordinates 465,000 mE and 1,326,000 mN (WGS84z31).

SEMAFO holds 12 contiguous exploration permits collectively known as the Mana permit group, covering approximately 925.56km<sup>2</sup>.

There are no identified environmental or social issues on the Mana property that would materially impact SEMAFO’s ability to operate the mining and processing facilities.

### PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Mana operation is accessible by road from the capital city of Ouagadougou. The majority of the local workforce lives in nearby villages. SEMAFO established a camp about 0.5 km to the east of Mana Mine for senior staff and expatriates, comprising living quarters, kitchen and recreational facilities.

The climate of Burkina Faso is semi-arid, with a rainy season from May to September, and a hot dry season from February to April.

Work can be carried out year-round.

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## HISTORY

Exploration work by Mana Mineral on the Mana property started in October 1997 and led to the initial discovery of the Nyafé, Filon 67 and Wona deposits. A formal feasibility study and environmental impact study were initiated in 2004. The mining permit for development of the Wona and Nyafé deposits was granted in February 2007. Mill start-up took place on February 15, 2008. Capacity has been expanded in several phases and currently stands at 7,200 t/d in fresh ore and up to 8,000 t/d in blended ore.

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## GEOLOGICAL SETTING, MINERALIZATION AND DEPOSIT TYPE

The Mana district is located in the northern part of the Houndé greenstone belt. The lithostratigraphic succession is typical of greenstone belts and is characterized at the base by a major tholeiitic basaltic suite with some intercalations of argillic sedimentary rocks that are overlain by predominant pelagic and detrital sedimentary rocks (shale, sandstones, greywacke and volcanoclastics). The Mana district basalt unit has undergone submarine hydrothermal alteration with epidote, chlorite and local albite, and shows zones of strong silicification, some of which are anomalous in gold. Accessory minerals include rutile and disseminated pyrite. Free visible gold is encountered at the Wona-Kona and Siou deposits.

All deposits on the Mana property are characterized as typical West African, shear-hosted orogenic gold deposits.

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## EXPLORATION

Stream sample geochemistry, airborne geophysics (helicopter-borne magnetic, Mag-Helitem) and surface mapping are used to identify areas for detailed investigation. Ground geophysics is also used to test extensions of known large scale structures. Sampling via auger or rotary air blast drilling follows on fixed grids in order to reach the saprolite below the lateritic cover.

Trenching and/or RC drilling is then used as a first pass to test the auger drilling anomalies. Generally, exploration sample quality is considered as being sufficient to indicate significant gold mineralization but not representative of the overall grade associated with the deposit. Following positive results, RC drilling and core drilling are used to extend the information at depth and to delineate the mineralized bodies.

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## DRILLING

Drilling at the Mana property has been undertaken using a combination of air core, RC and diamond drilling. Current database contains 14,845 holes for a total of 1.462.066 m.

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## SAMPLING, ANALYSES AND DATA VERIFICATION

Soil sampling is a good first pass exploration tool. It is most effective in areas of outcrop and/or near surface saprolite exposure. Individual soil samples are taken by digging a hole approximately 20 cm in diameter down to a depth of approximately 30-40 cm. Approximately 2-3 kg of sample is collected from the bottom of each hole, placed in individual plastic bags and sent to the laboratory for analysis.

Auger drilling is a cost-effective method for geochemical sampling that consists of drilling vertical holes down to the in-situ saprolite horizon along a predetermined grid. A sample of approximately 2-3 kg is taken from both the laterite/saprolite interface and within the saprolite. The sample is then sent for gold assaying using the bottle-roll method. Areas targeted for auger drilling are those where the soil cover or overburden is too thick to enable collection of samples from the saprolite zone by soil sampling.

RC samples are collected from every 1-m drill run in pre-labelled plastic bags directly from the cyclone on the drill rig. Approximately 30 kg to 40 kg of material is reduced using a tiered riffle splitter to obtain a subsample of about 2 kg which is packed in a poly bag. The remaining of the RC sample material is discarded. A small sample of chips from

each 1-m interval is removed with a sieve, washed and placed in labelled chip trays for logging and future reference. RC samples are collected dry 99% of the time. Sample bags are then transported to SEMAFO BF mine site facilities for crushing, pulverizing and assaying. QC samples, including reference materials and blanks are also submitted with these samples.

Diamond core samples are collected on a maximum of 1.2-m intervals or to the lithological/alteration/mineralization boundaries, with a minimum sample length of 0.2 m. The core is cut in half lengthwise using a diamond saw and the sampled half core placed in a plastic bag and labelled with the hole ID and depth. A sample ticket labelled with the hole ID and depth is also placed in the bag. Quality control samples are also submitted with these samples. The other half is kept for reference in core storage shelters at the Bana exploration camp.

SEMAFO uses SMF-Lab for both sample preparation and analysis of RC and core drilling and ALS-OU in Ouagadougou for assaying soil and auger drilling samples. ALS-OU is a commercial laboratory independent of SEMAFO. The ALS-OU does not have recognized accreditation, but it is part of the ALS Group of laboratories that operates under a global quality management system under ISO 9001:2008, and participates in international proficiency testing programs. The SMF-Lab does not have recognized accreditation but participates in international proficiency testing programs.

For soil and auger programs, the samples are weighed, bar-coded and logged into the sample tracking system before the laboratory personnel riffle-split a nominal 1,000-g sub-sample for BLEG analysis. The gold cyanide leach analysis involves a 24-h bottle roll, with an atomic absorption spectrometry (AAS) instrument used to measure the gold concentration of an aliquot of the leach solution. The technique has a detection range of 0.001 ppm to 10 ppm for gold.

The SMF-Lab is used for grade control samples, RC, core drilling sample analysis. All samples (i.e., exploration and mine grade control) follow exactly the same procedures except that the preparation, crushing, and pulverization of exploration samples is run independently from the mine grade control samples, on a different set of equipment in a separate building. The samples are first registered, ordered and weighed before being dried for between 8 and 10 h depending on moisture. Every  $\pm 2$  kg sample is crushed to 70% passing 2 mm (-10 mesh) and quartered to get a first 250-g split of crushed material. The remaining 1.75 kg is returned to the Bana exploration camp and core shack near Nyafé for reference. The 250-g riffle split is pulverized to 85% passing 75  $\mu$ m (200 mesh) and quartered to get a 50-g split. The remaining pulp ( $\pm 200$  g) is returned to the Bana exploration camp. All preparation equipment is flushed with barren material prior to the commencement of each run. Cleaning of equipment (e.g., crushers and pulverisers) is by compressed air between each sample. All samples are analysed using 50-g fire assay procedure with an AA finish with a detection lower detection limit of 0.01 ppm gold. Samples grading over 15 ppm gold are re-assayed using a 50-g fire assay procedure with gravimetric finish. The SMF-Lab internal QA/QC process involves standards, blanks and duplicates. Each analysis batch consists of 25 samples, 20 of which are client samples and 5 are QC samples, comprising one reference material, one duplicate (taken before crushing), two pulp duplicates, one blank (pulp). SMF-Lab also participates in regular round robin programs to monitor for bias. A minimum of 5% additional pulp check assays are performed on all batches (depending on the number of anomalies present within a given batch). Assay reports from the mine laboratory are submitted as digital data files.

QA/QC programs are in place to ensure the reliability and trustworthiness of exploration data. In order to monitor the reliability of assaying results delivered by the assaying laboratories, we have developed an assaying protocol that consists of systematically inserting blank samples, certified reference materials, field duplicates and laboratory replicates. Additionally, re-assaying of a set number of sample pulps at a secondary umpire laboratory is performed on a quarterly basis as an additional test of the reliability of assaying results.

For material assayed by SMF-Lab, samples are trucked from the field by our personnel to the Bana exploration camp. For GC material, samples are trucked directly from the deposits to the mine site laboratory. QA/QC samples are inserted by our personnel into the sample stream, either at the exploration camp for the exploration samples or in the field for the GC samples. Assay samples are placed in sealed and numbered plastic bags and delivered by batch by truck to the mine laboratory. Personnel releasing the samples for shipment to the laboratory assume responsibility for sample security and paperwork with recorded sample numbers accounted for prior to shipment to the laboratory. SMF-Lab personnel checks the received samples against the paperwork and signs off on the receipt.

Density measurements were performed on core samples from the Wona-Kona, Nyafé, Siou and Yama deposits and are derived from metallurgical studies for Fofina, Fobiri and Yaho. The equipment and the procedure used for measuring bulk density at Mana is considered appropriate for Mineral Resource estimation.

QA/QC results are reviewed by the company's QP on a quarterly basis and an annual summary report is published which include the referee lab results. SEMAFO considers that the sampling and analytical methods and security procedures are adequate for the purposes of the resource estimation.

Drilling data are entered directly into a laptop using Geobank Mobile software and thereafter synchronized and transferred into a central database using the Geobank data management system from Micromine. A set of predefined validation rules are run on the data as part of the importation process. Final data validation, including geological and survey data, is carried out by project geologists and/or database geologists. A separate set of validation steps is followed for assay data after it is imported into Geobank.

Sampling and logging procedures were reviewed by SEMAFO QP and found them to be appropriate and conducted to industry standards. The genetic models adopted are appropriate and represent the mineralization of the Mana deposits. The database used for the resource estimate was generated in a credible manner and properly assembled and is therefore suitable for use in estimating the mineral resource.

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## MINERAL PROCESSING AND METALLURGICAL TESTING

### Metallurgical Testwork Programs

External metallurgical testwork relating to the Mana operation has taken place in three phases relating to the development of feed from:

- The Wona-Kona and Nyafé deposits in 2002-2007.
- The Siou deposit in 2012.
- The South sector deposits, Fofina, Fobiri and Yaho in 2012-2013.

This work comprised comminution, leaching, gravity separation and acid base accounting tests.

Given the metallurgical processing experience gained by SEMAFO with the different types of mineralization in the area, there is no plan to undertake further testwork in support of underground development at Siou.

The change of mining method (from open pit to underground mining) does not affect the metallurgical characteristics of Siou's orebody and similar recoveries are expected underground.

### Tailings Characterisation

Detoxification tests using tailings samples were carried out in 2010 by SGS South Africa. These tests indicated that the sodium metabisulfite/copper sulphite method achieved an average of 99.47% removal of weak acid dissociable cyanide, with 99.48% removal of total cyanide and 99.87% removal of free cyanide. A series of ABA tests using Wona-Kona tailings samples were completed by SGS South Africa in 2013. Of the 17 samples, none of them was characterized as acid producing. Five were classified as potentially acid producing, while the remaining 12 were non-acid producing.

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## MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES

Reference is made to ITEM 4 – MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES.

Resource block models have been created for each individual deposit. Three dimensional (3D) mineralized solids are first interpreted from drill hole data, limiting resources to the material inside those solids. All blocks interpolated below the surface topography or the mine surface survey as of December 31, 2018 make up the mineral inventory at that date. Blocks are classified relative to proximity to composites and corresponding precision/confidence level. Technical

and economic factors are then applied to the blocks in the form of pit-optimization, optimized stope designs and cut-off grades to constrain the resources to those that present a reasonable prospect of economic extraction. Variographic analysis was undertaken.

Drill hole exploration data are stored and managed using the Geobank data management system from Micromine. Mineralized envelopes have been interpreted using Micromine software. Resources were modelled using Studio RM, NPV Scheduler and MSO (Mineable Shape Optimizer) software packages from Datamine.

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## MINING OPERATIONS

### Mining Methods

Two mining methods will be employed at the Mana operation. Open pit mining will continue to be used at Wona/Kona and part of the Siou ore zone. Following identification of the ore at depth, underground mining will be employed in the southern part of the Siou deposit.

#### Open Pit Mining

Open pit mine production at Mana averages approximately 5,000 t/d of ore in bedrock, mainly from the Wona and Siou pits, that can be blended with ore from underground up to a maximum of 7,000 t/d for processing in the mill.

Pit optimization was conducted using Datamine's NPV Scheduler software based on the Lerchs-Grossman algorithm.

Geotechnical pit slope designs were completed in 2017 and updated in 2018.

SEMAFO owns the majority of the open pit equipment fleet but it also uses local contractors' services and rental equipment.

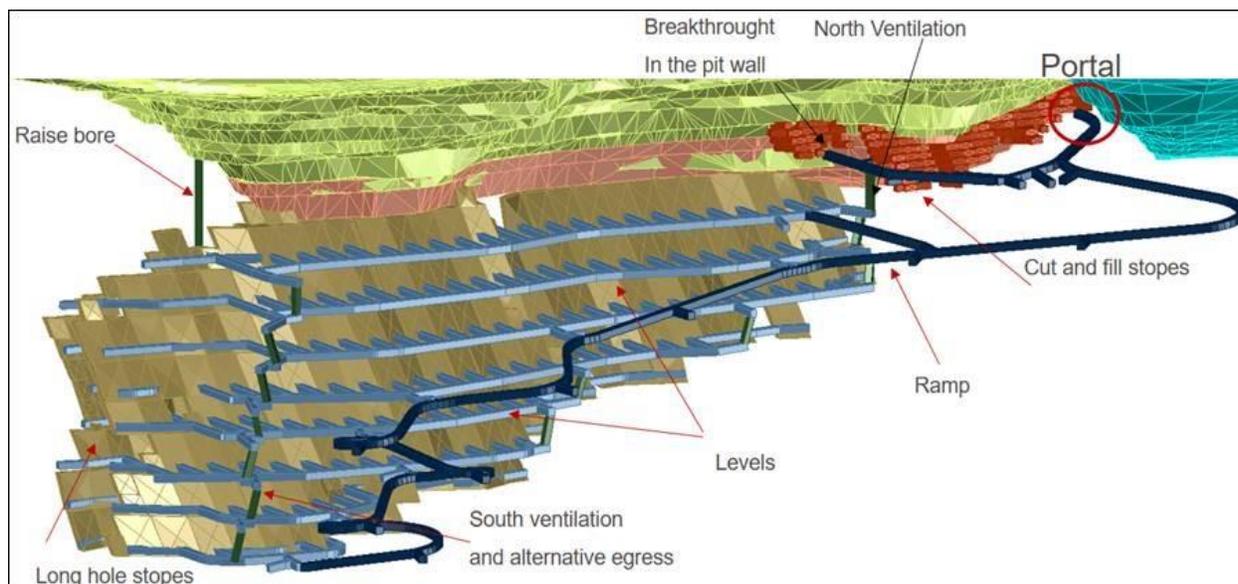
#### Underground Mining at Siou

The underground mining method to be used is the long hole (longitudinal retreat and transversal) which was selected because of the inclination of mineralized lenses and ore (stockwork) thickness. Long hole mining is used when a stope can be mined economically above a dip of 50° degrees. Consolidated backfill and loose rock will be used to ensure safe ore recovery in long hole mining.

Golder was retained to undertake the geotechnical and hydrogeological analysis of the underground project at Siou, including stope dimension, ground support and pillar dimension. The rock is classified as Good to Very Good for the four geological units present at Siou. Under a steady state condition and at the end of the excavation, a total water inflow of about 700 m<sup>3</sup>/d is estimated for the underground mine.

The mine design and planning were based on the Siou geological model results. The production rate will be 2,000 t/d using AUMS as the contract miner. The figure below shows an isometric view of the mine design.

### Siou Isometric View of Underground Mine Design



SEMAFO, 2018.

SEMAFO envisages underground production at Siou reaching capacity in the first quarter of 2020. It is expected that the mining contractor will continue underground development from 2019 to 2021.

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## PROCESSING AND RECOVERY OPERATIONS

Gold from the Mana deposit is recovered by a state of the art metallurgical plant which was constructed in 2008. Between 2008 and 2018, the Mana plant processed a total of 25,364,504 t of ore coming from the Wona, Kona, Nyafé, Siou and Fofina pits at an average grade of 2.76 g/t Au and an overall recovery of 90.9% which produced 2,044,169 oz of gold. The operational results correlate very well with the laboratory tests performed over the years for different ore types and for all mineralization types including oxides and sulphides.

The Mana flowsheet comprises a standard SABC comminution circuit, CIL circuit, Zadra elution circuit, gold electrowinning and tailings disposal. Slurry tails from the CIL circuit are pumped to the tailings storage facility and supernatant water is recycled back to the mill. There will be no changes in processing as a result of the change of mining method from open pit to underground mining. Projected 5-year annual production is summarized in the next table.

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## INFRASTRUCTURE, PERMITTING AND COMPLIANCE ACTIVITIES

Facilities at the Mana site include the open pit mines, waste rock dumps, process plant, tailings storage facility, water storage/supply dam, five water runoff basins, sediment ponds, storage areas, buildings, power plant, bulk fuel storage, accommodation camps and main access road. Different areas are fenced to provide security and prevent animal access.

Facilities at the Siou site include the open pit mine and the underground development, waste rock dumps, ore rock storage pad, truck balance for ore transported from Siou to the processing plant, water storage pond, offices, workshop for regular maintenance, material storage, electricity generators, bulk fuel storage, fences, access roads, gates, security stands. The explosive site is a separately fenced area with 24-h security guard. It is used as a relay storage for specific underground detonators and packaged explosives.

## **Power Supply**

Due to the remote location of the Mana site, power is provided by a diesel-fueled generation station located adjacent to the process plant.

An on-site bulk fuel storage facility is located close to the power plant and provides diesel for power generation, mine trucks, light vehicles and users at the process plant.

## **Sewage, Waste Water and Solid Waste Management**

Domestic wastewater and sewage from the site facilities are collected and sent to a wastewater treatment plant. The water discharged is rigorously monitored and remains in compliance with the discharge standards of Burkina Faso. The industrial wastewater from the Wona and Siou garages and the hydrocarbon depot are treated in self-contained structures with settling separators before being discharged to the environment. All discharge is closely monitored through a sampling and analysis program.

All waste is sorted at source and placed in different coloured containers. Material such as food waste uncontaminated packaging, green waste, ordinary industrial waste, is collected in green bins and sent to the landfill site within the tailings storage facility.

## **Accommodation**

The accommodation camp is located about 1 km to the east of the process plant and provides accommodation for 135 employees, including expatriates national senior and technical staff.

## **Mine and Plant Facilities**

Site buildings consist of administration offices, workshops, warehouses, laboratory and reagent storage sheds which are constructed of structural steel framing and metal cladding on concrete slabs. Offices and amenity buildings are concrete block or brick construction.

The explosive site is a separately fenced area with 24-h security guard and equipped with surveillance cameras.

The Siou mining operation is located approximately 16 km east of the processing plant. Certain infrastructure items are located in the Siou sector to minimize transportation and maintenance costs, and to ensure security for mining high grade ore.

## **Water Supply**

Operational water demand is met from tailings storage facility decant, pit dewatering (including precipitation in the pit area), surface runoff and site groundwater which is collected in raw water dams and ponds around the site. The total plant water demand is between 2.6 and 2.9 Mm<sup>3</sup>/y. The surface water collection network consists of five collection basins located north and south of the treatment plant with a nominal holding capacity of 601,000 m<sup>3</sup>.

Potable water for the Mana site is supplied from underground wells (Dangouna village, Somana, Wona and accommodation camps).

## **Tailings Storage Facility**

A TSF with a storage capacity of 41 Mm<sup>3</sup> of tailings generated by the ore processing operations is required for the life of the project at a rate of 2.7 Mt/y. Tailings are discharged to the facility via a 5 km pipeline. The supernatant water is recycled to the plant and there is no effluent out of the tailings pond. Ten control wells around the TSF monitor groundwater quality and fluctuations in the water table.

The facility is contained by four peripheral laterite embankment dams and has an area of approximately 130 ha and is divided into two cells, east and west, separated by a median dam. The tailings are deposited alternately in the cells to accelerate consolidation and evaporation.

### **Environmental Studies, Permitting and Social or Community Impact**

There are no identified environmental or social issues on the Mana property that would materially impact SEMAFO's ability to operate the mining and processing facilities.

Environmental and social impact assessments, environmental and social management plans and resettlement action plans define the terms of the environmental management of the Mana mining and processing operations, as well as the compensation for people affected by the developments all in accordance with the regulations.

Environmental control, implementation of management and facility response plans, and the monitoring of extraction and treatment operations are the responsibility of the Environmental Manager. Water quality, air quality, noise and vibration, acid generating potential, waste materials, and tailings pond are subject to rigorous monitoring in accordance with the regulatory requirements of Burkina Faso and industry best practice. Due to the high impact of the rainy season, special attention is given to monitoring the overall management of water, including the tailings pond. There is no effluent discharge to the environment.

The Community Relations Department and the SEMAFO Foundation are responsible for implementing social commitments and SEMAFO's social responsibilities.

An amendment to our existing operating permit is required for the development of the Siou underground mine. The application for the amendment requires a feasibility study that must first be accepted by the relevant agency together with an ESIA which must include a RAP that has been accepted by all stakeholders.

### **Acid Rock Drainage**

Regular analyses carried out over the period 2009-2012 on samples from the Wona, Nyafé and Siou pits demonstrate that the types of materials contained in the existing waste rock can be considered as non-acid generating.

### **Waste Rock Storage**

Waste rock is transported to one of the five storage areas located near the open pits with total capacity of 29.3 Mt. These structures are built up in layers and the slopes leveled to an average of about 20° and are surrounded by perimeter diversion ditches. Each waste rock storage area is progressively rehabilitated and revegetated.

### **Closure, Decommissioning and Reclamation**

The mine rehabilitation and closure plan outline the recommended remediation options, including the stages and costs of implementation. By decree, the government has set up a fund to be used for the restoration of mining sites. The account of SEMAFO in this fund stood at \$7,869,000, as of December 31, 2018 on an annual rehabilitation budget of \$0.01/t of material mined (ore and waste rock).

The main objectives of the closure and rehabilitation plan are restoration of ecosystems and recovery of land use.

## CAPITAL AND OPERATING COSTS

Capital and operating costs for all mining operations in Mana, including the Wona-Kona pit, the Siou pit and the Siou underground project are expressed in United States dollars.

### Siou Underground Project Capital Cost Estimate

The capital cost estimate includes all the direct and indirect costs and appropriate project estimating contingencies required to bring the Siou underground project into production, as defined by the PFS. The estimated pre-production capital cost is \$51.7 million and the sustaining development capital is \$16.5 million, as shown in the table below.

#### Siou Underground Project Overall Capital Cost Estimate (Million \$)

Main Area	Pre-production	Sustaining	Total
Underground Mine	26.5	10.8	37.3
Maintenance and Infrastructure	13.2	2.9	16.1
Technical Services	2.9	0.5	3.4
Administration	1.5	0.2	1.7
Contingency (15%)	6.6	2.1	8.7
<b>Subtotal</b>	<b>50.7</b>	<b>16.5</b>	<b>67.2</b>
Operation Readiness Plan	1.0		1.0
<b>Total</b>	<b>51.7</b>	<b>16.5</b>	<b>68.2</b>

The project initial capital costs are based on a pre-production period from Q3 2018 through Q4 2019. Pre-production represents the period prior to the processing of the first production ore from the underground mine. The largest portion of the capital cost estimate is attributed to development costs, which have been based on contractor quotations. Mining capital includes mine access development, pre-production mining costs, contractor mobilization and other mine infrastructure that is comprised of surface facilities and portal collar construction. The development capital has been estimated based on the meterage of development, and the contractor's proposed unit cost of development for each of the different development profiles. Ventilation raise development was quoted to be completed using production drill and raise bore equipment rates.

The project sustaining development capital costs and operating costs are for the period from 2020 to 2024.

### Siou Underground Project Mine Operating Costs

Operating cost estimates for the project are based primarily on contract mining. Average unit costs are shown in the table below based on annual tonnes milled.

#### Mining Operating Cost per Tonne

Item	Units	Y -1	Y 1	Y 2	Y 3	Y 4	Y 5	Total
Mill Production	kt	65	654	704	704	705	204	3,036
Underground Mine	\$/t		62.02	48.77	48.35	38.15	41.51	47.54
Maintenance and Infrastructure	\$/t		17.92	17.97	18.64	17.04	11.45	17.07
Technical Services	\$/t		3.14	3.15	3.41	3.35	3.34	3.20
Administration	\$/t		1.43	1.43	1.55	1.53	1.53	1.45

LOM average operating cost for mining in respect of the underground project is forecast to be approximately \$70/t milled.

## Siou Underground Project Processing and General and Administration Costs

The operating costs for processing and G&A were provided by SEMAFO BF. The LOM average costs in respect of the underground project are \$17.11/t and \$3.60/t, respectively, and are representative of the historical cost incurred.

### PRODUCTION 2018

The following table presents 100% of the gold production statistics for the Mana Mine for the financial year ended December 31, 2018. The Mana Mine is owned and operated by SEMAFO BF in which we own a 90% equity interest.

Production Update <sup>1</sup>	Year ended December 31				
	2018	2017	2016	2015	2014
Gold production (ounces)	181,000	206,400	240,200	255,900	234,300
Plant ore processed (tonnes)	2,573,900	2,739,900	2,753,300	2,399,100	2,754,400
Weighted Head-grade (g/t Au)	2.36	2.46	2.88	3.63	2.90
Weighted Recovery (%)	93	95	94	91	91
Total Cash Cost (\$/ounce) <sup>2</sup>	786	655	548	493	649
All-in sustaining cost (\$/ounce) <sup>3</sup>	1,056	942	720	645	801

1 Mill start-up of the Mana Mine began in February 2008.

2 Total cash cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the mining operation expenses and government royalties per ounce sold.

3 All-in sustaining cost is a non-IFRS financial performance measure with no standard definition under IFRS and represents the total cash cost, plus sustainable capital expenditures and stripping costs per ounce.

### TAXES AND ROYALTIES

Our tax rate is 17.5% at Mana. All shipments with gold spot prices lower or equal to \$1,000 per ounce are subject to a royalty rate of 3%, a 4% rate is applied to all shipments with gold spot prices between \$1,000 and \$1,300 per ounce, and a 5% royalty rate is applied on all shipments with a gold spot price greater than \$1,300 per ounce.

### MANA 2019 EXPLORATION BUDGET<sup>12</sup>

A budget of \$4 million has been allocated to Mana in 2019 which includes 18,600 meters of RC and 58,000 meters of auger drilling. The RC program will be dedicated to identifying satellite deposits near existing operations with a particular emphasis on the Pompoi area located 3.5 kilometers east of the Yaramoko Mine. The Pompoi program will focus on previous results of up to 7.40 g/t Au over 2 meters coincident with auger anomalies identified in 2018 with the objective of finding intrusive-hosted, high-grade mineralization.

Continued exploration is warranted in order to expand the mineral resources at Siou along strike and at depth. Once development of the haulage decline is sufficiently advanced, drilling can be conducted to test for potential extensions of the mineral deposit down-dip and to the north and south of the current known resource.

<sup>12</sup> The statements in this section are forward-looking. For more information on forward-looking statements, see ITEM 23-FORWARD-LOOKING STATEMENTS.

## Kongolokoro Property

### INTRODUCTION

Unless otherwise indicated, technical information which has been disclosed herein has been prepared under the supervision of, or reviewed by, Mr. Richard Roy Vice-President, Exploration and Mr. François Thibert, M.Sc.Geo, Manager, Estimate Group Resources and Reserves West Africa, each a “qualified person”.

**Management does not consider the Bantou gold deposit as being a material project to the Corporation at this stage.**

### PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Bantou gold zone is part of the Dynikongolo permit located approximately 170 kilometers south of Mana, along the prolific Houndé Greenstone Belt that hosts Mana and multiple other gold mines. The Dynikongolo permit is a single exploration permit covering approximately 250 km<sup>2</sup>. The permit was transferred to Birimian Resources SARL on April 30<sup>th</sup> 2013, a company 100% owned by SEMAFO through the acquisition of Orbis Gold.

Access to Bantou is by means of Route Nationale RN01, an all-weather bitumen road from Ouagadougou, the capital of Burkina Faso, through Boromo to the Pâ junction. From there, travel is via RN12 followed by RN20, also all-weather bitumen road through the town of Diebougou, to the Bondigui junction. From Bondigui, travel is made via successions of laterite roads to the property, located some 62km to the southwest, the last portions hardly practicable during wet season.

### HISTORY

No significant exploration is known to have occurred on the Dynikongolo permit prior to 2010 when Orbis commenced rock chip sampling, a program of 5 trenches and mapping. Airborne geophysics (magnetic and radiometric) was also conducted in 2010, while some ground IP surveys were conducted between November 2012 and April 2014. An extensive soil and rock chip sampling campaign was initiated in 2012 at a spacing of 800m by 100m followed by a reduced spaced grid of 200m by 50m over anomalous areas later that same year, the geochemistry was completed in 2013.

An extensive drilling program was undertaken in 2013, which included 32 RC drill holes and 10 DD holes mostly near the known Bantou artisanal mining site which resulted in the confirmation of the Bantou gold deposit. A few additional drill holes were completed at Bantou in 2014 at the same time as a regional scale drill program was carried over the license. In 2017, a small DD campaign was completed by SEMAFO. The 2017 program aimed at confirming the “at depth” extension of the Bantou zone as well as to carry some metallurgical test on the mineralized zones. Positive metallurgical results lead to the resource definition of the Bantou deposit at the end of 2018.

### GEOLOGICAL SETTING, MINERALIZATION AND DEPOSIT TYPES

The Bantou mineralization is constrained by two parallel zones of cherts and banded iron formations (“BIF”) separated by a late mafic intrusive dyke. The stratigraphy appears consistent from hole to hole and shows excellent continuity and regularity. The gold is spatially associated with pyrite-magnetite bands and stringers with locally minor galena. Regionally, the favourable horizon sits within a folded sequence of volcanoclastic rocks, underlain by mafic volcanics. Bantou is located on the east flank of a property-scale synclinal fold, while the west flank outcrops within the permit, approximately four kilometers to the west. Permit-scale mapping completed in 2018 shows that the favourable horizon extends approximately 10 kilometers both north and south of the Bantou mineralization.

The Bantou deposit appear to show evidence of primary BIF-type mineralization although orogenic enrichment could also have contributed to the higher-grade portions. The relationship with galena, and the 1:1 ratio between silver and gold in the pyrite suggest primary type mineralization as oppose to orogenic origins.

## EXPLORATION

Regional soil sampling and rock chip sampling programs were commenced in 2012. Permit scale mapping and rock chip sampling was conducted during the 2013 and 2014 field season and updated in 2017.

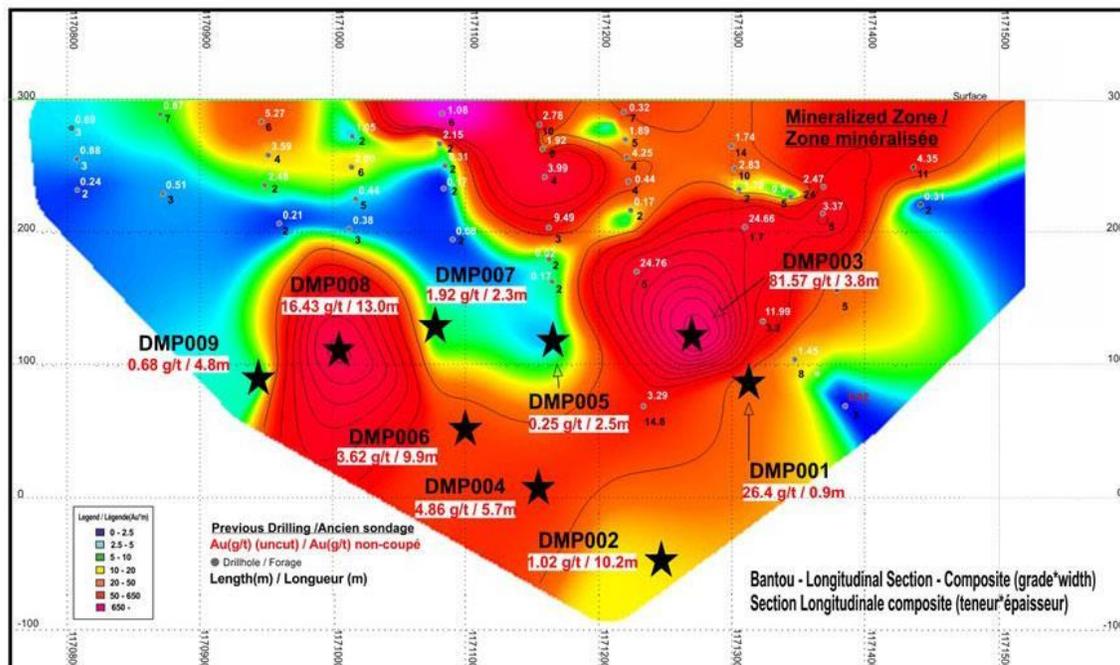
An extensive soil campaign was initiated in 2012 at a spacing of 800m by 100m followed by a reduced spaced grid of 200m by 50m over anomalous areas later that same year, the geochemistry was completed in 2013. Orbis defined many large-scale high order (+20 ppb Au) gold-in-soil anomaly on the Dynikongolo exploration permit, including the area surrounding the Bantou discovery, as well as the Safia Prospect, Tankoro and the Bantou West. The Bantou soil anomaly, defined within a 5 km by 2 km survey area, includes multiple zones of higher-order anomalism that have received minimal exploration drilling to date. Many exploration targets remain to be tested.

Airborne geophysics (magnetic and radiometric) was also conducted in 2010 covering the entire exploration license. In addition, some ground IP surveys were conducted between November 2012 and April 2014, in three separate area covering Bantou, Safia Prospect as well as Tankoro Prospect.

Additionally, 5 trenches were completed between February 2011 and March 2011, with an average length of approximately 66 m. All the trenches were completed in the Bantou area. The trenches were hand dug to an approximate depth of 1.5 m and chip samples collected at 1 m intervals from the side wall close to the base of the trench. The 5 trenches showed significant intersections, although most of them either anomalous or less than two meters in thickness. The best results were obtained from trench DYTR005, which returned an intersection of 4.00 m at 1.06 g/t Au (horizontal width; not true width) based on a lower cut-off of 0.5 g/t Au.

## Drilling

An extensive drilling program was undertaken in 2013, which included 32 RC drill holes and 10 DD holes mostly near the known Bantou artisanal mining site which resulted in the confirmation of the Bantou gold deposit. Few additional drill holes were completed at Bantou in 2014 at the same time as a regional scale drill program was carried over the license. The 2017 and 2018 drilling program on the Bantou Zone was designed to test the down plunge potential to better understand and characterize the mineralization, and to also test the southern extension of the mineralization. A total of 13 core holes (4,245 meters) were completed down dip. Results continued to show high-grade mineralization along the plunge of the deposit including 52.97 g/t Au over 5.9 meters (DMP-003) and 16.43 g/t Au over 13.0 meters (DMP-008). A total of 19 RC holes (2,588 meters) was completed along the near-surface southern extension of the deposit, returning values of up to 12.36 g/t Au over 4 meters (KRC18-0102).



A regional-scale drilling program also tested different target areas identified from previous work and surface mapping. Among these, the Bantou Proximal Zone was identified 500 meters west of the Bantou Zone. A total of 20 holes (2,813 meters) was drilled over a strike length of 400 meters. Significant near-surface results, including 5.21 g/t Au over 11 meters (KRC 18-180), were obtained over the strike length which remains open in all directions.

The Tankoro target is located to the southeast of the Bantou Zone, where artisanal mining and historical drilling had returned interesting results. A total of 14 holes (2,405 meters) was completed on four sections covering one kilometer of the favourable strike length. Significant intersections including 5.63 g/t Au over 6m (KRC18-164) and 22.76 g/t Au over 3m (KRC18-159) were obtained at Tankoro.

The Kongolokoro permit group database consists of 414 drill holes for a total of 50,892m of which 80 drill holes totaling 12,768m were used for the Bantou resource estimation.

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## SAMPLING, ANALYSES AND DATA VERIFICATION

Drill chips from the RC drilling is collected into plastic bags directly from the cyclone on the drill rig. Exploration RC rigs are fitted with cyclones providing routine samples of 1 m interval. The meter bags are split using a three-tiered riffle splitter, followed by a single tier riffle splitter to produce a nominal 2 kg sample. Sample tickets are placed into a plastic bag and the hole ID and sample depth recorded on the remaining ticket stub. A small sample of chips from each 1 m drilling run is removed with a sieve, washed and placed in appropriately labelled chip trays for future reference.

Diamond core samples are collected based on 1 m intervals or to the lithological/ alteration/mineralization boundaries. The core is cut in half lengthwise using a diamond saw and the sampled half core (right-hand side) is placed in a plastic bag, labelled with the hole ID and depth and dispatched for assay while the remaining half is stored in the core trays for reference.

The following laboratories have been used by Orbis and SEMAFO:

- SGS Laboratory (“**SGS-OU**”) in Ouagadougou – independent, accredited laboratory located in Ouagadougou, Burkina Faso used by Orbis in 2013-2014.
- ALS-OU/Yamoussoukro – independent laboratory located in Ouagadougou, Burkina Faso or Yamoussoukro in Côte d’Ivoire used by Orbis in 2010–2011 and by SEMAFO in 2017-2018. The laboratories do not have recognized accreditation, but are parts of the ALS Group of laboratories that operates under a global quality management system under ISO 9001:2008, and participates in international proficiency testing programs.
- SMF-Lab owned and operated by SEMAFO used 2017-2018. The laboratory is not accredited but regularly participates in international proficiency testing programs.

In 2018, SEMAFO uses ALS-OU/Yamoussoukro and SMF-Lab for both sample preparation and analysis. Samples at both labs are analysed using 50-g fire assay procedure with an AA finish with a lower detection limit of 0.01 ppm gold. At ALS-OU, upper detection limit is set at 100 ppm whereas at SMF-Lab, samples grading over 15 ppm gold are re-assayed using a 50-g fire assay procedure with gravimetric finish.

QA/QC measures include the insertion of blanks, CRM, field duplicates and lab replicates. Additionally, re-assaying of a set number of sample pulps at a secondary umpire laboratory is performed on a quarterly basis as an additional test of the reliability of assaying results.

Both analytical laboratories provide their own internal QA/QC process. For ALS-OU, each analysis batch consists of 84 samples, 78 of which are client samples and six are QC samples, comprising two reference material, one duplicate (taken before crushing), two pulp duplicates, one blank (pulp). For SMF-Lab, each analysis batch consists of 25 samples, 20 of which are client samples and 5 are QC samples, comprising one reference material, one duplicate (taken before crushing), two pulp duplicates, one blank (pulp). SMF-Lab also participates in regular round robin programs to monitor for bias. A minimum of 5% additional pulp check assays are performed on all batches (depending on the number of anomalies present within a given batch).

Transportation and security of samples are provided by an outside contractor. It occurs on a regular basis with security guards. Personnel releasing the samples for shipment to the laboratory assume responsibility for the sample security and paperwork with recorded sample numbers accounted for prior to shipment to the laboratory.

Bulk density measurements were collected by using the Archimedes immersion technique (weight in air divided by the difference between the weight in air and the weight in water) and is considered reasonable for an Inferred Resource.

QA/QC results are reviewed by the company's QP on a quarterly basis and an annual summary report is published which include the referee lab results. SEMAFO considers that the sampling and analytical methods and security procedures are adequate for the purposes of the resource estimation.

Drilling data are entered directly into a laptop using Geobank Mobile software and thereafter synchronized and transferred into a central database using the Geobank data management system from Micromine. A set of predefined validation rules are run on the data as part of the importation process. Final data validation, including geological and survey data, is carried out by project geologists and/or database geologists. A separate set of validation steps is followed for assay data after it is imported into Geobank.

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## METALLURGICAL TESTING

The following section was prepared internally by SEMAFO's metallurgical department under the supervision of Mr. Martin Houde, Director Metallurgy.

A preliminary metallurgical testwork program was undertaken as part of the Bantou property assessment.

Preliminary tests were conducted in two phases, in July 2015 and December 2017. The tests were performed using HQ and PQ core samples from drilling campaigns by former property owner, Orbis Gold Limited. Seven (7) mineralized intersections were studied from two (2) subparallel zones.

The tests were realized by the metallurgical laboratory of the SMF-Lab. The initial in-house tests were performed to validate if Bantou deposit responded well to standard cyanidation process route.

This section summarizes the metallurgical tests and draws preliminary conclusion on gold recovery by standard CIP/CIL process.

### Testwork Description

Three samples were received in July 2015 and seven samples in December 2017 at the SMF-Lab. The samples were crushed and homogenized to be tested according to the Mana Mill parameter which is a SABC/CIL circuit at 75 µm with normal air addition.

The grinding tests were realized on 1.2 kg samples by a laboratory ball mill and divided into 2 to realize bottle leach tests in duplicate.

The following testwork parameters were:

- Cyanide concentration = 1 000 ppm
- pH: 10-11
- Leaching time: 30 hours
- Lead nitrate: 500 ppm

The lead nitrate was added due to higher cyanide consumption in the first leach test. Noted that all reagents were added at the beginning of the tests followed by leaching of 30 hours. No reagents adjustments were made during the tests.

## Results

The results of the leach tests reveal the following points:

- Bantou samples react well to standard cyanidation. Gold recovery is above 90% in 15 of 20 leaching test.
- The analysis of solid tail releases by "leach diagnosis" shows that gold was associated with sulphides.
- For a few samples, there is a large difference between analysed vs calculated head grades. These deviations suggest free gold presence.
- The need for lead nitrate in the leach reaction indicates the presence of sulphides. Generally, lead nitrate presence requires a strong oxygen addition to control the gold passivation reaction. Unfortunately, Mana's laboratory is not equipped to realize leaching test with oxygen addition.

## Conclusion

- The leach tests indicate that Bantou samples respond well to standard cyanidation process with +90% gold recovery.
- The leach tests also indicate that Bantou samples contain probably free gold and active sulphides. The leaching test with lead nitrate addition helped to control the presence of sulphides and gold passivation.
- Further tests will be required by an independent metallurgical laboratory to optimize the process route, reduce reagent consumption, revalidate results and optimize gold recovery. Variability tests will also have to be performed as well as mineralogical study.

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## MINERAL RESOURCE ESTIMATE

Reference is made to ITEM 4 – MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES.

As of December 31, 2018, a maiden inferred mineral resource for the Bantou Zone of 2,100,000 tonnes at 5.35 g/t Au for 361,000 ounces of gold. Bantou is one of several targets the Corporation explored in 2018 on the Dynikongolo permit. The 2018 program included a core drill program to test the down plunge extension of the Bantou Area and an RC program to explore proximal targets and the Tankoro Zone.

The estimate was prepared using a block model constrained within 3D wireframes of the principal mineralized domains. Mineralized envelopes have been interpreted using Micromine software. Values for gold were interpolated into blocks using a 3-pass ordinary kriging (OK) interpolation method. High grade assay values were capped at 50 g/t Au and bulk densities from 2.3 g/cm<sup>3</sup> to 2.8 g/cm<sup>3</sup> were used based on weathering. A preliminary open pit optimization algorithm was run on the estimated grade block model to constrain the resource. The resource estimate assumes a long-term gold price of US\$1,500/ounce. The mineral resource estimate comprises mineralization contained within the preliminary pit shell at cut-off grades ranging from 0.43 to 0.56 grams of gold per tonne and mineralization below the pit shell at a cut-off grade of 2 grams of gold per tonne. Resources were modelled using Studio RM and NPV scheduler software packages from Datamine.

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## DYNIKONGOLO 2019 EXPLORATION BUDGET<sup>13</sup>

A budget of \$3 million has been allocated to the Dynikongolo Property in 2019, which is designed to explore the extension of the Bantou deposit along with other targets, particularly along the favourable Bantou horizon.

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<sup>13</sup> The statements in this section are forward-looking. For more information on forward-looking statements, see ITEM 23-FORWARD-LOOKING STATEMENTS.

## Yactibo Property

### INTRODUCTION

Information in this section is based on the technical report entitled “Yactibo Permit Group, Nabanga Gold Deposit”, dated June 2015 (the “**Yactibo Report**”), prepared by John Graindorge, Principal Consultant – Applied Geosciences at Snowden and Harald Muller, B.Eng.(Chem), MBL, FAusIMM, FIChemE, FSAICChE, Divisional Manager – Metallurgy at Snowden, “qualified persons” for the purposes of the Yactibo Report. Portions of the following information are based on assumptions, qualifications and procedures which are not fully described herein. Readers should consult the Yactibo Report which is available under SEMAFO’s profile on SEDAR at [www.sedar.com](http://www.sedar.com) to obtain further particulars regarding the Nabanga gold deposit. The Yactibo Report is not and shall not be deemed to be incorporated by reference in this AIF.

Unless otherwise indicated, technical information which has been disclosed since the release of the Yactibo Report has been prepared under the supervision of, or reviewed by, Mr. Richard Roy, Vice-President, Exploration and Mr. François Thibert, M.Sc.Geo, Manager, Estimate Group Resources and Reserves West Africa, each a “qualified person”.

**Management does not consider the Nabanga gold deposit as being a material project to the Corporation.**

### PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Nabanga gold deposit is part of the Yactibo permit group located in Burkina Faso, West Africa. The project lies approximately 250 km southeast of Ouagadougou, the capital of Burkina Faso. We indirectly hold, through Birimian Resources Sarl and Birimian Discovery Sarl (an immaterial subsidiary of SEMAFO), three contiguous exploration permits Nabanga, Kamsongo and Napade, collectively known as the Yactibo permit group, covering approximately 417.24 km<sup>2</sup> of southeast Burkina Faso. The Nabanga exploration permit, which hosts the Nabanga gold deposit, covers an area of 179 km<sup>2</sup> and was granted on April 1, 2008 by Burkina Faso decree No. 08-059 to Birimian Resources SARL, a 100% owned subsidiary of SEMAFO. The original vendor of the permit retains a 1% net profit royalty, payable upon any future gold sales.

Access to Nabanga is by means of Route Nationale RN04, an all-weather bitumen road from Ouagadougou, the capital of Burkina Faso, through Fada n’Gourma. From there, travel is via Route Nationale RN18, an all-weather bitumen road to within approximately 15 km of the Nabanga gold project. An unsealed dirt road, which crosses the Kompienga River, is then used to access the Nabanga property approximately 15 km to the west of RN18.

### HISTORY

Four of the initial Yactibo permits (Nabanga, Kamsongo, Ouargaye and Yacti - the two latter no longer part of the Yactibo permits) were acquired by Orbis Gold in 2007 and 2008, through certain Orbis Gold subsidiaries in Burkina Faso. The Napade permit was later added to the Yactibo permit group in 2011 to fill the gap between the Nabanga and Kamsongo permits. The Yactibo permit group was acquired through the acquisition of Orbis Gold.

No exploration is known to have occurred on the Yactibo permits prior to Orbis Gold’ acquisition of the permits in 2007 and 2008. Other than the Nabanga gold deposit within the Nabanga permit, all other areas within the Yactibo permit group are considered to be at an early exploration stage.

Initial exploration by Orbis Gold on the property comprised mapping and field reconnaissance, which identified a number of artisanal mining trends. Rock chip samples within the Yactibo permit group, collected primarily from artisanal mining sites (artisanal samples are typically either grab samples from the spoil heaps or from “ore” mined from underground), show results of up to 101.3 g/t Au (sample of quartz vein collected from spoil heap at Pilogre artisanal site).

In 2010, a limited regional drilling program was undertaken which resulted in the discovery of the Nabanga gold deposit. A high resolution airborne geophysical survey (magnetics and radiometrics) was flown by NRG in 2011.

A second phase of drilling was completed at Nabanga in mid-2011 and based on the results, further resource definition drilling was completed in the 2011 to 2012 field season, culminating with an initial mineral resource estimate being completed by Snowden in September 2012, which was classified and reported in accordance with the 2004 edition of the JORC Code.

Follow-up diamond drilling below the initial resource was completed in 2013 with mixed results. According to Orbis Gold (2013), the deep diamond drilling indicates a significant weakening of the Nabanga structure below 200 m vertical depth. An additional five RC drill holes were completed by Orbis Gold in 2013 along strike to the northeast, with no significant mineralization intersected, effectively closing off the resource to the northeast. The 2018 exploration program was designed to test a revised interpretation of Nabanga which suggested the zone could remain open at depth. A total of 24 holes was drilled along the Nabanga structure, with results appearing to confirm the shallow plunge of the mineralization. In addition, the north ore shoot remains open along strike and at depth.

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## GEOLOGICAL SETTING, MINERALIZATION AND DEPOSIT TYPES

The Yactibo permit group straddles a major northeast trending shear separating the Youga Belt in the northwest from the Diapaga Belt in the southeast. The Nabanga gold deposit is located to the southeast of the shear, within the Diapaga Belt. The Diapaga Belt is dominantly comprised of metamorphosed intermediate volcanics, sediments, and foliated or migmatitic granites and gneisses.

The overall strike orientation of the mineralized structures within the Yactibo permit group is northeast-southwest, with a moderate to steep dip towards the northwest. Gold mineralization at Nabanga is predominantly hosted within a magnetic-rich granodiorite intrusive. The gold mineralization is associated with quartz veining and a distinctive alteration zone developed around the central quartz filled structure. The mineralized structure dips approximately 65° towards the northwest and has an average horizontal thickness of 4 m.

The Nabanga mineralization is considered to belong to the 'intrusion related' class of gold deposits.

The granodiorite host has been variously altered with the alteration associated with the mineralized structure primarily comprising sericite-biotite-hematite-chlorite. Sulphide minerals, mostly pyrite with some trace chalcopyrite, are relatively uncommon. Scanning electron microscope ("SEM") analyses of specimens collected from RC drill hole NARC040 show that the gold occurs as fine (<10 µm) gold ±silver telluride inclusions within pyrite grains. A backscattered SEM image showing calaverite (gold telluride; calaverite = AuTe<sub>2</sub>) inclusions within a pyrite grain as well.

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## EXPLORATION

Stream sample geochemistry, airborne geophysics (helicopter-borne magnetic) and surface mapping are used to identify areas for detailed investigation. Ground geophysics is also used to test extensions of known large scale structures (ex: IP). Sampling via auger or rotary air blast drilling follows on fixed grids in order to reach the saprolite below the lateritic cover.

Trenching and/or RC drilling is then used as a first pass to test the auger drilling anomalies. Generally, exploration sample quality is considered as being sufficient to indicate significant gold mineralization but not representative of the overall grade associated with the deposit. Following positive results, RC drilling and core drilling are used to extend the information at depth and to delineate the mineralized bodies.

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## DRILLING

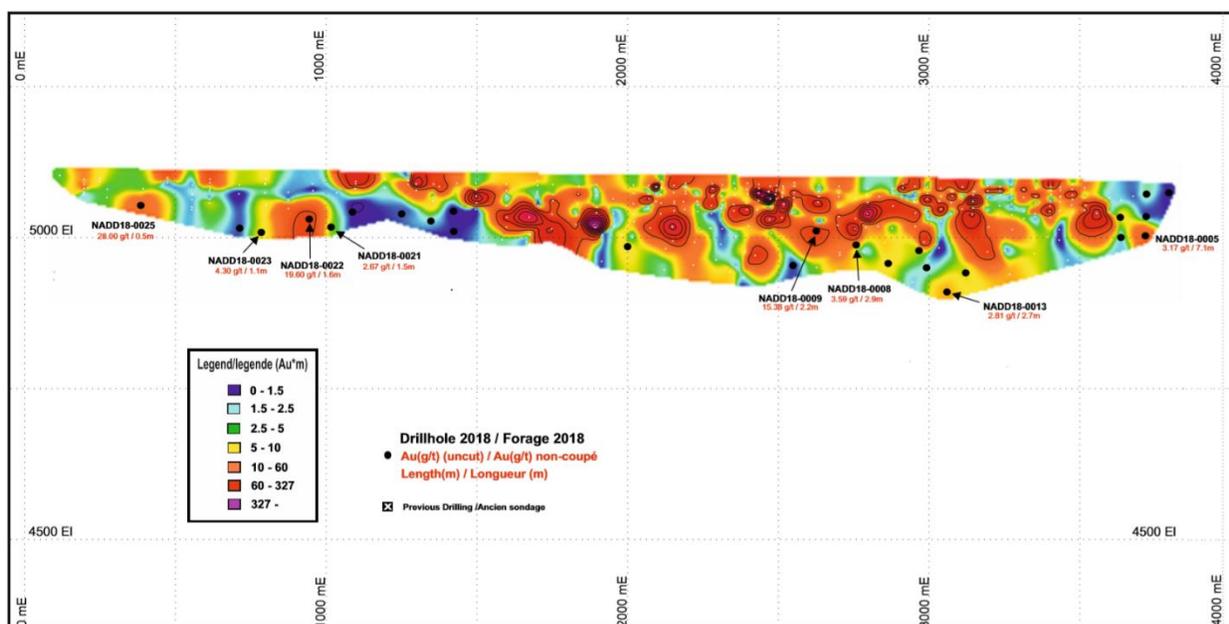
Exploration drilling on the Yactibo permit group was performed by a combination of RC and diamond drilling. The diamond drill holes were generally pre-collared using RC drilling down to maximum depth of 200 m below surface. Diamond tails (NQ diameter) were used to complete the holes. A limited number of diamond holes were cored from the surface. In addition, a number of trial Rotary Air Blast ("RAB") holes were drilled within the Kamsongo permit. RAB

holes drilled were typically shallow (less than 50 meters) to test the oxide mineralization just below the laterite interface. However, the drilling technique was deemed unsuitable and often could not reach the planned target. No further RAB drilling has been completed.

The vast majority of the drilling within the Nabanga permit is focused on the Nabanga gold deposit, which is split into the North Zone, Central Zone and Southern Extension Zone. Efforts during 2017 on the Nabanga gold deposit was focused on geological interpretation and understanding of the mineralization. The resulting new model suggests a shallow north plunge of the different mineralized shoots, many of which remain open at depth. This new interpretation was tested during the 2018 exploration program by 25 diamond drill holes (7,148m). Significant intersections confirmed the down plunge extensions albeit returning lower grades compared to the upper part of the deposit.

The Yactibo permit group database consists of 784 drill holes for a total of 91,301m of which 395 drill holes totaling 57,488m were used for the Nabanga resource estimation.

### Down plunge extensions



## SAMPLING, ANALYSIS AND DATA VERIFICATION

From 2010 to 2013, material from the RC drilling is collected into a plastic bag directly from the cyclone on the drill rig. Possible mineralized intersections which are sampled on a 1 m interval. The meter bags are split using a three-tiered riffle splitter, followed by a single tier riffle splitter to produce a nominal 2 kg sample. Outside the mineralized interval, RC samples are composited to 4 m samples. A three-tiered riffle splitter and/or single tier riffle splitter is used to split the meter bags to an approximate weight of 500 g resulting in an approximate 2 kg sample representing a 4 m interval of drilling. Sample tickets are placed into a plastic bag and the hole ID and sample depth recorded on the remaining ticket stub. A small sample of chips from each 1 m drilling run is removed with a sieve, washed and placed in appropriately labelled chip trays for future reference.

Quality control samples are also submitted with these samples.

The split 2 kg samples are placed in a plastic bag and transported to camp to await shipment to SGS-OU in Ouagadougou. The original 1 m drill bags from each hole are transported directly after splitting. Except for initial RC drill holes, Orbis Gold routinely collect a 2 kg to 3 kg split of the 1 m samples for storage in an enclosed shed on-site. The assay results from the 4 m composites are used to select 1 m intervals for resampling. A grade of 0.25 g/t Au is used to flag 4 m composite samples for the second phase of assaying. The 4 m composite samples either side of the identified mineralized section are also split to bracket potential mineralization. A riffle splitter is used to split the 1 m

sample to an approximate 2 kg to 3 kg sample. This is placed in a pre-labelled polythene bag. A corresponding sample ticket is placed in each bag and the hole ID and depth recorded on the stub remaining in the ticket book.

Diamond core samples are collected based on 1 m intervals or to the lithological/ alteration/mineralization boundaries. The core is cut in half lengthwise using a diamond saw and the sampled half core (right-hand side) is placed in a plastic bag and labelled with the hole ID and depth. A sample ticket labelled with the hole ID and depth is also placed in the bag.

Samples are stored securely on-site at Nabanga, with the transportation of samples during the drilling campaigns overseen by security guards. Personnel releasing the samples for shipment to the laboratory assume responsibility for the sample security and paperwork, with recorded sample numbers accounted for prior to shipment to the laboratory. Laboratories in Ouagadougou check the received samples against the paperwork and signs-off on the receipt.

Drill core and RC samples were submitted to three different laboratories – the BIGS laboratory in Ouagadougou (“**BIGS-OU**”), the ALS-OU and the SGS-OU, all located in Ouagadougou, Burkina Faso. ALS-OU was used for samples from drill holes NARC001 to NARC091, with all subsequent RC samples submitted to the SGS-OU. Diamond drill core samples were submitted to the BIGS-OU.

Samples received in a pulp form (i.e. standards and/or blanks) are prepared by the SGS-OU as follows: one in 30 samples screened to ensure 85% passing 75 µm; if the screen test fails the required particle size then all samples are screened; any samples failing the screen test are milled to attain the required particle size.

If the samples are received as rocks, drill core or RC drill cuttings, SGS-OU prepare the samples as follows: the samples are dried at 105°C for a minimum of six hours; samples are weighed and crushed to 80% passing 2 mm; 1.5 kg is split by rotary splitter or riffle splitter; the entire 1.5 kg split of the 2 mm material is then pulverized to 85% passing 75 µm in a bowl and puck pulveriser. A 200 g sub-sample is then collected (by scooping) from the 1.5 kg split. The remaining material is returned to the original bag (or a plastic bag if the original is not suitable). All preparation equipment is flushed with barren material prior to the commencement of the job. Cleaning of equipment (e.g. crushers and pulverisers) is by compressed air which is done between each sample.

All samples were analysed for gold using industry standard fire assaying with the gold grade determined by AAS. This technique has a detection limit of 0.01 ppm Au for both the ALS-OU and SGS-OU. The detection limit at the BIGS-OU (diamond core only) is reportedly 0.001 ppm Au. Samples analysed at SGS-OU are assayed by fusing a 50 g sample with a litharge (lead oxide) based flux followed by cupellation, dissolving the gold-bearing prill in aqua regia and determining the gold content by AAS. SGS-OU undertake an internal QA/QC process involving standards, blanks and duplicates. Each analysis batch consists of 84 samples, of which 10 are QC samples, comprising four reference materials, two duplicates (taken before crushing), two pulp duplicates, one blank (pulp) and one coarse blank. A minimum of 5% additional check assays are performed on all batches (depending on the number of anomalies present within a given batch). SGS-OU provided Orbis Gold with a monthly report of results from the internal QA/QC program. All assay reports from the primary assay laboratory (SGS-OU) are submitted to Orbis Gold as digital data files and as PDF certificates. The internal QA/QC procedures used at the ALS-OU and BIGS-OU are not known.

Orbis Gold QA/QC protocol includes the following measures:

- Standard samples were submitted with primary samples to the laboratory. A standard was inserted into the drill hole sample batch at the end of the visually mineralized intersection along with at the end of the hole. The certified standards have been sourced from Ore Research and Exploration Pty Ltd (“**ORE**”). The ORE standards are considered as representative of the style of mineralization exhibited at Nabanga. The selection of standards based on grade is appropriate and reflects the likely grades at Nabanga.
- Blank sample were submitted at the start of each drill hole sample sequence, along with one blank within the mineralized intersection. Results from the blanks for gold are considered reasonable with the average grade of the blank samples being 0.014 g/t Au.
- Field duplicate samples were riffle splitted and submitted them within the sample batches for analysis. Overall the populations compare well, with some outliers at higher grades typical of gold deposits containing visible gold particles. It is considered that there is no evidence to suggest that the primary sample varies significantly from the duplicate sample and that reasonable precision during the sampling and assaying process has been achieved.

Bulk density measurements were collected on-site by Orbis Gold from samples of diamond drill core. Two methods were employed by Orbis Gold to determine the bulk density. The initial bulk density measurements were taken using a displacement calculation as Orbis Gold was not in possession of an appropriate set of scales. This method was discontinued due to the inaccuracy surrounding the method. Further measurements were obtained by using the Archimedes immersion technique (weight in air divided by the difference between the weight in air and the weight in water) and is considered reasonable for an Inferred Resource. It has been recommended that wax coating of samples may be required to obtain reliable measurements in the oxidized zone (plastic wrapping is not recommended due to excess air being trapped which results in underestimating the bulk density).

Twinning of four RC drill holes was undertaken by Orbis Gold in 2012 with HQ diameter diamond core (HQ has a similar hole diameter to RC). The twinned holes are within 5 m of each other within the mineralized zone. The results show a moderate level of variability in both the mineralized intersection width (i.e. downhole length) and grade. It is noted that at this stage there is not enough twin drill hole data to enable a meaningful statistical comparison to be completed.

Sampling and assaying practices were audited by Snowden and were considered adequate for the purposes of early exploration. While some minor errors were likely present in the geochemical assay data, it is believed these are minimal and not material to the assay data for the purposes of early exploration. The RC and diamond core drilling completed at Nabanga by Orbis Gold between 2010 and 2012 included independent QC samples with the sample batches, the results of which show reasonable precision and accuracy have been achieved. Additionally, the diamond core drilling, is achieving excellent core recovery. Assaying for gold has primarily been completed at the SGS-OU, which, based on the results of the QC samples and multiple inspections, has achieved reasonable precision and analytical accuracy. The drill hole assay data for the Nabanga gold deposit is reasonable for use in resource estimation.

Assay data within the database was also audited by Snowden and given the results of the assay certificate checks and QA/QC result, it is believed the assay data within the database is robust.

From 2017, SEMAFO quality control (QC) and quality assurance (QA) programs were set in place to ensure the reliability and trustworthiness of exploration data. SEMAFO assaying protocol is designed to monitor the reliability of assaying results delivered by the assaying laboratories. It consists of systematically inserting blanks, CRM, field duplicates and lab replicates. Additionally, re-assaying of a set number of sample pulps at a secondary umpire laboratory is performed on a quarterly basis as an additional test of the reliability of assaying results.

Sample preparation and analysis were performed at the ALS-OU in Ouagadougou. For every batch of 78 samples assayed by ALS-OU, two reference material samples, two blanks and two pulp duplicates are inserted. QC samples are assigned fixed positions within the sampling sequence by geologists. The CRMs are supplied by ROCKLABS Limited for a variety of gold grade ranges suitable for this type of deposit. QC results are monitored by SEMAFO geologists as part of the assay data validation process during data loading. Sample submissions falling outside of acceptable rejection limits are investigated and resubmitted for re-assay, if deemed necessary.

Transportation and security of samples are provided by an outside contractor. It occurs on a regular basis with security guards. Personnel releasing the samples for shipment to the laboratory assume responsibility for the sample security and paperwork with recorded sample numbers accounted for prior to shipment to the laboratory.

QA/QC results are reviewed by the company's QP on a quarterly basis and an annual summary report is published which include the referee lab results. SEMAFO considers that the sampling and analytical methods and security procedures are adequate for the purposes of the resource estimation.

Drilling data are entered directly into a laptop using Geobank Mobile software and thereafter synchronized and transferred into a central database using the Geobank data management system from Micromine. A set of predefined validation rules are run on the data as part of the importation process. Final data validation, including geological and survey data, is carried out by project geologists and/or database geologists. A separate set of validation steps is followed for assay data after it is imported into Geobank.

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## MINERAL PROCESSING AND METALLURGICAL TESTING

The following section is taken from an Independent Technical Report and Valuation of the mineral assets of Orbis Gold, which was prepared by Snowden at the request of Orbis Gold in December 2014.

The metallurgical testwork reports for the Nabanga gold project, includes:

- ALS Metallurgy - *Metallurgical testwork conducted upon samples from Nabanga Gold Project for Orbis Gold* - November 2013
- Lycopodium - *Nabanga Project Metallurgical Testwork Review* - October 2012
- Pathfinder Exploration Pty Ltd - *Petrographic and Mineragraphic Descriptions* - 2011
- Knight Piesold Consulting - *Memorandum to Mt Isa Metals Ltd.* (Orbis Gold former name); re: Preliminary Waste Rock Geochemical Characterisation - 22 October 2012
- Pathfinder Exploration Pty Ltd - *SEM Analyses of Samples NARC040 66 m to 67 m and 69 m to 70 for Mt Isa Metals Ltd.* - 6 June 2012
- JK Tech - *SMC Test Report; Mt Isa Metals Ltd.* (Orbis Gold former name) - July 2012.

The testwork conducted at ALS-OU in 2013 was relatively broad and included:

- Chemical analyses
- Gravity separation
- Flotation
- Leaching.

The head grade of the composite sample tested was 10.9 g/t Au and 3 g/t Ag. Recoveries were not optimized, however gold recovery to a flotation concentrate was 80% at a grind size of P<sub>80</sub> of 75 µm. A laboratory scale Knelson concentrator recovered approximately 12.5% of the gold to a gravity concentrate. Subsequent high intensity leaching recovered about 25% of the gold with the balance reporting to the gravity tails.

Cyanidation tests were conducted on samples from the various mineralized zones, which included low, average and high grade oxidized material, as well as low, average and high grade sulphide material, all at a grind size P<sub>80</sub> of 106 µm. Further leach tests were also conducted at finer grind sizes of 53 µm, 25 µm and 10 µm.

The initial leach tests were conducted to establish the free-milling nature of the mineralization at Nabanga. The results showed that oxide material recoveries of 70% of Au and 83% of Ag could be achieved after 48 hours of leaching. The fresh samples only achieved 47% Au recovery and 51% silver recovery, giving an early indication that the Nabanga mineralization may be refractory.

As the initial leach tests at a grind size P<sub>80</sub> of 106 µm returned unsatisfactory results, further tests were conducted at finer grinds and then also at higher cyanide concentration.

Although the initial leach tests performed relatively poorly, further fine grinding and higher cyanide additions did result in satisfactory gold recoveries. This indicates a more complex flowsheet requiring fine grinding of the feed prior to intensive leaching will be required.

Further testwork will be required to determine if the recovery of gold in a gravity circuit will enhance overall recoveries and also if the inclusion of a flotation circuit to produce a high grade concentrate will improve overall processing efficiencies and recoveries.

The following comminution tests were undertaken:

- Bond Work Index
- Bond Abrasion Index
- SMC tests.

Testwork results confirmed that the material was hard, with a Bond Work index of 22.9 kWh/t for the quartz rock type and 23.5 kWh/t for the granodiorite rock type. SMC testwork confirmed A x b values of 34.7 and 37.1, which supports the data that the material would be classed as hard for comminution design purposes.

Knight Piesold investigated the potential for acid and metalliferous drainage from waste rock for the Nabanga gold project. Based on results from acid-base accounting, the net acid generation tests show the waste rock appears to present low risks of generating acid drainage. Similarly the waste rock samples were found to have a low level of enrichment and therefore the risk of leaching metal from the waste dumps was considered to be low. However further confirmatory tests were recommended during subsequent project design phases.

Current metallurgical testwork for the Nabanga gold project is considered to be preliminary in nature and further testing is required to evaluate and optimize processing options, as well as to assess the variability of the mineralization in terms of its metallurgical characteristics.

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## MINERAL RESOURCE ESTIMATES

Reference is made to ITEM 4 – MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES.

As of December 31, 2018, inferred mineral resource increased by 42% to 3.4M tons grading 7.7 g/t Au for a total of 840,000 oz. of gold. The resource estimation update is based on 395 drill holes (RC and DD combined) totaling 57,488 meters including 67 core holes drilled since the latest estimation completed by Snowden in August 2012, and a revised interpretation of the mineralization that suggests a shallower plunge of the higher-grade zones of gold mineralization.

The estimate was prepared using a block model constrained within 3D wireframes of the principal mineralized domain reflecting the interpreted shear zone and veining. Mineralized envelopes have been interpreted using Micromine software. Values for gold were interpolated into blocks using a 3-pass ordinary kriging (OK) interpolation method. High grade assay values were capped at 70 g/t Au and a bulk density of 2.7 g/cm<sup>3</sup> was applied based on the arithmetic average density measurements for quartz vein material. The mineral resource estimate is reported above a cut-off grade of 3 grams of gold per ton based on the assumption most of the resource would likely be mined by selective underground mining techniques. The resource estimate assumes a long-term gold price of US\$1,500 per ounce and a recovery of 81% based on the historic metallurgical test work completed for the previous NI 43-101 by Snowden in 2012. Resources were modelled using Studio RM and NPV Scheduler software packages from Datamine.

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## NABANGA 2019 EXPLORATION BUDGET<sup>14</sup>

A budget of \$2 million has been allocated to Nabanga in 2019, which has been designed to test the northern extension, further explore the down-plunge extensions confirmed by recent drilling, and test drill auger geochemical anomalies proximal to the deposit for satellite mineralization. While we continue to work on expanding the resource, we will complete a PEA study using the current estimation to assess economic viability of the project.

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<sup>14</sup> The statements in this section are forward-looking. For more information on forward-looking statements, see ITEM 23-FORWARD-LOOKING STATEMENTS.

## ITEM 6 - COMPETITIVE CONDITIONS

Significant and increasing competition exists for the limited number of acquisition opportunities available. Competitors for acquisitions include large established mining companies with greater financial and technical resources than us. As a result, we may be unable to acquire additional attractive mining properties on terms we consider satisfactory.

Furthermore, gold is traded on world markets with benchmark prices for gold based on the London Bullion Market, which may be subject to considerable fluctuations. Gold can be easily sold on many markets throughout the world and it is difficult to ascertain its future market price at any particular time.

Increasing competition in the mining sector has also had an important impact of the level of demand on various services, equipment, supplies and parts necessary to carry out our operations. The shortage of any needed good or service may cause cost increases or delays in delivery time hereby materially adversely affecting production schedules as well as our financial condition and results of operations.

Moreover, we and other companies in the mining industry compete for qualified and key personnel with strong knowledge and expertise in the mining environment. We must find and retain such qualified employees in order to continue to operate successfully.

## ITEM 7- SALES AND REFINING

We sell gold doré to a refiner at the market price. Since there are several other available gold refiners, we are not dependent upon our current refiner.

## ITEM 8 - FOREIGN OPERATIONS

Our operations are concentrated in West Africa, where we operate our Mana Mine and Boungou Mine. Burkina Faso continues to foster a relatively investor friendly environment. Other than the customary corporate restrictions on doing business within their corporate objective, i.e. the exploration for and operation of a gold mine, our subsidiaries are not subject to any additional restrictions by the governments of the states in which they operate.

Our everyday operations in Africa are exposed to various levels of legal, political, economic and operational risks and uncertainties associated with operating in a foreign jurisdiction. They require permits from various local authorities. Such activities are subject to local laws and regulations governing exploration activities, mining activities, exports, taxation, labour standards, occupational health and safety, toxic substances, waste disposal, land use and environmental protection. Companies such as SEMAFO that engage in the development and operation of mines and related facilities have to deal with increased costs and delays ensuing from the need to comply with applicable laws, regulations and permits.

Burkina Faso is a member of the Economic Community of West African States and has adopted a single system of business laws and implementing institutions, the OHADA rules, which harmonizes to a great extent applicable business and commercial laws and is generally based on civil law principles, very similar in nature and substance to those applicable in the province of Québec. The similarities in the applicable legal context and institutions provide us with greater ease in its operation and evaluation of risks as we operate in a somewhat familiar legal environment.

The government of Burkina Faso holds 10% in our operating corporate entities, SEMAFO BF and SEMAFO Boungou S.A. The government is represented on the corporate board of directors of these subsidiaries along with representatives of SEMAFO who has the majority of Board representatives. Local management as well as executive management of SEMAFO work closely with representatives of the government on a continuing basis in order to advance business. Executive management, including the President and Chief Executive Officer, travel to Burkina Faso to participate in board of directors meetings of our operating subsidiaries.

Despite the inherent cultural differences resulting from operating in a foreign jurisdiction, the common language, the presence of a number of nationals in the management team and on the Board as well as a continuous closely knitted relationship between management and local operations have had a positive impact on our operations and relationships with local stakeholders. For instance, local management in Burkina Faso includes the presence of a former Mining Minister as well as former President of the Chamber of Mines of Burkina Faso and, since 2012, Mr. Tertius Zongo, a former Prime Minister of Burkina Faso, has joined the Board. In addition, Mrs. Flore Konan lives in Ivory Coast and works for an entity controlled by the national government. This provides management and the Board with the capability of breaching certain cultural barriers and allows for the appropriate understanding of legal, business and operational concerns. See ITEM 11-RISK FACTORS.

## ITEM 9 - ENVIRONMENTAL PROTECTION

Each step of our operations is subject to environmental regulations. We recognize that appropriate environmental management is essential to the proper carrying out of mining operations and activities. As such, our goal is to minimize the environmental impacts of our processes and activities. We make every effort to protect the environment against the risks that may arise from its activities and encourage any action that contributes towards the responsible management of natural resources. We implement our corporate Environmental Policy and comply in all material respect with applicable environmental laws. Our thoroughness and performance have allowed us to minimize our financial risks, including environmental offences and damage to our reputation. See ITEM 10 – SOCIAL AND ENVIRONMENTAL POLICIES and ITEM 11-RISK FACTORS.

## ITEM 10 - SOCIAL AND ENVIRONMENTAL POLICIES

To our knowledge, all our operations are in compliance with all environmental laws and regulations in all material respects.

We are conscious of our social and environmental responsibilities and as such, have adopted a series of corporate policies. Such corporate policies are available on our website and include an environmental policy and a social responsibility policy in which we reiterate our commitment to conduct our business in a manner that promotes sustainable development and an improvement in the social welfare of the regions in which we operate. The policies set out our commitment to limit as much as possible the impact of our activities on the environment and the surrounding communities.

Accordingly, our environmental specialists have established and abide by strict process management systems so as to protect natural resources and minimize our environmental footprint. Our environmental specialists are responsible for all facets of water and waste management, environmental risks and incidents, as well as the implementation of employee training and awareness programs.

Our environmental control systems and initiatives are closely monitored with detailed reports completed monthly. Specialized independent firms conduct regularly scheduled environmental audits. All recommendations are incorporated into our continuous improvement process.

Furthermore, our Social Responsibility Policy demonstrates our commitment to social responsibility and outlines our guiding principles in this regard. We are committed to promoting social responsibility by continually improving our knowledge, our understanding of challenges and our actions. In our host countries, we seek to establish environments that are conducive to improving living conditions through investments in community projects, job creation, training, and improving the quality of life of the people and communities.

Along with our expatriate employees, we conduct ourselves as guests in the host countries and assume our responsibilities towards the local communities and environment. We recognize the fundamental importance of our employees, in terms of their health and safety, well-being and working conditions. We also rely on our employees and contractors in our commitment to respect the environment and the neighboring communities. The Social Responsibility Policy helps uphold our values and benefits all of our employees, suppliers, shareholders and the communities in which we operate.

In addition, we contribute up to 2% of our net income to SEMAFO Foundation which has the goal of supporting communities and improving human conditions through its actions and investments in community development projects. More information is available at [www.fondationsemafo.org](http://www.fondationsemafo.org) and in our Management Discussion and Analysis for the financial year ended December 31, 2018.

We are committed to fostering an open dialogue with communities surrounding our deposits as part of our commitment to sustainable mining. SEMAFO Foundation has already enhanced access to fresh drinking water and improved sanitary conditions for the Boungou communities. The Foundation's priority for the area involves reinforcement of its educational capacity through construction and support of schools and the launch and equipping of agricultural projects with which to generate community revenue.

In 2015 and 2016, we were honoured to be recipient of the grand prize for Corporate Social Responsibility of Mining Companies in Burkina Faso, which acknowledges not only the results of many years of continuous community commitment, but also the dedication of our teams. In 2016, we garnered a prize for the environment in addition to prizes for female entrepreneurship, communities and local development. In 2018, we ranked in Corporate Knight's 2018 Future 40 Responsible Corporate Leaders in Canada.

## ITEM 11 - RISK FACTORS

As a mining company, we face the financial and operational risks inherent to the nature of our activities. These risks may affect our financial condition and results of operation. As a result, an investment in our common shares should be considered speculative. Prospective purchasers or holders of our common shares should give careful consideration to all of our risks factors. For a complete description of the various risk and uncertainties please see the “Risks and Uncertainties” section of our MD&A for the financial year ended December 31<sup>st</sup>, 2018 filed on SEDAR at [www.sedar.com](http://www.sedar.com) and available on our website at [www.semafo.com](http://www.semafo.com).

## ITEM 12 - DIVIDENDS

We currently do not anticipate declaring dividends in the near future. However, the amount of any future dividend payments will be subject to evaluation and approval by the Board, based on our financial condition, capital requirements, growth plans and gold price as well as our financial requirements to finance future growth and other factors which the Board may consider appropriate in the circumstances.

## ITEM 13 – MARKET FOR SECURITIES

Our common shares are listed on the TSX and the NASDAQ OMX under the symbol “SMF”.

The following table shows, for our common shares traded on the TSX, the monthly price ranges and volume traded during the 2018 financial year.

<b>MONTH</b>	<b>High (C\$)</b>	<b>Low (C\$)</b>	<b>Volume Traded</b>
January	4.14	3.47	46,510,935
February	3.97	3.27	45,874,837
March	3.82	3.31	40,414,595
April	4.14	3.50	23,457,708
May	4.05	3.47	38,021,140
June	3.85	3.48	25,864,771
July	3.99	3.67	22,351,840
August	3.85	2.73	36,749,683
September	3.30	2.90	34,300,567
October	3.31	2.82	27,956,555
November	3.00	2.37	38,359,916
December	2.98	2.24	51,587,708

Source: TSX

## ITEM 14 - DIRECTORS AND EXECUTIVE OFFICERS

The Board is currently comprised of seven (7) directors who are elected annually at each annual meeting of shareholders to hold office for one year or until his or her successor is elected or appointed, unless he or she resigns or his office becomes vacant.

The following table sets forth for each director and executive officer of SEMAFO, his name, place of residence, his principal occupation during the past five years as well as the date of his election or nomination as director or executive officer. The directors and executive officers have provided their respective information.

Name, province and country of residence	Position with the Corporation	Principal Occupation during the past 5 years
Terence F. Bowles Nun's Island (Québec) Canada	Director since May 10, 2011  independent	<p>Mr. Bowles is a member of the Audit Committee and of the Environment, Health &amp; Safety and Sustainable Development Committee.</p> <p>Terence Bowles is President and Chief Executive Officer of the St. Lawrence Seaway Management Corporation since 2010. Prior to this appointment, he served as President and Chief Executive Officer of the Iron Ore Company of Canada, from 2001 to 2010. Following his graduation from Université Laval in Québec City, Mr. Bowles joined Québec Iron and Titanium (QIT) where he also served as President and on the board of directors of an African subsidiary.</p> <p>Mr. Bowles is on the board of the St. Lawrence Seaway Management Corporation and the Chamber of Marine Commerce.</p> <p>He is a member of the <i>Ordre des Ingénieurs du Québec</i> and obtained an Institute of Corporate Directors designation.</p>
Benoit Desormeaux Candiac (Québec) Canada	Director, President and Chief Executive Officer	<p>Benoit Desormeaux became President and Chief Executive Officer on August 8, 2012. Mr. Desormeaux had been our Executive Vice-President and Chief Operating Officer since 2004, and previously held the positions, successively, of Corporate Controller and Chief Financial Officer.</p> <p>Prior to joining SEMAFO in 1997, he was with Deloitte LLP, involved principally in corporate audits in the manufacturing sector. Mr. Desormeaux is a Chartered Professional Accountant and a member of <i>Ordre des Comptables Professionnels Agréés du Québec</i>.</p> <p>He sits on the board of directors of Groupe Technosub inc. (a privately-held, non-listed company) and is Chair of the board of directors of SEMAFO Foundation.</p>
Sylvain Duchesne Orford (Québec) Canada	Vice-President, Construction & Engineering	<p>Mr. Duchesne is Vice-President, Construction and Engineering. He has held this position since November 2014 and prior to his appointment, was General Manager, Construction and Engineering and Director of Metallurgy. Mr. Duchesne has over 30 years of experience in managing gold and polymetallic operations. Prior to joining SEMAFO in 2005, he served as mill superintendent at Campbell Resources, Aur Resources and Noranda, respectively. Mr. Duchesne graduated as a mining engineer from Polytechnique Montréal in 1987 and is a member of <i>Ordre des Ingénieurs du Québec</i>.</p>

Name, province and country of residence	Position with the Corporation	Principal Occupation during the past 5 years
Flore Konan Abidjan, Ivory Coast	Director since May 14, 2015  independent	Mrs. Konan is a member of the Audit Committee.  Since October 2011, Mrs. Konan is Director of Internal Controls, Eranove, a holding company involved in the production, transportation and distribution of water and electricity in Africa that has over 9,000 employees. Between 1994 and 2011, Mrs. Konan held positions of increasing responsibility at CIE, a subsidiary of Eranove, before becoming general manager in 2008. Prior to this, Mrs. Konan was in the employ of SODECI, another subsidiary of Eranove. Mrs. Konan is the former Chair of the Board of ECOBANK Côte-d'Ivoire, a subsidiary of ECOBANK Transnational Incorporated, present in 32 African countries and listed on the <i>Bourse Régionale des Valeurs Mobilières</i> (BRVM).
John Jentz Toronto (Ontario) Canada	Vice-President, Corporate Affairs & Investor Relations	Mr. Jentz joined the company in December 2017 as Vice-President, Corporate Development and Investor Relations. He has over 20 years' experience in corporate finance and mergers and acquisitions, mostly within the mining sector. Previously, Mr. Jentz served as a senior member of the mining teams at both regional and global investment banking firms. A chartered accountant, he holds a B.Sc. degree in actuarial science from University of Western Ontario and an MBA from McMaster University.
John LeBoutillier, C.M. <sup>1</sup> Montréal (Québec) Canada	Director since January 25, 2006  Chairman since January 1 <sup>st</sup> , 2018  independent	Chair of SEMAFO's Board of Directors, Mr. LeBoutillier also heads up its Human Resources and Corporate Governance Committee. John LeBoutillier is a director of Stornoway Diamond Corporation and of Mazarin Inc. and Asbestos Corporation Limited, two affiliated companies. He was chairman of the board of directors of Industrial Alliance Insurance and Financial Services Inc. from 2005 to 2017.  Between 1996 and 2000, Mr. LeBoutillier was President and Chief Executive Officer of Iron Ore Company of Canada, as well as President and Chief Executive Officer of Sidbec-Dosco Inc. (now ArcelorMittal Long Products Canada G.P.) from 1983 to 1996. Mr. LeBoutillier is a recipient of the Order of Canada.
Gilles Masson <sup>2</sup> Laval (Québec) Canada	Director since January 25, 2006  independent	Mr. Masson is Chair of the Audit Committee and a member of the Environmental, Health & Safety and Sustainable Development Committee.  Gilles Masson was appointed Chair of SEMAFO's Audit Committee in 2007. He spent 36 years with the firm PricewaterhouseCoopers LLP, Chartered Professional Accountants, including 25 years as partner. His clientele included large national and international companies, some of which operated in the mining sector. A chartered professional accountant, Mr. Masson is a member of the Institute of Corporate Directors.

<sup>1</sup> Mr. John LeBoutillier was, but is no longer, a director of Shermag Inc., which filed for and obtained creditor protection under the *Companies' Creditors Arrangement Act* (Canada) ("CCAA") in April 2008. In August 2009, Shermag presented a plan of arrangement to its creditors and obtained the homologation from the Superior Court (district of Montréal) on September 15, 2009. Shermag closed a transaction with Groupe Bermex Inc. and implemented a plan of arrangement in October 2009 allowing it to emerge from the CCAA proceedings. The transaction enabled Groupe Bermex Inc. to take control over Shermag and to pursue its restructuring and relaunching.

<sup>2</sup> Mr. Gilles Masson was, but is no longer, a director of Malaga Inc. ("**Malaga**"). In June 2013, Malaga filed a notice of intention to make a proposal pursuant to the provisions of Part III of the *Bankruptcy and Insolvency Act* (Canada). Pursuant to the notice of intention, Raymond Chabot Inc. was appointed trustee in Malaga's proposal proceedings and in that capacity monitored and assisted Malaga in its restructuring efforts. These proceedings had the effect of imposing an automatic stay of proceedings that protected Malaga and its assets from the claims of creditors and others while Malaga pursued its restructuring efforts. Malaga submitted a proposal dated October 4, 2013 to its creditors; the proposal was accepted by the creditors pursuant to a vote held on December 13, 2013 and approved by judgment of the Superior Court rendered on January 7, 2014.

Name, province and country of residence	Position with the Corporation	Principal Occupation during the past 5 years
Lawrence McBrearty <sup>3</sup> Brampton (Ontario) Canada	Director since May 12, 2009  independent	Mr. McBrearty is Chair of the Environmental, Health & Safety and Sustainable Development Committee and a member of the Human Resources and Corporate Governance Committee.  Lawrence McBrearty has been a labour relations consultant since his retirement in 2004. Mr. McBrearty's business experience includes a more than 40-year career with the United Steelworkers of America, the largest industrial labour union in North America. He began his tenure in 1974 as staff representative, subsequently holding positions of increasing responsibility that culminated in his election as National Director for Canada in 1994.
Alain Mélanon Boucherville (Québec) Canada	Vice-President, Human Resources	Mr. Mélanon joined SEMAFO as Vice-President, Human Resources in September 2009. Prior to this appointment, he spent two and a half years at Bell Aliant Regional Communications as Vice-President, Human Resources, Communications and Public Affairs. Previously, Mr. Mélanon served as Vice-President, Human Resources, Communications and Public Affairs, Bell Nordiq from 2001 through December 2006. He has also served in senior management and executive positions at Groupe Laperrière & Verreault, Coca-Cola and Labatt Breweries. Mr. Mélanon is a graduate of the University of Laval in industrial relations and is a member of the Québec Order of Certified Human Resources Professionals and Industrial Relations Counsellors.
Martin Milette Mont Saint-Hilaire (Québec) Canada	Chief Financial Officer	Mr. Milette was appointed Chief Financial Officer of SEMAFO in May 2006. Mr. Milette has been with the company since 2005 when he joined as Director, Development and Special Projects. Previously, he worked for eight years as Senior Manager, Assurance and Advisory Services at PricewaterhouseCoopers LLP where he was principally active in the high-tech and mining sectors. Mr. Milette is a Chartered Professional Accountant, a member of <i>Ordre des Comptables Professionnels Agréés du Québec</i> , and a Certified Public Accountant in the USA. Mr. Milette oversees all aspects of the Finance and IT functions of the company.
Patrick Moryoussef Dollard-des-Ormeaux (Québec) Canada	Vice-President, Mining Operations	Mr. Moryoussef has served as Vice-President, Mining Operations since joining SEMAFO in September 2004. Prior to his appointment, he was general manager and administrator at South-Malarctic Exploration and previously senior project engineer at Les Mines McWatters. Following graduation, he served as junior mining engineer at the Campbell Mine of Placer Dome Canada and held the position of Open Pit Mine Captain, Engineering at Placer Dome Canada's Sigma Mine. Mr. Moryoussef is a mining engineering graduate from McGill University and a member of <i>Ordre des Ingénieurs du Québec</i> .

<sup>3</sup> Mr. McBrearty was a director of Mango Industrie de Cuivre Inc., which filed for protection under the CCAA in 2012 and remains subject thereto.

Name, province and country of residence	Position with the Corporation	Principal Occupation during the past 5 years
Eric Paul-Hus Saint-Lambert (Québec) Canada	Vice-President, Law, Chief Compliance Officer and Corporate Secretary	Mr. Paul-Hus is Vice-President, Law, Chief Compliance Officer and Corporate Secretary of SEMAFO and has been with the company since September 2009. Prior to his appointment, he spent five years in private practice, including one year in secondment with the <i>Autorité des Marchés Financiers</i> (former Québec Securities Commission) in the Corporate Finance and Continuous Disclosure Group. Subsequently, he held several positions of increasing responsibility, including Vice-President, during his 12-year tenure with a major Canadian telecommunications company where he continued to practice business law, specializing in securities, M&A and corporate law. Mr. Paul-Hus is a lawyer and member of the Québec Bar since 1993.
Richard Roy Verdun (Québec) Canada	Vice-President, Exploration	Mr. Roy was appointed Vice-President, Exploration in 2018. He has been with the company since 2009 when he joined as exploration manager. Mr. Roy has over 30 years of experience in the base and precious metal mineral resource industry including nine years' experience in underground mine geology. Before joining SEMAFO, he designed and implemented successful exploration programs and mine feasibility programs in Mexico and North America, working for companies such as Aur Resources, Placer Dome and several junior companies. Mr. Roy holds a B. Sc. degree in geology from Concordia University in Montréal and is a member of the <i>Ordre des géologues du Québec</i> .
Tertius Zongo Ouagadougou, Burkina Faso	Director since May 14, 2012  independent	<p>Mr. Zongo is a member of the Environmental, Health &amp; Safety and Sustainable Development Committee and of the Human Resources and Corporate Governance Committee.</p> <p>Tertius Zongo served as Prime Minister and Head of Government of Burkina Faso from 2007 until 2011 and was Ambassador Extraordinary and Plenipotentiary of Burkina Faso to the United States of America from 2002 until 2007. Previously, Mr. Zongo held positions of increasing importance within the government of Burkina Faso including as Minister of State for Planning and Budget and Minister of Economy and Finance.</p> <p>Prior to his career with the government of Burkina Faso, Mr. Zongo was an academic at the University of Ouagadougou and the National School of Financial Controls where he taught accounting, business economics and financial management.</p> <p>He sits on the board of Banque centrale des états de l'Afrique de l'Ouest (BCEAO) and of ECOBANK Côte-d'Ivoire where he chairs the Governance Committee.</p>

The number of our common shares beneficially owned or controlled or directed, directly or indirectly, by all directors and executive officers of the Corporation as a group, is 760,717 representing approximately 0.23% of our issued and outstanding common shares as at March 5, 2019.

## ITEM 15 - EMPLOYEES

At the end of our last financial year, we had 3,441 people working for us of which 1,228 are employees.

## ITEM 16 - INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

No director or executive officer of SEMAFO, no person that beneficially owns or controls or directs, directly or indirectly, more than ten percent (10%) of any class or series of outstanding voting securities of SEMAFO, and no associate or affiliate of any such persons, has a material interest in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or will materially affect us or one of our subsidiaries.

## ITEM 17 - MATERIAL CONTRACTS

The following contracts are the material contracts of the Corporation entered into within the most recently completed financial year, or before the most recently completed financial year that are still in effect, other than contracts entered into the ordinary course of business:

- i. the Mining Agreement dated June 19, 2017 between Burkina Faso and SEMAFO Boungou S.A. with respect to the exploitation of gold deposits
- ii. the Rights Agreement entered into between the Corporation and Computershare Investor Services Inc. on March 15, 2011 as amended on May 15, 2014 and May 4, 2017, respectively
- iii. the Mining Agreement dated October 2, 2007 between Burkina Faso and SEMAFO BF with respect to the exploitation of gold deposits.

See ITEM 2- THE CORPORATION "CAPITAL STRUCTURE-RIGHTS", and ITEM 5- MINERAL PROJECTS.

## ITEM 18 - INTERESTS OF EXPERTS

SEMAFO's independent auditors PricewaterhouseCoopers LLP, have audited our consolidated financial statements for the year ended December 31, 2018. PricewaterhouseCoopers LLP confirmed that they are independent with respect to SEMAFO within the meaning of the Code of Ethics of the Ordre des comptables professionnels agréés du Québec.

Certain disclosure with respect to mineral resources and mineral reserves of the Mana Mine and the results of the PFS for the development of underground mineral reserves at the Mana gold project contained in this AIF is derived from the Mana Report prepared under the supervision of Richard M. Gowans, P.Eng., President and Principal Metallurgist at Micon, with the participation of Christopher Jacobs, CEng., MIMMM, Vice President, Charley Murahwi, P.Geo., FAusIMM, Senior Geologist, Eur Ing Bruce Pilcher, CEng, FIMMM, FAusIMM(CP), Senior Mining Engineer and Jane Spooner, P.Geo., Vice President.

Certain disclosure with respect to the Tapoa permit group – Boungou gold deposit contained in this AIF is derived from the Tapoa Report dated March 23, 2016 and prepared under the supervision of Neil Lincoln, Vice-President, Business Development and Studies at Lycopodium, with the participation of Marius Phillips, MAusIMM (CP), Principal Process Engineer at Lycopodium, Glen Williamson, Principal Mining Engineer at AMC Consultants (Canada) Ltd, John Graindorge, Principal Consultant – Applied Geosciences at Snowden, Jean-Sébastien Houle, Eng. from WSP Canada Inc. and Timothy Rowles, MAusIMM (CP) from Knight Piésold Consulting, “qualified persons” for the purposes of the Tapoa Report. All newly added reserve and resource updates were reviewed and approved by Mr. François Thibert, M.Sc.Geo, Manager, Estimate Group Resources and Reserves West Africa, our “qualified person” (as defined in NI 43-101).

Certain disclosure with respect to the Yactibo permit group – Nabanga gold deposit contained in this AIF is derived from the Yactibo Report dated June 15, 2015 and prepared by John Graindorge, Principal Consultant – Applied Geosciences at Snowden and Harald Muller, B.Eng.(Chem), MBL, FAusIMM, FICHEM, FSAICHE, Divisional Manager – Metallurgy at Snowden, “qualified persons” for the purposes of the Yactibo Report.

## ITEM 19 - AUDIT COMMITTEE INFORMATION

The following information is provided in accordance with Form 52-110F1 – *Audit Committee Information Required in an Annual Information Form* (“**Form 52-110F1**”) of Multilateral Instrument 52-110 - *Audit Committees* (“**MI 52-110**”) adopted by the *Canadian Securities Administrators*.

### Audit Committee Charter

The mandate of the Audit Committee appears in Schedule B of this AIF.

### Composition of the Audit Committee

The current members of the Audit Committee are Mr. Gilles Masson (Chair), Mr. Terence F. Bowles and Mrs. Flore Konan.

Each member of the Audit Committee is financially literate, which means the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by our financial statements. As demonstrated hereinafter, all the members of the Committee have an education and experience which are relevant to their responsibilities.

Mr. Gilles Masson was appointed to the Board and to the Audit Committee of SEMAFO in January 2006. In May 2007, he was appointed Chair of the Audit Committee. Mr. Masson is a member of the Ordre des comptables agréés du Québec and he is a member of the Institute of Corporate Directors. He worked for 36 years for the firm PricewaterhouseCoopers LLP, Chartered Accountants, including 25 years as a partner. His clientele included, among others, large national and international companies doing business in the mining sector. He retired on December 31, 2005. Since then, Mr. Masson has been acting as member of the board of directors of several public companies.

During his career, Mr. Masson gained a great deal of experience in auditing public companies operating in the mining, manufacturing and distribution sectors. He understands Canadian and US generally accepted accounting principles (GAAP), International Financial Reporting Standards (IFRS), generally accepted auditing standards (GAAS), as well as regulations for presenting financial information for public companies listed in Canada and the United States. He further developed a relevant experience in dealing with audit committee requirements, including recent changes brought by new regulations. Mr. Masson understands the accounting principles used by the Corporation to prepare its financial statements and the general application of such accounting principles in connection with the accounting for estimates, accruals and reserves.

Mr. Terence F. Bowles was appointed to SEMAFO’s Board and Audit Committee on May 10, 2011. He is also a member of the Environment, Health & Safety and Sustainable Development Committee. Mr. Bowles is President and Chief Executive Officer of the St. Lawrence Seaway Management Corporation since November 1, 2010. Prior to this appointment, he served as President and Chief Executive Officer of the Iron Ore Company of Canada, the largest manufacturer of iron ore pellets in Canada, from 2001 to 2010. Following his 1971 graduation as a Chemical Engineer from Laval University in Québec City, Mr. Bowles joined Québec Iron and Titanium (QIT). During his 27-year career at QIT, he assumed a series of progressively more senior assignments which culminated with his appointment as President in 1996, a position he held until 2001. He served as well on the board of directors of an African subsidiary. Along with his Engineering Degree, he obtained a Master’s in Business Administration from Montréal’s McGill University, completed an Advanced Executive Program at the Kellogg Graduate School of Management in Chicago, a Strategic Leadership Program at the London Business School, and McGill’s Institute of Corporate Directors Program, where he received the ICD.D designation. Mr. Bowles is a Member of the Québec Order of Engineers. He is currently on the board of directors of the St. Lawrence Seaway Management Corporation and the Chamber of Marine Commerce.

Since October 2011, Mrs. Konan is Director of Internal Controls, Eranove, a holding company involved in the production, transportation and distribution of water and electricity in Africa that has over 9,000 employees. Between 1994 and 2011, Mrs. Konan held positions of increasing responsibility at CIE, a subsidiary of Eranove, before becoming general manager in 2008. Prior to this, Mrs. Konan was in the employ of SODECI, another subsidiary of Eranove. Mrs. Konan is the former Chair of the Board of ECOBANK Côte-d'Ivoire, a subsidiary of ECOBANK Transnational Incorporated, present in 32 African countries and listed on the *Bourse Régionale des Valeurs Mobilières* (BRVM).

The members of the Audit Committee have provided the information disclosed hereinabove.

## Reliance on Certain Exemptions

We confirm that we have are not relied on any exemptions identified in section 4 or 5 of Form 52-110F1 during our most recently completed financial year. We further confirm we have not relied on section 3.8 of Regulation 52-110 during our most recently completed financial year.

## External Auditor Service Fees

	Year Ended December 31			
	2018 (CAN\$)		2017 (CAN\$)	
<b>Audit Fees</b>	382,100	(82.3%)	431,375	(84.8%)
<b>Audit-Related Fees</b>	37,000	(8%)	37,500	(7.4%)
<b>Tax Compliance and Preparation Fees</b>	7,000	(1.5%)	8,800	(1.7%)
<b>All Other Fees</b>	38,100	(8.2%)	31,175	(6.1%)
<b>TOTAL FEES</b>	464,200	(100%)	508,850	(100%)

“audit services” – these services relate to the audit of our audited annual financial statements and other regulatory audit services

“audit-related services” – these services relate to professional services regarding interim financial statements

“tax compliance and preparation fees” – these services mainly relate to tax compliance and international tax consulting work

“other services” – these services relate to accounting and financial reporting services pertaining to public offering by prospectus, assurance and advisory services for International Financial Reporting Standards (known as IFRS) obligations and conversions.

## ITEM 20 – TRANSFER AGENT AND REGISTRAR

Our transfer agent and registrar is Computershare Trust Corporation of Canada, 1500 Robert-Bourassa Boulevard, Suite 700, Montréal, Québec, H3B 3S8. Our registers of transfers are located at the foregoing address.

## ITEM 21 - ADMINISTRATIVE OFFICES

Listed below are the addresses of the head offices of SEMAFO and its material subsidiaries.

### **CANADA (Corporate office)**

#### **SEMAFO Inc.**

100, Alexis-Nihon Boulevard  
Suite 700  
Saint-Laurent (Québec) H4M 2P3  
Telephone: (514) 744-4408  
Fax: (514) 744-2291  
Email: [info@semafo.com](mailto:info@semafo.com)  
Web Site: [www.semafo.com](http://www.semafo.com)

### **BARBADOS**

#### **Semafo (Barbados) Limited**

The Gables  
Haggatt Hall  
St-Michael, Barbados, West Indies

### **BURKINA FASO**

#### **SEMAFO Boungou S.A.**

#### **SEMAFO Burkina Faso S.A.**

#### **Birimian Resources SARL**

#### **Mana Mineral SARL**

Sector 22, Babanguida Avenue  
Benda Street, Door # 211  
01 PO Box 390  
Ouagadougou 01, Burkina Faso  
Tel. (011) 226.50.36.95.92  
Fax: (011) 226.50.36.95.87  
Email: [info@semafo.com](mailto:info@semafo.com)

## ITEM 22 - ADDITIONAL INFORMATION

Additional information relating to SEMAFO can be found on SEDAR at [www.sedar.com](http://www.sedar.com) and on our website at [www.semafo.com](http://www.semafo.com).

Additional information, including directors' and officers' compensation, principal holders of our securities and securities authorized for issuance under equity compensation plans is contained in our most recent management information circular.

Additional financial information is provided in our audited consolidated financial statements for the year ended December 31, 2018 and the corresponding Management Discussion and Analysis.

## ITEM 23 – FORWARD LOOKING STATEMENTS

As mentioned in ITEM 1 – GENERAL MATTERS, this AIF contains forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and assumptions and accordingly, actual results and future events could differ materially from those expressed or implied in such statements. You are hence cautioned not to place undue reliance on forward-looking statements. These forward-looking statements include statements regarding our expectations as to the market price of gold, production targets, timetables, mining operation expenses, capital expenditures and mineral reserves and resources estimates. Forward-looking statements include words or expressions such as “committed”, “building”, “leveraging”, “development”, “objective”, “expect”, “should”, “investigate”, “expand”, “forecast”, “will”, “plan”, “in order to”, “2019 exploration budget”, “preliminary”, “suggest”, “further”, “target”, “proposed”, “would”, “appearing”, “designed to”, “continue”, “advance”, “goal” and other similar words or expressions. Factors that could cause future results or events to differ materially from current expectations expressed or implied by the forward-looking statements include the ability to build value through responsible mining and leverage our development pipeline, the reliability of the Siou underground PFS, the ability to develop the Siou underground to achieve production in the first quarter of 2020 within the allocated budget, the ability to consummate the Proposed Transaction with Savary, the ability to meet our Tapoa 2019 exploration budget, the ability to meet our Mana 2019 exploration budget, the ability to meet our Dynikongolo 2019 exploration budget, the ability to meet our Nabanga 2019 exploration budget, the accuracy of our assumptions, fluctuation in the price of currencies, gold prices and operating costs, mining industry risks, uncertainty as to calculation of mineral reserves and resources, delays, political and social stability in Africa (including our ability to maintain or renew licenses and permits) and other risks described in SEMAFO’s documents filed with Canadian securities regulatory authorities. You can find further information with respect to these and other risks in filings made with the Canadian securities regulatory authorities and available at [www.sedar.com](http://www.sedar.com). These documents are also available on our website at [www.semafo.com](http://www.semafo.com).

Forward-looking statements while based on management’s reasonable estimates and assumptions as at March 14, 2019 involve known and unknown risks and uncertainties which may cause our actual results, performance or achievements to differ materially from any of our future results, performance or achievements expressed or implied by forward-looking statements. All forward-looking statements in this AIF, whether a reference to the present section is made or not, are qualified by this cautionary statement. Investors are cautioned that the foregoing list of factors is not exhaustive of the factors that may affect the actual outcome of events that are the subject of forward-looking statements. These and other factors should be considered carefully. See ITEM 11 - RISK FACTORS. We disclaim any obligation to update or revise these forward-looking statements, except as required by applicable law.

## SCHEDULE A - GLOSSARY OF TERMS

The following glossary gives the meaning of certain technical terms.

<b>“arsenopyrite”</b>	Sulphidic mineral usually formed in veins at high temperature, but also through contact metamorphism. Silver white colour on crystal faces and steel gray on fresh breaks. Same as mispickel.
<b>“BLEG”</b>	Bulk Leach Extractable Gold technique. Very sensitive analytical method for gold whereby all the gold contained within a 1-2 kilogram geochemical survey sample is extracted by cyanide leaching. A very low detection limit may be achieved: the quoted limit of the method is 0.5 parts per billion of gold. The gold content of stream sediments diminishes downstream of the source, so the greater the sensitivity of the assay method used, the more widely the samples may be spaced. BLEG sampling therefore cuts down on the number of samples required to test a given area and effectively increases the survey efficiency.
<b>“carbon-in-leach” or “CIL”</b>	Metallurgical process of gold extraction. Involves the osmotic use of activated carbon particles during the leaching phase to absorb gold.
<b>“diamond drilling” or “DD”</b>	Drilling method by which a solid core is extracted from depth, for examination on the surface. A diamond drill bit composed of industrial diamonds set into a soft metallic matrix is mounted onto a drill stem, which is connected to a rotary drill. Water is injected into the drill pipe, so as to wash out the rock cuttings produced by the bit. The motor-driven drill, by rotary action (and washing) causes a core to be extracted inside the barrel and taken to the surface.
<b>“felsic”</b>	Descriptive term for light-coloured rocks containing a predominance of feldspar and silica, or the light-coloured silicate minerals themselves.
<b>“lateritic”</b>	Descriptive term for residual, oxidized deposits formed in tropical and subtropical terrains by the weathering action of the alternation wet and dry seasons.
<b>“mineral reserves”</b>	<p>Mineral reserves are subdivided in order of increasing confidence into probable mineral reserves and proven mineral reserves. Probable mineral reserves have a lower level of confidence than proven mineral reserves.</p> <p>Mineral reserves are the economically mineable part of measured or indicated mineral resources demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. Mineral reserves include diluting materials and allowances for losses that may occur when the material is mined.</p> <p>Mineral reserves are this part of mineral resources which, after the application of all mining factors, results in an estimated tonnage and grade which, in the opinion of a qualified person making the estimates, is the basis of an economically viable project after taking account of all relevant processing, metallurgical, economic, marketing, legal, environment, socio-economic and government factors. Mineral reserves are inclusive of diluting material that will be mined in conjunction with the mineral reserves and delivered to the treatment plant or equivalent facility. The term “mineral reserves” does not necessarily mean that extraction facilities are in place or operative or that all</p>

governmental approvals have been received. It does mean that there are reasonable expectations of such approvals.

**“proven mineral reserves”** “Proven mineral reserves” are the economically mineable part of measured mineral resources demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

Application of the proven mineral reserves category implies that a qualified person has the highest degree of confidence in the estimate with the consequent expectation in the minds of the readers of the report. The term should be restricted to that part of the deposit where production planning is taking place and for which any variation in the estimate would not significantly affect potential economic viability.

**“probable mineral reserves”** “Probable mineral reserves” are the economically mineable part of indicated, and in some circumstances, measured mineral resources demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

**“mineral resources”** Mineral resources are subdivided, in order of increasing geological confidence, into inferred, indicated and measured categories. Inferred mineral resources have a lower level of confidence than that applied to indicated mineral resources. Indicated mineral resources have a higher level of confidence than inferred mineral resources, but have a lower level of confidence than measured mineral resources.

Mineral resources are a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of mineral resources are known, estimated or interpreted from specific geological evidence and knowledge.

The term “mineral resources” covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which mineral reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The expression “reasonable prospects for economic extraction” implies a judgment by a qualified person with respect to the technical and economic factors likely to influence the prospect of economic extraction. Mineral resources are an inventory of mineralization that, under realistically assumed and justifiable technical and economic conditions, might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.

**“measured mineral resources”** “Measured mineral resources” are that part of mineral resources for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and

drill holes that are spaced closely enough to confirm both geological and grade continuity.

Mineralization or other natural material of economic interest may be classified as measured mineral resources by a qualified person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

**“indicated mineral resources”** “Indicated mineral resources” are that part of mineral resources for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Mineralization may be classified as indicated mineral resources by a qualified person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. A qualified person must recognize the importance of the indicated mineral resources category to the advancement of the feasibility of the project. An indicated mineral resources estimate is of sufficient quality to support a preliminary feasibility study which can serve as the basis for major development decisions.

**“inferred mineral resources”** “Inferred mineral resources” are that part of mineral resources for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

Due to the uncertainty of inferred mineral resources, it cannot be assumed that all or any part of inferred mineral resources will be upgraded to indicated or measured mineral resources as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred mineral resources must be excluded from estimates forming the basis of feasibility or other economic studies.

**“property”** Descriptive term for interests in a permit to exploit or prospect for mineral resources on a given area.

**“qualified person”** An individual who is an engineer or geoscientist, with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, has experience relevant to the subject matter of the mineral project and technical report, and is a member in good standing of a professional association, as defined in National Instrument 43-101.

**“reserve” or “ore”** Natural aggregate of one or more minerals which, at a specified time and place, may be mined and sold at a profit, or from which some part may be profitably separated.

<b>“reverse circulation” or “RC”</b>	Drilling method whereby the rock is broken into chips using a rotary method of penetration. A double-walled drill pipe is used and compressed air is forced down the space between the two pipes to the drill bit. The drilled chips are flushed back up to the surface through the center tube of the drill pipe.
<b>“shear”</b>	Dislocation by lateral slip of one part of a body relative to another, often occurring on a regional scale. A fracture in rock similar to a fault.
<b>“silica”</b>	Silicon dioxide.
<b>“silicification”</b>	Total or partial replacement of rocks or fossils by silica (such as quartz or chalcedony).
<b>“strike”</b>	Course or bearing of a bed or layer of rock.
<b>“sulphide”</b>	Mineral compound of sulphur and a metal.
<b>“vein”</b>	Occurrence of ore with a regular development in length, width and depth.

## Metric Equivalents

Conversion rates from imperial to metric measures and from metric to imperial measures are provided below.

Imperial Measure	Metric Unit	Metric Measure	Imperial Unit
1 acre	0.4047 hectare	1 hectare	2.4711 acres
1 foot	0.3048 meter (m)	1 meter (m)	3.2808 feet
1 mile	1.6093 kilometers (km)	1 kilometer (km)	0.6214 mile
1 ounce (troy)	31.1035 grams (g)	1 gram (g)	0.0322 ounce (troy)
1 pound	0.4536 kilogram (kg)	1 kilogram (kg)	2.2046 pounds
1 short ton	0.9072 metric tonne (t)	1 metric tonne (t)	1.1023 short ton
1 ounce (troy) / short ton	34.2857 grams / metric tonne	1 gram / metric tonne	0.0292 ounce (troy) / short ton

## Gold Prices

The following table sets forth the annual high, low and average price of gold for the periods indicated, as well as the price of gold at the end of each such period, as determined on the London Bullion Market (US dollars per ounce).

Gold Prices \$/oz	2018	2017	2016	2015	2014	2013
<b>High</b>	1,355	1,346	1,366	1,296	1,385	1,693
<b>Low</b>	1,185	1,151	1,077	1,049	1,142	1,192
<b>Average</b>	1,268	1,257	1,251	1,160	1,266	1,411
<b>End of period</b>	1,279	1,291	1,151	1,060	1,206	1,201

## Currency Exchange Rates

Except as otherwise indicated, all dollar amounts set forth herein are expressed in United States dollars. \$ means United States dollars.

The following table sets forth the exchange rates of Canadian dollars to US dollars for the periods indicated. The average exchange rates are presented for these periods, as well as the exchange rate at the end of each such period. These exchange rates are expressed in Canadian dollars and represent the noon buying rate for US dollars at the Bank of Canada.

	2018	2017	2016	2015	2014	2013
Average	1.2960	1.2981	1.3262	1.2777	1.1038	1.0299
End of period	1.3630	1.2551	1.3427	1.3884	1.1601	1.0636

## SCHEDULE B – MANDATE OF THE AUDIT COMMITTEE

### 1. Duties

The role of the Audit Committee (the “Committee”) of SEMAFO Inc. (the “Corporation”) is to assist the Board of Directors (the “Board”) in its oversight of:

- The identification of the principal business risks and, with the exception of environmental and health & safety risks, the establishment of appropriate policies and risk management systems aimed at managing these risks
- The integrity of the Corporation’s internal control, information and financial management systems
- The establishment of policies and systems aimed at increasing accountability, ensuring compliance with applicable laws and with auditing and accounting principles.

The Committee does not have the mandate of planning or conducting a financial audit, nor is it responsible for determining whether the financial statements are complete and fully reflect the Corporation’s situation or whether accounting principles applicable to the Corporation have actually been applied. In these respects, after having carried out the verifications dictated by the circumstances, and having ensured the existence of adequate internal controls, the Committee relies on the accounting and financial expertise of the President and Chief Executive Officer and the Chief Financial Officer of the Corporation who are responsible for the integrity of the information submitted to the Committee and to the Board.

The independent auditor is responsible for auditing the Corporation’s accounts. He or she reports on the results of the audit directly to the Committee.

The Committee fosters frank and open dialogue with the independent auditor, management, and the Corporation’s accounting personnel.

In fulfilling its duties, the Committee:

#### Financial Reporting

- Reviews the results of the independent audit firm’s reviews of interim financial statements if any, and annual audit and any significant disagreements with management
- Reviews and recommends to the Board for approval the annual audited financial statements and related “Management’s Discussion and Analysis of financial and operating results”
- Reviews and recommends to the Board for approval the Annual Information Form
- Reviews and recommends to the Board for approval the quarterly financial statements and related Management’s Discussion and Analysis of financial and operating results
- Reviews and recommends to the Board for approval the Corporation’s earnings press releases
- Reviews management process to maintaining and evaluating financial disclosure controls and procedures and internal control over financial reporting.

#### Independent Auditors

- Periodically assesses the independent auditor
- Recommend to the Board for consideration by the shareholders an independent audit firm to conduct an annual audit of the Corporation’s financial statements
- Evaluate the independence of the independent audit firm
- Review an annual report from the independent audit firm elected by the shareholders regarding the independent audit firm’s internal quality-controls procedures, material issues raised by the most recent internal quality-control review, or peer-review, of such firm, or by any inquiry or investigation by governmental or professional authorities respecting one or more independent auditors carried out by the firm
- Review the plan and scope of the annual audit engagement of the independent audit firm elected by the shareholders
- Recommend to the Board for approval the annual audit engagement fees of the independent audit firm elected by the shareholders

- Approve all non-audit engagements of the independent audit firm elected by the shareholders.

## **2. Policies**

The Committee must establish a procedure for the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls or auditing matters.

The Committee must also establish a procedure for the confidential and anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters.

The Committee must establish hiring policies regarding partners, employees and former partners and employees of the present and former independent audit firms elected by the shareholders.

## **3. Composition**

The Committee is composed of at least three directors appointed by the Board for a mandate of one year or for any other period set by the Board.

All Committee members shall be independent directors and financially literate as prescribed by the Canadian Securities Administrators and determined by the Board.

## **4. Chair**

The Chair of the Committee is appointed by the Board. In the event of the Chair's inability to attend a meeting, Committee members shall appoint a chair for such meeting.

The Chair of the Committee:

- Chairs all Committee meetings
- Ensures the fulfillment of the Committee's mandate
- Reports on Committee activities to the Board
- Ensures that this mandate is reviewed annually by the Committee members to recommend to the Board any appropriate changes.

## **5. Meetings**

The Committee meets at least four times a year at locations, dates and times it determines.

The Chair of the Committee may convene a meeting at any time.

## **6. Organization**

The Corporation's secretary acts as Committee secretary.

Before each Committee meeting, the secretary distributes the agenda and the information required for discussion and decision-making purposes. The secretary records the minutes of each Committee meeting in a register kept for this purpose.

## **7. Quorum and Decisions**

The Committee quorum is the majority of Committee members.

Subject to the quorum being reached, the Committee makes its decisions by a majority of the votes cast by attending members.

## **8. Outside Advisors**

In fulfilling its duties, the Committee may retain legal, accounting or other advisors.



**SEMAFO Inc.**

100 Alexis-Nihon Blvd.  
7<sup>th</sup> Floor  
Saint-Laurent, Québec  
H4M 2P3, Canada

[www.semafo.com](http://www.semafo.com)



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