DISCIPLINED GROWTH

2009 Annual Report
OUR PROFILE

SEMAFO is a Canadian-based mining company with gold production and exploration activities in West Africa. The Company currently operates three gold mines: the Mana Mine in Burkina Faso, the Samira Hill Mine in Niger and the Kiniero Mine in Guinea. SEMAFO is committed to evolve in a conscientious manner to become a major player in its geographical area of interest. SEMAFO’s strategic focus is to maximize shareholder value by effectively managing its existing assets as well as pursuing organic and strategic growth opportunities in West Africa.
VISION
Build an ethical, reputable, world-class gold company through a combination of exploration, development and acquisitions.

CORPORATE MISSION
Establish enduring relationships with the countries in which we operate and through our experience, expertise and financial acumen, partner to responsibly develop natural resources.

HUMANITARIAN MISSION
Make sustainable contributions to improve the quality of life and livelihoods of the communities in which we operate through social, health, education and environmental policies and programs.

OUR VALUES
Respect and Integrity: It is the foundation of everything we do — through accountability, responsibility, honesty, transparency, environmental and employee safety and protection.

Excellence: We relentlessly pursue excellence in everything we do — through quality, effort, perseverance, continual improvement, honour, entrepreneurship, and leadership.

Know-How: We support individual and collective achievement as it directly impacts the organization — through leadership and employee performance, integration, management, evaluation, promotion, training, development and succession.

Teamwork: We believe in the power of people working together to attain common goals.
OBJECTIVES AND ACHIEVEMENTS

2009 OBJECTIVES

→ Increase gold production by 18% to achieve total annual gold production of between 220,000 and 240,000 ounces

→ Increase plant capacity at the Mana Mine to process up to 6,000 tonnes per day in saprolite ore

→ Continue exploration programs with a focus on increasing mineral resources in the high-potential Wona Zone in Burkina Faso

→ Maintain stable production at the Samira Hill and Kiniero gold mines

→ Pursue accretive acquisition opportunities

2009 ACHIEVEMENTS

→ Record gold production of 242,400 ounces – an increase of 24% over 2008

→ Construction and commissioning effectively executed with little or no impact on ongoing operations

→ Validation of Wona Deep Zone’s robust nature

→ New prospective targets identified by airborne geophysical survey

→ Auger drilling, as part of the regional exploration program, returned in-soil values of up to 1,224 ppb

→ Discovery of new gold zones – Wona SW and Kona

→ Gold production of 88,900 ounces

→ Ongoing process, based on thorough evaluation and disciplined approach

CASH MARGIN

(in US$)

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Selling Price (per ounce sold)</th>
<th>Total Cash Cost (per ounce produced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>481</td>
<td>534</td>
</tr>
<tr>
<td>2007</td>
<td>534</td>
<td>508</td>
</tr>
<tr>
<td>2008</td>
<td>858</td>
<td>510</td>
</tr>
<tr>
<td>2009</td>
<td>988</td>
<td></td>
</tr>
</tbody>
</table>

GOLD SALES REVENUES

(in thousands of US$)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gold Sales Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>44,449</td>
</tr>
<tr>
<td>2007</td>
<td>74,070</td>
</tr>
<tr>
<td>2008</td>
<td>169,911</td>
</tr>
<tr>
<td>2009</td>
<td>240,788</td>
</tr>
</tbody>
</table>

OPERATING INCOME (LOSS)

(in thousands of US$)

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating Income (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>-14,073</td>
</tr>
<tr>
<td>2007</td>
<td>-5,022</td>
</tr>
<tr>
<td>2008</td>
<td>33,108</td>
</tr>
<tr>
<td>2009</td>
<td>60,905</td>
</tr>
</tbody>
</table>

NET INCOME (LOSS)

(in thousands of US$)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Income (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>-16,112</td>
</tr>
<tr>
<td>2007</td>
<td>-23,110</td>
</tr>
<tr>
<td>2008</td>
<td>39,529</td>
</tr>
<tr>
<td>2009</td>
<td>43,505</td>
</tr>
</tbody>
</table>
2009 HIGHLIGHTS

- Record gold production of 242,400 ounces, a 24% increase over 2008
- Record gold sales of $240,788,000, an increase of 42% year over year
- Cash operating cost of $463 per ounce compared to $461 in 2008
- Record operating income of $60,905,000 compared to $33,108,000 in 2008
- Record net income of $43,505,000 compared to $39,529,000 in 2008
- Record cash flow from operating activities of $92,147,000 compared to $56,339,000 in 2008
- Debt reduction of $27,000,000, including prepayment of $3,750,000
- Positive at-depth and on-surface exploration results confirming the economic potential of the Wona deposit and resulting in a 55% increase in mineral resources at Mana
- Identification of new prospective regional targets at Mana
- Increased ownership in the Samira Hill Mine
- SEMAFO added to S&P/TSX Composite Index
- Entered into a partnership with the government of Burkina Faso to develop a solar power station

Note: Unless otherwise indicated, all amounts are in US dollars.

2010 OBJECTIVES

Maximize Value
- Pursue aggressive at-depth and on-surface exploration programs at the Mana Mine
- Complete Wona Deep feasibility study to commence development
- Initiate an aggressive two-year $6,000,000 exploration program at the Samira Hill Mine

Disciplined Growth
- Achieve production of between 235,000 and 260,000 ounces of gold in 2010
- Increase plant capacity at the Mana Mine to up to 6,000 tonnes per day in bedrock
- Improve production efficiencies, particularly at the Samira Hill Mine
- Maintain stable production at the Kiniero Mine
- Attract and retain best mining talent

Responsible Mining
- Minimize our environmental footprint
- Continue corporate philanthropy program, donating 2% of net income to support Fondation SEMAFO
- Support government initiatives in host countries
- Increase employee training and development programs
We believe that through disciplined execution, good governance and solid groundwork, our Company is uniquely positioned for the future.

At SEMAFO, we recognize that the way we conduct ourselves is as important as the work we perform.

Our commitment to continual improvement begins with sound corporate governance practices. SEMAFO’s Board of Directors is responsible for ensuring that the Company operates according to appropriate guidelines and policies. We believe that good corporate governance is essential to our long-term business success.
It is our belief that an organization must be proactive in order to be successful in today’s ever-changing business environment. As part of this philosophy, last year we strengthened our Board of Directors with the addition of two new independent members. We are very pleased that Pierre Claver Damiba and Lawrence McBrearty have chosen to join our Board and appreciate their experience and expertise that have already proven to be valuable assets to our Company and its stakeholders.

The Board of Directors continues to work together with SEMAFO’s senior management team to build on strong operating performance and execute on our strategy for growth. We are extremely satisfied with the Company’s achievements in 2009. Moreover, we believe that through disciplined execution, good governance and solid groundwork, our Company is uniquely positioned for the future.

Corporate social responsibility has always been a priority for us at SEMAFO. We are proud of our organization’s savoir-faire in this area, as we have long understood that effective sustainable development is rarely defined by a single act or event, but rather a series of actions and processes.

In 2009 SEMAFO announced the establishment of an Environment, Health and Safety, and Sustainable Development Committee of the Board. This committee’s purpose is to pilot SEMAFO’s continuing commitment to protecting the environment and ensuring that the Company’s activities are carried out, and that its facilities are operated and maintained in a safe, sustainable and environmentally sound manner. The Committee’s primary role is to monitor, review and provide oversight with respect to the Company’s policies, standards, accountabilities and programs relative to health, safety, community relations and environmental matters.

As an organization committed to making significant contributions and improving the quality of life in the communities in which we operate, our philanthropic efforts remain a priority. Through Fondation SEMAFO, we maintained our important commitment and contributions to support local initiatives in education, healthcare and agriculture. Initiatives during the year included the shipment of tens of thousands of essential items such as educational supplies and clothing, the establishment of community health clinics, lunch programs for children attending school and much more.

In 2009, as part of our commitment to effect sustainable positive change in our host countries, SEMAFO announced the signature of an important partnership with the government of Burkina Faso to undertake a pre-feasibility study to construct a solar power station. The proposed 20-megawatt facility will generate sufficient electricity to power not only the Mana Mine, but the neighbouring villages and communities as well.

On behalf of the Board of Directors, I would like to thank shareholders for their continued confidence in SEMAFO. I would also like to extend my sincere appreciation to the directors, management team, employees and other stakeholders for their efforts and accomplishments. We will continue to work collectively as a team in the pursuit of increased shareholder value.

(Signed)

Jean Lamarre
Executive Chairman of the Board

March 15, 2010
SEMAFO’s 2009 performance was the best in our Company’s history. The past year was marked by achievement and growth as our Company set new records in production, operating income and cash flow.
In 2009, SEMAFO achieved new heights in growth and value creation as our Company realized its best ever annual production of 242,400 ounces of gold. One of our objectives for the year was to increase gold production by 18%. We not only delivered on our promise, but surpassed our objective with an increase of 24% over our 2008 production.

The market has demonstrated its confidence in our ability to deliver results and create value as shown by our share performance in 2009. SEMAFO's stock price rose 269% and the Company's market capitalization surpassed $1.2 billion. In December 2009, SEMAFO was added to the S&P/TSX Composite Index, a listing of the largest companies on the Toronto Stock Exchange (TSX) as measured by market capitalization and often considered the benchmark for Canadian equities.

In June, we successfully closed out the remaining gold ounces of our hedging program. As a result, we have been in a position to fully benefit from the market price of gold, which rose by 25% in 2009.

Last year, one of our objectives was to continue exploration programs with a focus on increasing mineral resources, and we delivered. As part of SEMAFO’s organic growth strategy, we focused on existing assets via ongoing exploration on our more than 5,000 km² of permitted land. Fundamental to this strategy, in the second quarter last year, we initiated an $18,500,000 exploration program at our Mana Mine in Burkina Faso. Consequently, as at December 31, 2009, Mana’s mineral resources had increased by 55% over 2008, to 1,581,900 ounces. The exceptional results received thus far continue to exceed expectations and we look forward to affirming Mana’s true potential as our exploration programs continue in 2010 and beyond.

In the fourth quarter, we announced the results of a positive preliminary economic assessment of the Wona mineralization at depth. Pre-feasibility and feasibility studies are underway with results expected in the second and third quarter of 2010 respectively. Based on study results, we anticipate development to commence as early as the fourth quarter 2010.

Regional drilling program results from late 2009 also confirmed new zones at Mana. Auger drilling conducted in two areas produced priority exploration targets with gold in-soil values of up to 1,224 ppb. The newly confirmed gold-bearing Wona SW Zone is located to the south-west of the Wona Main Zone and the Kona Zone is situated more than 800 meters north of an earlier discovery.

The last of the 2009 exploration program results at Mana further accentuated Wona’s enormous on-surface and underground potential. Drilling results also served to attest to the property’s exceptional potential to become a mining district.

We take pride in, and work diligently to maintain our admirable health and safety record. We have always been proactive in this area, and today we consider many of the programs instituted in our host countries to be greatly worthwhile and a noteworthy part of SEMAFO’s savoir-faire. We recognize that technically sound facilities and equipment, as well as employees’ competencies are an essential part of ensuring that our operations are performed safely.

In 2009, we continued to effectively and efficiently manage our assets to increase shareholder value. We reiterated, through our actions and performance, that we are committed to sustainability and growth. Working in close collaboration with communities and governments is also ongoing and an important part of our savoir-faire and competitive advantage. We had an outstanding year and delivered strong results.

SEMAFO enters 2010 with a solid foundation to build upon for continued success in the years to come. With our healthy balance sheet, ongoing operating cash flow and disciplined decision-making process, we are confident that we have the ability to create value for all stakeholders via the pursuit of growth opportunities moving forward.

We thank our shareholders for their continued trust and will endeavour to do our utmost to meet and exceed expectations and maximize shareholder value. We also wish to thank the neighbouring communities and other stakeholders in our host countries for their continuous support and confidence.

In conclusion, we would like to express our sincere gratitude to each and every one of SEMAFO’s dedicated employees for their invaluable contribution to the success of our Company. More than 1,800 individuals come together to create a unique synergy that is SEMAFO. Our savoir-faire has made us the company of reference in the countries in which we operate. To our employees, thank you, we are proud to be part of your team!

(Signed)
Benoit La Salle, CA
President and Chief Executive Officer

(Signed)
Benoit Desormeaux, CA
Executive Vice-President and
Chief Operating Officer

March 15, 2010
In 2009, SEMAFO’s operating and management teams came together to achieve the best results in our Company’s history. Our strong operating performance, due in large part to our committed employees, resulted in a new annual production record of 242,400 ounces of gold.

### PRODUCTION

(in thousands of gold ounces)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>242.4</td>
</tr>
<tr>
<td>2008</td>
<td>195.4</td>
</tr>
<tr>
<td>2007</td>
<td>106.4</td>
</tr>
<tr>
<td>2006</td>
<td>94.8</td>
</tr>
</tbody>
</table>
EMAFO’s Mana Mine is located approximately 200 kilometers west of Ouagadougou, the capital city of Burkina Faso. It is our newest mine, where operations commenced in April 2008. Gold is currently mined from two open pits, Wona and Nyafé.

It was a first full year of operation for our flagship Mana Mine, which performed and produced at extraordinary levels. Production totaled 153,500 ounces of gold in 2009, contributing over 63% to SEMAFO’s total production for the year. Mana’s average cash operating cost for the year was $364 per ounce or $39 per tonne.

This exceptional property has over 769,700 ounces of mineral reserves, 1,581,900 ounces of measured and indicated resources and 909,100 ounces of inferred resources. When taking into consideration that this represents only 5% of the structures identified on the property, Mana’s potential to become a mining district becomes obvious.

In 2009, we initiated an expansion program at Mana, the first phase of which aimed at increasing plant capacity to up to 6,000 tonnes per day in saprolite ore. Construction and commissioning of the first phase were effectively scheduled and executed with little or no impact on ongoing operations.

Phase II, which is aimed at increasing plant capacity to up to 6,000 tonnes per day in bedrock, is scheduled for completion in the second quarter of 2010. The third phase of the expansion program consists of extending the leach time to accommodate increased throughput and optimal gold recovery. This phase is scheduled for completion by the end of 2010.

Mana’s 2009-2010 capital expenditures budget includes $22,500,000 for phases II and III of the plant expansion and continuous improvement activities. Upon completion, total capital expenditures from engineering to production will amount to $130,000,000, including an allocation of $18,000,000 for mining equipment.
Samira Hill Mine, Niger

The Samira Hill Mine is located on the 50-kilometer gold belt commonly referred to as the “Samira Horizon”. It is approximately 90 kilometers west of Niamey, the capital of Niger. The Samira Hill Mine produced a total of 56,900 ounces of gold in 2009 at a cash operating cost of $665 per ounce.

Production at the Samira Hill Mine decreased slightly in 2009 due to a reduction in head grade as we awaited receipt of the Boulon Jounga mining permit, which was granted to SEMAFO late in the third quarter. The Boulon Jounga Zone covers 7 km². It contains reserves of 302,700 tonnes at an average grade of 2.64 g/t and will be the main source of this mine’s ore in 2010.

In 2009, SEMAFO increased its ownership in the Samira Hill Mine through the acquisition of a third party’s minority interest in the property. Our Company now owns 80% of the mine, with the balance held by the Government of Niger.

Kiniero Mine, Guinea

The Kiniero Mine is located in Central Guinea, approximately 650 kilometers east of the capital city of Conakry.

In 2009, the Kiniero Mine produced a total of 32,000 ounces of gold at a cash operating cost of $584 per ounce.
As part of SEMAFO’s organic growth strategy, in 2009 we accelerated our exploration activities on our more than 5,000 km² of permitted land with the objective to increase mineral resources.

The table below presents a sampling of drill results at the Mana Mine including the main mineralized intersections and high-grade values:

<table>
<thead>
<tr>
<th>DDH No.</th>
<th>Section</th>
<th>From</th>
<th>To</th>
<th>Au / Length*</th>
</tr>
</thead>
<tbody>
<tr>
<td>WDC133</td>
<td>17050</td>
<td>336.0</td>
<td>393.8</td>
<td>5.24 g/t / 57.8 m</td>
</tr>
<tr>
<td>Includes</td>
<td>17050</td>
<td>349.4</td>
<td>366.0</td>
<td>10.21 g/t / 16.6 m</td>
</tr>
<tr>
<td>WDC138</td>
<td>16850</td>
<td>183.0</td>
<td>210.4</td>
<td>7.05 g/t / 27.4 m</td>
</tr>
<tr>
<td>WDC139</td>
<td>16825</td>
<td>304.0</td>
<td>347.8</td>
<td>2.44 g/t / 43.8 m</td>
</tr>
<tr>
<td>WDC140</td>
<td>16900</td>
<td>138.7</td>
<td>160.2</td>
<td>3.90 g/t / 21.5 m</td>
</tr>
<tr>
<td>WDC143</td>
<td>17400</td>
<td>332.8</td>
<td>370.3</td>
<td>2.54 g/t / 37.5 m</td>
</tr>
<tr>
<td>WDC145</td>
<td>16875</td>
<td>261.0</td>
<td>308.2</td>
<td>3.29 g/t / 47.2 m</td>
</tr>
<tr>
<td>Includes</td>
<td>16875</td>
<td>292.1</td>
<td>298.3</td>
<td>9.75 g/t / 6.2 m</td>
</tr>
<tr>
<td>WDC146</td>
<td>16975</td>
<td>332.7</td>
<td>378.2</td>
<td>2.33 g/t / 45.5 m</td>
</tr>
<tr>
<td>Includes</td>
<td>16975</td>
<td>344.8</td>
<td>359.8</td>
<td>4.09 g/t / 15.0 m</td>
</tr>
<tr>
<td>WDC148</td>
<td>16875</td>
<td>196.0</td>
<td>236.7</td>
<td>3.78 g/t / 40.7 m</td>
</tr>
<tr>
<td>WDC149</td>
<td>16975</td>
<td>266.0</td>
<td>326.5</td>
<td>3.61 g/t / 60.5 m</td>
</tr>
<tr>
<td>WDC151</td>
<td>16925</td>
<td>308.0</td>
<td>358.6</td>
<td>3.02 g/t / 50.6 m</td>
</tr>
<tr>
<td>WDC154</td>
<td>16825</td>
<td>232.0</td>
<td>282.6</td>
<td>3.08 g/t / 50.6 m</td>
</tr>
<tr>
<td>WDC170</td>
<td>16400</td>
<td>167.0</td>
<td>179.0</td>
<td>10.90 g/t / 12.0 m</td>
</tr>
<tr>
<td>WDC170</td>
<td>16400</td>
<td>280.0</td>
<td>295.0</td>
<td>2.59 g/t / 15.0 m</td>
</tr>
<tr>
<td>Includes</td>
<td>16400</td>
<td>289.0</td>
<td>293.0</td>
<td>3.88 g/t / 4.0 m</td>
</tr>
</tbody>
</table>

* All lengths are measured along the hole axis; additional information is required to determine true widths.
Mana Mine, Burkina Faso

We chose to focus on both the at-depth and on-surface potential of our Mana Mine in Burkina Faso, where 90% of the 90-kilometer strike length of our property has yet to be explored. Mineral resources increased by 55% in 2009, to 1,581,900 ounces of gold.

During the second quarter, we accelerated exploration activities at Mana, with a 2009 – 2010 program schedule to include more than 18,000 auger drilling sample points, ground geophysics, geological mapping, 20,000 meters of RC drilling, 32,000 meters of RAB drilling and 62,000 meters of core drilling.

The exceptional results of the Mana exploration programs validated and even accentuated the robust nature of the Wona Deep Zone. This significant high-grade lode is located just below the bottom of the Wona Main open pit. (Figure 1)

In October 2009, Wona Deep Zone drilling results included one of the highest grade intercepts recorded on the property, 5.24 g/t over 57.8 meters (WDC133), and subsequent diamond drill results significantly extended both the lateral and depth of the mineralization.

In the third quarter, an airborne geophysical survey of Mana’s 1,695 km² successfully identified new prospective targets. The survey clearly identified the Wona structural corridor, current host to the Wona open pit mine, and suggests that it may extend south over a distance of more than 30 kilometers. Additionally, important similar lineaments were observed elsewhere over the property.

Following the positive results of a preliminary economic assessment of the Wona underground deposit, we commenced pre-feasibility and feasibility studies on the Wona Deep, with results expected in the second and the third quarter of 2010 respectively.

The results of a regional exploration program conducted in late 2009 identified new surface targets at Mana. Auger drilling conducted in two areas produced two priority exploration targets with gold in-soil values of up to 1,224 ppb. The new surface targets, the Fofina NW Block and the Fobiri Block are located northwest and south respectively of the Nyafé Deposit. (Figure 2)
Extensive drilling programs are ongoing at Mana, where we announced the discovery of two new gold zones in early 2010. Drill results included the confirmation of the new gold bearing Wona SW Zone, south-west of the Wona Main Zone, as well as the new Kona Zone high-grade intercepts more than 800 meters north of an earlier discovery. These results provide further insight into the growth potential of the Wona Corridor, demonstrating a significant mineralization that now extends over five kilometers.

Following last year’s exceptional results, an initial budget of $9,000,000 has been established for Mana’s 2010 exploration program.

Samira Hill Mine, Niger

The Samira Horizon remains an important target. The main focus of SEMAFO’s 2009 exploration program was the Boulon Jounga Zone. Over 5,000 meters of auger drilling were completed in the reserves area and assays results combined with geological description suggest a fold on the host horizon south of the pit.

For 2010, we have established a $6,000,000 exploration budget for Samira Hill, with activities scheduled to take place over a two-year period. Exploration will target the Samira Horizon with a particular focus on the Boulon Jounga Zone.
ENVIRONMENT

2009 AT A GLANCE

• Updated rehabilitation plans for our three mines
• Conducted 1,500 water analyses
• Produced 50,000 shrubs, including seven plant species at Kiniero
• Planted 400 trees, including seven plant species at Samira Hill
• Raised the tailing dikes, necessitating 100,000 m³ of material and an investment of $1,000,000
At SEMAFO, we recognize that ethical and responsible environmental policies and management are a fundamental part of our mining operations. 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 for each of our three mines. Specialized external firms conduct regularly scheduled independent environmental audits. All recommendations are incorporated into our continuous improvement process.

## Tailings Management

Each year, the tailings require major construction work consisting mainly of raising the dikes, and thereby containing the plant tailings in a safe manner. From the consulting engineers responsible for the structural design of the dikes to the external quality control laboratories, SEMAFO trusts this important work to skilled professionals.

## Water Quality

Water quality is closely monitored by means of weekly sampling. We also conduct additional in-depth quarterly analysis comprised of more than 20 parameters. The majority of our samples are sent to reputable external laboratories for analysis. The drinking water from our sites’ water works systems undergoes regular bacteriological water quality monitoring. Results are measured in accordance with various industry standards such as the World Bank, the World Health Organization, the European Union, as well as the regulations respective to the different countries in which we operate.

## Site Rehabilitation

We endeavour to rehabilitate mining sites affected by our operations to restore the location to the extent possible to its original state, and to assure the long-term security and stability of the land. We are proactive in our approach to rehabilitation management and perform gradual restoration work throughout the life cycle of our mines. At the Kiniero Mine, for example, we have our own nursery that produces tens of thousands of plants annually. A portion of the plants is used for the revegetation of our sites, and the remainder is distributed to local inhabitants and organizations.
At SEMAFO, we have always endeavoured to be a socially responsible corporate citizen. Our humanitarian mission, an important part of SEMAFO’s core values, is to make sustainable contributions to improve the quality of life and livelihoods of the communities in which we operate through ethical health, education, social and environmental policies and programs. Our savoir-faire has been cultivated from years of working in concert with the people, the communities and the governments of our West African host countries.
In 2009, we continued to partner with neighbouring communities to effect positive change. We sustained our efforts to develop and realize educational and health initiatives in our West African host countries through our proud support of Fondation SEMAFO, a non-profit organization that our Company established in 2008. Canteens were introduced in several local schools, availing some 600 children to a lunch program, which for many is their sole source of nourishment. Healthcare centres were inaugurated, providing local inhabitants with access to vaccination, medical consultation and childbirth facilities. Five new schools were instituted during the year, and the population of Bossey Bangou was provided with access to electricity. Tens of thousands of school supplies, books, clothing, medicines and other essential items were shipped and distributed to the communities neighbouring our mines. As well, the population of Burkina Faso and Niger benefitted from much needed financial and moral support following September’s devastating floods.

In the second quarter, under the direction of Elie Justin Ouedraogo, SEMAFO’s National Director in Burkina Faso, we announced the signature of a partnership with the government of Burkina Faso to undertake a pre-feasibility study to construct a 20-megawatt solar power station. Similar initiatives aimed at addressing the critical need for energy and stimulating sustainable positive change are also underway in Niger and in Guinea.

Last year, in collaboration with Quebec-based Commission scolaire Marguerite-Bourgeoys, SEMAFO established a training program aimed at developing and enhancing our West African workforce's professional expertise. It is our belief that providing individuals with training and skills is an important step to helping communities effect sustainable development.

We believe that effective, sustainable development is rarely defined by a single act or event, but rather a series of actions and processes. SEMAFO is dedicated to continuing our conscientious stewardship to improve the quality of life in the communities in which we operate, for present and future generations.

1. Children, Guinea
2. Wona canteen, Burkina Faso
3. Distribution of supplies, Niger
It is said that these men are the pride of their nation. They are heirs to their respective country’s unique history and custodians of their nation’s rich and unique culture. SEMAFO has entrusted the reins of its operations to the sons of the countries in which we operate, in all respect for our host counties’ distinct cultures and customs. It is with great pleasure and pride that we introduce SEMAFO’s national directors.

Mr. Harouna began his career with SEMAFO in 2000 as Deputy Director of Société des Mines du Liptako (SML) SA, a subsidiary of the Company in Niger. In 2008, Moussa Harouna assumed the role of SEMAFO’s national representative and Managing Director, SML. For more than a decade he has been involved in a wide array of matters ranging from the environment to the merits of an institutional framework to support a gold standard, ambiguous subjects at best for his fellow countrymen. He has built strong relations with investors, citizens, media and elected officials through his sustained efforts and accomplishments in the areas of training and awareness and his ability to create links among stakeholders. Each day he strives to elucidate the dynamics underlying gold price fluctuations in a developing country, while emphasizing the importance of SEMAFO’s contribution to Niger’s employment and gross domestic product.

While holding office at SEMAFO, in 2005 Moussa Harouna became the Special Adviser to the government of Niger for mining and energy issues.

Prior to joining SEMAFO, Mr. Harouna was responsible for research and energy programs at NIGELEC (1985-1995) and Managing Director of École des Mines de l’Industrie et de la Géologie (1995-2000).
This Commander of the National Order of Burkina Faso joined SEMAFO as National Director in September 2007. Mr. Ouedraogo ensures that all of our initiatives are carried out in harmony and accordance with government policies and objectives. He ensures that SEMAFO is the company of reference in Burkina Faso and that we are always in line with international best practices.

Prior to joining SEMAFO, Mr. Ouedrago headed the Société de Recherche et d’Exploitation Minières du Burkina Faso (1990 to 1995) and was subsequently appointed Minister of Mines and Energy, a position he occupied until 2000.

Mr. Ouedraogo’s experience has given him the opportunity to witness firsthand and actively participate in the recent development of his country, Burkina Faso. He is particularly proud to point out that the Mana Mine was discovered thanks to the active participation of Burkinabe geologists recruited by SEMAFO from the University of Ouagadougou.

In November 2009, Mr. Ouedraogo was elected President of the Burkina Professional Mining Association (GPMB). Nominated by his peers, Mr. Ouedraogo will pilot the development and progress of Burkina Faso’s mining sector. Mr. Ouedraogo is also enthusiastically piloting the partnership between SEMAFO and the government of Burkina Faso to develop a 20-megawatt solar power station in the country.

In the early 1990’s, Mamoudou Diallo attended business school at École des Hautes Études Commerciales (HEC) in Montreal, Quebec. It is then that he was afforded the opportunity to discover the values of a francophone population outside his native Guinea. Having graduated with a Master of Science Degree, the young Mamoudou Diallo returned home and was appointed Head of Studies and Research, Central Bank of Guinea.

The following year, Mr. Diallo embarked upon what was to be a long career in government as assistant and advisor to various ministers. Moreover, he was actively involved in the management of the country’s mining sector in accordance with Guinean mining legislation and conventions regulations. Mr. Diallo’s responsibilities included participating in the development of mining projects and the promotion of such to foreign investors.

In 2004, Mr. Diallo left his position as Economic Advisor to the Prime Minister of Guinea to join SEMAFO in the role of Deputy General Manager. In 2006, he was appointed Managing Director of SEMAFO Guinea. As part of his role, he advocates continuous mutual respect and collaboration with government and population alike. In keeping with SEMAFO’s commitment, he strives to support the neighbouring communities and integrate local competencies in the management and operation of the Kiniero Mine.

Mr. Diallo’s substantial knowledge of the mining sector was acknowledged by his Guinean peers in March 2009 with his election to the position of President, Chamber of Mines. Mr. Diallo is pleased to have the opportunity to unite Canadians and Africans to achieve common goals.
This document 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. Forward-looking statements include words or expressions such as “objectives”, “pursue”, “initiate”, “increase”, “improve”, “growth”, “continue”, “maintain”, “become”, “scheduled” 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 (i) complete our Wona Deep pre-feasibility and feasibility studies and commence development, (ii) produce 235,000 to 260,000 ounces of gold in 2010, (iii) improve efficiencies, (iv) maintain stable production at the Kiniero Mine, (v) increase plant capacity to up to 6,000 tonnes per day in bedrock at Mana, (vi) find and integrate organic and strategic growth opportunities in West Africa, Mana’s potential to become a mining district, fluctuation in the price of currencies, gold or 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 annual documents for the financial year ended December 31, 2009 filed with Canadian securities regulatory authorities and available at www.sedar.com. These documents are also available on our website at www.semafo.com. SEMAFO disclaims any obligation to update or revise these forward-looking statements, except as required by applicable law.
CORPORATE INFORMATION

CORPORATE OFFICE CANADA
SEMAFO Inc.
750 Marcel-Laurin Boulevard
Suite 375
Saint-Laurent, Quebec
H4M 2M4
Telephone: 514 744-4408
Toll-Free: 1 888 744-4408
Fax: 514 744-2291
Email: info@semafo.com
Web site: www.semafo.com

BARBADOS
SEMAFO (BARBADOS) LIMITED
AFRICAN GEOMIN MINING DEVELOPMENT CORPORATION LTD.
The Gables
Haggatt Hall
St-Michael, Barbados
West Indies

BURKINA FASO
SEMAFO BURKINA FASO S.A.
SEMAFO ENERGIE BURKINA S.A.
MANA MINERAL S.A.
Sector 13, Babanguida Avenue
Benda Street, Door #211
01 PO BOX 390
Ouagadougou 01, Burkina Faso
Telephone: (011) 226.50.36.95.92
Fax: (011) 226.50.36.95.87
Email: info@semafobf.com

GUINEA
SEMAFO GUINEE S.A.
LES MINERAUX SGV S.A.
KOSSAKEN MINERAL S.A.
PO BOX 2073
Boulevard du Commerce
Immeuble ETI face Ambassade de France
Conakry, République de Guinée
Telephone: (011) 224 30.43.52.41
Email: info@semafoguinee.com

AUDITORS
PRICEWATERHOUSECOOPERS LLP
1250 René-Lévesque Boulevard West
Suite 2800
Montreal, Quebec H3B 2G4

TRANSFER AGENT & REGISTRAR
COMPUTERSHARE TRUST COMPANY OF CANADA
1500 University Street
Suite 700
Montreal, Quebec H3A 3S8

ANNUAL REPORT
For investor inquiries, including additional copies of this report in French or English, please contact investor relations at SEMAFO Inc.
Tel.: 514 744-4408
Toll-Free: 1 888 744-4408
Fax: 514 744-2291
Email: info@semafo.com
Website: www.semafo.com

ANNUAL SHAREHOLDERS MEETING
The Annual Shareholders Meeting will be held at 4:00 p.m. on Wednesday, June 16, 2010
Centre Sheraton
Salons 4-5
1201 René-Lévesque Boulevard West
Montreal, Quebec

STOCK EXCHANGE LISTING
THE TORONTO STOCK EXCHANGE
Symbol: SMF
CUSIP: 816922