E U R O P E A N G O L D C E N T R E

information on mining and exploration developments in Africa, the richest natural resources continent on earth

MINING IN AFRICA

FOCUS ON THE CONSIDERABLE INTEREST FOR MINING AND MINING FINANCE IN ZIMBABWE



Johannesburg, South Africa, 5 August 2009 - <u>www.omegaminingpartners.com/5th-Annual-Overview.html</u>

July 2009



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AFRICA OF THE MONTH



GOLD July 31, 2009: US\$ 951.50 Dec 31, 2008: US\$ 881.10

BARACK OBAMA'S SPIRIT SHOULD GIVE AFRICA THE STIMULATION IT NEEDS BORDERS SHOULD BE CROSSED, THE MIRRORS SHOULD COME OUT OF THE CLOSETS, A NEW WAY OF THINKING SHOULD BE ADAPTED.

IT IS TIME FOR WHAT I CALL 'AFRICANISM'

The new spirit that Barack Obama sent through the world during his election campaign has turned out not to be the usual propaganda that is so known from politicians. They promise the world and at the moment they win the election, they forget about what they said. Not Barack Obama, as he has been showing since he is in office.

In several African countries, Barack Obama was claimed to be their own as a disciple of the continent. Of course, I saw a lot of that in Kenya where

almost everybody suddenly had acquired a new member of the family; it was like they found a new band-aid that would cure all their wounds and solve all their problems. Typical for Africa was that there was a general attitude of hope, curious to see what Obama was going to do to give Kenya some kind of preferential treatment in his foreign policy and aid programs. Of course, it would have been more logic that the people and their politicians would have asked what they could do to apply the new spirit of 'Obanism' into their own lives and attitudes. (Do I hear the sound of President Kennedy here? Yes!)

After President Obama already set the tone at the G8-meetings in Italy, he gave his message and vision to African leaders at the start of his first Presidential visit to the continent, for which Ghana was selected because of its democratic accomplishments. It was a clear message which, I am sure, was not close to what the leaders of African nations were expecting. Rather on the contrary. There was not "one of them" talking, neither "a lost son", nor "a brother". In stead, there was an African boy talking, who has gone a long way and who was not afraid to call things by their real names!

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EDITORIAL COMMENT

The headlines of the newspapers in several African countries showed that Obama had hit some of the country governments hard, or at least that several of those countries felt the need to leash back their bitterness. One of the countries even challenged the statesmanship of Obama, reasoning that he "had not yet become an African leader". Well, let's be realistic, it is not so easy to understand why so many African leaders give priority to their own pockets and those of their kin and friends, rather than to the well-being of and the rights to build a decent living for their people.

I was quite disappointed but not really amazed about many of the reactions. We just can wish that the messages from Obama will somehow settle and that leaders may come to realize what he was saying was only true and that they will allow some fundamental changes for the better. In my view, Africa and the African people just need a change, especially a change of spirit. The waiting is for new young leadership to

enter the scene to give that spirit. Obama has handed the tools, too bad that some of the old guys reacted like they have been caught with their hands were in the cookie jar (where they have been long enough now, I think).

I am sure that some of the African countries where things have been improving will come to function as examples how thing can also be done. Where government uses the country's money and resources for doing what they should do and not to facilitate only the upper league. Where education should be placed at the top of the priority list. Where jobs should be provided and salaries and wages be brought to a level that everybody gets a fair shot at making a decent income so that the need to participate in corruption and crime would disappear. Where the food supply should be brought under strict controls so that famine is removed from the daily fight for life. Where the position of women will be equalized in practice and not only by law. Where......I could go on for quite a while. And to those who think I am criticizing here, I am not, I am only saying that necessary changes can be made. They would have to start by implementing another mentality, another spirit. The spirit of Barack Obama for instance, should be a good stimulus.





In this issue, I introduce three HIGHLIGHTED COMPANIES to you, a Guernsey/South African company that just poured its first gold earlier this week at its gold project in **SOUTH AFRICA**, an Australian company with an ambitious gold project in MAURITANIA, and a United States company that aims to be the

world's largest cobalt company from its project in CAMEROON. These companies, each in its own right, have specific characteristics that could turn them in interesting investment ideas.



The **SUPPORTING COMPANIES** continue to do well as you can judge from the news that they released in this period. At least most of them, while some companies have been very quiet lately (African Gold, Goldrush), others are marching along with their exploration programs (Helio) and production (Etruscan). Remarkable is the activity within and around PMI Gold, read the news!



Referring to my Editorial Comment, I was pleased to find an initiative to bring some changes into the mining industry in Africa, where it is often considered to be curse, rather than a blessing. Not always true, looking at what many mining companies have done to improve life and living conditions to the areas where they operate should be sufficient. Nevertheless, it is good to have an institute like West African Resource Watch (WARW) that promotes fiscal transparency for economic and stability in the West African region. It is a pleasure to include their report "Solid Minerals in West Africa" in this issue!



Finally, the gold price. Gold seemed to narrow its trading range but it was kicked down to \$925 again two days ago. As of this writing, it turned upwards again. Those journalists that have to fill the financial

pages everyday and include an explanation of the moves in the gold price must be screaming for their mothers quite often. It must be a frustrating job to report that gold is down because the dollar and/or oil are up and the next day vice versa. As we also say, they should have learned a trade......to escape the ranks of the "bread writers". The thinkers maintain their long term views, as my valued friend Roger Wiegand says (see the July issue of GOLDVIEW), "Gold prepares for the big one......"

Henk J. Krasenberg

HIGHLIGHTED COMPANIES

The idea behind the Highlighted Companies is to also bring companies to your attention that I have known, come across, discovered and find interesting enough to signal. I have chosen this format to just reflect in a nutshell what the particular company is about. It is not an analysis, not a recommendation, not a presentation, but merely a strictly personal impression of companies that I find worthwhile to mention.



AIM-CRND, JSE-CRD: price July 31 - 15.65p - shares outstanding 246.9 million

The newest gold producer in South Africa



Having celebrated its first gold pour just a few days ago, Central Rand Gold must be the newest gold producer of SOUTH AFRICA, if not in the world at this time. The produced gold, a bullion bar of 1.5kg, represents a resumption of a long and successful history. The Central Rand Goldfield, where the company's

property holdings are located, was extensively mined until the 1970s during which period 247 million ounces were extracted at an average recovered grade of 8.2g/t. Detailed analysis of the area shows the potential for a further 120 million ounces at an average grade of 4.5g/t over a projected 50 year life of mine. It is expected that production from the area is to increase to more than 1 million ounces per year by 2012.



As Johan du Toit, Chief Executive Officer, stated after the first gold pour, "We are extremely happy to have had our first smelt. This is a significant milestone in the Company's trial mining process and demonstrates that our metallurgical circuit is now fully integrated and operational."

Central Rand Gold is the holding company for a group of companies engaged in gold mining and exploration. Since its IPO in November 2007, focus was on the prospecting and exploring an **area south of the Johannesburg Central Business District**, known as the 3C's (Consolidated Main Reef, Crown Mines and City Deep) as well as Langlaagte, the farm where gold was first discovered in the Witwatersrand in 1886 by Australian prospector George Harrison. Although the company had an agreement in place with Puno Gold Investments (Pty) Limited, a consortium of seven BEE groups, about a 26% ownership in the operating subsidiary, the matter is now subject of an arbitration procedure.

The reason mining stopped in the 1970s were the low prevailing gold prices and the increasing depths, which by then had reached 2800m. Also, mining operations lacked the technology to exploit fully the mineral-bearing reefs in the vicinity of the city. Lower



grade ore was left behind and other areas, undetected by the kind of modern prospecting techniques available today, were simply ignored. Minerals typically associated with **gold**, such as **uranium** and **silver**, were often ignored by previous mining operations. The application of new mining technology such as ore sorting and mechanized rock handling will allow the financially viable recovery of gold (and metal by-products) from underground sources, which were previously considered to be uneconomic. Using state-of-the-art mining and environmental technology, **Central Rand Gold plans to extract these minerals fully** so that once the mineralized areas have been worked out and then stabilized, they will never have to be revisited.

The CIL plant, capable of treating 10,000 tonnes of concentrate per month, commenced civil work on site in February 2009, with the start of commissioning in June 2009. The CIL plant was fed concentrate from the Gekko 20tph trial crushing and concentrating

plant and will now also be fed from the Bateman 30tph crushing and concentrating plant. The crushing and concentrating plants are treating surface material from the Main Reef and Main Reef Leader outcrops. Recoveries to date in the CIL plant have been in excess of 95%. It is expected that the crushing and concentrating plants will continue treating surface material until such time that underground ore is extracted, expected in early 2010.



With the applied mining process having proven successful now, I think that Central Rand Gold ¹⁰⁴ May ¹⁰² Jun ¹⁰² Jul ³¹ Jul can play a solid role in renewed youth of this historic gold producing region. Not only with the gold, but also with the extremely high grade uranium ore that is present at the Bird Reef section. Trial mining of the uranium ore has already led to very satisfactory results in the beginning of this year. As you can see from the share price chart, there is ample room for a strong rebound as the company continues to progress. www.centralrandgold.com

HIGHLIGHTED COMPANIES-2



ASX-SHX: price July 31 – A\$0.10 - shares outstanding 51.9 million, fully diluted 57.9 million

Is the Tijirit Gold Project the next Tasiast Gold Mine in Mauritania?



When I saw the booth of The Islamic Republic of MAURITANIA at the Mining Indaba in 2004, I did not associate this quiet African nation with the mining of gold. However, look at it today, just a little of 5 years later. What now is Red Back Mining, producing 230,000 ounces of gold per year at its Tasiast Gold Mine, was then a hardly known exploration company. So why could Shield Mining not experience the same development over the next five years? It has similar geology and characteristics.

Shield currently holds three licenses which cover a total area of 2242km². The flagship project is the 100% owned **Tijirit license** which hosts 6 prospects each of 1-2.5 km strike length and is located at 35km south-west of the Tasiast Gold Mine, the 100% owned Akjoujt project which is near First Quantum's gold-copper producing Guelb Moghrein mine and the 60% jv Saboussiri, a copper/gold property in the south of the country.

At present, the company is in the process of a rights offering, aiming to raise up to A\$1.73 million initially and up to a further A\$3.46 million over the following two year period through the exercise of the new options. The proceeds will be used primarily to fund further exploration work on the Tijirit prospect (following the completed 3275m drilling program) and possibly also on the Sabousssiri prospect.

Now, why do I signal an exploration company with early stage drilling in a little known country as Mauritania? For two reasons; one being that I remember the very impressive, professional and mining friendly presentation of

the Mauritania government that I mentioned above, the other because Shield Mining is the management. Having David G. Netherway as CEO with his very appealing background of 30 years experience, internationally spread over West Africa, Canada, Australia, China, India, Nepal, Oman and Malaysia, and Alexander Burns as Non-Executive Chairman, the Managing Director of Sphere and instrumental in



bringing the company to a very successful iron ore pellet producer. This interesting company is surely in good hands and deserves to be followed. www.shieldmining.com



Geovic Mining Corp

TSX-GMC, OTCBB-GVCM: price July 31 – \$0.57 - shares outstanding 102.95 million – fully diluted 137.99 million

Aiming to be the world's largest cobalt mining company

Geovic Mining Corp. is an ambitious company. Cobalt is a small but strategic product in the world. But aiming to be the world's largest cobalt mining company is ambitious. Geovic has a 60% ownership in Geovic Cameroon PLC (GeoCam) which in turn holds the permit covering 1,250km² of landholdings in CAMEROON,

Africa, and provides exclusive production rights to seven large cobalt-nickel-manganese deposits. The first of the seven deposits, Nkamouna, is currently under development with NI43-101 compliant proven and probable ore reserves of 54.7 million tonnes at average grades of 0.25% cobalt, 0.69% nickel, and 1.33% manganese. This reserve yields 11.7 million tonnes of concentrates grading 0.74% cobalt, 0.99% nickel, and 3.78% manganese suitable as a feedstock for the company's unique processing facility. An additional 145 million tonnes of inferred resources at the Mada deposit, the second of the seven properties planned for development, is adjacent to the Nkamouna processing plant. Currently, Geovic is performing bench and pilot-scale tests aimed at increasing cobalt yields, reducing capital and operating costs, and lowering overall process risks. Such tests are anticipated to be completed by the end of the third quarter of 2009, as is the publication of an updated NI-43-101 compliant resource/reserve report for the Nkamouna and neighboring Mada properties.

What I like about Geovic, is that it combines some vital ingredients to turn it into a successful exploration company. First

of all, it is in a market that is very interesting. Cobalt is a strategic metal which is not present in abundant supplies. The price of cobalt has held up well recently and would allow a producer to be operating profitable. Then, Cameroon, not really a mining nation, has shown to host suitable supplies of cobalt. Geovic has recognized the opportunity and is on its way to become a serious and sizable producer. For me also of significance, is the social effort that Geovic has initiated. Mining



in Africa should indeed be a sustainable development with opportunities for the regional citizens to improve their living conditions through the presence of mining and exploration. Keep an eye on this company! www.geovic.net

SUPPORTING COMPANIES

July 2009

African Gold Group, Inc. TSXV-AGG El Niño Ventures Inc. TSXV-ELN Goldrush Resources Ltd. TSX-GOD

Helio Resource Corp. TSXV-HRC Cassidy Gold Corp. TSXV-CDY Etruscan Resources Inc. TSXV-ELN

Great Basin Gold Ltd. TSX-GBG, NYALT-GBG, JSE-GBG

Pelangio Exploration Inc.

TSXV-PX

PMI Gold Corporation

TSXV-PMV



African Gold Group, Inc.

TSXV-AGG: price July 31 - C\$0.14

African Gold Group has not reported any news since the last issue. *Information on the company and its exploration projects in* **GHANA** *and* **MALI**: <u>www.africangoldgroup.com</u>.





Cassidy Gold Corp. TSXV-CDY: price July 31 - C\$0.05

July 3, 2009: Cassidy Gold Corp reports that the action initiated by Guinea Gold Mines sarl in 2005 against Cassidy has been dismissed, with Cassidy's costs to be naid by GGM. Jim Gillis

2005 against Cassidy has been dismissed, with Cassidy's costs to be paid by GGM. Jim Gillis, President of Cassidy, said: "We are extremely pleased with the outcome of this action. It gives Cassidy certainty going forward and re-focuses management's efforts to increase shareholder value".

July 3, 2009: Cassidy Gold is pleased to announce that, further to its news release dated June 2, 2009, it has completed the nonbrokered private placement of 12,130,000 units at a price per unit of \$0.05 for gross proceeds of \$606,500. The proceeds will be used for working capital and for further evaluation of the company's **Kouroussa Gold Project** in **GUINEA**. *For full information on the company and its projects, visit the company website at* www.cassidygold.com.



El Niño Ventures Inc. TSXV-ELN: price July 31 - C\$0.075



July 27, 2009: further to its news release of May 4, 2009, El Niño has amended its private placement to reduce the price from \$0.10 to \$0.08 per unit for gross proceeds of up to \$2,000,000.

July 22, 2009: El Niño has optioned its Bathurst project in New Brunswick, Canada to Votorantim Metals Canada Inc. Now the company can focus completely on its exploration efforts at the Kasala Project in the DRC. For full information on the company and its projects, visit the company website at www.elninoventures.com.



July 29, 2009: An updated resource estimation has been completed for the Tabakoroni Gold Deposit on the Finkolo Permit in southern MALI which provides a 60% increase in the measured and indicated resource classification. This represents a significant >







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NEWS SUPPORTING COMPANIES - 2

▶ upgrade to the quality of the gold resource, with 610,000 ounces now classified as measured and indicated and 220,000 ounces as inferred, versus the previous report of January 7, 2008 which had 382,000 ounces classified as measured and indicated, and 364,000 ounces as inferred.

July 22, 2009: Etruscan reported that it has concluded the sale of its interest in the Samira Hill Gold Mine in NIGER, West Africa to SEMAFO Inc. for US\$3 million together with a 1.5% net smelter return royalty on additional ounces produced from the Samira Project in excess of 750,000 ounces as from July 1.

July 15, 2009: Etruscan reports 2009 QII results

July 7, 2009: Etruscan reported that its Youga Gold Mine located in BURKINA FASO, West Africa, produced 5,127 ounces of gold in June from 67,651 tonnes of ore compared to 3,626 ounces produced in May. Etruscan is continuing to work towards achieving a minimum monthly production of 7,000 ounces and plant throughput of 80,000 tonnes.

For full information on the company and its projects, visit the company website at <u>www.etruscan.com</u>.



Goldrush Resources Ltd. TSX-GOD: price July 31 - C\$0.035



7/31/2009

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Goldrush Resources did not report any news since the last issue. For full information on the company and its projects in BURKINA FASO: www.goldrushresources.ca.



Great Basin Gold Ltd.

TSX-GBG, NYSEAltx-GBG, JSE-GBG: price July 31 - C\$1.57

July 22, 2009: Mr. Sipho Nkosi retired from its Board of Directors as of July 17, 2009 and Mr. Joshua Ngoma, a founding member and the current Chief Executive Officer of Tranter, has been elected to the Board of Great Basin, effective July 15, 2009.

All information on the company and the full news releases can be found at the company website at www.greatbasingold.co.za.



Helio Resource Corp. TSXV-HRC: price July 31 - C\$0.78

July 13, 2009: Helio Resource Corp. reported the first results from the 2009 diamond drill program at the Porcupine Target at the SMP in TANZANIA. Three diamond drill holes were



July 13, 2009: Helio Resource Corp. reported the first results from the 2009 diamond drill program at the **Porcupine Target** at the **SMP** in **TANZANIA**. Three diamond drill holes were completed and the results demonstrate that gold mineralization remains open along strike and to

depth. Drill results included intersections of 42m at 2.3 g/t gold and 45m at 1.2 g/t gold. The company has now two drill rigs active on the project.

For all relevant information on the company and its projects, visit Helio's website at www.helioresource.com.



Pelangio Exploration Inc. TSX-PX: price July 31 - C\$0.385

Have a look at Pelangio's 3-dimensional video presentation of the **Obuasi gold project** in **GHANA** at the company website at <u>www.pelangio.com</u>.





June 30, 2009: PMI Gold released an extensive update on its Obotan Project in GHANA.

Obotan covers a 20km section of PMI Gold's 70 km's of holdings along the Asankrangwa Gold Belt and includes dozens of historical mining operations and three recently producing mines, the

Nkran, Abore and Adubiaso. These mines were previously operated by Resolute Amansie Limited -- a subsidiary of Resolute Mining of Australia. Between 1997 and 2002 Obotan produced a total of 590,000 oz. of gold from the Nkran pit at an average grade of 2.2 g/t. In addition, the Abore and Adubiaso pits together produced a further 140,000 oz. at similar grades. A bankable feasibility study completed on the Obotan deposits in 1997 reported 38 million tonnes grading 1.96 g/t gold







NEWS SUPPORTING COMPANIES - 3

▶ for 2.823 million oz. of contained gold.

An evaluation of the underground mining potential of the Nkran Deposit by RSG Global Consulting Pty. Ltd. in 2007 confirmed PMI's general concept of how to advance the Nkran project towards an underground drilling/bulk sampling program and also suggested a low cost mining method and related costs. While PMI is continuing to source funding to address the current debt and to commercialize the Kubi gold project, it also **aims to advance Obotan to the pre-feasibility stage**.

July 20, 2009: A \$1,500,000 private placement was reported as closed and completed. Out of the proceeds, \$1 million was paid to Trafalgar Capital, who extended repayment of the balance until October 12, 2009.

July 21, 2009: PMI's largest single shareholder Arlyn James Miller of Denver, Colorado, acquired an additional 10,000,000 units pursuant to the private placement which closed on July 16, 2009. As a result, Mr. Miller now owns and controls 32,401,700 common shares representing 21.76% of the issued and outstanding shares of the company.

July 22, 2007: PMI advised, further to its news release dated July 21, 2009, that Arlyn James Miller, of Denver, Colorado, USA, acquired 10,000,000 units of the company. After giving effect to the acquisition referred to above, Miller beneficially owns 32,401,700 common shares, 18,000,000 share purchase warrants, and has entered into an agreement to purchase an additional 4,000,000 common shares and share purchase warrants which, upon consummation of the purchase of such common shares and share purchase thereof, would represent approximately 34.17% of the issued and outstanding common shares.

The company also advised that Waratah Investments Ltd. of Accra, Ghana, acquired 14,000,000 units of the company. After giving effect to the acquisition referred to above, Waratah beneficially owns 14,000,000 common shares, 14,000,000 share purchase warrants, and has entered into an agreement to purchase an additional 4,000,000 common shares and share purchase warrants which, upon consummation of the purchase of such common shares and share purchase warrants and exercise thereof, would represent approximately **21.57%** of the issued and outstanding common shares.

For all relevant information on the company and its projects, visit PMI Gold's website at <u>www.pmigoldcorp.com</u>.

* * *

RESOURCE & INVESTMENT EVENTS ON AFRICA

August 5, 2009 5th Mining in Africa Conference Johannesburg, South Africa www.omegaminingpartners.com August 11–13, 2009 iPAD East Africa Dar es Salaam, Tanzania www.spintelligent-events.com September 3–4, 2009 Africa Downunder Conference Perth, West Australia www.africadownunderconference.com





3 - 4 September 2009 - Sheraton Perth Hotel, WA – Australia www.africadownunderconference.com

____CHECK FOR MORE INFORMATION____

Solid Minerals in West Africa

by

Warw: West African Resource Watch

Introduction

Following is a brief on the importance and role of solid minerals in the national economies of West African countries and globally. The brief is part of the output of a seven-country capacity needs assessment carried out between September 2007 and June 2008 in West Africa, for the West African Resource Watch (WARW), an affiliate of the Open Society Institute of West Africa (OSIWA) as part of its promotional programme for improved governance and economic justice in West Africa. The purpose of the capacity needs assessment was to develop appropriate interventions for the transparent, accountable, equitable and sustainable management of natural resources in the sub-region for national development.

Overview of solid minerals in West Africa

Four countries were sampled for the study in solid minerals: Guinea Bissau, Guinea Conakry, Ghana and Sierra Leone. See summary in Table 1.

Guinea Bissau

Guinea-Bissau is home to various mineral deposits: bauxites and construction materials, seaboard placers of black sands with ilmenite, rutile, zirconium, occurrences of iron, phosphotites, brown coal and oil. Bauxites are one of the real

ore bases. Bauxite deposits of lateritic residua are located in the southeast of the country, near the border with Guinea, 103 km distant from the port of Bouba. Total bauxite deposits of the country's sole ore region BOE count 109 million tons (Mt), including 76.9 Mt of C1+C2 category bauxite.

Bauxite-bearing region BOE is composed of terrigenous rocks, namely argillites, siltstones and sandstones of Silurian and Devonian ages, broken by sills and dikes of Mesozoic dolerites. Lateritic formations up to 30 metres (m) thick are positioned everywhere; in their upper parts bauxite-bearing residua are deposited.

The relief is a slightly dissected, flat-topped upland, sometimes plateau-like. It forms an interstream area between the Koroubal River on the north and the Koton River on the south. The down cuttings of the river valleys come to dozens of metres. The region was once a zone of military action; mines are possible.

First information about BOE bauxites appeared in the 1950s. Later Dutch specialists came to the conclusion that the place held bauxite-bearing nappes. After drilling that took place in test areas of 100 by 100 metres, the bauxite reserves of this region were assessed. They reached around 109 Mt with average alumina and silica content of 46.5 and 3.5 %.

Guinea Conakry

Guinea Conakry is rich in bauxite, gold, iron ore and diamonds.

Bauxite/alumina: Guinea is among the top five bauxite producers in the world. Its bauxite-bearing regions are in Lowland, Upper and Mid-Guinea totalling about 5 billion MT with between 44 and 53 % Al_2O_3 and between 2 and 3% SiO_2 . Guinea's bauxite is inherently desirable to aluminum producers for three reasons: its quality, its location and its sheer quantity. In every other part of the world, bauxite with an alumina content of 40 to 50 % is considered to be good. Bauxite from the Boke region, with an average alumina content over 53 %, is in a class by itself. The deposits moreover are well situated for shipping to the USA, Canada, Australia and Western Europe, where much of the world's refining and smelting capacity is currently located.

The Government of Guinea is in partnership with Halco of the USA to mine bauxite. Halco has been a key player in the development of bauxite in Guinea for more than thirty years. Halco is a 51 % shareholder of CBG, a partnership that mines bauxite in the Boke region of Guinea for export to the USA, Canada and various countries in Europe. The Government of the Republic of Guinea holds the remaining 49 % of CBG. CBG has exclusive rights until 2038 to the bauxite reserves and resources in a 10,000 square mile area in the northwestern part of the country.

Gold: Gold occurs in Guinea as veins and alluvially

and is mined by artisans, and medium-sized and industrial-scale enterprises. Guinea's main goldbearing area is the Siguiri Basin within Upper Guinea. Other areas with gold deposits are Fitaba, N'Zerekore and Sierra Fore.

Iron ore: The Mount Nimba and Simadou iron ore deposits are in the southern half of the country, with content of about 66–68 % iron.

Laterite iron deposits also occur in Lowland Guinea, including the Kaloum Peninsula deposit in Conakry and Forecariah. Other deposits occur in Upper, Mid and Forested Guinea.

Diamonds: Guinea's diamonds, from alluvian, eluvian and kimberlite sources, are located along river banks, at Keraone, Kssidougou amd Macenta along the Baoule, Diani and Milo Rivers. Forenciah and Kinda also contain diamonds. The total estimate deposit is 25–30 million carats.

Ghana

Gold: Gold deposits are economically by far the most important solid mineral deposit type in Ghana. Past cumulated production is estimated to be in excess of 2,000 Mt of gold. Five important types of gold mineralization occur:



Solid Minerals in West Africa-2

1) steeply dipping quartz veins with native gold in shear zones at Birimian belt/basin boundaries (e.g. Konongo, Ashanti and Prestea mines);

2) disseminated sulphide bodies, spatially though not necessarily genetically in association with the shear zones and quartz veins, with auriferous arsenopyrites as major host of gold (Obenemase, Ashanti, Bogosu and Prestea mines);

3) disseminated and stockwork mineralization in late-kinematic 'basin-type' granitoids (e.g. Ayanfuri mine);

4) modified-paleoplacer mineralization in quartz pebble conglomerates of the Tarkwaian Group, carrying, besides gold, detrital and reconstituted magnetite and hematite (e.g. Tarkwa and Iduapriem mines); and

5) alluvial gold concentrations in recent and subrecent river gravels (e.g. Dunkwa and Bonte mines).

In Ghana, gold is largely concentrated in three major areas: the Ashanti, Western and Eastern regions. Deposits also occur in the northern parts of the country. According to the Minerals Commission, there are six major gold belts: Kibi-Winneba, Ashanti, Sefwi, Bui, Bole-Nangodi and Lawra belt. Currently, no comprehensive

	Guinea Bissau	Guinea Conahry	Ghana	Sierro Leone
Key minereb	Boasile, phospholes, gold	Bousile, gold, iron ore, granile	Cold, diemonds, bauxite, mongonere	Diamoneb, iron ore, rutile, brusite
Size of deposit	109 million tonsboudte	25 billion MI boxoite 25/30 million corols diamonds	7,000 MT gold 30 million corefs reserve of diamonds	NA
Contribution to CDP Contribute export	NA	10%	55	12.6% (2006)
DELABORARS.	NA	603.	37%	505.
Foreign exchange	NA	80%	46%	NA
Prop. of Gov't revenues	NA	30%	NA	NA
Local content policy	NA	NA	Yes, but low copacity to menitor	Yes but little cepacity to monitor
Concession type	NA	Royally/Lax	Royally/tex	Royelly/Lex
Repairty	NA	5-10%	3-128	3-5%

Sierra Leone

Sierra Leone has a good spread of solid minerals including diamonds, gold, rutile, bauxite, platinum and iron ore. The extractive sector in Sierra Leone is dominated by the mining industry, which is regulated by the Ministry of Mineral Resources. The mining sector is the biggest foreign exchange earner for the country, amounting to about 90 per cent of total exports.

There are four major mines with rutile, diamonds and bauxite being the key minerals exported. Total mineral exports in 2006, by the four industrial-scale mining companies operating in the country, amounted to about US\$ 133 million.

The total tax (corporate and PAYE) contribution received by the National Revenue Authority (NRA) for that year was just US\$ 1.6 million.

Diamonds: Sierra Leone's established diamond fields are located in the country's southeastern and eastern parts covering an area of almost 20,000 km2, representing over 25 % of the total land area of the country. They are concentrated in Kono,

Kenema, and Bo Districts and are mainly situated in the drainage areas of the Sewa, Bafi, Woa, Mano and Moa Rivers. The country is renowned for the quality of its diamonds. The third largest diamond ever discovered (the largest in Sierra Leone so far) weighed 949 carats and was found in Kono District, in the east of the country. Kimberlite is the primary source of diamonds in Sierra Leone. It was discovered in the Koidu area in the Kono District in 1948 and later at Tongo in the Kenema District. However, it was only in 1995 that mineral rights were granted to Branch Energy, a subsidiary of Toronto-listed Diamond Works, over the Koidu kimberlites, which consist of two pipes and four dykes.

Mine development was interrupted in May 1997 when rebels invaded the district. With the end of the war in 2002, the company revisited the site, raised funds and commenced rehabilitation. Production restarted in 2004.

Total kimberlite diamond exports in 2006 were 112,040.02 carats valued at \$101,857,434.68; this constituted only 18.71 per cent of the total diamond exports. Royalties amounted to \$1,172,370.39 while export duty was \$1,289,607.43.

Rutile: Sierra Leone possesses one of the largest reserves of natural rutile in the world. This titanium dioxide mineral was first found in the gravels of the Lanti River, in the Southern Province, in 1954. Four groups of deposits are known, mainly in the Moyamba and Bonthe Districts. Exploitation commenced only in 1967 by Sherbro Minerals Ltd. In 1971, technical problems led to mine closure until 1979 when mining recommenced under the newly registered Sierra Rutile Ltd. By the time the mine closed in 1995, owing to invasion by RUF rebels, Sierra Leone was the world's largest producer of rutile.

study has been done to estimate the total quantity of gold reserves in the country.

Guesstimates, however, exist. A report compiled by the Minerals Commission in 1987 estimated the total gold potential in the Birimian and Tarkwaian systems (the two most important gold-occurring geological systems in the country) to be 1,836,087,020 oz. Specific estimates for areas being prospected by the major mining companies also exist.

Diamonds: Diamonds commonly occur in the Western, Eastern and Central Regions of Ghana. They are found in gravels of river beds. The mineral has been mined from what is known as the Birim and Bonza diamond fields since the early twentieth century. Diamonds occur in towns like Akwatia, Otwereso, Dompim and Bonsaso. Available reserves stretch over an area of 240 km² along the Birim

River and are estimated to contain 14 million carats of proven reserve at an average grade of over 1.0 carat per cubic metre, 4.6 million carats of probable reserves and about 30 million carats of possible reserves in addition to associated fine gold.

Bauxite: The main high-quality bauxite reserves in Ghana are found in the Western, Central and Ashanti regions. Major deposits occur in the Sefwi-Bekai (Awaso), Aya-Nyinahin, Kibi and Ejuanema belts. Reserves of 15 Mt have been reported.

Manganese: The main manganese deposits occur at Nsuta in the Western Region. Deposits are also found in six other regions: Eastern, Central, Western, Ashanti, Northern, Upper West and Upper East. An interesting geological find is that most manganese deposits are close to gold occurrences in the Birimian system.

► Solid Minerals in West Africa-3

The company resumed production in 2005 and has embarked on a major programme of further exploration. A new dredge believed to be the largest in the world has recently been commissioned in order to increase production levels. It is also on record that substantial quantities of rutile occur in the gravels of the Little Scarcies River, close to its confluence with the Mabole River in the Kambia and Portloko Districts. Records show that between May and December 2006, 70,681.32 Mt of rutile valued at US\$ 28,641,387.47 and 8,561.00 Mt of lilmenite valued at US\$ 1,482,804.52 were exported.

Bauxite: Bauxite occurrences have been recorded in several localities in Sierra Leone in the Northern and Southern Provinces and in the Western Area where they are associated with the anorthositic rocks of the Freetown Gabbroic Complex. The most important occurrences are the Mokanji and Gbonge Hills bauxites, discovered in 1960 by the Geological Survey Division. SIEROMCO, a subsidiary of Alusuisse, mined the bauxites between 1963 and 1995, when invasion by rebels forced the mine to close down.

On blending, the Mokanji bauxite yielded a grade of 55-56 % alumina and 3-4 % silica.

With the return of peace to the country, the ownership of the mines changed. Sierra Minerals rehabilitated the mine site and commenced production in 2005. In 2006 the company exported over 993 million tons of bauxite. The Portloko bauxite deposit is of lower grade, averaging 48 % alumina and 3-3.5 % silica. Assessment by SIEROMCO indicated proven reserves of 77.3 million tons.

Platinum: Between 1929 and 1949 a total of 5,250 ounces of native platinum were produced by panning the gravels along the Big Water and Whale Rivers around York in the Freetown Peninsula. It has been recorded in almost all the rivers draining the western part of the Freetown Igneous Complex.

Gold: The widespread occurrence of alluvial gold in the Sula Mountains/Kangari Hills in the north and central parts of the country had been recorded since 1926. All greenstone belts in Sierra Leone (with the possible exception of the Marampa Group) are now known to contain gold. Extensive prospecting by the Geological Survey established the existence of gold in the following localities within the granite/greenstone terrain of Sierra Leone: the SulaMountains area, the Kangari Hills area especially Baomahun, Makong and Makele, the Nimini Hills, the Loko Group Hills in the Kamakwie-Laminaia area, and the Gori Hills.

Although there are records of active artisanal gold mining countrywide, the contribution of gold to the total mineral export over the years has been insignificant. Official records show that the highest official export ever was in 1984 when 30,000 ounces of gold were sold. In 2006, 2,642.10 ounces valued at US\$ 1,062,533.78 were exported.

Winston Minerals had made considerable progress in investigating the Baomahun deposit in the Valunia Chiefdom, in the southern province. They were forced to abandon work when rebels invaded the area in 1995. Work resumed after the war and results obtained so far give reason to expect the first load gold mining operation within the next two to three years.

Iron ore: The Sierra Leone Development Company (DELCO) exploited Marimba iron ore from 1933 to 1975 when the mine closed. Peak production between 1965 and 1973 ranged between 2.2 and 2.5 million tons per year. The primary ore occurs within the Marampa Group of rocks and consists of specularite schist interstratified with guartz-mica schist. This has been traced northwards to Kukuna, near the boundary with Guinea and southwards to Toma and Makalawa. It is estimated that at closure about forty million tons of tailings averaging 27.7 per cent iron were left behind. In the mid-1980s, an Austrian company, Austro Minerals, was granted a licence to process and market the tailings. The company ceased production after only three years apparently because of management problems and community unrest. Currently, a new company, London Mining, has acquired a mining lease and is setting up a pilot plant to process and market the iron ore tailings.

Two additional iron ore deposits that have been investigated are the Ferengbeya deposit in the Tonkolili District and the Bagla Hills deposit in southeastern Sierra Leone. The Ferengbeya deposit consists of a lateritic capping underlain by primary deposits of Precambrian Banded Iron Formation. Estimates are that the capping alone contains about 120 million tons at 56.3 per cent iron and the capping about 600 million tons. An estimate of the primary ore is 384 million tons of primary ore (magnetite) at 18 per cent iron and 90 million tons of haematite ore at 34.3 per cent iron. Both the Ferengbeya and Bagla Hills occurrences are rich in sulphides.

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The West Africa Resource Watch (WARW) is an initiative of the Open SocietyInitiative for West Africa (OSIWA). It is envisioned as a home-grown institute to promote fiscal transparency for economic development and stability in the sub-region. Resource Watch responds to knowledge and capacity gaps in the management, governance and use of resourcederived revenues by mobilising intellectual, technical and financial resources and stimulating innovations necessary to reverse the curse associated with resource abundance. Located in Dakar, West Africa Resource Watch contributes to the drive for transparency in extractive operations through four broad strategic programme areas: Research and Documentation; Advocacy, Training and Policy Advice.

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