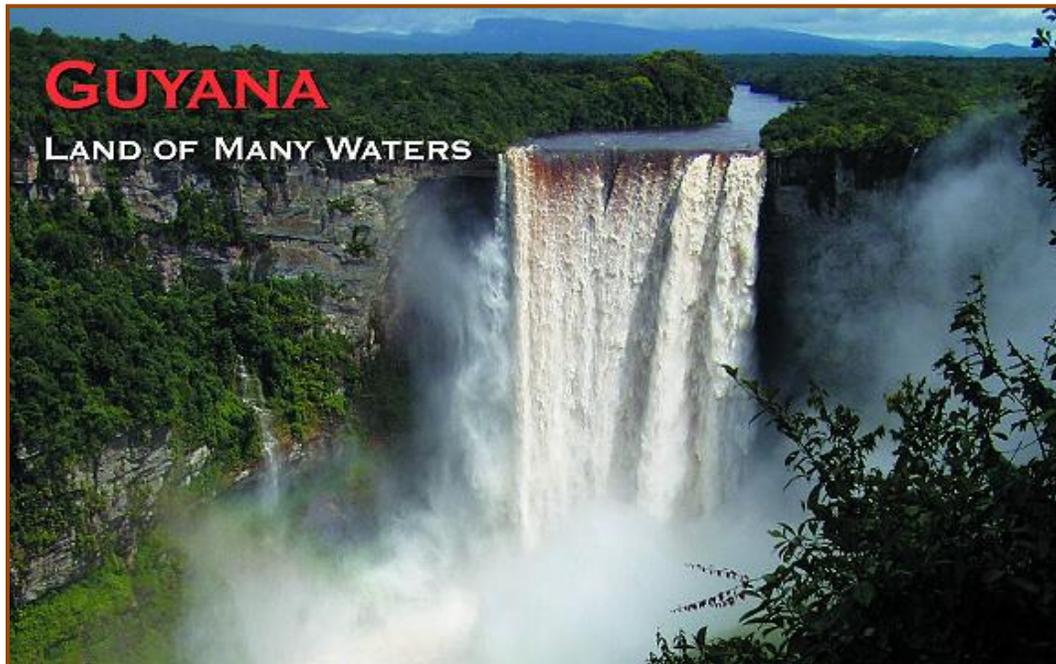


# GUYANA



## *Geology & Mining Report*

## ABOUT GUYANA

Guyana is a South American nation on the Northwest coast of the continent. It is bordered by Venezuela, Brazil, Suriname and the Atlantic Ocean. The country has an area of 214,970 square kilometers of coastal plain, rain forests, mountains and rivers. Guyana is an Aboriginal name word meaning "Land of Many Waters". Guyana's population of nearly one million people are "English Speaking" and 96% literate, a reflection of the social and educational infrastructure of the former English Colony. Georgetown, the capital city, has a population of approximately 300,000. Transportation within the country is by road, air and mostly by water. The First European settlers in the 1600's were Dutch. In the Late 1700's the British assumed control and in 1831 named the colony British Guyana. In 1972 Guyana became a democratic cooperative republic and today, like Canada, Australia and New Zealand remains a member of the Commonwealth. In the Mid 1980's, the government began to introduce legislation and policies which encouraged foreign investment in the resource industries. Until this time, in spite of the promising geological reports, mining remained largely dormant in the nation's economy. Building on the existing British model, Guyana's land title and property laws are today more comprehensive than some North American states and Provinces. The climate for resource investment has grown steadily positive. The government has introduced duty free concessions on the importation of most equipment related to mining. Concern for environment and demand for environmental technologies are factors in government approval for resource development. Guyana's export resources include Bauxite, Gold, Diamonds, Timber, Fish and agricultural products. The GNP of Guyana has steadily increased over the last ten years and all indications point to continued growth.

## SECTION "A" PLACER GEOLOGY AND MINING IN GUYANA

**Historical Background:** Although this presentation will concern placer geology and mining in Guyana and the greater Guiana Shield, it is impossible to exclude some information reference to Venezuela. The common border bisects identical geology and types of mining practices; it would be analogous to discussing the Carlin District and Newmont Mining without the mention of American Barrick. You can bet that the citizens of The Lost City of El Dorado some three centuries ago didn't know if they were in Guyana or Venezuela.

**Past Production of Gold & Diamonds:** Placer Gold was discovered in Guyana and Venezuela in the mid-1800 and Placer Diamonds in both countries around 1887. Past production records indicate that 10 million ounces of Gold and 20 million carats of Diamonds have been extracted from Guyana and Venezuela, mostly by primitive mining and recovery practices employed by "Portknockers" (Guyana) "Mineros", (Venezuela), and "Garimpeiros" (Brazilians). It must be acknowledged that the above cited gross production numbers may represent only 50% of the actual production due to many factors such as theft and inefficient mining and recovery systems.

**Guiana Shield vs. Other Shields:** Unlike other shields regions of Canada, Brazil, South Africa, India, Russia, Australia, etc., mineral investigation and development of the Guiana Shield has had numerous deterrents for example: (1) five different countries with five different languages, mineral codes and legal systems. (2) A lack of infrastructure to access the interiors. (3) Tropical rains, and rainforest covering rugged terrain. (4) Endemic malaria. (5) Until recently very limited geographic and topographic coverage. (6) And until recently onerous foreign ownership, taxation and exchange laws. (7) Although improving, lack of technically trained and or experienced local mining personal.

**The New Guyana:** Starting in 1985, the government of Guyana embraced western attitudes and opened the country to foreign investment. The first entrant into the mineral business was Golden Star Resources (GSR) out of Calgary, Canada -- who with ample technical ingenuity and intestinal fortitude has done an outstanding job in exploring Guyana's mineral potentialities. It is GSR that persuaded Cambior to develop the Omai Gold Mine. GSR has also actively pursued the search for source-rock Diamond deposits in co-operative programs.

## MINERAL RIGHTS

**Mineral Rights:** In Guyana, mineral rights vest in the State, the Mining Act and its regulations govern mining, and the latter is under the authority of the Guyana Geology and Mines Commission (GGMC). Land positions are obtained either by granted large PLs (prospecting licenses) that may cover 20 square miles, medium scale parcels that may cover up to 1,200 acres (800' x 1,500') called Land Claims, and River Claims covering one mile of river length. Special regulations cover granted Pls, including proof of technical and financial capacity, and GGMC approval of the exploration plan and time schedule; if an economic deposit is delineated a ML (mining license) is granted upon GGMC approval of an EIS (Environmental Impact Study) and feasibility study, and the government retains a 5% carried participation while granting certain fiscal incentives, e.g., zero duty and consumption taxes.

The list of mining claims held in Guyana by its citizens and/or Guyanese companies is composed of approximately 700 pages. It is undoubtedly an exaggeration, but one gains the impression that not one inch of river, stream or rivulet has gone unclaimed in Guyana which is about the size of Minnesota (83,000 sq. miles). Probably less than 6-7 % of both land and river claims are undergoing some form of exploration, and the rest are held year after year on speculation that the mining claims may encompass increased values. Obviously, the holding rental is monetarily minimal. The vast majority of claim holders have neither the financial or technical ability to initiate a placer mining operation, and those that are actively engaged in mining hold such a vast inventory of claims that they would need a cat's quota of lives just to scratch the surface. Although Mining claims are not granted outright to foreigners, it is legal to operate on claims by first forming a Guyanese mining company and offering a mining contracting service. In effect, a Guyanese claim holder can contract the company to mine his claims, and the contractual agreement is a private matter, the contractor being paid in kind, whatever the agreed-upon terms stipulate. Formerly, all Gold had to be sold to the Government's Gold Board; now there are about seven government-authorized Gold buyers that pay London Spot based on assay returns. Whether the GGMC's Gold Board or an authorized buyer, the 5% gross royalty on Gold is deducted at the point and time of sale. The Diamond royalty, 5%, is based on the carat weight of a parcel of stones times a carat value that is set by the GGMC.

## SECTION "B" GEOLOGICAL SYNOPSIS

**Simplistic Geological Synopsis:** The Guiana shield is part of the Amazonian craton and covers the Southeastern part of Venezuela, most of Guyana and Suriname, all of French Guiana, and that part of Brazil north of the Amazon River. As this presentation will focus on Guyana placers, no attempt will be made here to paraphrase *The Geology of the Guiana Shield* by Gibbs and Barron, 1993.

**Imataca Complex and Barama-Mazaruni Supergroup:** Simplistically, the main geologic divisions are (1) the Precambrian Archaean Imataca basement composed of gneisses, amphibolites, itaberrites and intrusive granites, (2) the overlying Barama-Mazaruni Supergroup composed of metasedimentary and metavolcanic rock units that are intruded by acid, basic and ultrabasic rocks, the whole referred to as a volcanic series or greenstones, and (3) the middle Proterozoic Roraima Supergroup. The latter unconformably overlies the Barama-Mazaruni and covers an area of approximately 65,000 square miles in Guyana, Venezuela and Brazil.

**Roraima Supergroup and Avanavero Basic Intrusives:** the Roraima is composed of approximately 2,000 meters of flat-lying continental sedimentary silica-cemented sandstone's, minor shale's, jaspers and cherts and conglomerates that were deposited in fluvio-deltaic and lacustrine environments. The conglomerate horizons interspersed within the Roraima range in thickness from less than 50 cms. to over 20 meters. The constituent clasts are mostly pebbles of sandstone and white quartz ranging in size up to 16 cms. in length. Descriptions of the conglomerates invariably mention that they do not contain any clastic elements derived from the igneous and metamorphic basement rocks. The Roraima is intruded by the Avanavero Suite consisting of dikes and massive sills of gabbro and norite, some attaining thickness of hundreds of feet and occupying large areas. The Group is also intruded by the Apatoe Suite of NE/ SW-trending diabase dikes of Triassic-Jurassic age.

**Generalized Stratigraphic Column:** A generalized Stratigraphic Column is described as follows; Mataui Formation is  $\pm$  1,000 m. thick - massive sandstone showing cross-bedding and ripple-marks, and sometimes quartzitic, and includes intruded basic skills. Uaimapue Formation is  $\pm$  250 m. thick - arkosic sandstone, siltstone, shale, chert and jasper, variously quartzitic, and lower part with conglomerates and sandstones. Cuquenon Formation is  $\pm$  100 m. thick - variegated fissle stilty shales. And Uairen Formation is  $\pm$  850 m. thick - quartz sandstone with conglomerate lenses.

**Physiography:** Tertiary and Quaternary erosion has sculptured the Roraima into an almost surrealistic physiography, with broad mesas that are called Tupuis in Venezuela. The latter rise thousands of feet above the surrounding forest with their tops shrouded in the clouds.

This is the spectacular setting of Sir Arthur Conan Doyle's The Lost world and the locales of Angel Falls (3,212 feet in height) in Venezuela, Kaieteur Falls (741 feet in height) in Guyana, and numerous other falls that exceed Victoria and Niagara in size and beauty. The mesa tops are badlands, intensely fractured with chasms over 500 feet deep; it is postulated that fissure and fractures resultant of warping of the continental plate during crustal spreading were enlarged by erosion and block faulting.

Most of the Tupuis have never been explored and Biologists have found thousands of species of plants and innumerable animals that are unique to the Roraima Tupuis. The more adventurous among you may wish to locate Jimmie Angel's elusive "River of Gold" atop Auyan-Tupui.

**The Guyana-Venezuela Morphogenesis:** Mineral maps of eastern Venezuela, the half of Guyana, and the adjacent part of Brazil, show many hundreds of locations of placer Gold and Diamond workings along the major rivers.

The actual "deposits", for the most part, are along the tributaries of the major rivers, and most of the workings are land-based along the margins of streams and creeks that comprise the tributary drainage systems. The following erosional plantation surfaces are recognized in the Guiana shield of Guyana and Venezuela

<u>Altitudes</u>	<u>Guyana</u>	<u>Venezuela</u>
+ 8,500' (+2,000 m)	Pakaraima	Auyantepuy
3,200-3,900' (1,000-2,000 m)	Kanuku	Kamarate / Gran Sabana
1,900-2,300' (600-700 m)	Kopinang	Imataca
1,200-1,500' (350-450 m)	Kaieteur	Caroni / Aro
350-900' (100-250 m)	Rupununi / Mazaruni	Los Lianos / Orinoco

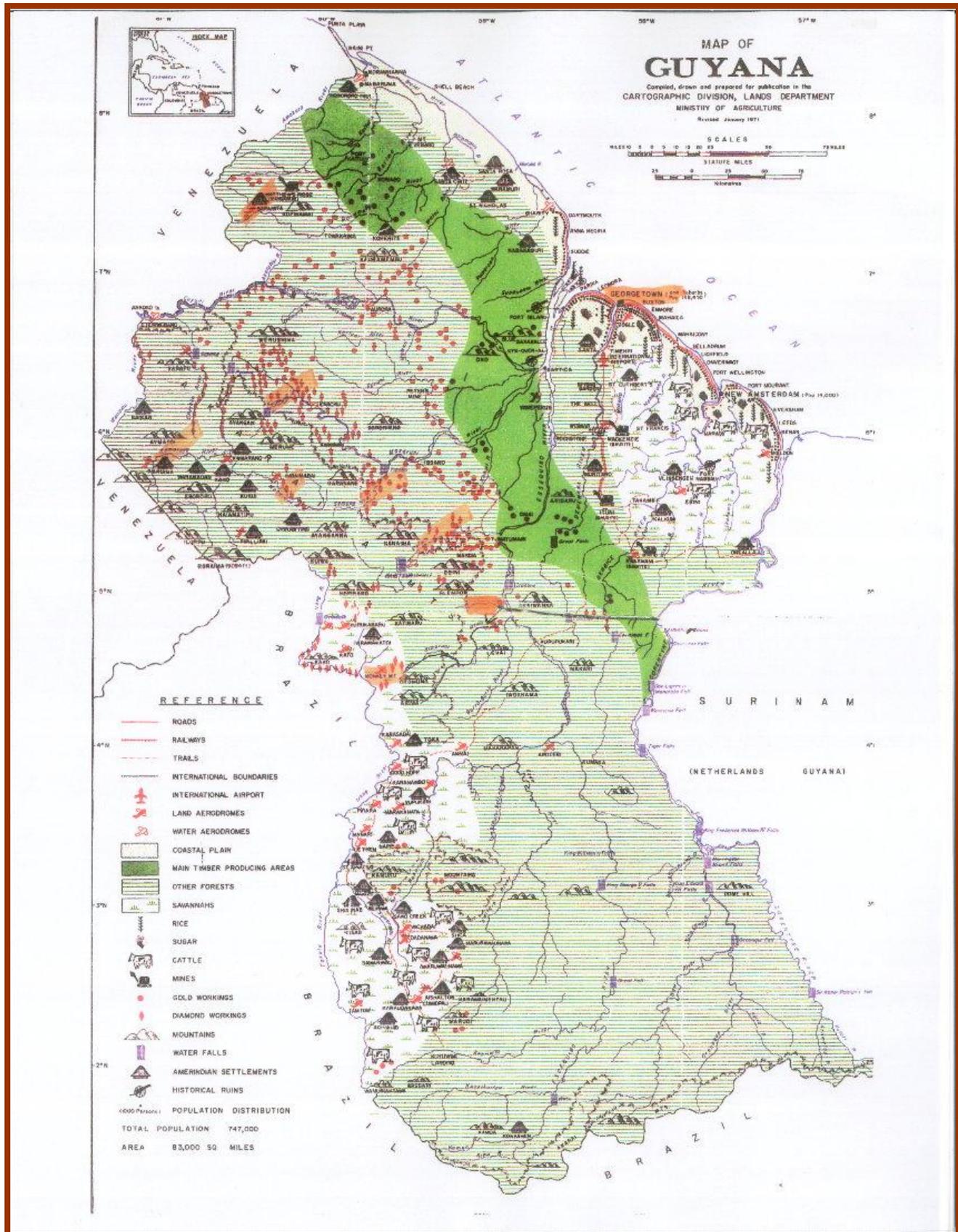
The Kaieteur-Caroni / Aro surface is represented by the floor of the Central Valley of the Caroni River in Venezuela and is the location of the richest Diamond placers in Venezuela. This surface is also the Location of many Diamond workings located along the Mazaruni and lower Potaro Rivers in Guyana.

The plantation events have resulted in successive re-working of Roraima/Avanavero/Apatoe erosional detritus with consequent successive redistribution of Diamonds and Gold particles. The development of the erosional surfaces attests to past geologic and climatic processes that resulted in successive formation and destruction of high hill-slope eluvial-colluvial deposits, terrace deposits, flood plain deposits, and channel lag accumulations with redistribution and upgrading of Diamond and Gold bearing sediments in new generations of such deposits.

## SECTION "C" PLACER GEOLOGY

**Placer Geology:** The ubiquity of Gold and Diamonds is shown in mineral occurrence maps of Guyana and Venezuela. Of the many hundreds of noted Gold and Diamond occurrences, most are placers located along the highways and byways, i.e., rivers, and creeks, of the Guiana Shield. The omnipresence of two precious minerals throughout the Guiana Shield is extraordinary and should excite seekers of economic deposits of these minerals whether source rock or placer occurrences.

# MINERAL & MINING MAP OF GUYANA



*Note: The orange highlighted areas represent additional gold and diamond mining opportunities the company has identified that may or may not pursue in the future.*

**Source of Placer Gold:** the Gold-bearing placers derives from; (a) erosion of Gold-quartz veins and disseminated Gold in granite/greenstone terrains, (b) erosion of auriferous saprolite over Gold-bearing quartz stockworks, (c) erosion of proto-river courses, (d) erosion of Gold-bearing laterite, and (e) erosion of Gold-bearing quartz-pebble conglomerates. All of the above listed Gold occurrences exist in the Guiana Shield.

**Source of Placer Diamonds:** The unique occurrence of Diamondiferous kimberlite-type rock in the Guianamo-Quebrada Grande area in the western part of the Guiana Shield in the state of Bolivar, Venezuela, does not explain the ubiquity of Diamonds throughout the rest of the Guiana Shield. Classically, the postulate that the Diamonds result from erosion of the basal conglomerate of the Roraima Uairen Formation is not dead, but there is no recorded evidence of a Diamond ever being found *situ* in any of the conglomerate lenses of Roraima Formations. Diamonds have been won from placer deposits located on the Kopinang surface in Guyana and the Kamarata surface in Venezuela, both above the Uairen Formation basal conglomerates, and low-grade bort Diamonds have been found near the top of Mt. Roraima. Discussion of source must address the fact that within the wide distribution of Diamonds throughout the Guiana Shield, the deposits and occurrences contain variable, sometimes strikingly different, combinations of morphologies, types of colors and sizes, and differing suites of satellite minerals. A Roraima Diamondiferous conglomerate origin would involve distant transport (possibly West Africa) of the constituent sediments with attendant mixing, size-sorting, and abrading of the diamonds. Studies have shown that during transport, Diamonds are sorted by size such that the farther from the source, the smaller the average size of the Diamonds. Stones weighing 154 and 83 carats, and goodly number in the 10-35 carat range have been won from Diamond Placers in Venezuela, and 56 and 24 carats as well as many 5-10 carats from Diamond Placers in Guyana. The thesis regarding transport of Diamonds in a huge sediment load from a distant provenance must also account for the factual instances of some locales within the Guiana Shield reporting stones of perfect to near-perfect crystal form, i.e., no fracturing or rounding. Assuming the veracity of Guiana Shield placer Diamond occurrences deriving from erosional disintegration of Diamondiferous source rocks and subsequent upgrading by fluvial action in the alluvial regimes, it behooves seekers of Diamond source rock deposits to thoroughly familiarize themselves with Sierra Leone-type occurrences of Diamond bearing intrusive dikes which readily succumb to intense tropical weathering and elude discovery.

**Placer Profiles:** The rivers of Guyana exhibit a generalized alluvial profile comprised of overburden sands overlying a layer of placer gravel that overlies bedrock. Thickness of the sands and gravel is variable in ratio and fact, clay lensing is not common, but iron-cemented gravel, called "catchcow" in Guyana is not uncommon. Invariably, the catchcow itself and the preserved placer gravels underneath carry good to exceptional values of Gold and Diamonds. Cobbles to boulders and sunken dense logs are encountered in channel gravels, and sometimes beds of black rotten-smelling leaves. The intensity of dredge mining in many of the principal rivers in Guyana has created a "man-made" profile. The Guyanese miners early on recognized the advantage of exploiting classic placer entrapment locales such a point and side bars zones below tributary stream confluences, channel widenings below narrows, and pools below waterfalls. All uplifted material was boomed across their sluices and the tailings deposited without spreading into the river channel behind the floating dredge/sluice plants. As will be described later, the development of the submersible gravel pump and missile suction system permitted encroachment into the flood plains that flank the channels. After first clearing the trees and brush, the flood plain was undercut, i.e., the sand/gravel layer was "sucked out" and the overlying 10 to 30 foot layer of soil and clay that caved was also passed across the sluice system and deposited into the channel as tailings. The present river channels are "loaded" with piles of tailings that are exposed during seasonal low-water periods. Reworking the Guyanese rivers becomes a case of uplifting and processing an unnatural "man-made" profile that is a heterogeneous mixture of in situ alluvium, pre-worked alluvium, and partly worked introduced flood plain sediments. The worthiness of doing so is to the fact that past recovery of Gold by the Guyanese sluice dredging probably did not exceed 20-25% of the contained Gold.

**Mineralogy:** Factual data does not exist to cite "average" numbers for separate and combined precious heavy mineral and non-precious heavy mineral content of the alluvium in the rivers of Guyana. The following general information is applicable to the Potaro District that includes the Potaro, Konowaruk, and Kuribrong Rivers.

**Heavy Minerals:** A very limited amount of sampling work indicates that  $\pm 75\%$  by weight of free Gold distribution in the alluvium is between -250+44 microns [-60+325 mesh] in size. The individual particles of Gold tend, in general, to be more equidimensional ilmenite than flaky. In general, the alluvium in the Potaro District contains from 2-4% by weight black sand which is predominately ilmenite. Whereas a typical Western U.S. Gold placer may contain 3-15 pounds of black sand per ton, the Potaro District alluvium contains 40-80 + pounds of black sand per ton. Diamonds, of predominately octahedron form, occur in sizes from -1 mm "sands" to + 1 carat stones. It is expected that run-of-mine production should be in the range of 4 to 10 stones per carat, and the proportion of gem to industrial stones about 1:1. Colors include white, yellow, brown, green, black, and occasionally light pink. Other minerals found in trace amounts in the heavy mineral mix are cassiterite, columbite, zircon, magnetite, monazite and two minerals that are found nowhere else in the world; potarite, a palladium mercuride that is found as grains to nuggets, is silvery-white with bright metallic luster, and has an s.g. of 13.5 to 16.0; and merumite, also found in placers as rounded grains  $\pm 1-2$  mm to nuggets as large as 10 cms. Merumite is a complex microscopic intergrowth of hydrous chromium oxides that contain more than 80% Cr 2 O 3, and free Gold is sometimes present in specimens of merumite.

## SECTION "D" PLACER MINING

**Historical:** Dredge mining started in the Potaro District with Minnehaha Development Company who operated on tributaries of the Potaro River from 1903 to 1936, and the New Guiana Gold Company on the Konawaruk River from 1907 to 1927, and G.B. Consolidated Goldfields on the Potara and Mahdia Rivers from 1937 to 1955, all using large bucket ladder dredges. Guyanese artisanal miners have operated for many decades on the rivers in the District using small dredges with venturi or couple jet suction systems guided by divers, and sluices for recovery. Similar equipment was (is) used for land/flood plain mining operations that involve hydraulicking into a sump and thence uplifting the slurry to sluices mounted on raised scaffolds near the surface-edge of the working pit. All recovery clean-up for Gold involves batel amalgamation and crude retorting, and hand-jigging with surucas for Diamond recovery.

**Recent Guyanese Dredge Mining:** In the early 1980's, a Guyanese machine shop (IEL- Industrial Engineering, Ltd.) developed a state-of-the-art submersible gravel pump that, with refinements made by other Guyanese machine shops (IDI and Blair), revolutionized the local placer mining Industry. A simultaneous development was the "missile" which is a double-walled nozzle variously 8" to 16" diameter and 8' to 15' in length. Holes in the inner wall near the bottom and in the outerwall near the top permit intake of water in the event of nozzle plugging. Depending on the size of the pump and missile, the system delivers from 200 to 450 tons of solids per hour at 15-20% solids-slurry. The typical suction dredge is a floatation platform comprised of steel box pontoons overlain overlain by expanded metal decking, the whole measuring up to 40 ' to 50 ' square, a 8 " to 16 " IEL submerged gravel suction pump, a sievebend or bar grizzly, a spreader box, and a sluice measuring  $\pm 32$  ' wide and  $\pm 20$  ' long. The sluice bed is overlain with indoor/outdoor carpet, which are placed metal riffle sections. The dredges are usually operated 24 hours per day throughout the year. The common operation has two crews that leapfrog each other on 24-hour shifts, and each crew does a clean-up during their shift. The  $\pm 2$  hour clean-up involves removing the riffle sections, shoveling all sluice deck material to the "trommel" corner, taking-up the carpets and rinsing-out the black sand and Gold particles, passing all the material through the trommel (a revolving punch-plate cylinder with 1/4 " to 3/16 " holes) and the undersize is reduced to a concentrate using a Kundsens-type bowl. The concentrate is taken to the shore camp in and locked up in security lock boxes. Amalgamation is effected in large plastic 5-gallon buckets in which large scoops of black sand and a teaspoon of mercury are hand-kneaded.

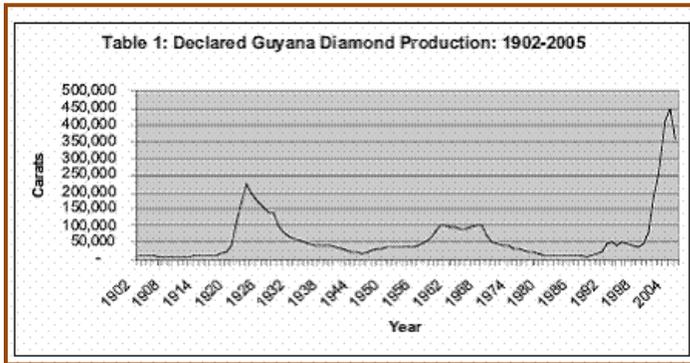
The material in the bucket is panned (batel / batea) to extract the mercury-amalgam which is squeezed through a piece of cloth, and the stiff amalgam is pressed into a shallow metal walled disk. The latter packed disks may be placed in a graphite crucible/retort set up, or, more commonly they are held with a pair of pliers and the amalgam is reduced to sponge using a hand-held butane torch. The success of a Guyanese dredge operation is contingent on the crew's ability to keep the main diesel engine functioning to direct drive the gravel pump and to drive the generator that powers the high-pressure water pump, the compressor, and the hydraulic system that controls the missile and positioning capstans. Equally important is the maintenance of the outboard motors. The general guidance for mining used by the locals is "Gold is where you find it".

Amortization charges and operating costs are sufficiently low enough that just a few ounces in a per 24 hour shift meets the "break-even threshold", hence, in the course of a month, a hit of 4-6-8 days operating in a lead that yields 8-12-20 + ounces a day makes the operation very profitable.

Many of the mining entrepreneurs operated fleets of 3-5-10 (or more) dredges, and there are true tales of some of them making 20-30-40 + ounces per dredge per shift for weeks up to months.

During the years of operating in virgin alluvium, and despite achieving only  $\pm$  20% recovery, fortunes were made by many Guyanese operations. Conventional wisdom advises against messing with success or trying to re-invent the wheel.

## A BREIF HISTORY OF DIAMONDS IN GUYANA



Diamonds were first discovered in Guyana in the late 1880s, by miners working placer gold deposits in the Puruni district. From this point onwards placer gold miners continued to keep an eye out for diamonds, but it wasn't until the late 1890s that miners in the Mazaruni district first began seeking diamonds on their own.

Production records for 1899, though incomplete, show Guyana producing some 750 carats. By 1902, when regular record keeping began, Guyana's production had shot up to

nearly 8,500 carats. Production levels hovered near the modest mark of 10,000 carats for the next two decades, until in 1920 miners discovered a region of rich and easily recovered alluvial deposits on the banks of the Mazaruni and Puruni rivers. Production zoomed from 17,000 carats in 1919 to 40,000 carats in 1920, to 105,000 carats in 1921. The country hit its Jazz Age peak in 1923, with a production level of 220,265 carats. Diamond production declined somewhat after that, but remained in the low six figures until 1929 when the Great Depression took the sparkle out of the diamond market. Demand crashed, but even so miners in the 1930s and 1940s kept busy, producing between 30,000 and 40,000 carats per year. With recovering demand after World War II, Guyanese production levels rose once again, from 35,000 carats in 1950 to 97,000 in 1960, to 98,000 in 1968. After 1968 the official production figures show a precipitous drop, from 66,000 carats in 1969 to 30,000 in 1975, to 16,000 in 1979. The official production figures remained depressed in the 10,000 carat range for all of the 1980s, and didn't begin recovering again until the early 1990s.

In the early 1990s, a new life was breathed into the Guyanese diamond fields with the arrival of significant numbers of Brazilian, (*garimpeiros*). These Brazilian small scale miners were attracted, not by the free air of democracy, they were attracted by Guyana's relatively laissez-faire mining code, by the country's new openness to foreign workers and foreign investment, and its relatively large, easily identified, easily accessible diamond fields, which the Brazilians could successfully exploit using the new-to-Guyana technology of a portable, motor-driven diamond jig, known in Guyana by its Brazilian name, the *lavador*. Production rose from 9,000 carats in 1989 to 52,000 carats by 1995, and to 81,000 in 2000, before soaring off into the stratospheric (for Guyana) heights of 248,000 carats in 2002, 412,000 in 2003 and 444,940 in 2004, a new all-time Guyanese record. In 2005, official production numbers fell again, but only slightly, to 356,949 carats.

The vast increase in exports brought by the Brazilians has muted a significant backlash of domestic criticism over Brazilian dominance of Guyana's diamond fields. That said, while the stones recorded in these figures are undoubtedly real and most certainly left the country as claimed; these extraordinarily high production numbers are as suspect as those from the post-colonial slump. While the Brazilians have undoubtedly increased production significantly, the soaring figures of 2001-2005 are best explained not by new technology or investment, but by changes in government policy regarding exports, by the need after 2003 for Kimberley Certification, and by mining activity in Guyana's neighbor to the west, Venezuela.

## GUYANA – A GOLDEN OPPORTUNITY

The enormous mineral wealth of Guyana is just being discovered. Guyana has a rich endowment of gold and other metals. Those riches have long been known to the mining industry, but for a number of reasons, that mineral wealth remained under cover. A dramatic improvement in the political climate a few years ago brought back the explorers. Some important discoveries quickly emerged to confirm the enormous mineral potential in the country.

Investors are just waking up to that potential. As the mining industry continues to make new discoveries – and with several gold deposits now advancing toward production – the investment community is beginning to pay attention to Guyana. Guyana is at a very interesting stage in its evolution to becoming a major gold producing nation: Enough work has been done in the past to confirm the enormous geological potential. Yet, small companies have been able to secure large tracts of highly prospective ground. Investors can buy stakes in those explorers at price levels that allow huge upside potential. It is inevitable that the work now underway in Guyana will turn up a number of large gold deposits. Guyana will soon be recognized as an emerging gold producer and that some of the companies operating in the country offer enormous opportunities for investors.

**Lots of Gold in the Ground:** There is no doubt about the geological potential of Guyana. Gold was discovered in the region by Spanish conquistadors nearly 500 years ago. Literally thousands of small mining operations throughout the country are producing hundreds of thousands of ounces of gold a year by simply processing the surface gravels. The multitude of gold occurrences at surface points to a rich endowment of gold at depth.

One needs to look only a few tens of kilometers to the west to understand the geological nature and the discovery potential of Guyana. Exploration in Venezuela has turned up enormous mineral wealth. Importantly, the big gold discoveries in that country are clustered near the border with Guyana. In fact, the geological features that host the gold deposits in the neighboring country continue across Guyana. The favorable geology doesn't end at the line on the map. The only difference between the two countries is that more work has been done next door. For a number of reasons, including difficult access and an unfavorable political situation in the past, the mineral riches of Guyana remained largely untouched. The political situation in the country has now swung solidly in favor of mining. Several international mining companies are now at work. Those companies that have secured property positions are in an exceptional position to benefit as Guyana evolves toward becoming an important part of the gold industry. Guyana is still at an early stage with regard to an influx of mining exploration companies. The companies now exploring are building on a great deal of past work that provides an excellent starting point. Guyana was explored by several major mining companies in the 1970s. That first pass of modern exploration was primarily aimed at base metals. Those efforts identified numerous metal occurrences. Evolving from that early work, the country remains an important producer of bauxite (aluminum ore).

**Supportive Government:** The political situation has now improved dramatically in Guyana. A stable, democratically-elected government is putting considerable effort into attracting foreign investment in all sectors. The country has learned from years of “experience with various socialist models” and they are now totally committed to a free enterprise economic system. The very capable government recognizes the enormous benefits that mining can bring to a developing nation. In that regard, they have instituted a regulatory system that is supportive of mineral exploration and development. Title to mineral claims, permitting, mining regulations, taxation and other government related matters are now on a par with the better mining nations.

**Sophisticated Geological Databases** : Guyana has one of the most modern and sophisticated geological databases of any country. The Guyana Geology and Mining Commission (GGMC) has gone so far as to seek ISO-9001 certification for their programs to ensure the international mining industry of the highest reliability of their data and services. Meetings with senior officials of the GGMC made it clear that the government mandate is to build the mining industry as an important part of the national economy. The Prime Minister of Guyana, Samuel Hinds, in a face-to-face meeting with government officials, emphasized the importance of mining to the development of his country. His government is dedicated to promoting the mining industry as a means of bringing greater wealth to the people of his nation. The Prime Minister's background is mining, so he is fully aware of the economic benefits of the industry. He clearly understands the importance of building and maintaining a favorable image of the country for investors. In short, the political situation is now welcoming for the international mining industry. There is every indication that the situation will remain that way for many years.