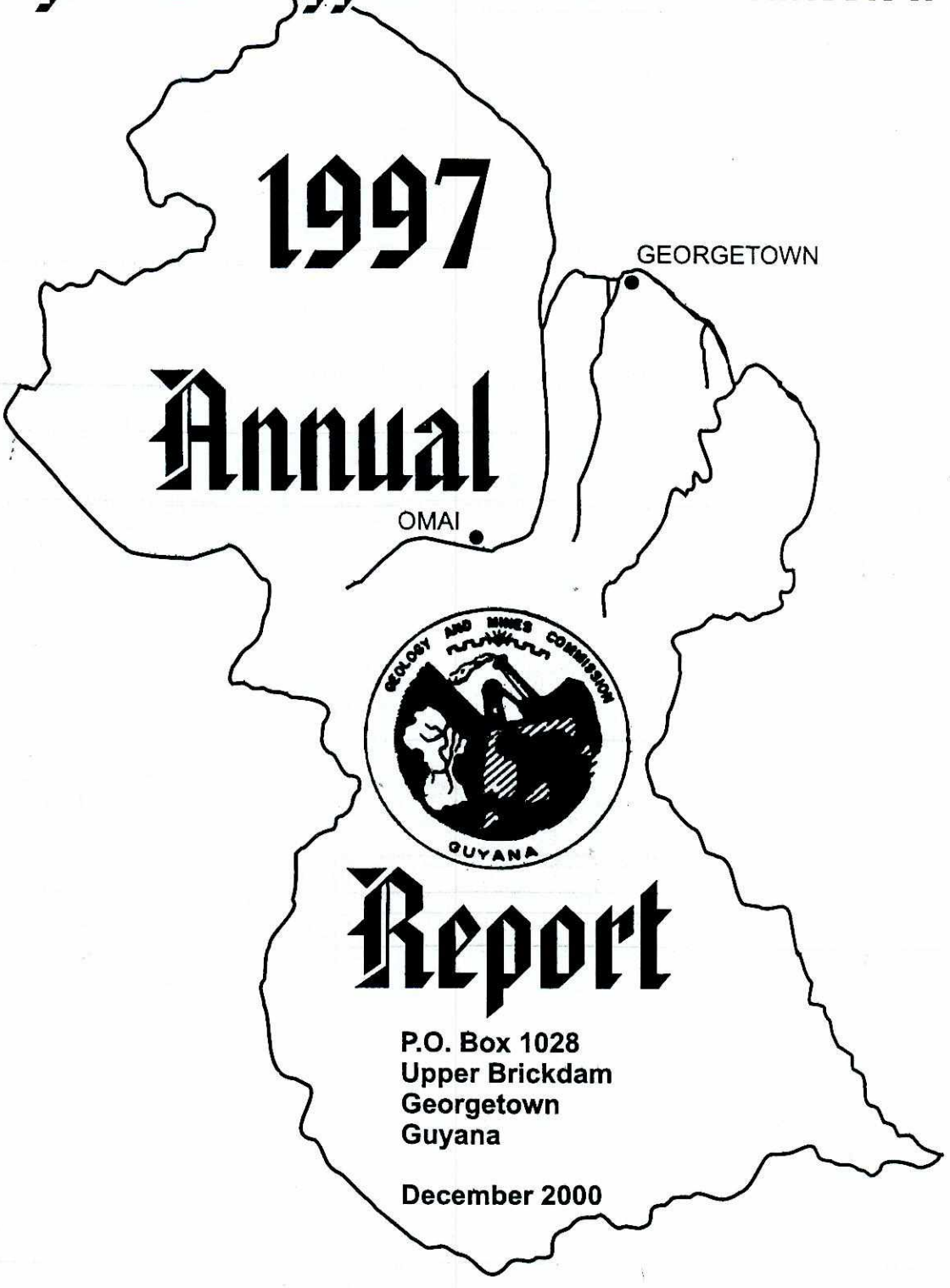
Guyana Geology And Mines Commission

1997 Annual Report



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1. GEOLOGICAL SERVICES DIVISION

1.1 FUNCTIONS

The Geological Services Division consists of the Geologist Field Section, the Chemical Laboratory, the Petrological Laboratory and the Cartographic Section. The Geological Services Division's functions under the Guyana Geology and Mines Commission Act. 1979 are - The promotion of mineral development; providing technical assistance in mining, utilization and marketing of mineral resources; mineral exploration; research in exploration and utilization of minerals and mineral products; enforcement of the conditions of Prospecting Licences, Prospecting and Mining Permits for Medium Scale operations; and collection of rentals, fees, etc related to Prospecting and Mining Permits and Geological and Geophysical Survey Permissions.

1.2 OVERVIEW

The 1997 Work Programme focused on the generation and the preparation of high quality geological reports and maps through mineral exploration and the Commonwealth Technical Assistance supported GIS project covering the Potaro degree square area; the promotion of mineral development by attendance, participation and support for international mining investment conferences and exhibitions, responding to potential investors/persons expressing interest or enquiring into mineral development, reproduction of maps and the initiation of a large and medium scale Mineral Property database for enhanced management; in-house and in-field staff training in the technical areas of rock and mineral identification, geological mapping and geochemical sampling; and the administration of Geological and Geophysical Survey Permissions, Prospecting Licences and Permits; including the update and maintenance of 1:50,000 stock sheets and 1:1,000,000 maps showing mineral property status, and the verification of areas under application for Permissions, Licences and Permits, or to be advertised for the cancellation of Prospecting Permits.

As planned, Technical Assistance played a major role in lending institutional support by providing a Senior Geologist/Geochemist under ITEC, a short-term expert Geochemist from CPRM in Brazil, a short-term CESO Geologist Consultant, and in technical training in mineralogy, petrology, geochemistry and preparatory training for GIS application. Technical and financial assistance from STEP Fund for the characterisation and researching the utilization of selected industrial minerals, were again not realised (since the contracts were not signed), and there was a major change in the nature of the Commonwealth Technical Assistance, as the Senior Geologist/Geochemist, Dr, Mike Petterson, withdrew. An alternative one-year GIS project run by the British Geological Survey, and supported by the Commonwealth Technical Assistance Services, was initiated in May 1997.

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1.3 TECHNICAL PERSONNEL

In December 1996 there were four field geologists, two of whom were expert Geologists/ Geochemists recruited under the Indian Technical Assistance (ITEC) and Commonwealth Technical Assistance schemes. A third was a newly graduating Canadian Geologist Mr. Chris Ashley recruited from Canada. The Commonwealth Technical Assistance Senior Geologist Dr. Mike Petterson left unexpectedly in November 1996, due to the illness of his son. Dr. Petterson did not return in 1997 as was expected, and the Commonwealth Technical Assistance project was changed from the original provision of technical leadership and field support to the regional stream sediment geochemistry and geological mapping project in the New River Triangle area.

Geologist Mr. Chris Ashley resigned in December 1996. With Dr. Petterson's and Mr. Ashley's departure, the complement of field geologists fell to two, ITEC Senior Geologist, Dr. Raju Dulla, and Senior Geologist I, Mr. Gordon Nestor.

Three Geotechnicians, GGMC scholars, graduated from the University of Guyana with the Diploma of Technology in Geology and joined the staff in September 1997. Two scholars who did not graduate, were appointed as Field Assistants. Two Field Assistants also graduated with the Diploma in Technology, and were promoted to Geotechnicians. At the end of 1997, there were twelve Geotechnicians and four Field Assistants attached to the Geological Services Division.

1.4 FIELD PROJECTS

Field projects planned for 1997 were the New River Reconnaissance Survey, a major regional project, and mapping of quarriable raw materials in the Bartica triangle area. Other field projects planned were Special Projects under STEP Fund, the Characterisation of selected Industrial Minerals and Industrial Testing of selected Industrial Minerals.

Of these, the New River Project was implemented in June to August 1998. The project benefitted from the expertise of CPRM Geochemist, expert in laterite regolith geochemistry, Dr. Romulo Angelica, who spent three weeks in Guyana, from June 26 to July 21, under the auspices of the UNTCDC. Dr. Angelica spent approximately two weeks in the field on attachment to the New River Project, where he advised on field procedures and the importance of standardisation to the interpretation of geochemical results; the usefulness of multi-element geochemical surveys with very low detection limits, covering a wide range of trace elements; the importance of understanding the laterite profile and its chemistry and applying this knowledge to geochemical sampling (this practice is increasing in exploration geochemistry), and the handling and preparation of geochemical samples for analyses.

Dr. Angelica donated a copy of the Final Report of IGCP Project 259, "A global geochemical database for environmental and resource management', and a CPRM geochemical field manual, the latter in Portuguese, to the GGMC. He recommended also that GGMC should try to get scholarships at the University of Belem to which he is attached, to train Geotechnicians to the BSc level in Geology.

Contracts for the two STEP Fund Projects were not signed, so the projects could not be initiated.

New River Mineral Inventory

As project leader, ITEC Senior Geologist/Geochemist Dr. Raju Dalla was responsible for all technical aspects of New River Project, from planning to report writing and the production of maps.

The major mobilisation for the project started on May 22, and field work was completed on July 24. An area of approximately 2200 km^2 (850 sq miles) partially was surveyed along the New and Oronoque River drainages above Oronoque Falls (see index map, fig.1). The focus of the project was shifted, from the original regional stream sediment and pan concentrate sampling programme at a sample density of one sample/km^2, with complementary geological mapping, both on a 1:50,000 scale. The revised programme, still of regional dimensions, was for semi-detailed stream sediment, soil and pan concentrate sampling over four mafic/ultramafic bodies identified along Oronoque and New Rivers, with geological mapping, and reconnaissance geological mapping and geochemical stream sediment and pan concentrate sampling of the intervening Southern Guyana granite-complex, Kanuku complex granulites and gneisses, Kwitaro Group metasedimentary rocks and Kuyuwini Group subvolcanics and granophyres, that together make up the country rocks.

Senior Geologist I, Mr. Gordon Nestor, and Geotechnicians Lorrel Ferreira, Carl Matthews, Elton Sampson, Michael Abraham, Mohammed Karamat participated in the New River Project. **Training in geochemical sampling and geological mapping procedures were given to the Geotechnicians by Dr. Dulla.** The technical staff was supported by thirty casual workers.

Mr. Lorrel. Ferreira had special responsibility for project administration, and Kerion Husbands, Field Assistant, had responsibility for logistical and radio support in Georgetown. Guyana Defence Force personnel were attached to the project for its entire duration, for security purposes.

The project area was large and remote, and all transportation was by outboard powered dugouts. Several fly camps established along New and Oronoque Rivers were supported from the main supply camp at Oronoque Base camp.

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Work Completed

Geochemical soil, stream sediment, pan concentrate and rock surveys were undertaken in the project area, partially covering Terra Survey topographic sheets 80NW, 80SW, 81NW, 75NW, 75SW, 74SW and 74SE (see index map, fig.1). Work was concentrated on six mafic/ultramafic bodies of the Appinitic Intrusive Suite, that varied in size from 0.8km x 0.2km to 12km x 2.5km.

Table 1 indicates the main exploration targets.

Statistics of the field work completed are given below.

Samples taken -	No.	Type
	263	Stream sediments
	333	Pan concentrates
	581	Soil Samples
	118	Rock samples
Total	1295	

Soil, stream sediment and rock samples are to be analysed for nine major element oxides SiO_2, Al_2O_3, CaO, MgO, Fe_2O_3, Na_2O_3, K_2O, TiO_2 and MnO_2. In addition, analyses for 45 trace elements have been requested, of which nine elements, Pd, Zn, Pt, Li, Ni, Cu, Pb, Cr, Ag, can be determined by AAS by the Chemical Laboratory. Gold can be determined by Fire Assay-AAS (see Table 2).

Soil, stream sediment and rock samples, representing 46% of the total amount, are to be sent overseas for multi-element analysis by XRF/INAA. The strength of XRF in analyses for the major elements and base metals is complemented by INAA, with good ability to determine the REEs, PGEs, Au, Sb, Hf and Ta. In addition petrological and mineralogical analyses, the latter including magnetic separation and gold eye count, are required for the pan concentrates and rock samples.

Table 1

NEW RIVER MINERAL SURVEY
Exploration Targets

Principal Rock Types	Type of Ore	Typical Mineralisation Expected	Major Mineralisation Expected
1. **Appinitic Intrusive Suite**	Magnetic deposits of:		
(i) New River Hornblende pyroxenite (*4km above Oronoque Falls/0.16km²*)	• Ni and Cu sulphide ores	Ni; Cu; Co; PGEs - Pt, Pd, Rh, Ru, Ir, Os; Au.	Ni, Cu
(ii) New River Gabbro pluton (*30km²*)	• PGE rich deposits	PGEs - Pt, Pd, Rh, Ru, Ir, Os; Ni; Cu; Au.	PGEs
(iii) Oronoque River Gabbro/Anorthosite (*east of Oronoque Falls/ 24km²*)	• Chromium rich oxide ores	Cr_2O_3; PGEs	Cr_2O_3 - chromite
(iv) Oronoque River peridotite/ harzburgite (*2km²*)	• V and Ti rich ores	Ilmenite, Titano-magnetite	V, TiO_2
(v) Oronoque River magnetite pyroxenite (*2km²*)	• Ilmenite from anorthosite and Gabbros	Ilmenite-magnetite-hematite-rutile	TiO_2
(vi) Oronoque River Gabbro (*2km²*)	• Kimberlitic diamonds	Diamonds, Ilmenite, Chromite	Primary diamonds.
2. **Kwitaro metasedimentary Rocks**			
*(Over 30% of the project area/ 660*km²)	• Complex Hydro-thermal vein gold deposits	Au, B, Be, F, As, Cu, W.	Au, W
(i) Biotite-muscovite phyllites	• Banded iron formations	Fe, Au	Fe, Au
(ii) Biotite-muscovite schists/ metasiltstones			
(iii) Quartzites			
(iv) Amphibolites			

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3. **Southern Guyana Granite Complex Granite/Granodiorite** *(Over 40% of project area/80km²)*	Vein deposits of gold, tungsten, uranium, cobalt, silver, tin, including:	Au, Sn, Ta, Ni, U, Co, Sn, topaz, zircon.	
	• W-Sn in sheeted veins and stock-works	W, Sn	W, Sn
	• Uranium bearing veins	U, Co, Ni, Bi, Ag. REE	U, Ni, REE
	• Vein gold deposits	Au± As, Pb, Zn, Cu, Mo, W, Sb, Se, Te, Bi, Ta, Ni.	Au, Cu, Ta, Ni.
	Simple (Homogeneous) Pegmatites	Feldspar, Mica, Lithium.	Feldspar
	Complex (Heterogeneous) Pegmatites	Quartz, muscovite, garnet, tourmaline, beryl, apatite, columbite/tantalite, lithium phosphates, spodumene, gem quality topaz, tourmaline, precious/semi-precious minerals (amethyst; green, rose quartz).	Mica, high purity quartz crystals, beryl, Ni, Ta, tourmaline, apatite, precious, semi-precious minerals.
	Siliceous Rocks	Magnetite, hematite, + zircon, monazite, uraninite, cassiterite.	Zr, Sn, U, Monazite.
4. **Kanuku Complex high-grade migmatites and gneisses** *(Over 20% of project area/440km²)*	• Uranium vein deposits	U, Co, Ni, Bi, Ag, REE; topaz, zircon, REE.	U, Ni, REE.
	• Industrial Minerals or rocks	Garnet, emery, kyanite, sillimanite, mica, gemstones 0 varieties of corundum (ruby, sapphire), garnet.	Kyanite, precious and semi-precious stones.

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Preliminary Results

Preliminary results, drawn from Dr. Dulla's report, indicate:

1) Five major types of basic/ultrabasic rocks of the Appinitic Intrusive Suite were mapped at six locations. The two that seem the most interesting are:

2)

- The Oronoque River Gabbro/anorthosite body east of Oronoque Falls. Streams draining this body carry considerable black sands comprised of magnetite, ilmenite and (?) chromite.

- The Oronoque River magnetite pyroxenite body on the Karia River contains an appreciable amount of magnetite. Dr. Dulla reports that patches of violet/purple/ blue colour could be indicative of appreciable cobalt content.

- The Oronoque River peridotite/harzburgite body appears to be layered. It is brecciated, and is emplaced along a major regional fault representing a zone of crustal weakness which was reactivated from time to time.

- Gold eyes in the battel was reported by Dr. Dulla and Mr. Nestor. Senior Geologist I, G. Nestor reported the occurrences of gold eyes in pan concentrates near the contacts of the Kuyuwini Group rocks (in New River) with the Southern Guyana granite, and the Oronoque Formation with the Southern Guyana granite, between the Maipuru and New Rivers, in their lower reaches. Gold eyes are reported from streams that drain both the granite, and the granite-metasedimentary rock contact, on both sides of the new River - Maipuru River divide, covering an area of approximately 11km^2.

1.5 TECHNICAL ASSISTANCE PROJECTS

CDB STEP Fund Projects

As noted earlier, the two Industrial Minerals projects planned did not materialise, since the contracts for the Consultants were not signed.

Training in the Interpretation of Geophysical Data

There was no response from the Ministry of Foreign Affairs regarding the project documentation that was submitted for United Nations Technical and Financial assistance.

However, Dr. Nok Frick, Director of the South African Council of Geoscience visited GGMC in October 1997. Dr. Frick was receptive to a proposal for the establishment of a formal co-operative link between GGMC and the South African Council of Geoscience. He agreed that a Guyanese graduate under such a co-operative programme could spend a one-

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year attachment at the Geoscience Council in South Africa interpreting the geophysical data from Golden Star Resources Geological and Geophysical Survey areas that were relinquished, under the supervision of the experts from the Geoscience Council.

Technical co-operation with the University of Hertfordshire, United Kingdom

Despite a few administrative setbacks, the co-operative projects planned did take place under the supervision of Leading Researcher, Dr. Richard Teeuw of the University of Hertfordshire.

Field Assistants Kerion Husbands and Renwick Solomon were attached to the field project in the Surama-Annai, Lethem, and Mazda's Konawaruk dredging operations. The projects were aimed at collecting samples for C14 dating and Optically Stimulated Luminescence dating and mapping . This information is intended to help to elucidate the climatic changes and consequent shifting of the rainforest/savannah boundaries in recent geological time. This would have implications for the geomorphological development of the area, and therefore, for the development and prediction of placer deposits.

The report on this work, due in October-November 1997, has not been received from the University of Hertfordshire.

SYSMIN assistance for geological surveys in Southern Guyana

No formal response was received for the project proposal that was submitted to the Ministry of Foreign Affairs. However, upon the advice of the Ministry of Foreign Affairs, another project proposal was drawn up and submitted in August to the European Union Commission's Office through the Ministry of Finance.

Evaluation of exploration data from Golden Star Resources' Geological and Geophysical data

Geologist Consultant Mr. E. Meyers was retained in January-February 1997, through CESO to evaluate GSR's exploration data. Mr. Meyers assessed the map data and reports, and produced two reports, based on the areas prospective for gold and diamond, respectively.

The reports are an essential part of the information package for the auction of Prospecting Licence exploration blocks, as well as for the promotion of new areas for mining investment. Mr. Meyers attachment through CESO was organised by Deputy Commissioner, Mr. W. Woolford.

GGMC/CFTC Prototype Project

This project was initiated in May 1997. It was run by British Geological Survey (BGS) personnel who functioned as trainers, and as technical persons designing and setting up the various aspects of the GIS project. There were four training periods, each of three to four weeks duration. BGS Staff Mr. John Gibson, GIS Analyst/Programmer, and Mr. Andy Merchant, GIS Specialist, and Mr. Berik Davies GIS Analyst spent short attachments.

At the end of the year, the first stage of the project, establishment of the database and tables of records of map holdings for the Potaro degree square, was completed, and the second stage, the 'heads up' digitising of maps from the Potaro degree square area using Map Info software, was in progress. The next stage will be the translating of the digitised maps into Arc View, followed by the upgrading of geological maps by the addition of new information, the analyses of geological information using thematic mapping and visualisation techniques, and the preparation of final maps for the Potaro degree square. Map Info Professional (for digital map production) and Arc View GIS software are being used.

1.6 PROSPECTING LICENCES/GEOLOGICAL AND GEOPHYSICAL SURVEY PERMISSIONS

The emphasis placed on mineral development promotion and attracting large scale investment for exploration and mining was borne out in the introduction of a new Mining Fiscal regime and Mining Policy in January 1997, by the Honourable Prime Minister, Minister responsible for Mines and Minerals; by attendance and participation at International Mining Investment Conferences and trade shows that culminated with the highest level of representation by His Excellency the President, at the Investing in the Americas '97 Conference in Miami on April 1997, and by initiatives taken by the Commission through a Mine Tour to South Africa by Deputy Commissioner, Mr. W. Woolford and Senior Mining Engineer James Mingo, and the efforts of the Honorary Consul for Guyana in South Africa, Mr. Leyland Hazlewood, to promote the Guyanese mining sector to South African Mining Companies.

In addition to the Investing in the Americas '97 Conference where for the second consecutive year, GGMC participated in the exhibition by running a booth, the Commission participated for the first time in the Prospectors and Developers Association of Canada's Trade Show that accompanies the annual Exposition, and was represented at the Northwest Mining Company's 103rd Annual Convention and exposition in Spokane, Washington in December.

About 450-500 sets of packaged information were distributed to interest potential investors - just over 400 were distributed at the PDAC and Investing in the Americas '97 Exhibitions. The information provided gave a summary introduction to Guyana's geology and diverse mineral potential, it stated the Mining Fiscal regime, described the Mining Sector and procedures for involvement in mineral development in Guyana, and adverted to the

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international auction of exploration blocks planned for the areas relinquished from Golden Star Resources' Geological and Geophysical Surveys. The auction was originally scheduled for 1997.

Twelve Prospecting Licences applications were received, all from persons or companies already operating in Guyana. This compares with 25 applications received in 1996. Of the 17 new PL grants anticipated in the 1997 Budget, four were actually granted in 1997. One reason for the shortfall was that the grant of five PLs to Golden Star in the Barama forest Concession area was held in abeyance pending resolution of Barama's formal objections.

Two Prospecting Licences approved for kaolin development were not taken up.

At the end of 1997, there were 47 Prospecting Licences in force, compared with 50 in 1996, and 67-70 projected for 1997.

Table 2 - Prospecting Licences, Geological and Geophysical Survey Permissions - 1997, 1996

	1997	1996	Budget 1997
Prospecting Licence Applications	12	25	24
Prospecting Licence Approvals	9	-	12
Prospecting Licence Grants/Issue	4	28	17
Prospecting Licences in force at 31/12/97	46	50	57-60
Geol. and Geophysical Permissions granted	-	2	3
Geological and Geophysical Permissions in force at 31/12/97	1	2	5

Of the 47 Prospecting Licences in force in 1997, active exploration was conducted at 24 of these properties. This included three of Golden Stars Prospecting Licences, Fish Creek One, Fish Creek Two and Barama Head West (out of a total of 16) where diamond was the principal mineral sought, and Groete Creek property, where CAMDICO and joint venture partners Caribbean Basic Industries drill tested the large gold-copper anomaly delineated during the second quarter.

Saprolitic geological resources or reserves were established at thirteen properties, viz:

- Marudi Mountain (Romanex)
- Baramita (Case Development/Canarc)
- Akaiwong (M.O. Correia)
- Aremu (Exploration Brex Inc.)
- Groete Creek(Camdico/Caribbean Basic Industries)
- Peters Mine (Ontario Inc.)
- Aurora (Alfro Alphonso)
- Tassawini (Wayne Vieira/Minrich Inc./Menora)
- Mariwa (International Roraima Gold Corporation)

- Eagle Mountain (Golden Star Resources)
- Amatuk (Golden Star Resources)
- Aranka (International Roraima Gold Corporation)
- Mazawinni (HGB Ventures Inc.)

Geological and Geophysical Surveys

During 1997 BHP and Xamuteba conducted geological and geophysical surveys in their Permission areas. Both permissions were granted in August 1996. BHP and joint venture partner Golden Star Resources explored for gold by sampling of active stream sediments from streams draining greenstone belts in all three of their Permission areas, and samples were sent for BLFG analysis. Geophysical airborne magnetic targets were selected for follow-up exploration for iron ore. The first phase of diamond exploration as conceived focused on a low cost programme relying on the positive identification of isolated dipole magnetic anomalies from the medium-resolution survey over areas 1 and 2 in northwest Guyana.

Xamuteba withdrew from their Geological and Geophysical Survey Permission in May 1997.

Applications for Geological and Geophysical Survey Permissions that were made by Vanessa (Guyana) Inc., International Roraima Gold Corporation and Barama Company, prior to 1997, were not finalised in 1997.

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Table 3 - List of Prospecting Licences in force at December 31, 1997.

Name of Licensee	Guyanese Principals (G)	Foreign Parent and/joint venture Company	Property Location
1. Alfro Alphonso	G		Aurora Cuyuni River
2. J.W. Carter	G	Cathedral Gold Corporation	Kaburi Hills, Mazaruni
3. Caribbean Resource Ltd.		Colonial Life Financial Limited, Trinidad.	Okuwa River Head-waters, Mazaruni
4. Richard Carter	G	Cathedral Gold Corporation	Kaburi Hills, East, Mazaruni
5. Case Development Company Limited	G	HGB Ventures Inc., Texas, USA	Five Star, Barima River
6. Case Development Company Limited	G	Canarc, Canada	Baramita, Barama River Bead
7. Cathedral Gold Corporation		Cathedral Gold Corp., Vancouver, BC, Canada	Issano - Kaburi Rivers, Mazaruni.
8. Cathedral Gold Corporation		Cathedral Gold Corp., Vancouver, BC, Canada	Blue Mountain, Mazaruni
9. Cathedral Gold Corporation		Cathedral Gold Corp., Vancouver, BC Canada	Hit or Miss Creek, Kaburi, Mazaruni.
10. Correia, M.O. Snr.	G		Akaiwong River
11. Essequibo Timbers Limited		Colonial Life Financial Limited, Port-of-Spain, Trinidad.	Yaiema, Kuribrong
12. Exploration Brex Inc.		Exploration Brex Inc., Val D'or Quebec, Canada.	Aremu, Cuyuni.
13. CAMDICO	G	Caribbean Basic Industries, subsidiary of Coeur d'Alene, of the USA	Groete Creek
14. George Hicks Mining Company	G		Prospect Creek, Mazaruni
15. GIDCO	G	Adex, of Canada.	Pott Falls
16. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Amatuk
17. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Barama Head East
18. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Piai Head

Name of Licensee	Guyanese Principals (G)	Foreign Parent and/joint venture Company	Property Location
19. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Kaliaku
20. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Fish Creek One
21. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Fish Creek Two
22. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Whana East
23. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Whana West
24. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Noseno
25. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Barama Head West
26. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Rocky River
27. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Wapai River
28. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Makapa
29. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Erakiri
30. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Membaru Mouth
31. Golden Star Resources Limited		Golden Star Resources Denver, Colorado, USA.	Eagle Mountain
32. Granbar Company Limited	G		Pullanbedan, Cuyuni
33. HGB Ventures Inc		HGB Ventures Inc., Texas, USA	Upper Monosse, Mazaruni
34. HGB Ventures Inc		HGB Ventures Inc., Texas, USA	Mazawini, Barama
34. Minrich Inc.		Minrich Inc., Richmond Virginia USA	Wamara Hill

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Name of Licensee	Guyanese Principals (G)	Foreign Parent and/joint venture Company	Property Location
36. North American Resources Inc.	G		Putareng, mid-Mazaruni
37. Ontario Inc.		832528 Ontario Inc, Toronto, Canada	Peters Mine
38. Pegasus Gold International Inc.		Pegasus Gold Intl Inc., Spokane, Washington USA, Seahawk Minerals Limited, USA.	Deer Creek, Potaro
39. Pegasus Gold International Inc.		Pegasus Gold Intl Inc., Spokane, Washington USA, Seahawk Minerals Limited, USA.	Black Water Creek, Konawaruk
40. Pegasus Gold International Inc.		Pegasus Gold Intl Inc., Spokane, Washington USA, Seahawk Minerals Limited, USA.	South Blackwater Creek, Konawaruk.
41. International Roraima Gold Corporation	G	International Roraima Gold Corp. Vancouver, BC, Canada.	White Creek, Cuyuni.
42. International Roraima Gold Corporation	G	International Roraima Gold Corp Vancouver, BC, Canada.	Aranka.
43. International Roraima Gold Corporation	G	International Roraima Gold Corp Vancouver, BC, Canada.	Quartzstone
44. Romanex (Guyana) Exploration Limited		Sutton Resources Limited, Richmond British Columbia, Canada.	Marudi Mountain
45. Wayne Vieira	G	Minrich Inc, Menora USA	Tassawini
46. Omai Gold Mines Limited		Cambior, Val d'Or, Quebec, Canada; Golden Star Resources; Government of Guyana.	Quartz Hill
47. Omai Gold Mines Limited		Cambior, Val d'Or, Quebec, Canada; Golden Star Resources; Government of Guyana.	Omai River

1.7 INITIATIVES WITH SOUTH AFRICAN COUNCIL FOR GEOSCIENCE AND MINING COMPANIES

In response to the initiative of the Honorary Consul to Guyana in South Africa, Mr. Leyland Hazlewood, and as a follow-up to GGMC's own initiatives spearheaded by Deputy Commissioner Mr. W. Woolford and Senior Mining Engineer Mr. J. Mingo, aimed at attracting the involvement of South African major and junior companies in Guyana's mining sector, there were follow-up exchanges of information with the Honorary Consul, Mr. Leyland Hazlewood, and the following South African Companies:

- GENCOR International Gold
- Anglovaal Minerals
- Backfill Rock Mechanics
- Anglo America (DeBeers)
- AVGOLD
- Goldfields of South Africa Limited

In addition, Mr. Hazlewood suggested that there might be opportunity to interest the following groups:

- Fouche Group (junior company engaged in diamond exploration).
- JCI
- AVMIN
- NJM Diamonds (a diamond manufacturing operation).

Mr. Hazlewood stressed that the major South African Mining Companies expressed interest in forming joint venture relationships with Companies with mineral properties that had resources that they wished to develop.

Mr. Hazlewood strongly recommended that associations forged between Guyanese and South African organisations and institutions that support the mining industry would be useful in encouraging South African Mining Sector involvement. Institutions targetted are the Guyana Gold and Diamond Miners Association and the South African Chamber of Mines, the University of Guyana and the Universities of Witwatersrand, Rhodes University and the University of Western Cape.

In October 1997, Director of the South African Council of Geoscience, Dr. Nok Frick, visited the GGMC in response to an invitation issued by the Deputy Commissioner when he visited South Africa in May 1997. Dr. Frick visited Omai Gold Mines and the bauxite mining operations at Linmine, and had discussions with Commissioner, Deputy Commissioner and Manager Geological Services at GGMC about Guyana's mining sector. He also discussed the possibility of establishing a formal co-operative relationship between GGMC and the South African Council of Geoscience.

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The attachment of a Guyanese science graduate at the South African Council of Geoscience for one-year to interpret geophysical information from Golden Star's Geological and Geophysical Survey was identified as a co-operative project.

Dr. Frick opined strongly on the similarities that he observed between the Geology and gold mineralisation environment at Omai, and that of Ghana, where South African Mining Companies felt comfortable to operate. He advised that South African Mining Companies, by policy, sought to have a degree of local ownership in South African Companies operating overseas.

Dr. Frick recommended that Guyana Geology and Mines Commission should aggressively promote Guyana's mining sector to foreign investors: a vital part of this promotion will be the generation and packaging of information and maps on the geology and mineral potential of Guyana. He also recommended that GGMC should undertake projects that would support local development projects.

Dr. Frick issued an invitation to the Commissioner and Manager Geological Services to visit the South African Council of Geoscience in 1998.

1.8 TECHNICAL PRESENTATIONS/CONFERENCES

Manager, Geological Services, sponsored by CIDA, attended Exploration '97 in Toronto in September. This was the fourth decennial International Conference on Mineral Exploration, and its theme was "Discovery beyond 2000". The Conference focused on exploration geophysics and geochemistry, and data enhancement and visualisation through GIS applications.

Mr. K. Persaud, Senior Geologist II, made a presentation at the IX International Gold Symposium in Caracas, Venezuela, in November 1997. The paper was entitled "The influence of Geology on Gold property selection in Guyana and its implications for the new millennium".

Several presentations were made by visiting personnel, and a presentation was made by Map Curator, Ms. Irma Lowe. The presentations were:

- The application of Regolith and weathering research to geochemical exploration, by Dr. Romulo Angelica, of CPRM, in July 1997.
- Collaborative field projects between the University of Hertfordshire and the GGMC, by research personnel from the University of Hertfordshire, in August, 1997.
- The activities of the South African Council of Geoscience, and the role of the Geoscience in Mineral Development, by Dr. Nok Frick, Director of The South African Council of Geoscience, in October, 1997.
- Care of Maps, by Ms. Irma Lowe, Map Curator, GGMC, in October 1997.

- Geochemical Sampling and Error Control, by Mr. Robert Jones, Geochemist, British Geological Survey, in November, 1997.
- Geographical Information Systems and the GGMC Licence Management System, by Mr. Berik Davies, GIS Analyst of the British Geological Survey, in November, 1997.

1.9 PROSPECTING PERMITS (MEDIUM SCALE)

In 1997, there was a trend towards a large reduction in Prospecting Permit (PP) applications and grants, compared with 1996 (see Tables 4, 4a). In particular, there was a noticeable reduction in grants and applications from August to December 1997, with a corresponding hike in renewals from September. Renewals in 1997 were 8% above renewals for January to December 1996. Overall, grants plus renewals for January to December 1997 were 32% less than for 1996. Prospecting Permit applications and grants fell significantly short of budget (see Tables 4, 5), partly because the proposed auction of exploration blocks from GSRL's relinquished Geological and Geophysical Survey areas did not take place. If the budgeted 500 Prospecting Permit exploration blocks are excluded, applications and grants were 68% and 37% of budget, respectively.

Table 4 - Prospecting Permit applications, grants, renewals, cancellations - 1996, 1997

	Jan-Dec '97	Budget '97	Jan-Dec '96	% change (1996-1997)
No. of Prospecting Permit Applications	560	1325	850	-34
No. of Prospecting Permits Granted	307	1325*	922	-67
No. of Prospecting Permit Renewals	848	650	783	+8
No. of Prospecting Permit Cancellations	233	-	24	+870
No. Of Publication	-	-	-	-
No. of Prospecting Permits Granted and Renewed	1155	75	1705	-32

*825 new grants were projected, plus 500 grants for exploration blocks auctioned from areas relinquished by GSRL, after their Geological and Geophysical Surveys.

1.10 CARTOGRAPHIC SECTION

The Cartographic Section gave full support to the Geological Services Division in the administration and processing of Prospecting Permits and Licences and Geological and Geophysical Survey Permissions, and this constituted a major part of their work in 1997. The Cartographic Section was generally able to keep up with the updating of the 1:50,000 stock sheets and verification of areas under application for Licences or Permits, or due for cancellation of Prospecting Permits.

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The Section prepared maps for the New River Project, re-drew geological maps on the request of the Information and Documentation Officer, completed four 1½ degree Geological Atlas Sheets ready for geological editing and printing. At the end of 1997, six of the sixteen Geological Atlas Sheets that will cover the entire country, were completed.

A Map Curatorship Project was initiated in January 1997, for the inventory and care of the GGMC's Map Archives and the strengthening of procedures for the recording, use, storage and retrieval and care of maps. Map Curator, Miss Irma Lowe, was in charge of the project.

Two of the Cartographic Staff, Mr. Travis Lyken, Assistant Draughtsman II and Mr. Cyprian Moffett, Assistant Draughtsman I, and Geological Field Section staff Mr. Julius Griffith, Geotechnician and Mr. Lance Persaud, Field Assistant, participated in the Commonwealth GIS prototype project from May to December, 1997.

1.11 CHEMICAL AND PETROLOGICAL LABORATORIES

The Chemical and Petrological Laboratories continued to give support to the field projects of the Geological Services Division and the Commission, and to offer services to the mining public. Analytical work done by the Chemical Laboratory ranged from sieving of samples, gold analyses by Fire Assay/AAS, and by amalgamation and parting, gold assays for Jewellers and sample preparation for heavy mineral analyses (see Table 6).

Chemical Laboratory

An important aspect of the Laboratory's work in 1997 was the participation of the Senior Chemist in a programme for National Laboratory Accreditation by the Guyana National Bureau of Standards. The preparation and adoption of a Quality Assurance Manual and the documentation of the Laboratory's procedures are prerequisite to the attainment of accreditation.

Chemist, Mr. Clyde Thompson accompanied a team from Sudeen's Enterprise that visited the state gold refinery of Zimbabwe in November, 1997.

Table 6 - Analyses undertaken in the Chemical Laboratory in 1997

# of	Sample Type	Person or Company requesting analyses	Test or Element Determined	Technique Employed	Remarks Sample
1	Yellow metal	Guyana National Bureau of Stds. for Mr. L. Wade	Weight and karat	Specific Gravity Method	Completed. No cost.
1	"	Ms. Rookmin	-do-	-do-	Completed.
1	"	Ms. M. Jordan	-do-	-do-	Completed.
1	"	Mr. S. Williams	-do-	-do-	Completed.
5	Yellow Metal jewellery	S. Persaud, Jeweller	Karat	Specific Gravity Method.	Completed
3	Yellow Metal jewellery	C. Persaud, Jeweller	Karat	Specific Gravity Method.	Completed
10	Yellow Metal jewellery	K. Ramsaroop, Jeweller	Karat	Specific Gravity Method.	Completed
16	Forensic Exhibits	Guyana Police Force	Au, Hg, Ag, Cu.	Wet Chemical Fire Assay.	Completed.
1	Yellow Metal	Mines Department	Au	Fire Assay	Completed.
28	Soil	Mr. G. Nestor, Senior Geologist	Removal of iron	Acid leaching followed by filtration washing and drying.	Completed
11.5 kg	Rock	Mr. Trevor Taylor	Crushing	Use of jaw crushed.	Cost $1,613
3	Silica Sand	Mr. O. Sears of RMC Silica Sand	Size fraction distribution. % silt and % clay.	Screening through 2-range of sieves from 1.00-0.25mm Screening the 0.25 fraction through 63 bm sieve.	
2	4" Banka Drill blacksand concentrate	Mr. Kevin Jeffrey, Miner.	Gold size analysis of free gold.	Screening through 75 mm sieve Amalgamation and parting.	Cost - $2500.00
3	Silica Sand (Brown)	Mr. Robeson Benn of Linmine.	Au	Fire Assay	Cost-$4,200. No payments
180	Pan concentrate	Dr. D. Raju, ITEC Senior Geologist.	Sample preparation for heavy mineral analysis.	Washing, drying, leaching, weighing.	Completed.
709	Soil	Dr. D. Raju, ITEC Senior Geologist.	Complete geochemical	Fire Assay; MIBK/AAS; HF Cold Attack; Aqua Regia Digestion.	Not completed 58 samples partially prepared

Sample Preparation Laboratory

During 1995 this section was plagued with electrical and other problems which affected the operations of all the equipment housed in the section. In particular the disc mill pulverizer, the sieve shaker and the ventilator fan were out of service for almost the entire year. It was not until the end of the third and last quarters that the pulverizer and fan respectively, were made operable. The sieve shaker remained inoperable.

Nevertheless the section was responsible for the preparation of six forensic gravel samples; size fraction analysis of three silica sand samples and two black sand samples for Fire Assay and one hundred and eighty pan concentrate samples from the New River area. In addition the section was responsible for the crushing of eleven and one-half kilograms of rock and for the partial preparation of fifty-eight soil samples from the New River area.

The air compressor continued to malfunction throughout the year and is being serviced by the Mechanical Workshop.

Equipment needed for this Laboratory include an additional sieve shaker and a vacuum cleaner.

Fire Assay Laboratory

During 1997, the Fire Assay Section has been grossly under-utilised due to lack of samples for analysis.

The section has been responsible during the year for the assay of three sand samples and ten forensic samples.

The furnace however could not have been operated for the greater part of the year due to inadequate electrical supply to the Laboratory, even though high capacity transformers were installed by the Commission. The furnace could only have been utilised after working hours when other electrical equipment in the Commission were not in use.

During the year one industrial floor fan and one high capacity analytical balance have been put in operation in the section.

Among other equipment such as trays, tongs, beakers etc., one large Assay Furnace, one Bullion Roll and one Fume Hood have been purchased for this section but these did not arrive in the country during the year.

Wet Chemical Laboratory

This section was utilised for the analysis of two hundred and thirty-five pan concentrate samples for heavy metal analysis by Geotechnicians, assisted by Chemical Laboratory staff; leaching of twenty-eight samples for removal of iron; amalgamation and parting of sieve fractions of two black sand samples; digestion of seventeen forensic samples and assay beads of three sand samples and the conducting of specific gravity test for karat determination of twenty-two pieces of yellow metal jewellery.

The condition of the fume extraction system continues to be deplorable. Work is to be done on four aspects to this system, namely:

a) repairs to one fume hood,
b) sealing of leaking duct,
c) vertical extension of the duct by ten feet (10'), and
d) malfunctioning motor, seemingly due to low voltage.

Use of this Fume Hood is vital to the functioning of the Chemical Laboratory where use of fuming acids and volatile organic solvents are routine.

The section received the following capital equipment during the year:

1) Shower and eyewash unit with basin - not yet installed, awaiting revising of floor plan by Royal Canadian Mint consultant.

2) Demineralized water apparatus - not yet utilised since there has been inadequate supply of water to the laboratory throughout 1997.

3) Air conditioner for Chemist's Office.

4) Eight chairs.

A semi-microbalance and acid storage cabinet have been purchased but have not yet arrived in the country. One strong-safe has been purchased but not put in place pending the revision of the laboratory floor plan.

Spectrographic Laboratory

Throughout the year this laboratory has been utilised for analytical purposes since the Emission Spectrograph is still out of order.

During the year the floor of this laboratory was raised and resurfaced with rubber tiles in an effort to combat the flooding during rainy seasons. This section has served as office space for Mr. C. Thompson, Chemist.

Atomic Absorption Laboratory

This section was utilised for the analysis of twenty samples of which seventeen were forensic and three were sand samples analysed for gold.

Although the laboratory did not experience much flooding for the year it is still recommended that the floor be raised a few inches as was done to the Spectrographic Laboratory. The floor also needs to be resurfaced with rubber tiles.

Purchase of equipment and supplies

Equipment and supplies were purchased for the Chemical Laboratory from the following companies:

1. Renshaw International (Guyana) Limited.
2. Canada Wide Scientific of Canada.
3. Western Scientific Company Limited of Trinidad.
4. Fischer Scientific of the United States of America.
5. VWR Scientific Products of the United States of America.
6. The Royal Canadian Mint.

To the end of the year the laboratory has received and taken into stock all items purchased from the first four companies. Items from the other two companies are yet to arrive in the country and in fact payment is not yet made for items ordered from the latter company.

Visits/Meetings/Seminars

The Chemical Laboratory received the following visits during the year from the following persons/groups.

1) Mrs. Jasmine Dedier-Calix, Sales Representative of Chromaspec Limited of Trinidad - (97-01-31).

2) Mr. Henri Sauve and Dr. Guillermo Ocampo of the Royal Canadian Mint, who examined the layout of the laboratory as a preliminary exercise towards re-designing of the laboratory floor plan, to achieve greater productivity in Bullion Assays - (97-06-06).

3) Three representatives from CIDA who examined the facilities and scope of operation of the laboratory - (97-06-11).

4) Dr. Romulo Angelica, Geochemist on a three-week attachment under the programme of technical co-operation in Geochemistry, GGMC/CPRM of Brazil - (97-06-27).

5) Samantha Singh, Technical Officer of the Guyana National Bureau of Standards, who discussed with the Senior Chemist II, re: preparation of a Laboratory Policy Manual for which compilation, information is being collected - (97-07-14).

6) Mr. Edwin McKoom, Managing Director of Western Scientific Products Limited of Trinidad - (97-10-20).

The following visits were paid by senior personnel of the Chemical Laboratory staff:

1) The Senior Chemist II, together with officials of the Guyana National Bureau of Standards (GNBS) visited the following two organisations as a pre-requisite for the formulation of a National Standard for the Assaying of Bullion and Jewellery as well as to make an assessment of the Jewellery establishment for accreditation by the GNBS.

2)
   a) Omai Gold Mines Limited Laboratory - one visit on 97-01-24.
   b) Diyaljee's Jewellery Establishment - two visits on 97-01-22 and 97-01-17.

2) During December, Mr. C. Thompson, Chemist, participated in a visit to the Fidelity Printers and Refiners' Gold Refinery and Assay Laboratory in Harare, Zimbabwe. He functioned as consultant to a team from a private company - Sudeen's Enterprises. (97-11-29 to 97-12-09).

3) The Senior Chemist II and the Chemist attended the Jewellery Standard Mark Award Ceremony, hosted by the GNBS. At this ceremony the King's Jewellery World and Diyaljee's Jewellery Establishment were granted the permit to use the Jewellery Standard mark on their products. (97-05-28).

During the year the Senior Chemist II, attended the following meetings/seminars:

a) Laboratory Committee meetings held in the Conference Room of the GNBS. (97-04-15 & 17).

b) Guyana Laboratory Accreditation Technical Committee meetings held in the GNBS Conference Room to facilitate the approval of the following three standards, "Code of safety for Chemical Laboratories", "Code of safety for Microbiological Laboratories", "Criteria for Accreditation of Chemical Testing Laboratories". (97-07-10 and 97-08-28)

c) Seminar conducted by Mr. Steven Buol, International Market Manager of the H.A.C.H. Company held in the Boardroom of the Institute of Applied Science and Technology for the purpose of promoting sales of water testing products and other customer services marketed by the HACH Company. (97-01-10)

Petrological Laboratory

The Petrological Laboratory's main activity was the certification of samples submitted by exploration companies, prior to shipment overseas for analyses. The Laboratory was involved in the analyses/identification of samples from the earlier phases of the New River Project.

In January 1997, Dr. Dulla trained the Geotechnicians and Field Assistants in the principles and techniques of rock and mineral identification, as a continuation of the training programme that was initiated in 1996.

Table 5 - Analyses undertaken in the Petrological Laboratory in 1997

Date 1997	Amount of Sample	Type of Sample	Person/Company requesting analysis	Type of Analysis	Remarks
02/01	2 pails	Soil	Alphro Alphonso	Microscopic	Certified for export.
20/01	6 pails	Soil	Golden Star Resources	Microscopic	Certified for export.
11/02	2 cartons	Soil	Adams Brothers	Microscopic	Certified for export.
18/03	8 pails	Saprolite	Golden Star Resources	Microscopic	Certified for export.
02/04	Not stated	-	Guyana Goldfields	Microscopic	Certified for export.
03/04	4 pails	Soil	Golden Star Resources	Microscopic	Certified for export.
14/04	4 pails	Rock	-do-	Microscopic	Certified for export.
16/04	1 crate	Rock	Omai Gold Mines Limited	Microscopic	Certified for export.
23/04	2 pails	Rock	Golden Star Resources	Microscopic	Certified for export.
12/05	16 pails	Soil	Wallace Ng-See-Quan	Microscopic	Certified for export.
22/05	1 crate	Rock	Omai Gold Mines Limited	Microscopic	Certified for export.
04/07	4 pails	Soil	Golden Star Resources	Microscopic	Certified for export.
07/07	1 pail	Soil	-do-	Microscopic	Certified for export.
25/07	1 pail	Silica Sand	Seeram Brothers	Microscopic	Certified for export.

Date 1997	Amount of Sample	Type of Sample	Person/Company requesting analysis	Type of Analysis	Remarks
31/07	1 pails	Soil	-do-	Microscopic	Certified for export.
21/08	12 pails	Soil	Caribbean Basic Industries	Microscopic	Certified for export.
02/09	22 pails	Soil	-do-	Microscopic	Certified for export.
08/09	28 pails	Soil	-do-	Microscopic	Certified for export.
08/09	43 pails	Saprolite	International Roraima Gold Corp.	Microscopic	Certified for export.
11/09	1 pail	Pulp	Omai Gold Mines Limited	Microscopic	Certified for export.
16/09	26 pails	Soil	Caribbean Basic Industries	Microscopic	Certified for export.
30/09	9 pails	Soil	International Roraima Gold Corp.	Microscopic	Certified for export.
01/10	39 pails	Soil	Guyana Goldfields	Microscopic	Certified for export.
14/10	133 pails	Pulp	Golden Star Resources	Microscopic	Certified for export.
15/10	17 pails	Core	Caribbean Basic Industries	Microscopic	Certified for export.
17/10	12 pails	Rock	Golden Star Resources	Microscopic	Certified for export.
01/11	1 box	Core	Seahawk Minerals	Microscopic	Certified for export.
09/11	12 tubes	Soil	Golden Star Resources	Microscopic	Certified for export.
10/11	14 pails	Soil	International Roraima Gold Corp.	Microscopic	Certified for export.
11/11	1 pail	Silica Sand	Technodomi Brothers	Microscopic	Certified for export.
10/12	5 pails	Core	Golden Star Resources	Microscopic	Certified for export.
17/12	12 pails	Rock	-do-	Microscopic	Certified for export.
11/12	10 pails	Core	-do-	Microscopic	Certified for export.

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2. MINES DIVISION

2.1 TECHNICAL SECTION

Inspection Tours

During the year 1997 approximately 5% of the tours planned were executed. Table 1 below illustrated the number of inspection tours planned and executed by the Technical Section.

Table 1

Tours	No. Of Planned tours for 97	No. Of tours executed for 97
Bauxite operations (3)	4	3
Stone Quarries (3)	4	3
Sand Pits & Quarries	4	3
Mazda Mining Co.	4	2
Omai Gold Mines	Continuous	2

All the above operations were inspected mainly for safe Mining/Quarrying practices and also Occupational Health and Safety practices.

The Bauxite operations inspected were:-

1) Linmine
2) Aroaima
3) Bermine

The Stone Quarry operations inspected were:

1) Baracara Quarries
2) St Mary's Quarries
3) Mazaruni Granite Production (formerly Guyana Granite Products.

The following Sand pits were inspected:

1) Jaundoo
2) Dos Santos
3) Madhori
4) Fung-A-Fat
5) Raghoo
6) Rambarran

In September the Guyana Geology and Mines Commission issued a Cease Work Order on the Jaundoo Sandpit for outstanding royalty. This pit has since ceased operation. As a result of land tenure problems, Raghoo's Sand pit was stopped by Lands and Surveys Department in October. This has also ceased operation since. All these operations are located in the Soesdyke area and along the Linden/Soesdyke Highway.

Sand Quarries inspected were Roraima, Dora and Spring Point. Dora and Spring Point were non-operational for 1997.

Ad Hoc Tours

Several Ad Hoc tours were made during 1997. These were mainly to investigate removal of sand without paying the necessary royalty and obtaining GGMC's permission.

One ad hoc tour was made to Iterinbang to Mr. Wilmont Chan's operation to investigate the accidental death of one of his workers.

Omai Monitoring

Throughout 1997, Senior Mining Engineer, Babb, Mining Engineer Sargeant, and Mining Engineer Ramcharran were stationed at the Omai Gold Mines Limited site. These officers continued to monitor the Omai operation with concentration on the progress and day to day activities with regards to the Tailings dams.

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Revenue (Royalty)

Royalty received for 1997 are shown in Table 2:

Table 2

ROYALTY	AMOUNTS
Gold (Local)	187,661,000
Sand	3,728,000
Stone	4,422,000
Loam	72,000
Clay	9,000
Total $.....	**195,892,000**

The total above represent % of the amount budgeted for these minerals.

EXPENDITURE
Inspection Tours

Area	Officer	Budgeted Expenditure
		$
Akawaru	O. Williams (MO)	583,147.00
Aranka	C. Sparman (ME)	144,065.00
Lower Konawaruk	S. Corlette (MO)	1,224,918.00
North Rupununi	C. Walcott (AMO)	1,189,558.00
Kurupung	B. Hopkinson/D. Garraway	2,814,232.00
Upper Mazaruni/Kaikan	R. Luckie (AMO)	1,326,465.00
Upper Potaro	M. Persaud (SMO)	1,519,418.00
Upper Potaro	M. Persaud (SMO) (revisit)	190,000.00
Middle Mazaruni	O. Williams (MO) (77 days)	1,675,075.60
Kurupung	O. Williams (M0) (31 days)	253,624.00
Eteringbang	Persaud (SMO) (14 days)	386,814.00
Aranka	D. Garraway (SNR) (70) days	2,083,702.50

Station	Officer	Budgeted Expenditure
Matthews Ridge	G. Best (SMO)	6,587,686
Mahdia	A. Bunbury (SMO)	6,238,176
Bartica	T. Semple (AMO)	1,329,486
Puruni	L. Butters	7,962,366

NB: Source- Second Quarter Report - April-June, 1997 and Estimate file GGMC.

Constraints

The major constraint which faced the Technical Section for 1997 was the non-availability of personnel. With the formation of the Environmental Unit in January, three (3) engineers were transferred to this Unit and four (4) remained with the Technical Section. During most of the year Mining Engineer Sparman and Hutson were attached to the Mahdia Project, leaving Senior Mining Engineer Babb, Mining Engineers Sargeant and Ramcharran for tour duties and monitoring of the Omai operations. In addition, Mining Engineer Sargeant resigned in October, 1997, hence inspection tours scheduled were disrupted because of the non availability of personnel.

Drilling

The activities of the Drill section during 1997 were as follows:-

The Drillers and Mechanics commenced and concluded an inventory exercise to accumulate serviceable and unserviceable drilling equipment which were located in an existing drill shed, west of the GGMC compound. At the conclusion of this exercise the unserviceable equipment were handed over to Linmine upon administrative directives.

There were also requests by companies and agencies to acquire drilling equipment or auxiliaries, some of which have not been returned to date. Demerara Distillers Limited (DDL) is one of these agencies. Ontario Inc. rented the BBS #25 Diamond Drill and commenced drilling at Peters's Mine, Puruni river.

Various small scale miners rented banka drill outfit for exploration on their mining property. Some of these were D. Ramchangee, V. Macedo, A. Reece, P. Perreira and RMC E & A consultants and Inter-terra.

Requests were made to conduct exploration drilling at Seba Quarries but due to the unavailability of a suitable drilling outfit this activity was not possible. Several tours of inspection of drilling operations were made by the drilling supervisor and crew on drilling

location operated by small and medium scale miners who were conducting exploration with similar equipment.

During the second and third quarters, several of the equipment loaned out were returned. Some that became damaged were repaired while others became unserviceable due to the unavailability of the identical spare part. Reimbursement of security deposits were made to operators who returned the equipment in good order.

The Commission received rentals for equipment loaned to Ontario Inc. E & A consultants and other companies and agencies which hired drill outfit. Towards the last quarter, efforts were made to acquire suitable engines to refurbish the BBS #1-15 drills and pumps in addition to much needed tools to effect this exercise.

2.2 MAHDIA PROJECT

During 1997, development of Mahdia began to manifest some amount of progress subsequent to the cadastral survey of the Mahdia Blocks as surveyed by Survey Systems during the period 1996/05/10 to 1996/05/30. The services of a private Management firm Tafiya Engineering and Management Services (TEAMS), under the management of Mr. Jo Bayah was engaged by the Commission to guide the mining operations within the Project area. The most important element of T.E.A.M.S engagement was to develop sound workable practices deemed applicable to the Mahdia Project and to advise on and detail the requirement for infrastructure development within the vicinity of the Project area. T.E.A.M.S abandoned its engagement with the Commission as Project Management approximately two and one half months after mobilization.

In April 1997, His Excellency President Samuel A. Hinds appointed a committee to oversee the Project with the primary mandate of supervising and management of mining activities at Mahdia.

One of the committee members Mr. W. Woolford, issued an oral directive on 16th April, 1997, to the Engineers engaged by the Commission, to develop a Project Execution document for use as the primary project guide. The said document was compiled by Mining Engineers, Derrick Babb, Colin Sparman, Peter Hutson and Andrew Ramcharran. The task of compiling the project document was executed within three weeks of the said directive and a draft document titled "***Mahdia Project Execution Plan***" was submitted to the Committee. Some modifications to the document were made by the Committee and a final document entitled "***Mahdia Project Execution Proposal***" was submitted as the project document.

2.3 INSPECTORATE

Overview of Planning Activities for Year 1997

According to the proposed activities planned for the Inspectorate Section for year 1997, the Inspectorate Section was scheduled to continue its function within the small scale Gold and diamond mining sector through monitoring activities being carried out by four (4) mining stations and by undertaking fourteen (14) inspection tours and eight (8) supervisory tours throughout the Mining Districts of Guyana.

The establishment of permanent mining station scheduled for 1997 were as follows:-

1) Bartica
2) Arakaka/North West District
3) Puruni Mining Station
4) Mahdia Mining Station

Those stations all have respective areas of monitoring and schedule to operate for a minimum of forty-four (44) weeks which consisting of four (4) periods of eleven (11) weeks. Each station except "Bartica" was expected to be supervised by a Senior Mines Officer who would have their required supporting staff. A mining engineer was also earmarked for each station for a period of one (1) month in each quarter to survey the surrounding communities.

For 1997, it was also anticipated that all vacancies will be filled to carry out work programme effectively.

Inspection tours were also schedule for other areas such as Berbice River; Demerara River/Akaiwana; Lower Potaro/Konawaruk; North Rupununi; South Rupununi; Kurupung/Middle Mazaruni/Kaikan and Aranka/Cuyuni.

These areas were schedule to have fourteen (14) inspection tours as stated before with durations of 6,12, and 25 weeks.

Ad hoc trips and supervisory tours were also proposed.

Court matters also formed part of the planned activities for the Section for the year 1997.

ACCOMPLISHMENT OF PROPOSED ACTIVITIES FOR 1997

As was planned, the four (4) permanent mining stations were maintained throughout the year, interchanging of Senior Mines Officer occur at some of the Mining Stations; however,

with the exception of Bartica Mining Station which continued to be manned by an Assistant Mines Officer as the Supervising Officer.

Table 3 below shows the permanent mining stations and the supervising officers, giving details of the period of stint among other things. These four (4) stations have satisfied more than 90% of their proposed planned period of operation for the year 1997.

Table 3

Station	Officer	Period	Expenditure	
			Budgeted	Actual
Bartica	T. Semple (AMO) R. Persaud	March-June August	1,329,486	
Mahdia	A. Bunbury (SMO) W. Allen (SMO) L.Butters	Jan-July July- August Sep-Dec	6,238,176	
Matthews Ridge	G. Best (SMO) P. Calender	Jan - Oct Oct - Dec	6,600,000	
Puruni	L. Butters (SMO) C. Walcott (AMO)	Jan - Sept Sep - Dec	7,962,366.96	

C. Bradford (AMO ag)* continued to mann the Bartica Mining Station in the absence of the station Supervising Officer. In fact she has done so during the periods of January, February, July and from September to December, 1997.

Verification of Claims

Verification of claims was a main focus earmarked for 1997. Of the four (4) permanent stations, including Akaiwanna and Kurupung, a total of 207 claims were verified. The ramification is tabulated according to each mining station below as shown in Table 4.

Non-Permanent Station	Type of verified claims	Total
Bartica	Land	0
Kurupung	Land	58
	River	06
Mahdia	Land	85
Akaiwana/ Demerara	Land	16
	River	0
Matthews Ridge	Land	35
	River	0
Puruni	Land	07
	River	0
	Total.....	207

From the information above there was a greater emphasis on land operations rather than river operations. The mass replacement of river dredges continued to unfold itself, giving rise to new thinking involving the environment at large.

The total number of verification conducted and executed during the year could have been greatly improved but according to officers, there were a number of setbacks which curtailed the process such as:-

1) Performance of additional duties outside the planned programmes for the station.

2) Absence of claim holders or representatives at the time of verification exercise.

3) Request from claim holders/representatives for postponement in order to clear boundaries lines and replacing of location boards.

4) Lack of sufficient manpower.

5) Illnesses by both officers and client due to malaria and other water bourne diseases.

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6) High waters in the river, covering lands etc, during certain time of the year, e.g (Feb-July) in the Middle Mazaruni during this year, just to mention a few.

Inspection Tours

About 95% of the proposed areas earmarked for inspection tours were visited during 1997. The presence of Mines Officers and Assistant Mines Officers (AMO) were able to visit and engaged in monitoring of mining activities at the various non-permanent mining stations as shown in Table 5 below.

Non-Permanent Stations	Officer	Period	Expenditure	
			Budgeted	Actual
Akaiwana	O. Williams (SMO	Feb-June	583,147	
Aranka	C. Sparman (ME)		144,065	
Kaikan (Upper Mazaruni)	R. Luckie (AMO)	Feb-March	1,326,465	
Kurupung	B. Hopkinson (MO) D. Garraway	Feb-June	2,814,232	
	O. Williams (MO) K. Ramdass	July	253,624	
Potaro/ Konawaruk (Lower)	S. Corlette (MO)		1,224,918	
Potaro(Upper)	M. Persaud (SMO) revisit		1,519,418 190,000	
Rupununi (North)	C. Walcott (MO)	Feb-April	1,189,558	
Middle Mazaruni	O. Williams (MO)		1,675,075	
Eteringbang	M. Persaud (SMO)		386,814	
Aranka	M. Persaud (SMO)		2,083,702	

A total of seventy-four (74) claims were verified among the non-permanent mining stations. A general overview of the inspection tours resulted in revenue collection, licencing of dredges, issuing of Permits and Mining Privileges among other things.

Ad-Hoc Trips

Several ad-hoc trips were done during the year by various officers of the Mines Inspectorate, these trips were undertaken on immediate and urgent matters which were of great concern to the Commission for remedial action.

Disputes

Disputes continued to be a major problem for the year, particularly in the Mahdia, Puruni and North West District. These disputes arise out of improper identification of the boundary lines by medium and large scale blocks; unauthorised placing of tail waste, obtaining water from other miners reservoir for dredging operation without permission, blocking of creek where miners depend on water for jetting purposes; shifting of claim boards to occupy unworked land.

Registry

During 1997 the Registry kept accurate and systematic filing and recording of relevant transactions of the Mines Section. Table 6-11 herein shows the highlights of such transaction.

Challenges and Complaints

Table 6 shows the complaints, statement of complaints and challenges held for 1997.

Challenges	1997
No. Of Complaints filed	44
No. Of Statements of complaints filed	10
No. Of Challenge filed	2
Total.....	**56**

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Licence Application

Table 7 Licences (Applications received) for the year ending 1997.

Type	Districts							Total 1997	Total 1996
	1	2	3	4	5	6	G/T		
Trading Licences	0	35	49	9	47	17	11	168	208
Goldsmith Licence	25	3	5	0	1	0	146	180	437
Business Permission	0	30	52	13	21	15	0	131	161
Residential Permissions	0	0	52	3	7	5	0	67	120
Total '97	**25**	**68**	**158**	**25**	**76**	**37**	**157**	**546**	**926**
Total '96									

Dredge Registrations

Table 8

	Sizes									Total	Total
	2	**3**	**4**	**5**	**6**	**8**	**10**	**12**	**14**		
Registration	0	5	141	75	63	0	3	0	2	289	349
Licences Renewed	0	0	140	111	90	10	42	36	2	431	931
Dredges Scrapped	0	0	8	4	4	1	1	0	0	18	59
Dredges Transferred	0	1	9	5	1	0	0	0	0	16	31
Total.....	0	6	298	195	158	11	46	36	4	754	1370

Court Matters

Table 9

Type (Currently before hearing officer)	Amount	No. Determined	No. Pending	Year Ending 1997	1996
Challenges	6	Nil	6	6	20
Complaint	1	Nil	1	1	38
Objections	0	Nil	0	0	8
Total '97	7			7	66
Total '96					

The Hearing Officer attended to six (6) challenges and one (1) Complaint for the year re: Challenges Leonard Obermuller versus Shurland Sampson and Joshua Sampson; Robert Smith versus Kays' Diamond Enterprise and Clifford Joseph; Shaheed Mohamed versus Ayudhia Narine; Shaheed Mohamed versus John Vangronigen; Keith Cromwell versus John Vangronigen; Edward Hopkinson versus Leonard Felix and complaint Edward Hopkinson versus Leonard Felix.

The matter between Leonard Obermuller versus Shurland Sampson and Joshua Sampson was scheduled for the 20th March, 24th April, 26th June, 18th September, 1997, and was postponed to the 22nd January, 1998.

The matter between Robert Smith versus Kay's Diamond Enterprise and Clifford Joseph was called on the 9th January, 16th January, 6th February, 27th February, 3rd April, 17th April, 24th April, 29th May, 19th June, 3rd July, 11th September, 25th September, 9th October, 23rd October 27th November, 1997 and was postponed to the 15th January, 1998.

The matters between Shaheed Mohamed versus Ayudhia Narine and Shaheed Mohamed versus John Vangronigen were scheduled for the 6th March, 15th May, 3rd July, 14th August,, 4th September, 23rd October, 30th October, 27th November, 1997 were postponed to the 22nd January, 1998.

The matters between Keith Cromwell versus John Vangronigen was scheduled for the 14th August, 4th September, 9th October, 23rd October, 27th November, 1997, and was postponed to the 15th January, 1998.

The challenge and complaint between Edward Hopkinson and Leonard Felix were scheduled for the 10th July, 21st November, 1997, and was postponed to the 22nd January, 1998.

Gold & Diamond Production

The following table shows the local production figures for gold and diamond for the year 1997. Also comparative production figures for the year 1996 are listed.

Table 10 - Gold Production

	1997 (Ozs)	1996(Ozs.)
January	4,388	5,728
February	8,339	7,527
March	8,162	10,071
April	10,456	11,253
May	8,450	9,149
June	9,117	9,208
July	7,984	2,288
August	8,042	9,652
September	9,652	9,324
October	9,711	10,505
November	6,564	8,108
December	7,186	7,322
Total	**98,051**	**110,135**

The comparative totals shows a decrease of 17,990 oz for 1997. Among other factors responsible for this decrease are (1) The decrease in the price of gold and (2) the drought condition in the latter half of the year 1997.

Table 11- Diamond Production

	1997		1996	
	Sts	**Cts**	**Sts**	**Cts**
January	17,576	2,378.52	98,903	5,229.44
February	28,977	1,884.70	55,842	5,887.97
March	10,477	1,411.55	21,108	3,769.67
April	23,783	2,874.73	23,519	3,048.37
May	15,786	3,446.83	38,964	3,054.25
June	24,224	3,304.95	19,323	2,375.26
July	8,883	1,231.62	22,840	3,376.34
August	57,346	7,957.24	50,732	3,225.13
September	20,308	4,266.51	17,486	32,256.33
October	23,367	2,802.38	21,653	2,995.99
November	5,240	992.61	24,088	2,296.27
December	22,916	3,060.23	72,574	8,060.00
Total	**258,883**	**35,611.87**	**467,032**	**145,500.73**

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LIST OF CASES PENDING BEFORE THE MAGISTRATE COURTS AT THE END OF 1997

CHRISTIANBURG MAGISTRATE COURT

No.	Complainants (S)	Defendant(s)	Offence	Cj No.
1.	A. Bunbury	J. Vieira	Breach of CWO	2046/97
2.	A. Bunbury	C. Rodrigues	Breach of CWO	2047/97
3.	S. Corlette	J. Vieira	Breach of CWO	2146/97
4.	S. Corlette	C. Rodrigues	Breach of CWO	2147/97
5.	A. Bunbury	C. Rodrigues	Breach of CWO	2148/97

MATTHEWS RIDGE MAGISTRATE COURT

No.	Complainant(s)	Defendant(s)	Offence	Cj No.
1.	G. Best	Joao Ferreira	Breach of Reg. 160(a)	532/97
2.	G. Best	Antonio DosSantos	Breach of Reg. 160(a)	533/97

KAMARANG MAGISTRATE COURT

No.	Complainant(s)	Defendant(s)	Offence	Cj no
1.	L. Butters	Amos Greaves	Breach of Reg. 149 (1)	/88
2.	S. Edwards	Wilton Tofares	Breach of CWO	1596/92
3.	S. Edwards	Alfred Crawford	Breach of Reg. 81(3)	1600/92
4.	S. Edwards	Peters Mining Co.	Breach of CWO	1601/92
5.	S. Edwards	Reggie Fraser	Breach of CWO	1602/92
6.	S. Edwards	Alfred Crawford	Breach of CWO	1604/92
7.	S. Edwards	Peters Mining Co.	Breach of CWO	1605/92
8	S. Edwards	Reggie Fraser	Breach of CWO	1606/92
9.	A. Bunbury	Kenneth Fraser	Breach of Reg. 154	215/93
10.	A. Bunbury	Oswald Walrond	Breach of Reg. 154	216/93
11.	A. Bunbury	Wilton Tafares	Breach of Reg 98	217/93
12.	A. Bunbury	Robert Rellum	Breach of Reg. 98	218/93
13.	A. Bunbury	Mare Fordyce	Breach of Reg.98	219/93
14.	A. Bunbury	Peters Mining Co.	Breach of Reg. 98	221/93
15.	A. Bunbury	Tyron Powers	Breach of Reg. 98	222/93
16.	A. Bunbury	Sydney Powers	Breach of Reg. 98	223/93
17.	B. Hopkinson	Floyd Moore	Breach of Reg. 155	1484/93
18.	B. Hopkinson	Charles Gilbert	Breach of Reg. 155	1485/93
19.	B. Hopkinson	Troy Wong	Breach of Reg. 155	1486/93
20.	B. Hopkinson	Brian Marks	Breach of Reg. 155	1487/93
21.	B. Hopkinson	Marvyn Mangra	Breach of Reg. 155	1488/93
22.	B. Hopkinson	Dennis Simons	Breach of Reg. 155	1489/93
23.	B. Hopkinson	Gasdale Marques	Breach of Reg. 155	1490/93
24.	B. Hopkinson	Vibert Adams	Breach of Reg. 149(1)	1491/93
25.	B. Hopkinson	Floyd Moore	Breach of Reg. 149(1)	1492/93
26.	B. Hopkinson	Vibert Adams	Breach of Reg. 154	1499/93

3. PETROLEUM UNIT

3.1 Functions

The Petroleum Unit's functions are as summarized:

(a) to promote development in the petroleum sector
(b) to encourage petroleum exploration
(c) to enforce through monitoring activities, the conditions of exploration licences and agreements.
(d) to keep account of all monies due to the Commission by way of contracts between Guyana Geology and Mines Commission (GGMC) and petroleum companies.
(e) to advise the Commissioner, monitor all activities, undertake the responsibilities and present the interest of the GGMC on all matters pertaining to and relating to petroleum developed in Guyana, including negotiating petroleum agreements and effecting development of petroleum resources.

Key Goals

A set of milestones or goals which commence with the Work Programme herein are established to accomplish the following key goals:

(a) elevate the petroleum sector at the level of the Petroleum Unit so that it may become a better functioning regulatory body, utilizing its upgraded professional skill base to provide through research an enviable resource of prospects developed from available data and within limits, data generated from the Unit's activities, to further encourage petroleum exploration as the sector's prospectivity is promoted for development by worldwide investors.

(b) the sustenance of the growth of the sector in terms of level of investment through exploration, by ensuring attractive but beneficial contract terms and licence conditions without unconsidered compromise to the environment or to the established traditional land use practices.

3.2 INTRODUCTION

The Petroleum Unit's performance for 1997 could be described as " generally fair" but warrants assessment from three perspectives:

- A comparison of the achievement in 1997 with goals set, revealed under achievements in half of the programme due mainly to crippling but unavoidable circumstances beyond the immediate control of the Unit. Primarily this situation resulted from the unfortunate but necessary dependency of projects outlined on one key project. Since that first project could not come on stream, the others were jeopardized.

The Head of Unit recalled that this critical observation was made earlier by the

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subcommittees to which the programme was presented, yet despite all efforts, the situation after all, could not be adequately controlled.

All programmes hinged on the capital project to construct the Data Storage Facility which could not be executed due to the consequences of prerequisite administrative formalities.

- A comparison of the goals achieved by the Unit where more controls were with the Unit in determining and executing the project activities set for 1997, showed that the Unit performed creditably. For example, Contract Negotiation, and Operation Training were two programmed areas where the goals were accomplished exceedingly well by the end of the year.

- Since the Work Programme was inextricably linked to Budget, an assessment from this perspective should also be prudent. This assessment showed that capital spending was not achieved as budgeted. There were unexpected carry-overs of expenditure on items which were purchased in 1996 and were received late in 1997. In addition of course, was the unfinished Data Storage Facility. Current Expenditure was generally under budget and there will be specific discussions on those matters. However, Income from the Petroleum Unit by the end of 1997 was on target despite inaccurate forecasting of when such income came due.

The three (3) perspectives given above demonstrate that the Petroleum Unit performed better with respect to the Work Programme and Budget than appearances suggested. To the Commissions advantage also, the Unit sought to pursue activities of a current and ongoing nature so as to constructively utilize the time which had become available.

3.3 PROJECTS 1997 (REVIEW)

Data Storage /Record Management.

This project was hampered by late budget approval, Central or Municipal bureaucracy and other procedural delays. Approval of building plans by the Central Housing and Planning Authority was received at the beginning of the third quarter after several weeks since submission. Advertisements for tenders were immediately placed. Tenders were received shortly thereafter but at the end of December 1997 no contract was yet awarded. This project could not commence.

Study Of The Basins Of Guyana. (Phase 1)

This new research project was dependent on the completion of the Data Storage Facility and all the attendant Record Management activities that were detailed to follow therefrom which would render the medium of research data accessible for study. A field component was also planned which was to utilize the magnetometer purchased in

December 1996. The magnetometer arrived in Guyana in November 1997 but at the end

of December 1997 was still in storage since the anxiously awaited duty free status applied for was still to be issued. This project was not attempted.

Takutu Basin Palynofacies Study (Phase 2.)

The history of this project is one of delays. Approved in 1997 with some alternative objectives to that which was proposed in 1996, the present version shall remain valid until the project is finally executed. Only very preliminary work was accomplished in 1997. Set backs were due to the absence of crucial equipment supplies. These supplies were only received at the end of August 1997.

Contract Negotiations

Contract Negotiations proceeded on its own schedule despite attempts by the Head, Petroleum Unit to have a more active attitude adopted by those involved. The Century Agreement was pending since their first approach in August 1995. Negotiations commenced with Maxus in February 1997. Both Agreements were on schedule for signing in September/October. Finally, Century and Maxus signed on November 19 and 25 respectively.

There were a flurry of new interests in Guyana's Offshore (coastal and deepwater) basins. Negotiations were in progress with three companies for concession acreage in the coastal and offshore areas. Serious interests existed for essentially all of the remaining coastal and offshore acreage and these matters were receiving the Unit's attention.

The Takutu Basin (onshore) was to be promoted by the Commission but the promotion rights were successfully assigned to TM Services Ltd. of London in April 1997. These promotional rights were to expire in December but were renewed at an agreed cost at the option of TM Services for six months as per the Agreement in force. At the end of December, one valid proposal from an Australian company named Hardmam Resources Ltd was receiving the Unit's attention. In addition, there were several enquiries about the Takutu. This acreage is a difficult area to promote under the existing conditions in the petroleum industry.

Contract Negotiations were a successful element of the 1997 programme of activities.

Monitoring Activities

There were no contracts to actively monitor. The Petroleum Unit responded to one reported sighting of petroliferous occurrences at Wakenaam, Essequibo Islands, on February 13, 1997. This turned out to be biogenic gas typical of so many coastal areas of Guyana.

Operations Training Development

With respect to this activity, the Petroleum Unit achieved total success. All personnel identified for training development participated fully and reported as required.

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Additional Staffing

In the Work Programme and Budget presentation for 1997, there was a case made which rationalized the needs for additional staff. As it turned out, no steps were taken in this direction during 1997 and perhaps it was fortunate that the need for additional staff did not arise. The resulting situation could be attributed to the various aspects of the Work Programme that were not executed.

Membership and Subscription

These were cost effective means of remaining current in geotechnical fields. The Petroleum Unit subscribed to several recognized journals such as the Canadian Journal of Earth Sciences and the Journal of Petroleum Technology. The level of subscription was under budget even though new and fulfilling memberships were sought during 1997.

Current and Ongoing Activities

With the unavoidable, cr$_{\nu}$pling, circumstances experienced during 1997, the Petroleum Unit pursued several alternative activities so as to constructively utilize time which had become available. Such activities during the first quarter included;

- the contributions to the Mineral's Policy Document during January;

- the formatting of Drilling Monitoring Reports, Daily Monitoring Reports and Weekly Monitoring Reports, all in anticipation of later monitoring activity;

- investigation into attendant requirements for any proposed drilling programme by the Unit e.g general petrophysical and petroleum engineering test that would compliment such activities.

During the second quarter, activities of a similar current and ongoing nature included:

- the accumulating of certain coastal well data from the Hydromet Office for timely inclusion in the Study of The Basins 1.

- the preparation of an informative/promotional document for use at seminars, for example (this activity was not adequately completed).

During the third quarter, these arbitrary activities slowed as staff took vacation which was due them. In the fourth quarter, the flurry of activity which was associated with the finalizing and signing of the two production sharing contracts as well as the visit by some potential investing parties e.g. Exxon kept the Unit fairly occupied. The nature of the activities were such that no actual expenditures were required hence the specifics of the Budget 1997 were not otherwise affected.

3.4 EXPENDITURE

Current and Recurrent

The December Board Account was not available at the time this document was prepared. However, an analysis of the Petroleum Unit's Statement of Account as at the end of November 1997 indicated that for Employment Cost and attendant Expenses an overall variance of less than ten percent (10%)occurred .This was within the limits deemed acceptable by the Board of Directors. Except for a few isolated areas, under budgeting seemed to be a common situation.

With respect to Field Expenses, the accounts reflected the fact that the project in question was not executed. This issue was alluded to earlier when it was mentioned that the Unit's Work Programme was incomplete.

The consequence of this occurrence was under spending in specific associated areas.

While there is no need to encumber this section with details as they are in appropriate quarterly reports, the following brief comments illustrate some of the scenarios which brought about variances in the budgeted expenditures for 1997.

- In 1997, projected expenditure for the Petroleum Unit was G$2,775,000. which was in addition to recurring Employment Cost of G$19,069,000. Anticipated costs for the categories such as Responsibility Allowances, Office Equipment/Computer Maintenance, Rental and Professional Services, turned out to be in excess by some 30% and more in the extreme case. Services were sought with respect to Computer Maintenance but even with the substantial down time due to computer malfunction, Computer Maintenance was over budgeted for in 1997. The computer down time and problems such as power outages, however, caused Printing and Duplicating to almost double what was budgeted. The high density of prints for the contracts negotiated, added to data sets printed for companies interested in exploration, contributed to the increased actual Duplicating costs. Postage was also considerably more than budgeted since volumes of data were shipped by courier to various companies at their request. For both Printing and Duplicating Costs and Postage Cost, some level of reimbursement occurred which was expected to be reflected in the Statement of Accounts at the end of year.

In order to cater more adequately for the situation experienced in 1997, the Current and Recurrent Expenditures shall be more carefully forecast in the further.

Capital

Variances in Capital Expenditure related to capital purchases, showed the only major item to be purchased was not acquired. The item was an air conditioner which could not be purchased because the electrical facility to install it was unavailable in 1997. Rewiring of the main building's distribution panel may allow for the air conditioner's installation in 1998 if it is approved once again.

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Capital Expenditures for Special Projects suffered from the same malaise as reported in previous sections of the review. The Petroleum Unit's Work Programme for 1997 was incomplete.

The elements of the Work Programme that were part of the project expenditures that were actually utilized, related to a single business trip undertaken for the purpose of negotiating a Petroleum Contract with Maxus Energy Corporation. The expenditure amounted to just under fifty percent(50%) of the G$1.3 million budgeted. Although monies were budgeted for consultants, none were contracted for the occasion.

The demise of the other projects were discussed previously at section 2.2 and no further comments are necessary. It is sufficient to report that approximately G$2.3 million allotted to Special Projects for Petroleum Unit were not utilized. G$160,000 for a Capital equipment purchase was unavoidably unable to be utilized and some G$9.5 million for the Petroleum Unit's Data Storage Facility was not utilized since procedural delays affected its progress to commencement

Income 1997

The anticipated income for the Petroleum Unit in 1997 was Budgeted at G$35. million. The actual income received was approximately G$30. million. This was due to Application Fees for Petroleum Prospecting Licences, Rentals and Training Fees accrued from companies that have assigned interests in Guyana's prospective areas.

The scheduling of the returns were not consistent with the actual payments because of delays in receiving approvals for finalizing Petroleum Agreements.

As a result, the major payments were not received until November, 1997 when Maxus Guyana Ltd and Century Guyana Ltd. both signed Production Sharing Agreements. Other receipts were from TM Services Ltd with respect to their Agreement to promote the Takutu Basin and, an instalment from Petrel Petroleum Corporation as per their Agreement to promote the Georgetown Area, Offshore Guyana.

Income not budgeted for was received by the Petroleum Unit. These income were related to funds paid by companies for generation and shipping of data to which an arbitrary administrative charge was added.

Comments

In 1997, it was obvious that the integrated nature of the activities meant that shortcomings in one area would adversely affect other areas. In 1998 the same situation is likely to occur but it is expected that there will be sufficient latitude for activities as planned to move forward.

Accommodation continues to hamper the Unit and with monitoring activities coming on stream in 1998 the need for additional space will be more critical. It is suggested that as a temporary solution, another room be found when arrangements in the new building are finalized.

From this report it should be obvious that correcting our deplorable data situation is foremost and a most critical assignment upon which almost everything is dependent. Whatever the requirements this should not be allowed to continue.

SUMMARY

Generally fair performance by Petroleum Unit saw the Unit through 1997 with grand expectations for 1998. The interconnected nature of the programme however, was critical to the short comings experienced as key links could not be connected due to one main project being delayed. Expenditure for 1997 was below that which was budgeted, however, there were some unexpected carry overs in 1997 from 1996 where equipment purchased earlier were received in 1997. Income on the other hand was on target for 1997 despite inaccurate forecasting.

4. ENVIRONMENT, RESEARCH & DEVELOPMENT DEPARTMENT

4.1 Introduction

The Environment Research and Development Department (ERDD) of the Guyana Geology and Mines Commission (GGMC) was set up to co-ordinate all environmental matters and general research affecting the Commission. The Department, which was set up as a unit within the Mines Division, is supervised by a Senior Mining Engineer II, who is also the acting Manager of the Division. The Department is divided into three (3) Units viz. the Environment Unit, the Mineral Processing Unit and the Administrative Unit.

The Environment Unit throughout the year was manned by one (1) Senior Mining Engineer and two (2) Mining Engineers.

The Mineral Processing Unit was practically manned by one person during most of the year as the Senior Mineral Processing Engineer (I) was on leave during the first half of the year while the Mining Engineer attached to this unit obtained leave, during the third quarter of 1997, to further his studies.

The Administrative Unit towards the end of 1997 was manned by four (4) persons - up from three (3) persons at the start of the year - including one (1) Administrative Assistant, one (1) Clerk III, one (1) Office Assistant and one (1) Cleaner.

The total staff complement of the Environment Research and Development Department towards the end of 1997 was ten (10) persons inclusive of the Manager (ag) Mines Division and his Confidential Secretary.

The performance of the ERDD during 1997 can be described as modest when assessed against the odds the department faced, such as no approved budget and no formal training for staff. The non-implementation of the Institutional Strengthening Programme for the staff of the Environment Unit, by the Inter American Development Bank (IDB) also adversely affected the planned activities of this unit. However, several activities of an in-house, field and national character were undertaken during the past year.

4.2 ENVIRONMENT UNIT

The approved programme of work for the Environment Unit for 1997 centered around an Inter - American Development Bank (I.D.B) sponsored Institutional Strengthening Project. The recipient agencies identified in the I.D.B project were the Environmental Protection Agency (E.P.A), the Environment Unit - (G.G.M.C), and the Environmental Unit - Guyana Forestry Commission (G.F.C). This project emphasized training in the areas of environmental monitoring, preparation and assessment of Environmental Impact Assessments and Statements (E.I.A. and E.I.S), drafting of environmental regulations and standards, preparation of emergency response and contingency plans, minesite rehabilitation etc.

Actual Work Done

In-house

The Memorandum of Understanding (M.O.U) and Work Plan for the institutional strengthening of the Environment Unit of G.G.M.C was redrafted and sent for ratification to the Inter - American Development Bank (I.D.B) - the sponsor.

A simplified version of the final draft of the M.O.U was signed in October 1997 by B.Sucré (Commissioner - G.G.M.C) and S. Wickham as (Acting Head of the E.P.A) but, to date, a work plan between the above-mentioned agencies to give effect to the MOU is still to be finalised.

Field Trips

Several reconnaissance environmental inspection tours, designed to have a first hand look at the environmental problems resulting from mining activities, were conducted during the year by staff of the EU to the following locations:-

a) Teperu Quarry	-	Mazaruni River
b) Bara Cara Quarry	-	Essequibo River
c) St. Mary's Quarry	-	Essequibo River
d) Mahdia Project Area	-	Mahdia, Potaro
e) Mazda Mining Operations	-	Konawaruk River

Reviews

The ERDD is charged, inter alia, with the responsibility of reviewing and assessing Environmental Impact Assessments (E.I.A's) and Environmental Impact Statements (E.I.S's) of proposed and existing operations in the mining industry. The unit, during the past year, completed reviews of the following E.I.A's and E.I.S's submitted by:

1) D. Rambarran (with respect to a proposed sand quarry - Soesdyke Linden Highway)
2) Garraway Resources Limited (with respect to gold dredging operation in the Kuribrong River).

Attendance at Seminars and Workshops

During the year staff of the EU actively participated in a series of seminars/workshops. Of notable mention are:

a) Regional Workshop on Environmental Management of Mine Sites held by the Government of Guyana (G.O.G) in collaboration with the United Nations Development Programme (U.N.D.P), United Nations Environmental Protection (U.N.E.P) and the Environmental Studies Unit of the University of Guyana (February 25 to March 3, 1997, Pegasus Hotel).

b) Guyana's Programme to phase out ozone depleting substances hosted by the Hydrometeorlogical Department of the Ministry of Agriculture.

c) National workshop on "Health hazard recognition in the workplace" jointly sponsored by Ministry of Labour and the Pan American Health Organisation (P.A.H.O).

d) Conservation International (Guyana) Seminar for Secondary School Teachers. Two (2) papers were presented on pertinent topics.

Others

Committees on which staff of the EU represented the GGMC and actively participated were:-

i) National Environmental Education Advisory Committee.
ii) National Biodiversity Advisory Committee.
iii) Mining and Environment Committee.

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Expenditure

Current

There was no approved budget of operating expenses for the ERDD for 1997, save such provisions made for the employment of staff for the entire Mines Division. Also, there was no approved programme of work for the Department, for the period under review. Thus there can be no meaningful analysis of budgeted operating expenditure and actual operating expenditure.

Capital

A temporary capital provision of one million dollars ($1.0M) was made in the budget of Capital Expenditure by the Commissioner for the ERDD. This provision catered for office furnishings and supplies for the Department. The Environment Research and Development Department was, towards the end of the period under review, still awaiting further instructions with respect to the capital purchases for the Mineral Processing Unit which were put on hold, pending such instructions. No analysis is therefore possible as there was no approved list for Capital Expenditure.

(b) In the Konawaruk, above the confluence with the North Fork.
(c) In the Konawaruk approximately 100m upstream from the first set of dredges.
(d) First set of dredge tailings.
(e) In the Konawaruk approximately 100m downstream from the first set of dredges.
(f) In the Konawaruk approximately 100m upstream from the second set of dredges.
(g) Second set of dredge tailings.
(h) In the Konawaruk approximately 100m downstream from the second set of dredges.
(i) In the Konawaruk, just before it discharges into the Essequibo River.

Water samples will be collected in strict conformity with established sampling protocols for environmental samples. A total of seven (7) additional sediment sample stations have been tentatively identified. A representative sample of approximately 300g will be collected from each station.

The addition of new sample stations, as Mazda operations progressed along the Konawaruk River, will be required for continuous monitoring, to detect changes in both water and river sediment quality.

Others

Environmental reconnaissance tours to the bauxite mining operations at Linmine, Aroaima and Bermine, and to Pereira's operations at Honey Camp and Issano will be undertaken during the year. The purpose of these tours is to conduct preliminary environmental assessment of the areas and establish sample stations for environmental monitoring of the operations.

The assessment will look, inter alia, at the impact of the operation on water and soil qualities, and in this regard water and stream sediment samples will be collected and analysed.

Sampling to establish surface water quality will be conducted and the results used to assist in determination of baseline values.

4.3 MINERAL PROCESSING UNIT

Introduction

The Mineral Processing Unit's 1998 work program has been considerably modified from its original version to focus on work in the Mahdia area. Sampling and analysis of mineral deposits at different locations in Mahdia will be done.

The planned emphasis is the determination of grain size distribution, heavy mineral distribution, and where possible gravity recoverable gold content of the various mineralised deposits in the Mahdia area.

In addition, mineral processing equipment obtained by the Unit will be tested at Mahdia at selected locations. Towards this end, ancillary equipment will be obtained as required. The sampling and analysis exercise is planned to be a continuous program, as such additional technical staff (probably geo-technicians from the Geol. Serv. Div.) will still be required to complete the program. The Sluice-box Project, which remained unchanged, will also be based at Mahdia.

With the Commission's available resources (human, material, and financial), the Unit will attempt to achieve as much as possible for each program. It is anticipated that with the additional equipment and technical personnel, the full activities for the Unit, for 1998, should be realised.

Philosophy

The underlying philosophy for the unit's revised program is to assist the Proto - Mahdia project administered by the Commission with mineral processing data. This should help ensure efficient processing methods and techniques are practised to extract gold values from allocated blocks.

SPECIAL PROJECTS

Sampling And Laboratory Analyses

The aim of sampling and analysing any mineral deposit (virgin or previously worked) mineral stockpile, or tailings, is ultimately to determine the amount of mineral values available for possible extraction.

Equipment and facilities presently available to the Unit do not allow for such an informative sampling program. The necessary equipment will therefore be acquired to improve the units capabilities.

An initial field exercise to select work locations and to design the sampling exercise for each area will be embarked upon. The present suggested areas for work are St Elizabeth, White Hole and Red Hole, in this order.

At each location, sampling and the testing of all mineral processing equipment, on an individual basis, will be done. A field decision will be made as to the number of sampling pits which will be dug at any particular location. At each pit, mineralised material will be sampled for GSD, NMD, and gravity recoverable gold. The mineral processing equipment will then be tested consecutively (the Knelson, the jig, the spiral, not necessarily this order); as determined by estimated GSD field data.

For each Unit, the operating parameters will be studied to determine optimum conditions to process the various kinds of material at Mahdia.

All product materials (concentrates and tailings) will be recovered and re-used in each unit. This will enable comparison of the various processing units.

Improving The Sluice Box For Gold Recovery

Evaluation of the sluice box will be the main focus of this project in 1998.

Since 1995, some research literature showed Guyana to be way behind in improving the sluice box for gold recovery. In 1996 and 1997 field visits established this fact. However, visits by one of Canada's leading researchers in this area in 1996 and 1997 generated a great deal of interest among local operators, students, engineers and geologist in the industry. Operators also benefited from some field demonstrations during 1997.

In 1998, test sluice boxes would be constructed and tested to evaluate the following:

1. The optimum cycle time to maximize the concentration ratio, while minimising losses due to overloading riffles' storage capacity.
2. Size distribution of gold particles in sluice box concentrate.
3. The effect of the following on sluice box recovery:

   a) Feed rate
   b) Slope of sluice box
   c) Types of riffles
   d) Clay minerals
   e) Types of matting
   f) Removal of matting
   g) Sluice box size and
   h) Classified or non-classified feed.

At the end of this exercise, it is hoped that there will be a better understanding of what affects sluice box recovery, with respect to the types of alluvial material processed in Guyana. Information on suitable processing parameters can then be shared with operators working various types of deposition in the local industry.

Assumptions And Constraints

With respect to the original work program, the first assumption and constrain still holds. For the second, since the unit will no longer get its own computer, it will surely experiences delays in generating data and information. The general handling of all documentation is expected to be a tedious time consuming process.

It is still assumed that additional technical staff will be recruited into the unit, regarding the third point. The final assumption no longer holds since the focus has shifted.

In addition to previous assumptions, with this present focus, it is assume that all ancillary equipment for processing units will be acquired. Also additional sampling equipment will be acquired

WORK SCHEDULE

Sampling And Laboratory Analyses

TABLE A

ACTIVITIES/TASK	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1. Source and purchase sampling equipment.	--------	---------						
2. Source and purchase ancillary equipment.	--------	---------						
3. Transportation of equipment to the Mahdia Project area.			--------	------				
4. Field Sampling Program to first Mahdia location.				------	------			
5. Field Sampling Program to second Mahdia location.					------	-----		
6. Assessment of Analytical Data and generation of progress reports and annual report.							------	-----

IMPROVING THE SLUICE BOX FOR GOLD RECOVERY

TABLE B

WEEKS

	1	2	3	4	5	6	7	8	9	10	11	12
Sites Identification	-											
Mobilization	-	-	-									
Sampling for Head Grade				-								
Lab Analysis					-							
Field Experiments						-	-	-	-	-		
Demobilization											-	
Report & Conclusions												-

The project is scheduled to commence on August 2nd, 1998.

Head Office Activities
Employment Costs

The 1998 budget has been revised to reflect no salary increases, no filling of vacancies and no recruitment of additional staff for 1998.

Currently, both engineers in the unit have same job designation, so if the more senior engineer goes on leave, the next engineer, may be entitled to a duty allowance of one increment. Travelling allowances for engineers, have also been estimated.

Estimates have been made local for training and subscription to professional organisations.

All permanent staff will have safety gear, this includes protective clothing and other safety devices (dust respirator, protective glasses etc.)

Expenses

The Engineers and Technicians will be supplied with calculators.
Stationery and Office supplies include costs for both field and office work (which includes the laboratory).

Furnishings for the offices which will be occupied by the Mineral Processing have been catered for.

Printing and Duplicating will cater for all paper work for designing the MGDP, and the production of a project document for its fabrication in 1999.

Budgetary provision for sample analyses (Chemical and Physical) have been made at two thousand dollars ($2000) per sample, on the advice of the chemist in the Geological Services Division. Samples will be generated from field work from the Sluice Box project, and Sampling and Laboratory Analysis project. This estimate provides for if samples have to be analysed externally. Samples will include those collected in 1996 field work which recruited technicians will work on.

Field Expenses

Field expenses takes care of field work for the Sluice Box and Sampling Projects. The Sluice Box Project is sixty (60) days and scheduled for May-June. Personnel will camp when required whilst working in the three areas at Mahdia i.e. Dickman Hill, Red Hole and St. Elizabeth. Total personnel are two (2) Engineers and five (5) casuals.

The Sampling Program is forty-two (42) days, twenty-one (21) days in June and twenty-one (21) days in September. Personnel will be two Officers (Engineer and Technician) and four (4) casuals (Labourers and Cook). Since this will involve a lot of mobilisation. Provision have been made to hire a vehicle, if GGMC vehicle not available. Camp conditions will prevail, with same provision for the female Officer, as with the sluice box project.

All wages and allowances have been recalculated at the 1997 values. Overtime wages estimated at three thousand dollars ($3000) per week per person.

Stationery for field work has been included in Head Office expense.
Field expendables include sample bags, buckets, indelible ink markers, etc. Other field material requirements (e.g tarpaulin, cooking implements, specialist equipment etc.) will not be budgeted for, since the Commission stocks these items in its General Stores.

The sluice box project involves the building of sluice box modules which will be tested. Capital estimates are then towards purchasing materials and labour for building the sluice boxes and acquiring ancillary equipment such as slurry pump, water pump, piping, hosing etc. Estimates include costs for matting and riffles.

Ancillary mineral processing equipment, which will be used to feed and to link the items of equipment to be tested, have been budgetted for.

It must be noted that the following have not been budgeted for in field estimates, since it was advised that the Commission's stores stock these items. They include equipment spares (spark plugs, oil filter, etc.); material requirements (tarpaulin, cooking implements, Hurricane Lamps etc.); Mechanical equipment and spares, outboard engine, pick-up or land cruiser - 4x4; specialist equipment (VHF Transmitter/Receiver, power generator, etc.)

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4.4 ADMINISTRATIVE UNIT

Overview

The role of this unit is to ensure the overall efficiency to the Department. This unit also has the responsibility of ensuring the comfort and well - being of the staff, along with adequate and comfortable working conditions. It is expected that the Unit will ensure that the office furnishings (chairs, desks, etc) are adequate and comfortable. Air conditioning of the offices are essential as the present building is not adequately ventilated and is extremely hot and uncomfortable for most of the working day.

The unit will also be responsible for the procurement, installation and proper operation of essential office equipment such as filing cabinets, magazine racks etc, and will also be responsible for the typing and printing of all reports generated by the Department. Adequate provisions for proper drinking water, and a hot or cold mid morning beverage for the staff, must be made by the Administrative Division of the Commission which is also tasked with the responsibility of ensuring that the provisions made for the cleaning of the building and surroundings are adequate and in place.

The unit will also be required to make a biannual inventory of the Commission's assets at the Department's offices.

Efficient co-ordination of the field activities of the Department will necessitate radio-phone contact between office and the field. This must be set up and functional before the commencement of field activities.

Electronic data-management will be done as required. It is envisaged that a period of training in the use of the environmental data base will be required for the Administrative Officer who will supervise the Unit and the data processing officer who will operate the computer.

Assumptions And Constraint

It is assumed that the Environment and Research Development Department will be housed at its present location for 1998 whilst the building at Head Office is completed. Since the formation of this Department the unavailability of a vehicle and driver has impeded the smooth flow of activities.

Operating Expenditure

It is envisaged that in the absence of air conditioning and the time that will be taken to obtain same, the need to purchase additional fans for the Department is an early necessity. The Work Programme of this Unit requires the use of a computer with accessories, three radio phones for field trips. It is anticipated that the majority of items will be purchased during the first and second quarter of 1998.

Employment And Expenses

Reflected in the budget are salaries for two additional members of staff and salary for the Secretary of the Manager (ag) Mines Division who is also the Head of ERDD and the existing three staff members with a 20% allowance for overtime.

5. ADMINISTRATIVE DIVISION

During the year 1997, the Administrative Division comprised:

1) The Personnel and Industrial Relations Department
2) The Information and Publication Department
3) The Services Department.

5.1 THE PERSONNEL AND INDUSTRIAL RELATIONS DEPARTMENT

Staffing

Appointments

January	-	1 Confidential Secretary	-	Finance Division
	-	1 Senior Electrical Technician	-	Electrical Workshop
February	-	Nil		
March	-	1 Lapidary Attendant	-	Lapidary Laboratory
	-	1 Confidential Secretary	-	Commissioner's Office
	-	1 Driver	-	Services Department
April	-	Nil		
May	-	1 Office Assistant	-	Mines Division
	-	2 Security Guards	-	Security Section
	-	1 Mining Engineer	-	Mines Division
June	-	2 Cleaners	-	Services Department
July	-	Nil		
August	-	Nil		
September	-	1 Office Assistant	-	Commissioner's Office
	-	*3 Geological Technicians	-	Geological Services Division
	-	*2 Field Assistants	-	Geological Services Division
October	-	1 Information & Documentation Officer	-	Library

	-	1 Mining Engineer	-	Mines Division
	-	1 Office Assistant	-	Environmental Unit
November	-	1 Mining Technician/ Assistant Inspector Mines	-	Mines Division
		3 Rangers	-	Mines Division
		*6 Geological Technicians	-	Mines Division
		1 Confidential Secretary	-	Petroleum Unit
December	-	1 Clerk 1	-	Mines Division
	-	1 Typist Clerk	-	Mines Division

*Five (5) students sponsored by the Commission were among the 3rd batch of students who attended the Diploma in Geology programme tenable at the University of Guyana. Three (3) successfully completed the programme and were appointed as Geological technicians. Two (2) were referred and were therefore employed as Field Assistants pending their successful completion of the programme in the 1997/1998 academic year.

The other six (6) students who were not sponsored by the Commission were subsequently offered employment as Geological technicians within the Mines Division.

Resignation

March	-	1 Confidential Secretary		
May	-	1 Confidential Secretary	-	Commissioner's Office

Retirement

June	-	1 Administrative Assistant	-	Mines Division
August	-	1 Administrative Assistant	-	Geological Service Division

Death

May	-	1 Cleaner	-	Lapidary
	-	1 Cleaner	-	Environmental Unit

Transfer

November - 1 Confidential Secretary was transferred from the Petroleum Unit to Administrative Division on promotion to the post of Confidential Secretary 11.

\- 1 Chief Clerk was transferred to the Geological Services Division on promotion to the post of Administrative Assistant 11.

Promotion

1	-	Telephonist to Typist Clerk 11 (Registry)
1	-	Office Assistant to Telephonist (Registry)

1	-	Clerk 111 to Clerk 1V (Personnel Department)
1	-	Confidential Secretary 11 to Administrative Assistant 1 (Mines Division)
1	-	Confidential Secretary 1 to Confidential Secretary 11 (Administrative Division)
2	-	Chief Clerk to Administrative Assistant 11 (Mines Division & Geological Services
1	-	Clerk 1V to Chief Clerk (Registry)
1	-	Security Guard 1 to Security Guard 11 (Security Section)
2	-	Office Assistant to Clerk 1 (Mines Division)
1	-	Clerk 1 to Clerk 11 (Mines Division)
1	-	Assistant Draughtsman 11 to Senior Assistant Draughtsman (Cartographic Dept.
1	-	Assistant Draughtsman 1 to Assistant Draughtsman 11 (Cartographic Dept.)
1	-	Senior Draughtsman to Assistant Cartographer (Cartographic Dept.)
2	-	Assistant Mines Officer to Mines Officer (Mines Division)
1	-	Female Searcher to Assistant Mines Officer (Mines Division)
1	-	Ranger to Assistant Mines Officer (Mines Division)
2	-	Laboratory Assistant to Technician Assistant 1 (Chemical Laboratory)

Confirmation

1	-	Lapidary Supervisor
1	-	Senior Chemist 11
1	-	Chief Mechanic
1	-	Assistant Manager Services

Training and Seminars

January	-	The Administrative Officer (P&IR) attended a Workshop on Performance Appraisal hosted by Ms. Joyce Sinclair.
March	-	The Manager - Geological Services and the Senior Geologist 11 attended an International Convention and Trade Show in Canada, during the period 9th-12th March, 1997.
May	-	The Public Service Ministry (PSM) sponsored a two (2) day training programme "Accounting for Supervisors" which was attended by an Assistant Account and Clerk 1V.
June	-	The PSM sponsored a one (1) day training programme "Financial Management for Non-Financial Managers" which was attended by; the Canteen Supervisor and Chief Clerk (Mines).
	-	The Georgetown Women's Junior Chamber sponsored a one (1) day seminar for "Junior Managers and Senior Supervisors" which was attended by a Mining Engineer and Chief Clerk (Mines).

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August - Two (2) employees benefitted from a Refresher course in Defensive Driving conducted by the Guyana Junior Chamber.

September - Fifteen (15) employees of the Geological/Field Section benefitted from a one (1) week training course in Emergency First Aid which was conducted by a member of the St. John Ambulance Brigade.

- An Accounts Clerk 1, Miss P. Monize was selected to pursue the Foundation Certificate in Accounting Course tenable at the Government Technical Institute (GTI).
- Mr. M. Samaroo - Mining Engineer was awarded a one (1) year scholarship under the Canadian Commonwealth Scholarship and Fellowship Plan to pursue a Master's Degree in Mining Engineering.

October - Mr. Nicholas Chuck-A-Sang - Petroleum Geologist attended a two (2) weeks course on Formation Evaluation in Dallas, Texas.

The first batch of nine (9) students were sponsored by the Commission to pursue and complete the Diploma in Surveying Programme tenable at the University of Guyana.

Study Leave

Mr. Rudolph McDonald, Assistant Draughtsman 11 was seconded to the Lands and Surveys Department to pursue and complete a three (3) year on the job work study programme.

Work Study

The Ministry of Education Work-Study Programme concluded on 22nd August, after a period of six (6) weeks. Three students were accommodated by the Commission on this exercise in the Stores, Accounts Department and Electrical Workshop.

Wages and Salary

The Prime Minister approved a twenty percent (20%) increase in salaries for employees of the Commission retroactive from January, 1997.

Wages paid to casual/seasonal employees were also increased by twenty (20) percent with effect from 1st January, 1997.

In addition, employees were awarded salary increases of ten percent (10%) five percent (5%) or two and half percent (2½%) with effect from 1st January, 1997 based on an assessment of their performance during the period 1st January 1996 to 31st December, 1996.

Welfare

A supply of three (3) sets of uniform was issued to each member of staff. The males received theirs in January, the females in April and the security staff in May.

Protective gear was also distributed to employees who qualified for such gear.

Employees were given their annual issue of drinking glasses and hand towels and their quarterly supply of toiletries.

The Commission held a Family Fun Day at the Guyana Public Service Union's Ground on 1st August, 1997.

The Commission's 13th Bursary Award Presentation Ceremony was held on 3rd October, 1997. The Board of Directors approved the following amendments to the Bursary Award Scheme from the 1997 academic year.

i) The amount of the award was increased from ten thousand dollars ($10,000.00) to twenty thousand dollars ($20,000.00).
ii) The period of the award was increased from five (5) years to a maximum of seven (7) years to cater for students proceeding to the sixth form.
iii) The maximum number of awardees was increased from three (3) to six (6).

Six (6) awards were given out.

The Commission also granted an incentive award in the sum of forty thousand dollars ($40,000.00) to Ms. Samantha Scotland for her outstanding performance at the CXC examination. She obtained ten (10) subjects - nine (9) grade (1) and one grade 11. Samantha is the daughter of Mr. George Scotland - Internal Auditor.

Workers' Representative

Mr. Gordon Nestor was elected Workers' Representative on the Board of Directors

The Annual Xmas Party was held on 16th December, 1997 at the Georgetown Club.

5.2 INFORMATION AND DOCUMENTATION DEPARTMENT

Library

The basic functions of the gathering and dissemination of information were executed by the Library, through text books, maps, geological reports and journals.

Ms. Patricia Hackett, who has a BSc in Communication and fifteen (15) years experience in library procedures at the University of Guyana, was appointed Information and Documentation Officer.

Ms. Hackett introduced several new procedures and re-arranged material, which enhanced the efficiency and effectiveness of the Library, and improved the physical environment of the library.

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The programme "Mineral in Focus" was successfully resuscitated, and a Committee was set up to plan for the publishing of a Newsletter, Quarterly Mineral Reports, Brochures etc.

At the close of the year, the clientele totalled one thousand one hundred and eighty one (1,181) and nine hundred and thirty one (931) books were loaned. Two hundred and eighty six (286) maps and one hundred and forty four (144) reports were sold. One hundred and fifty seven (157) maps and one hundred and four (104) reports were issued free of cost. Thirty four (34) books were accessioned.

Reports

Fives (5) Geological reports were submitted by three (3) Geologist of the Commission, while five (5) others were also channeled to the library. The reports were:

	Author	Ref. #
• The Occurrence of Ultrabasic Rocks in Guyana	G. Nestor	GN 1/97
• The Inspection tour of Upper Demerara River, Between Ekuk Landing and Great Falls; Akaiwanna, Kurupukari and Siparuni	J. Griffith	JG 1/96
• Artifacts of Jasper, Amethyst Agate, Black Pearl, Green Quartz, etc.	K. Livan	KL 1/94
• The Mining Sector in Guyana	K. Livan	KL 1/92
• Report on the Investing in the Americas '97 Conference and Exhibition held at the Fontainebleau Hilton, Miami Beach Florida	K. Livan	KL 2/97
• An investigation into the appearance of Canopy gaps in ERS -1 Synthetic aperture Radar Images of Tropical Rainforest Using Idrisi GIS Tristan Quaife	April '97	

- "The Quantitative Analysis of the Undeclared Gold Production of Local Miners in Guyana" by Sherwood Lowe - Lecturer, Division of Mining; Faculty of Technology, University of Guyana, (July 1997).

- "Update of International Auction of Prospecting Licence Exploration Blocks" GGMC, 27th November, 1997.

- "The Influence of Geology on Gold Property Selection in Guyana and its Implications for the New Millennium" by Kampta Persaud (Paper presented at the IV International Gold Symposium sponsored by Association Venezeolana Del Oro)

November 1997, Caracas, Venezuela.

- "Geochemical Sampling and Error Control" by R.C Jones British Geological Survey (Presentation given at GGMC on 10th November, 1997).

Maps Received

Map with the undermentioned depictions were received:-

- Administrative Regions of Guyana Scale 1:000 000 - Gift (Land and Surveys; Ministry Agriculture
- Guyana's Natural Resources Scale 1:000 000 - Gift (Land and Surveys; Ministry of Agriculture)
- World Map: Wall Series (5 copies) Scale 1:35,000 000 - Gift (from CFTC)
- Topographical Satellite Scale 1:47,810 000 - Gift (from CFTC)

Texts

Six (6) Texts were purchased from various publishers. Two (2) were donated by the Commonwealth Fund for Technical Co-operation and a list of Subject Headings by Library of Congress (3 volumes) were received from the Document alist of the Guyana Natural Resources Agency (GNRA). Nineteen (19) copies of M.M Veiga's publication on technologies for mercury pollution abatement were presented to the Library. These titles are listed below:-

	Source
• Ecosystem Geography by Robert G. bailey: 1995	Purchased
• Geological Maps: an introduction by Alex Maltman: 1995	Purchased
• The Mapping of Geological structures by Ken R. Mc Clay; 1996	Purchased
• Ores and Minerals - Introducing Economic Geology by J. W. Barnes: 1996	Purchased
• The Geology of the Guiana Shield by C.N Barron and A.K Gibbs; 1993 (2 copies)	Purchased
• Health, Safety and Reclamation Code for Mines in British Columbia by Ministry of Mines, B. Columbia; 1994.	Purchased

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- Geographic Information System for Geoscientists - Modelling with GIS by Graeme F. Bonham - Carter; 1994 — Gift (From CFTC)
- Statistics and Data Analysis in Geology by John C. Davis; 1996 — Gift (from CFTC)
- "Introducing New Technologies for Abatement of Global Mercury Pollution in Latin America" Dr. M.M. Veiga (19 copies) — Gift (from Dr. Veiga)
- Library of Congress - Subject Headings (3 volumes) — Gift (from GNRA)

Reproduction of Reports

Attempts were made to reproduce seven (7) Geological reports. Five (5) of them (listed below) were completed. Fifty (50) copies each were reproduced.

- Alluvial Gold Mining in Guyana by E.M Watkins and W. Woolford; 1992 — WW 1/92
- Tikwah Mine Prospect compiled by Geologists of the Organisation -
- Wariri Alluvial Gold Deposits, Cuyuni River; Further Evaluation by C. Gibson and J. Alexander — GG 1/72
- The Guyana Geological Surveys and Mines Department's response to the Questionnaire resulting from the United Nations General Assembly Resolution 32/176 by J. C. Inasi. — JCI 6/76
- A short note on the Manganese Deposits in Guyana by K. C . Singh — KC 1/82

Photocopier

A 10-bin Sorter was purchased and attached to the NP 6030 Canon copier. This equipment proved to be valuable when multiple copies of documents were required.

The machine produced one hundred and three thousand, five hundred and eighty seven (103,587.00) prints, and of this amount, almost ninety one thousand (91,000) prints were done for the Commission.

New Equipment

In October of 1997, a Compaq Presario Computer complete with Laser Printer, was installed in the Library. Utilization of this equipment commenced immediately with the "inputting" of a list of all doctoral and Masters theses held in the section. The equipment has served to facilitate the recommencement of publication of the Mineral Industry Survey Bulletin, and a News Letter.

Quick Reference

A "Quick Reference" section was established. The section comprises a collection of Annual Reports, Abstracts, Bibliographics, Catalogues, Directories, Encyclopedias, Handbooks, Indexes and Year books. Patrons were allowed access to this collection, from which they were allowed to extract information without necessarily requiring the assistance of a Librarian or an Attendant.

Affiliations

To enhance the possibilities of the Library benefitting from new Technological Development in Information Science, as well as enhancing our recognition, six (6) organisations/associations were identified as fellowship bodies to the GGMC's Library. These were:-

American Geological Institute	(AGI)
American Library Association	(ALA)
Association for Library Information Management	(ALIM)
Association of Caribbean University Research and Institutional Libraries	(ACURIL)
Commonwealth Library Association	(CLA)
International Federation of Library Associations	(IFLA)

Computerization

Steps were taken to have the Library computerized. The relevant CD/ISIS software was acquired, and contact was made with someone who would conduct a programme.

List of Publication for Sale

The current List of Publication for Sale was revised and enlarge during the last quarter of 1997. New prices were quoted and a number of documents not previously listed were included. Twenty (20) copies were spiral bound and plastic covers attached and distributed to individuals, libraries and companies overseas. Circulation was also done locally.

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General Remarks

The return of computer facilities to the library, tremendously enhanced the information output. The new procedures introduced have enhanced the efficiency of the library.

It is envisaged that the recruitment of additional staff will become a priority in the new year. Already the need exists for a data entry clerk.

The occupation of additional space which will be afforded on the completion of the extension to the building, is anxiously awaited. The extension will allow the effective display of valuable material, and the storage and proper maintenance of the map collection.

Printery and Bindery Section

The Rotaprint Press, after being in operation of twenty two (22) years, finally ceased functioning. Spare parts required for repairs of the machine could not be obtained either locally or overseas. The parts also could not have been fabricated.

Consequently, a great amount of the printing jobs, inclusive of all forms and books used by the Commission in the execution of its work and those sold to the mining public, had to be done by other printing agencies.

Printing Material

A total of forty three thousand, four hundred and eighteen (43,418) forms, two thousand, one hundred and eight (2,108) cards and one hundred and twenty eight thousand, six hundred and forty seven (128,647) book pages were printed.

One thousand, four hundred and thirty-four (1434) books were bound.

5.3 SERVICES DEPARTMENT

Radio and Electrical Workshop

Installations during the year 1997 included:-

1) Fluorescent lamps (complete), fluorescent tubes, a circuit, socket outlets, ballasts, fans, switches, stabilizers, plugs, surge protectors and circuit breakers.
2) The power cable for electrical supply to the Accounts Department.
3) The antenna cable for the television in the boardroom.
4) The power supply lines to the standby generator which was relocated in the compound.
5) The power supply system for the Guy Expo and the Women's Art and Craft booths at Sophia.

The following equipment were serviced:-

1) The Printing Press in the Printery Section.
2) The Disc Mill Pulverizer in the Chemical Laboratory.
3) The Assay furnace in the Chemical Laboratory.
4) The standby generator.

Repairs were also completed in the following areas:-

1. Fluorescent lamps and the lighting system in various sections.
2. The water pump at the Lapidary.
3. The standby generator.
4. The polishing machine motors at the Lapidary.
5. The vacuum frame in the Printery Section.
6. The lighting table and switch socket outlet in the Cartographic Section.

Carpentry and Maintenance Workshop

Construction works during the year 1997 included:-

1) A guard hut for the Environmental and Research Development Unit.
2) A new trestle to accommodate the water tanks located by the Photo Laboratory.
3) Six (6) crates for drill equipment.
4) The floor in the Registry Section.
5) Casting and tiling of the floor in the Purchasing Department.
6) Casting and tiling of the floor in the Spectrographic Laboratory.
7) A concrete garbage bin in the compound.
8) A booth for the 1997 Guy Expo Exhibition to Sophia.
9) Three (3) cupboards in the Inspectorate Laboratory.
10) A toilet for guards at the Commissioner's residence.
11) Two (2) stairways for the Mines Officers' house at Mahdia.
12) The stairway to the Field Section.
13) A large trolley for the Commissioner's Secretary.
14) Three (3) tiled concrete work tables for the Lapidary.
15) A new ceiling in the Accounts Section.
16) A concrete fence to the front of the building in Brickdam.

Repairs were also done to the following:-

Roof, desks, steel cabinets, walls, doors, ceiling, canteen boxes, floors, windows, chairs, the Mines Officers' house at Bartica, cupboards and stairways.

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Painting was also done in various areas. The Lapidary and Head Office compounds were weeded and cleaned.

Plumbing

Pipelines and fittings were installed and repairs were done to leaks and choked systems.

Mechanical Workshop and Transport Section

Activities relating to general servicing and repairs were done to the following vehicles:-

GDD 596	PDD 4274
GDD 1686	GDD 7181
GFF 3475	PDD 4944
GFF 4665	PEE 1678
PDD 4273	PCC 9949
PFF 4709	PDD 4943
GFF 6092	

Repairs and servicing were also done to the forklift, the standby generator and the brush cutter.

Transportation

Transportation facilities were provided for the Georgetown and interior areas. Vehicles in service were as follow:-

Motor Cars/Vans	Pickups/Land Cruisers	Bus	Truck
PDD 4273	GDD 7181	PDD 5854	GFF 6092
PDD 4274	GDD 596	PFF 4709	GDD 1686
PDD 4943	GFF 4665		
PCC 9949	GDD 8486		
PDD 4944	PGG 139		
PGG 356			
GGG 138			
PFF 6768			

Capital Projects

Caribbean Engineering and Management Consultants Ltd (CEMCO) was contracted to supervise the execution of capital projects which were planned by the Commission.

The New Office Block

The contract for the construction of the New Office Block was awarded to Carlton Ambrose Enterprises. The contract sum was twenty seven million, four hundred thousand dollars ($27,400,000.00).

Parking Lot

The contract for the construction of a Parking Lot was awarded to Carlton Ambrose Enterprises.

Construction of the Parking Lot commenced in March, 1997 and was completed in May, 1997. The completion date was delayed by two (2) weeks, due to rainfall and additional work in relation to excavation.

Petroleum Unit Bond

The project in relation to the construction a Bond in the compound of the Lapidary, for the Petroleum Unit was advertised late September, 1997, and the receipt of tenders closed in October, 1997.

The tenders were evaluated by CEMCO and a recommendation was made for the award of the contract. However, by the end of December, 1997, the Tender Board had not met to consider the recommendation.

Installation of Generator

A contract in the sum of one hundred and twenty five thousand, seven hundred and ninety eight dollars ($125,798.00) was signed between Mr. Samuel Johnson, Electrical Consultant and the Commission, for the preparation of contract documents (Plans and Bills of Quantities) and for the supervision of the electrical installation of the Caterpillar 3406 Generation Set.

A contract was also signed with Dynamic Engineering in November, 1997, for the amount of one million, seven hundred and sixty thousand, five hundred dollars ($1,760,500.00) for the installation of the generator. The completion date for the installation was January 20, 1998.

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Construction of Generator Hut

A contract for the sum of seven hundred and forty five thousand, nine hundred and fifty two dollars ($745,952.00) was awarded to Foster Construction Enterprises for the construction of a "hut" to accommodate the generator. The generator hut was completed in June, 1997.

6. LEGAL SERVICES DEPARTMENT

The year 1997 was a year of mostly routine activity for the Legal Services Department. The Department continued to provide advice and other assistance as requested and as necessary in support of the other division of the Commission.

COURTS MATTERS

A. High Court

There was a reduction in Court Matters filed against the Commission in 1997, and in particular, there was a marked reduction in injunctions granted. This is essentially due to the fact that oft times the facts premising the ex-parte injunction are later discovered to be seriously flawed and the Courts have thus become wary in their approach. The Guyana Geology and Mines Commission has also, in several matters, been made a party to the action to ensure that the facts are before the Court per GGMC's records.

New Matters

Matters filed in 1997 against the GGMC are as follows:-

IGNATIUS TIMMERMAN v. GGMC ET AL - Action No. 15/1997
A. BARNWELL & D. MANNING v. GGMC - Action No. 896/1997
D. FRAITES ET AL v. MAZDA LTD. ET AL - Action No. 1148/1997
J. VIEIRA v. JARDINE & GGMC - Action No. 1997
A. ALPHONSO v. LaCRUIZE & GGMC - Action No. 1339/1997
S. JARDINE v. R. STUART & GGMC - Action No. 4194/1997
APPLICATAION BY MANOEL MELVILLE - Action No. /1997

Peters V. GGMC, HGB VENTURES
Court held in favour of Plaintiff. Stay of execution for six (6) weeks. GGMC to appeal.

APPLICATION BY SHAHEED MOHAMED
Matter discontinued.

LESLIE SOBERS v. GGMC

Injunction discharged. Matter to take its normal course.

S. JARDINE V. R. STUART & GGMC
Mandatory injunction against GGMC disharged. Matter awaiting date for arguments.

JERRICK, JERRICK V. GGMC
RUDOLPH JERRICK v. GGMC

Withdrawn. No order as to costs.

ANDRE' FREDERICKS v. GGMC

Matter dismissed. Appeal pending

MANNING, RODNEY v. GGMC

Action dismissed. Preliminary point of res judicata upheld.

B. **Mining Court** (Before Hearing Officer Mrs. Juliet Holder-Allen).

At the end of 1997 there were five (5) challenges and on (1) complaint pending.

There was one (1) objection pending.

C. **Magistrate Court**

These are prosecutions for offences under the Mining Act, 1989, and Regulations.

Courts. There were as follows:-

Kamarang - 27 cases
Bartica - 7 cases
Mahdia - 4 cases
New Amsterdam - 8 cases

Seven (7) new cases wee filed in this, as follows:-

Christianburg - 5 cases
Matthew's Ridge - 2 cases

During 1997 the cases in New Amsterdam were struck out, a were four (4) cases at Mahdia. In Bartica three (3) cases were dismissed and two (2) withdrawn. Two (2) of these were withdrawn due to the death of the Defendant and two (2) others as a result of an out-of-Court settlement under the Mining Act, 1989.

At the conclusion of 1997, thirty-four (34) cases were pending.

COMMENTS

Due to the nature of activities of mines, the GGMC's prosecuting officer has the perennial problem of service of summonses since many times it is difficult to effect service. Also, the matters do take quite some time to be heard and adjudicated on, given that for some interior courts, the Magistrate is itinerant and not resident. Some courts sit only four (4) times a year.

GENERAL

Below are some of the major areas dealt with specifically in 1997.

- **SPECIAL MINING REGULATIONS**

  The Department, after considerable consultation with the Hon. Minister of Mines and Minerals, the Commissioner, and Deputy Commissioner, drafted and finalised special Mining Regulations and Order to facilitate the relinquishment and auction of areas formerly held by Golden Star Resources under a permission for Geological surveys.

- Discussion on the development of a new generic Mineral Agreement began in September, 1997, and remained pending at November, 1997. Meetings were held with private sector interests and with the GGMC executive and Technical and financial sub-committees of the Board of Directors.

- The Three-Year Plan - 1998-2000 - the Department participated in the extensive discussions towards completion of the above.

- Liaison with Mr. R. Jansen of British Geological survey to provide assistance, as requested, for the development of the data base for Permits (Medium Scale) and Licences.

- Preliminary discussions with Ms. Kamala Bhoolai and Mr. Constantine Chikosi, representatives of the commonwealth Secretariat, re: Drafting of New Regulations under the Mining Act, 1989, and development of a Standard Mineral Agreement

The Department continued its routine functions of drafting and vetting contracts; drafting legislation generally (as required); and providing advice and assistance, generally. It also continued to provide services to the Board.

This year was less stressful for the Department since computer facilities were up for the most part. There were still, however, some factors hindering efficiency, e.g photocopying facilities, which at times, due to breakdowns, severely hinders the work of the department, especially vis-a-vis documents for Board meetings. The Department is also in need of a greater work area.

7. FINANCE DIVISION

Introduction

1997 was a successful year for the Finance Division. The hallmark of our achievement was the way the Division's staff were able to reapply and commit themselves to their respective tasks. There are still some short coming which will be worked on, but one need to take note from where we came from.

The importance of the Finance division cannot be underscored, being the center of all activities within the Commission, we try to provide a timely and efficient service. Elimination of excess spending to the provision of timely reports have been our focus for the year.

We continue to grow without increasing in size, and by making communication easier we are unified. During the year we worked together offer the greatest chance of success.

Our staff attendance and punctuality were remarkable taking into account the tend in the Commission. This is an area that we in the Division will strive to improve.

FINANCIAL REPORT

Income

Particulars	Actual	Budgeted	Variance	% or total Income
Fees & Fines	25769	47730	-21961	2
Permits & Rentals	295782	279426	16365	23
Royalties	903435	1115611	-212176	70
Others	64089	66480	2391	5
Total	**1289675**	**1509247**		

The Commission 's total income for the year was G$1,289.075M, this represented 85% of what was budgeted for the year. Royalties and Rentals were the two major income earners, representing 705 and 23% respectively of total income earned.

Royalties fell short by $212M or 20% of budgeted figure.

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Expenditures

PARTICULARS	ACTUAL G $000	BUDGET	VARIANCE	% TOTAL EXP
Employment Cost	237451	229289	-8162	58
Transportation/ Travelling	39025	38500	525	10
Administrative	114026	98716	-15310	28
Depreciation	20114	18000	2114	4
Total	**410616**	**384505**		

The Commission spent G$410.616M on current and expenditure, 7% in excess of what was budgeted. Our major expenditures were employment and administrative cost, these were 58% and 28% respectively of total expenditure. The Commission was able to meet all its financial statutory commitment as all statutory deductions were made and remitted to the relevant authorities.

Contribution to Central Government

The Commission remitted G$841.824M to the Cental Government, this represented 65% of the Commission's total revenue. The Commission in the foreseeable future will be unable to make such a sizeable contribution as it is putting severe strain on our cash flow.

Surplus

The Commission recorded a surplus of income over expenditure after depreciation of G$36.6M.

Creditors

The Commission's payable account consists of the following as a 31.12.97.

Refundable deposit	-	$ 3.192M
Sundry Creditors	-	$25.441M
		$28.633M

These payable accounts are interest free,, no cash was therefore paid on interest.

Debtors

The Commission receivable account consists of the following:-

Omai Receivable	-	G$13.736
Staff Loan	-	12.096
Sundry	-	20.514
Others	-	7.833
		$54.179

Loans are given to staff to purchase motor car, these are interest bearing accounts. Omai's Receivable Account is as a result of the Omai's spill, Omai is expected to refund the Commission as these expenses are paid on behalf of them.. Cash advances are also given to staff who are at Mining Stations, on projects and tours, it is used to cover all expenses incurred.

Cash

The Commission's cash stands at a $207M as at 31.12.97. During the year the Commission's cash flow position remained stable devoid of any cash flow difficulties. All the Commission cash is in interest bearing accounts.

Capital Expenditure

The Commission spent $51.4M on Capital Expenditure during the year. The construction of the Commission's new office block commenced and is in progress.

The following below illustrates the breakdown of monies spent on capital expenditure.

New Office Block	-	G6.0M
Motor Vehicles	-	13.3M
Furniture and Fittings	-	16.8M
Mining & Lab Equipment	-	15.3M
		$51.4M

Stock Verification

A stock verification exercise was conducted in December and all the relevant adjustments were made. Stock levels were closely monitored to ensure that the Commission's cash was not unnecessarily tied up in stock.

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Final Accounts

The Finance Division was able to complete the preparation of all past financial statements, but was unable to get them audited. Unaudited financial statement were from 1994 to 1997. It is expected that the Auditor General's Office will complete all outstanding audit in 1998.

Asset Register

A comprehensive exercise will be conducted in 1998 to bring the Commission's asset register to the auditors requirement. The fixed asset register on completion will contain all the relevant information on the assets owned by the Commission.

Investment

During the year the Commission continued to invest its excess cash in interest bearing account. Interest earned from investments during the year was G$24.96M.

Stores and Purchasing

The Stores and Purchasing Department were able to service the Commission, mining stations and all projects/tours adequately. There were system improvements in both departments which made operation more transparent and efficient. The Finance Division will continue to look at its system with the aim to avoid unnecessary spending and to improve the quality of our service.

General

The Finance Division continues to run with twenty; five (25) staff, but 1998 may se some reduction as system improvement and duplicity will be identified and addressed. During the year several staff successfully completed their examination, whilst others were encouraged to update themselves. Several staff were also sent on Computer Training Progammes.

The major disappointment of the Finance Division was our inability to get t our operation computerised. Once finance is available the Division will endeavour the issue of computerisation.

1997 FINANCIAL STATEMENT

GUYANA GEOLOGY AND MINES COMMISSION
STATEMENT OF INCOME AND EXPENDITURE
FOR THE YEAR ENDED 31 DECEMBER 1997

1996 G$	INCOME	NOTES	1997 G$	
766,079,221	ROYALTIES	2	903,435,924	
163,538,565	LICENCES	3	272,004,095	
22,396,758	FEES, FINES ETC	4	25,769,565	
13,366,089	CONCESSIONS	5	23,778,199	
57,227,290	OTHERS	6	64,087,689	
1,022,607,923				1,289,075,472
	EXPENDITURE:			
174,177,646	EMPLOYMENT COSTS	7	237,451,214	
96,641,525	ADMINISTRATION	8	114,026,381	
21,894,494	TRAVELLING AND TRANSPORT	9	39,025,121	
20,550,206	DEPRECIATION		20,114,098	
19,286,103	STOCK ADJUSTMENT		3,995,603	
332,549,974				414,612,417
690,057,949	SURPLUS/(DEFICIT):			874,463,055
794,202,803	APPROPRIATION TO CONSOLIDATED FUND	10		841,824,701
(104,144,854)	RETAINED SURPLUS/(DEFICIT)			32,638,354

STATEMENT OF ACCUMULATED SURPLUS (DEFICIT)

464,774,838	BAL. AT BEGINNING OF YEAR	
(104,144,854)	RETAINED SURPLUS/(DEFICIT) FOR THE YEAR:	360,629,984
360,629,984	BAL. AT END OF YEAR	32,638,354
		393,268,338

GUYANA GEOLOGY AND MINES COMMISSION

BALANCE SHEET

AS AT 31 DECEMBER 1997

1996 G$		NOTES	G$	1997 G$
103,670,274	FIXED ASSETS	11		134,963,583
	CURRENT ASSETS:			
5,988,241	INVENTORIES	12	1,992,638	
45,814,045	SUNDRY DEBTORS	13	54,131,454	
144,812,120	CASH ON HAND AND IN BANK	14	207,300,576	
146,289,000	SHORT TERM INVESTMENT	15	0	
8,505	LORING LAB. INVESTMENT		8,505	
0	WORK - IN - PROGRESS	16	5,742,960	
16,066,468	SUSPENSE ACCOUNT		16,066,468	
358,978,379			285,242,601	
	CURRENT LIABILITIES:			
9,933,005	SUNDRY CREDITORS	17	28,633,338	
86,919,633	DEFERRED INCOME		58,384	
2,791,206	ACCRUED EXPENSES	18	(4,128,701)	
99,643,844			24,563,021	
259,334,535	NET CURRENT ASSETS:			260,679,580
363,004,809				395,643,163
	FINANCED BY:			
	GOVT. OF GUYANA			
2,374,825	CAPITAL	19		2,374,825
360,629,984	ACCUMULATED S/PLUS	20		393,268,338
363,004,809				395,643,163

COMMISSIONER

CHAIRMAN

GUYANA GEOLOGY AND MINES COMMISSION

NOTES ON THE ACCOUNTS

1. ACCOUNTING POLICIES

(a) ACCOUNTING CONVENTION

The accounts have been prepared under the historical cost convention as modified for the valuation of certain fixed assets.

(b) DEPRECIATION

No depreciation is provided on freehold land.

Depreciation on other fixed assets is charged on the straight line method calculated at the rates specified below which are estimated to write off the assets over the terms of their useful lives as follows:-

Buildings	-	2%
Scientific, field and mining equipment	-	10% - 20%
Motor vehicles	-	25%
Office furniture, fixtures and fittings.	-	5% - 10%

(c) INVENTORIES

These are valued at the lower of cost and net realisable value. Cost is arrived at using the first-in-first-out method.

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2 - ROYALTIES - $903,435,924

	1997	1996
ROYALTIES:		
BAUXITE	56,500	21,456
GOLD - GGB	205,936,192	273,100,368
OMAI	682,767,361	473,702,803
PRECIOUS STONES	6,444,602	7,346,886
SAND	3,726,750	2,972,925
STONES	4,422,824	8,412,658
OTHERS	72,575	522,125
CLAY	9,120	0
	903,435,924	766,079,221

3 - LICENCES - $272,004,095

GOLD & PRECIOUS STONES	4,461,000	4,633,500
PROSPECTING LIC. (SM)	642,098	346,342
PROSPECTING LIC. (MED.)	0	81,758,884
PROSPECTING LIC. (LG)	81,559,434	52,818,753
CLAIMS GOLD	3,904,500	4,321,700
PRECIOUS STONES	790,000	929,900
RIVER CLAIM LICENCES	4,198,000	4,966,357
QUARRY LICENCE	27,960	0
MINING LEASE	4,485,270	1,766,579
TRADING LICENCE	2,325,000	3,115,000
GOLDSMITH LICENCE	2,015,500	2,616,500
DREDGE LICENCES	4,410,806	5,034,950
PROSPECTING PERMIT (MED. SCALE)	139,491,463	0
MINING PRIVILEGES	2,539,175	1,188,650
DUPLICATE LICENCES	23,659	41,450
PETROLEUM PRODUCTION LICENCE	847,020	0
PETROLEUM PROMOTIONAL AGREEMENT	2,785,210	0
GEOLOGICAL/GEOPHYSCIAL SURVEYS	17,498,000	0
PROSPECTING PERMIT (SM. SCALE)	0	0
	272,004,095	163,538,565

4 - FEES FINES ETC - $25,769,565

FEES	4,457,400	6,453,107
FINES	7,994,387	3,883,824
TRIBUTES	10,848,887	11,497,827
APP. FOR DREDGES	240,000	214,000
REGISTRATION FEES	11,000	15,500
TRAN. OF DREDGES	216,500	150,500
DUTY ON TRANSFERS	590,000	182,000
APPLICATION MEDIUM SCALE PERMIT	1,022,300	0
APPLICATION LARGE SCALE PERMIT	389,091	0
	25,769,565	22,396,758

5 - CONCESSIONS - $23,778,199

MINING PROPERTIES	8,143,236	12,642,519
MINING PERMIT	15,634,963	723,570
EXCL. PERMISSION	0	0
	23,778,199	13,366,089

6 - OTHERS - $64,087,689

APPLICATION OF PROSPECTING LIC.	0	1,173,284
MINING EQUIPMENT RENTAL	30,000	12,000
PROFESSIONAL SERVICES	0	65,000
REGISTRATION CERTIFICATE	47,000	70,000
INTEREST ON INCOME	24,966,890	42,774,014
SALE OF OFFICIAL PUB. - CARTO	1,239,027	1,465,205
SALE OF OFFICIAL PUBLICATION-LIB.	628,235	819,740
DRILLING RENTAL	972,556	731,430
DRILLING CORE	0	8,657
GEOLOGICAL & GEOPHY. SURVEY	40,000	3,473,000
SALE OF LAPIDARY PRODUCT	414,127	376,487
DISPOSAL OF ASSETS	1,596,745	571,300
INTEREST ON LOAN	613,327	25,770
MINING & QUARRYING CONFERENCE	40,000	191,000
BANKA DRILLING	210,265	765,000
CANTEEN SALES	1,359,138	1,261,349
SURCHARGE	0	103,950
VERIFICATION OF CHALLENGE	0	0
VERIFICATION OF CLAIMS	123,200	103,000
GAIN ON FOREIGN EXCHANGE	223,860	64,003
MISCELLANEOUS	4,824,471	3,173,101
OTHER ENTAL INSTALMENT	2,097,993	0
RENTAL PETROLEUM	14,275,500	0
PHOTOCOPYING	109,739	0
BLASTING & CRUSHING OF ROCKS	1,613	0
PERCHLORIC ACID SALES	66,550	0
TENDER (OFFICE BLOCK)	147,500	0
SUBVENTION FOR TRAINING	10,059,953	0
	64,087,689	57,227,290

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7 - EMPLOYMENT COSTS - $237,451,214	1997	1996
SALARIES	143,207,835	112,731,674
WAGES	3,346,138	1,728,392
SALARIES OVERTIME	9,414,715	7,955,497
COMMUTED OVERTIME	191,668	259,947
WAGES OVERTIME	4,619,563	2,258,230
STATION/BUSH ALLOWANCE	1,637,694	0
HOUSE ALLOWANCE	0	79,196
DUTY ALLOWANCE	0	47,421
SUBSISTENCE & TRAVELLING	1,628,107	3,234,191
RISK ALLOWANCE	44,381	24,474
CASH IN LIEU OF LEAVE	4,083,291	427,436
TRAVELLING ALLOWANCE	2,872,981	1,824,721
ENTERTAINMENT ALLOWANCE	1,073,747	835,820
PENSION SCHEME(EMPLOYERS CONTRIBUTION)	16,002,956	12,007,500
N.I.S. EMPLOYERS CONTRIBUTION	6,790,528	5,134,173
DIRECTORS EMOLUMENT	1,908,750	1,900,500
LEAVE PASSAGE	12,087,172	7,424,689
RESPONSIBLITY ALLOWANCE	1,049,103	2,098,117
ACTING ALLOWANCE	2,208,760	1,599,032
UNIFORM & SAFETY GEARS	1,443,897	3,769,054
TRAINING AND EDUCATION	16,317,235	6,426,427
MEDICAL SCHEME	1,643,402	1,674,155
UTILITY ALLOWANCE	669,735	489,674
GRATUITY AND SEVERANCE PAY	500,951	247,326
PURCHASE OF MEALS	0	0
SEMINARY & WORKSHOPS	103,500	0
MEMBERSHIP & SUBSCRIPTIONS	0	0
LUNCH & SNACKS	4,605,105	0
	237,451,214	174,177,646

8 - ADMIN EXPENSES - $114,026,381	1997	1996
LOOSE TOOLS & SUNDRY EQUIPMENT	524,082	650,937
LUNCH & SNACKS	0	3,752,394
FUEL LUBRICANTS - VEHICLES ETC.	3,896,261	3,695,536
MAINTENANCE OF RADIO & COMM. EQUIP.	118,700	121,000
MAINTENANCE OF ELECTRICAL EQUIP.	409,313	302,653
MAINTENANCE OF VEHICLES	8,355,811	8,057,288
MAINTENANCE OF CRAFT, EQUIPMENT	1,001,713	949,616
HIRE OF EQUIPMENT	0	0
TELEPHONE, TELEX, CABLES	905,730	561,746
ELECTRICITY	4,413,419	3,474,363
RENTAL OF OFFICE EQUIPMENT	0	0
MAINTENANCE OF OFFICE EQUIPMENT	2,539,384	807,226
PRINTING & DUPLICATING	1,246,977	2,195,963
MATERIALS & SUPPLIES - DRAWING OFFICE	121,940	40,500
PROFESSIONAL&CONSULTANCY SERVICES	14,708,238	15,050,408
AUDIT FEES	132,411	281,756
OFFICE STATIONERY	5,173,272	4,442,435
HONOURARUM	235,164	0
POSTAGE	381,987	74,580
MAINTENANCE & REPAIRS TO BUILDINGS	1,358,305	822,379
MAINTENANCE OF GROUNDS	194,318	29,820
JANITORIAL & CLEANING	876,109	728,556
SECURITY SERVICE (EXTERNAL)	1,740,715	1,711,690
LEASES & RENTAL	4,581,000	1,242,817
FUEL & LUBRICANT	5,621,101	2,863,477
BURSARIES	729,602	7,046,468
SUBSCRIPTION/GAZETTES/JOURNAL	3,404,963	1,761,209
TECHNICAL & MANAGEMENT SERVICES	6,749,900	1,285,240
DRUGS & MEDICAL SUPPLIES	1,447,988	769,408
ASSAY LABORATORY SUPPLIES	0	192,188
ELECTRICAL SUPPLIES	1,424,674	1,172,160
PETROLOGICAL LABORATORY SUPPLIES	16,300	501,478
LAPIDARY LABORATORY SUPPLIES	2,211	68,675
INSURANCE OF ASSETS/LICENCE	940,749	556,532
BANK CHARGES	239,482	82,943
RATION	7,517,472	5,972,089
MISCELLANEOUS - OTHER EXPENSES	0	4,089,440
ADVERTISEMENT	1,193,730	1,371,354
DONATIONS - GIFTS, WREATHS, ETC.	2,160,693	750,696
BAL. C/FW:	84,363,714	77,477,020

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8 - ADMIN. EXPENSES	1997	1996
BAL. B/FW:	84,363,714	77,477,020
CHEMICAL LABORATORY	1,742,782	0
FOOD PREPARATION	1,959,252	1,908,811
MAINTENANCE GENERATOR/BUSH CUTTER	31,277	116,910
MAINTENANCE PRINTING MACHINE	0	0
MISCELLANEOUS	334,323	1,320,761
EXHIBITIONS	120,538	1,498
ENTERTAINMENT EXPENSE	2,120,784	1,761,072
STORAGE	0	0
CUSTOMS & EXCISE	0	58
FREIGHT & HANDLING CHARGES	219,367	0
LEGAL EXPENSES	2,097,165	188,500
MINING SEMINAR	0	468,480
AMMUNITION/CLEANING	9,335	14,695
TRANSPORTATION & TOLL FEES	215,091	461,977
WELFARE & SUNDRIES	2,811,121	1,964,416
REVENUE STAMPS	195,583	232,430
DEVELOPMENT SUPPORT & COMMUNICATION	0	0
MATERIAL & SUPPLIES - COMPUTER	0	0
FIELD EXPENDABLE	2,675,111	1,623,316
FIELD EXPENSE	2,295	539,945
PROMOTIONAL SEMINAR	0	146,000
PERSONAL KIT	3,698,500	1,981,948
GGB SUBSIDY	4,111,554	1,829,538
HIRE CHARGES/EQUIPMENT	15,600	256,000
SPORT CLUB	80,430	75,060
STAFF PARTY	615,100	640,304
ANNIVERSARY CELEBRATION	801,643	677,497
WITHOLDING TAX	2,246,257	2,869,854
PEST CONTROL	125,850	62,235
WELDING MATERIAL & SUPPLIES	41,570	0
COOKING GAS	0	0
MAINTENANCE OF CANTEEN EQUIP.	0	23,200
BOARDING & LODGING	3,392,139	0
TOTAL	114,026,381	96,641,525

9 - TRANSPORT AND TRAVELLING - $39,025,121

	1997	1996
OVERSEAS CONFERENCE & VISITS	16,171,654	7,359,709
ROAD AIR AND OTHER CHARTER	22,853,467	14,534,785
	39,025,121	21,894,494

10 - APPROPRIATION TO CONSOLIDATED FUND - $841,824,701

Included in this amount is Omai Royalties which is paid into the Omai Gold Mines Account No. 964 at the Bank of Guyana. All payments made are then transferred to the Consolidated Fund. The following is a breakdown of appropriations in this regard.

	1997	1996
	$	$
Omai Royalties	682,767,361	473,702,803
Consolidated Fund	159,057,340	320,500,000
	841,824,701	794,202,803

11 - FIXED ASSETS - $134,963,583

	LAND & BLDGS.	MOTOR VEHICLES	OFF. FUR. FIX. AND FITTINGS	SCIENTIFIC FIELD AND MINING E/MENT	TOTAL
COST/VALUATION	G$	G$	G$	G$	G$
At 1 January, 1997	6,606,443	59,132,738	30,161,785	76,496,758	172,397,724
Additions in 1997	6,001,422	13,331,424	16,778,531	15,296,030	51,407,407
Disposals	0	(1,925,294)	0	0	(1,925,294)
Cost at 31 December, 1997	12,607,865	70,538,868	46,940,316	91,792,788	221,879,837
DEPRECIATION:					
At 1 January, 1997	1,004,329	41,167,963	6,453,986	20,101,172	68,727,450
Charged for the year	421,907	5,783,464	4,293,050	9,615,677	20,114,098
Depreciation on Disposals	0	(1,925,294)	0	0	(1,925,294)
Accumulated Depreciation at 31 December, 1997	1,426,236	45,026,133	10,747,036	29,716,849	86,916,254
NET BOOK VALUES:					
At 31 December, 1997	11,181,629	25,512,735	36,193,280	62,075,939	134,963,583
At 31 December, 1996	5,602,114	17,964,775	23,707,799	56,395,586	103,670,274

12 - INVENTORIES - $1,992,638

	1997	1996
STOCK OF DRILLS	0	0
STOCK OF GOLD	1,018	1,018
STOCK OF DIAMONDS	0	0
STORES CONTROL ACCOUNT	1,991,620	5,987,223
	1,992,638	5,988,241

13 - SUNDRY DEBTORS - $54,131,454

SUNDRY DEBTORS CONTROL	20,514,389	16,782,365
DEPOSITS LODGED	2,880	2,880
OMAI RECEIVABLE	13,735,921	12,250,387
PREPAYMENTS	2,133,034	447,664
ACCOUNTS RECEIVABLE	4,830,229	4,836,229
SHORT TERM LOAN	818,515	818,515
STAFF LOAN	12,096,486	10,676,005
	54,131,454	45,814,045

14 - CASH ON HAND AND IN BANK - $207,300,576

BANK BALANCES:

GNCB	14,070,811	14,070,811
G.B.T.I. 7 DAY CALL ACCOUNT	171,335,629	212,910,815
G.B.T.I. CURRENT ACCOUNT	(3,306,910)	(82,461,881)
G.B.T.I. FOREIGN CURRENCY A/C	24,970,367	0
SUB TOTAL:	207,069,897	144,519,745

CASH BALANCES:

PETTY CASH IMPREST	192,993	274,202
STAMP IMPREST	(3,900)	(2,224)
STAMP IMPREST (CASHIER)	42,666	23,196
ICE IMPREST	(19,090)	(2,899)
CANTEEN IMPREST	100	100
WATER IMPREST	17,910	0
SUB TOTAL:	230,679	292,375
TOTAL:	207,300,576	144,812,120

15 - SHORT TERM INVESTMENT - $-NIL

	1997	1996
OPENING BALANCE	146,289,000	249,708,600
NEW INVESTMENTS		
TREASURY BILLS	0	146,289,000
LESS TREASURY BILLS MATURED	(146,289,000)	(249,708,600)
	0	146,289,000

16 - WORK - IN PROGRESS $5,742,960

PAYMENT FOR WORK DONE TO CONSTRUCTION OF NEW OFFICE BLOCK	5,742,960

17 - SUNDRY CREDITORS - $28,633,338

SUNDRY CREDITORS CONTROL	24,777,856	6,309,023
PROVISION FOR AUDITING	662,997	662,997
REFUNDABLE DEPOSIT	3,192,485	2,960,985
	28,633,338	9,933,005

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18 - ACCRUED EXPENSES - $4,128,701

	1997	1996
ACCRUED SALARIES	208,210	239,019
ACCRUED WAGES	100,318	100,318
OTHER ACCRUED EXPENSES	(202,889)	(61,213)
PAYE	(70,388)	(1,547,373)
N.D.S.	7,987	7,987
SALARIES PAYABLE	4,476,071	(1,015,197)
N.I.S PAYABLE	(413,561)	(414,054)
WAGES PAYABLE	0	3,000
LIFE INSURANCE	706,136	701,910
DEPENDANTS FUND PAYABLE	(156,379)	(156,379)
DEPENDANTS FUND MORTGAGE	717,030	717,030
PENSION FUND PAYABLE	(837,168)	(826,435)
UNION DUES	1,576,341	1,580,036
P.S.U. CREDIT UNION	(257,604)	(261,349)
RENT DUE AND PAYABLE	(1,678)	(1,678)
MORTGAGE FINANCE PAYABLE	95,845	95,845
LEAVE PASSAGE PAYABLE	281,734	15,379
FIELD ALLOWANCE PAYABLE	(11,507)	(51,819)
RESPONSIBILITY ALLOWANCE	10,205	10,205
GNCB TRUST MORTGAGE	(35,171)	(35,171)
RISK ALLOWANCE	(948)	(948)
SUB. & TRAVELLING	(38,057)	(133,877)
SPORTS CLUB	(12,402)	(12,402)
WITHOLDING TAX	(492,182)	(730,968)
HOUSE/ELECTRICITY ALLOWANCE	1,798	1,798
PERSONAL ALLOWANCE PAYABLE	(274,196)	(274,196)
D.I.A. PAYABLE	8,825	8,825
H.I.A. PAYABLE	(800)	(800)
ACTING ALLOWANCE	32,488	32,488
INTEREST PAYABLE	(14,917)	(14,917)
ACCRUED LEAVE PASSAGE	15,379	(296,223)
MISCELLANEOUS	(57,421)	(57,421)
GROUP HEALTH INS. PAYABLE	298,994	298,994
MEDICAL SCHEME PAYABLE	(968,254)	(711,620)
DIRECTORS FEES PAYABLE	330	0
	4,128,701	(2,791,206)

19 - GOVT. OF GUYANA CAPITAL - $2,374,825

This is comprised as follows:-

	1985
Assets less liabilities at 1/8/79	2,139,306
Other expenditure	235,519
	2,374,825

The Commission came into existence on 1/8/79 by an order enacted through the Geology and Mines Commission Act 1979.

According to Section 35(1) and (2) of the Act, for the assets and liabilities vested at 1/8/79 the Commission shall issue to the Government debentures or debenture stock of such nominal value and bearing such interest rates and repayment dates as may be agreed upon between the Minister responsible for finance and the Commission.

The debenture stock has not been issued to the Government and the repayment terms and interest rates have not yet been agreed.

20 - ACCUMULATED SURPLUS: - $393,268,338

The Guyana Geology and Mines Commission Act 1979 Section 20 (1) provides that the Commission shall maintain a reserve fund and shall, out of the net surplus of each year, transfer to that fund a sum equal to not less than such sum as may be fixed by the Minister.

21 - RECONCILIATION OF OPERATING PROFIT TO NET CASH INFLOW FROM OPERATING ACTIVITES:

	G$
OPERATING PROFIT	195,691,297
LESS GAIN ON DISPOSAL OF ASSETS	(1,595,500)
INTEREST ON INVESTMENT	(24,966,890)
WITHHOLDING TAX	2,246,257
DEPRECIATION	20,114,098
INCREASE IN DEBTORS	(8,317,409)
INCREASE IN CREDITORS	18,700,333
DECREASE IN DEFERRED INCOME	(86,861,249)
DECREASE IN ACCRUED EXPENSES	(6,919,907)
	108,091,030

22 - ANALYSIS OF CHANGES IN CASH DURING THE YEAR:

BALANCE AT 97/12/31	207,300,576
BALANCE AT 97/01/01	(144,812,120)
INCREASE IN CASH EQUIVALENT	62,488,456

GUYANA GEOLOGY AND MINES COMMISSION
CASHFLOW STATEMENT
FOR THE YEAR ENDED 31 DECEMBER, 1997

	NOTES:	1997 G$	G$
NET CASH INFLOW FROM OPERATING ACTIVITIES	21		108,091,030
RETURN ON INVESTMENT & SERVICING OF FINANCE			
INTEREST RECEIVED ON INVESTMENT		24,966,890	
CONTRIBUTION TO CENTRAL GOVERNMENT		(159,057,340)	
NET CASH INFLOW FROM RETURN ON INVESTMENT & SERVICING OF FINANCE			(134,090,450)
TAXATION			
WITHHOLDING TAX		(2,246,257)	
TAX PAID			(2,246,257)
INVESTING ACTIVITIES:			
PAYMENT TO ACQUIRE TANGIBLE FIXED ASSET		(51,407,407)	
SALES OF FIXED ASSETS		1,595,500	
SHORT TERM INVESTMENT		146,289,000	
WORK - IN - PROGRESS		(5,742,960)	
NET CASH OUTFLOW FROM INVESTING ACTIVITIES			90,734,133
INCREASE IN CASH & CASH EQUIVALENT	22		62,488,456