

# ***The History of Mica Mining in Zimbabwe***

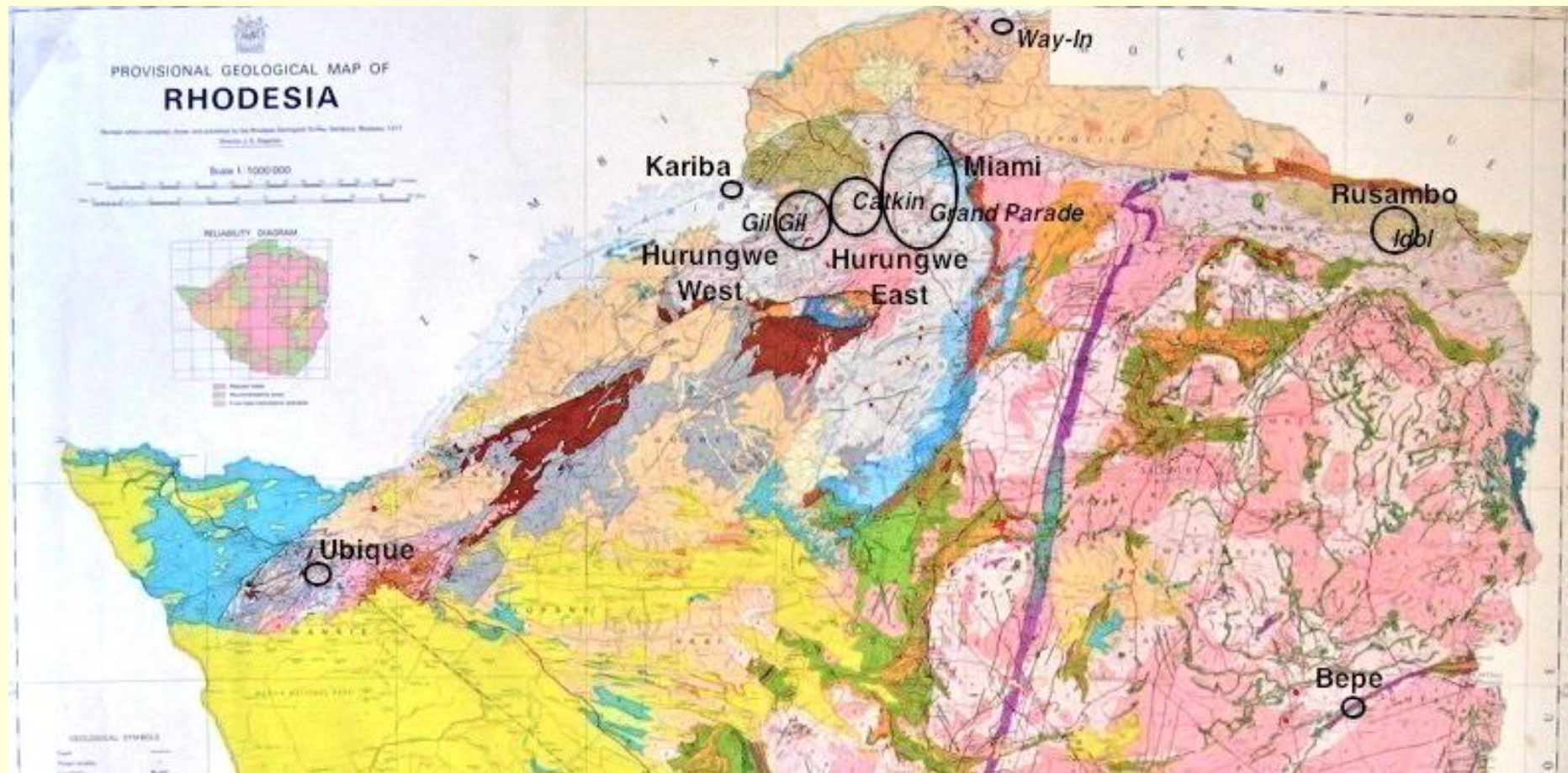
*by*

**Tim Broderick**

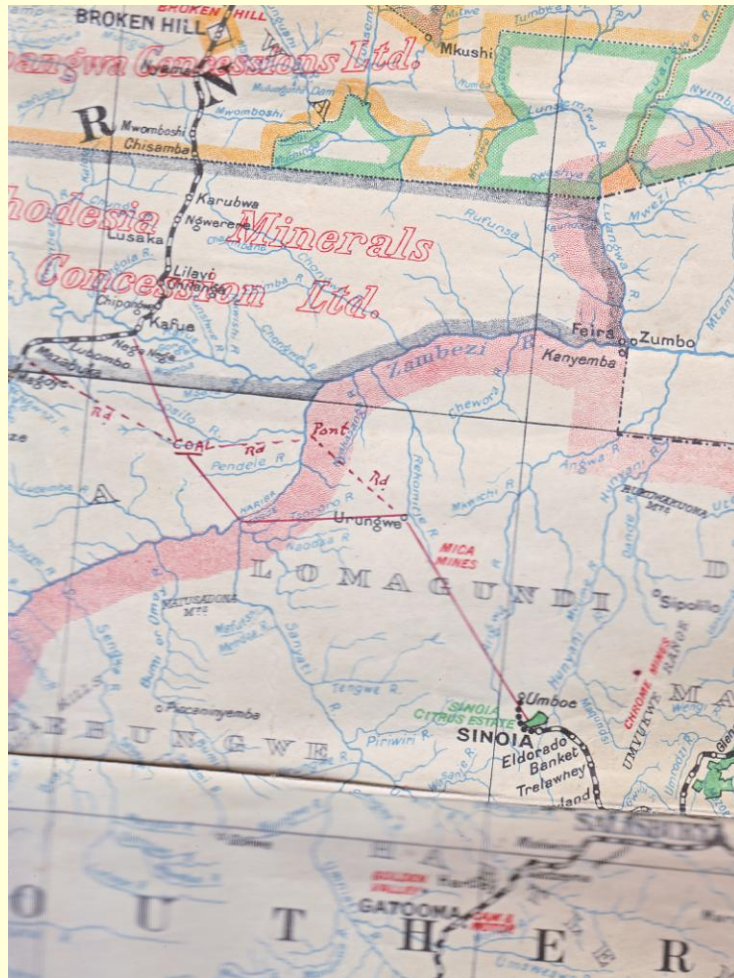
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# Distribution of Mica Mining in Zimbabwe



# Jack Carruthers was the first to recognise the potential for workable mica near Urungwe Hill in 1901

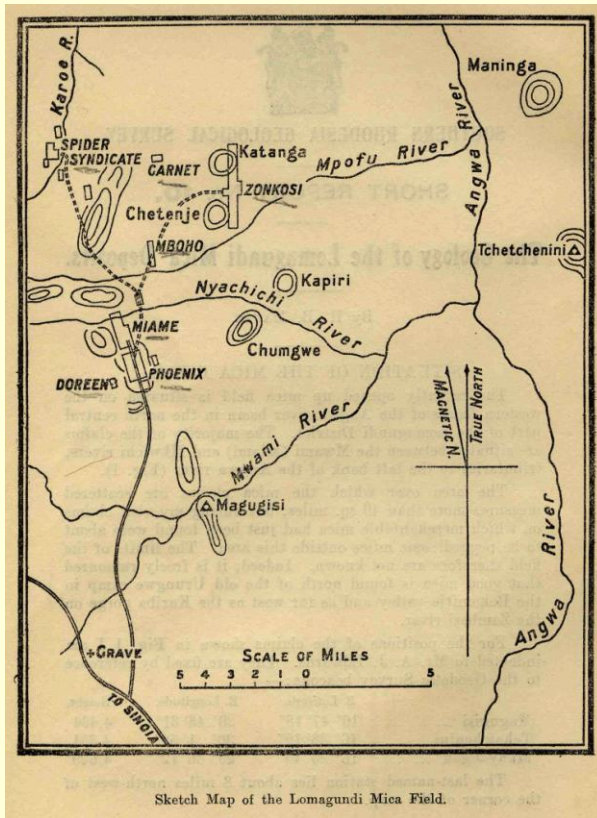


There is little or no evidence for the prehistoric use of or fascination in mica. The indigenous Mbarwa people were traders and workers in copper and iron.

*Graphite - 8 miles E of Urungwe Hill  
in River, Dette near Karangarara (Chief).  
I gave him payment to show me this deposit  
whenever I came that way.  
Carruthers, Kop Claims  
situated about 8 miles down  
the Catkin Rd - East of Hartman's Mica  
adjoining Atkins' mica claims. -  
Mafuta received an over coal for  
showing me this deposit, he should go again*

He pegged the Carruthers Kop Claims near Catkin Mine when investigating road and rail routes across the Zambezi to Kafue where he had a coal concession.

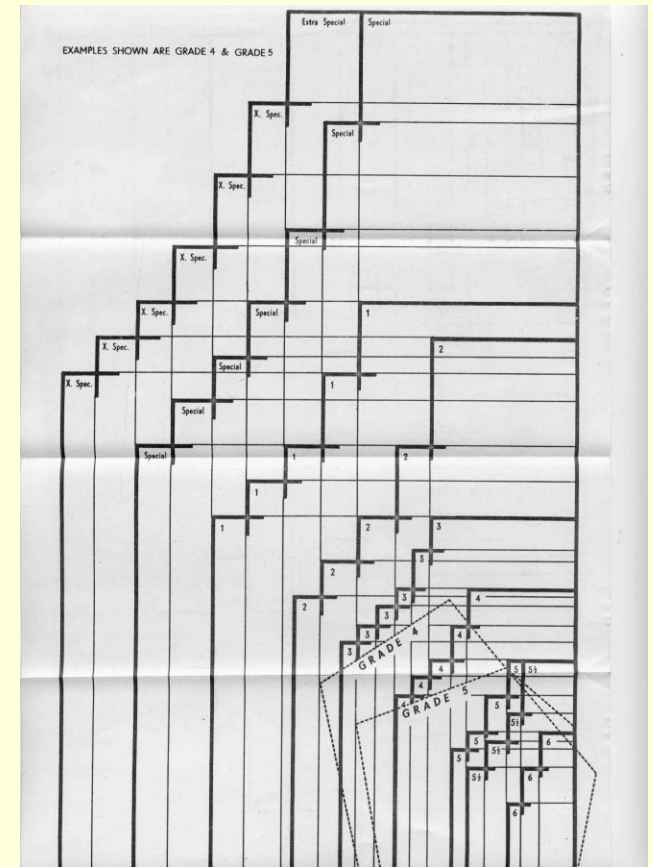
- It was not until 1919 that the first cut mica production was recorded from the Zonkosi and Miami claims, causing considerable post WWI interest in the Mica Fields.
- Named for that year's Derby winner, the Grand Parade Mine was pegged in 1919. It was acquired by Jack Goldberg in 1920.
- Establishing a trading store, Jack accepted mica as currency whilst enlarging his portfolio of mica mines. He was known as the 'Mica King' in this remote, 'fly-ridden' country to which the only access was by foot or donkey.
- H.B. Maufe, Director of the Geological Survey, visited and reported on the mines in 1920 when open pits on a host of pegmatites were a maximum of 10m deep.
- Some shipments of high quality ruby mica reached £500 per ton on the London Market, but Goldberg was criticized for including green, brown and spotted grades in his consignments acquired from exchanges made by prospectors at his store.
- In support mining engineer, C.A.B. Colvile was posted to the Miami Mica Field.



## Miami Mica Field, 1920



## Standard Mica Sizing



Maufe visited Indian mica mines in 1921 to assess mining methods and tools. His greatest contribution to the mica mining industry was the sizing gradeograph, which ensured the standardization of mica cuts.

The Miami mining camp soon sported competing stores; a Money & Telegraph Office; 'French Marie's' butchery; the Trigg's hotel; district administration; and the police post now moved from its isolation near Urungwe Hill. Goldberg's house was one of stark contrast with electric power and running water. The Grand Parade won a prize for the quality of its ruby mica at the Wembly Exhibition, and by 1925 the Goldberg stable of mines was shipping 10 to 11 tons of cut and boxed mica monthly. More than 360 people were employed at the Grand Parade, including (Sir) Roy Welensky. Underground mining had reached a depth of 70 metres when G.W. Williams valued the property at £200,000.

In 1927 Goldberg diversified into farming, but the crop failed and with the onset of the Great Depression mica prices plummeted. By 1931 all mica production at Goldberg's mines had ceased and he faced liquidation as assets were assigned. He died in a Jewish Old Age Home in Claremont, Cape in July 1959.



The Idol Mine in Chimanda north of the Mazowe River was discovered in 1927 and by 1929 had produced good quality ruby mica. Tyndale-Biscoe reported extensively on both the Rusambo and Miami mica fields, but by 1931 all production had ceased due to the Depression.



Idol Mine Mica. *Rhod. Ming J.*, 1929

A total of 1418 tons of saleable mica from 9686 current claims (in 1928) across the country had realized a declared value of £304,907 between 1919 and December 1929.

# Renewed Interest in the Mica Fields

- With Government support, renewed interest was shown in mica mining by 1937. New players appeared, including Hugh Trevis who acquired many of the old Goldberg properties, and new claims were pegged north of the Mukwishe River. Mica production saw an upsurge during the years of WWII and G. Paterson & Sons purchased the Grand Parade with Hugh Trevis' stable of mines in June 1945 for £22,500, a cost that was easily accounted for in production from the newly opened Grand Parade South prospect. The Catkin in Urungwe East became the biggest supplier of ruby grade mica.
- J.F. Turner worked the Nzoe Group of mines on pegmatites in the Urungwe West Field at this time, whilst Laxman Nairn worked the Gil Gil.

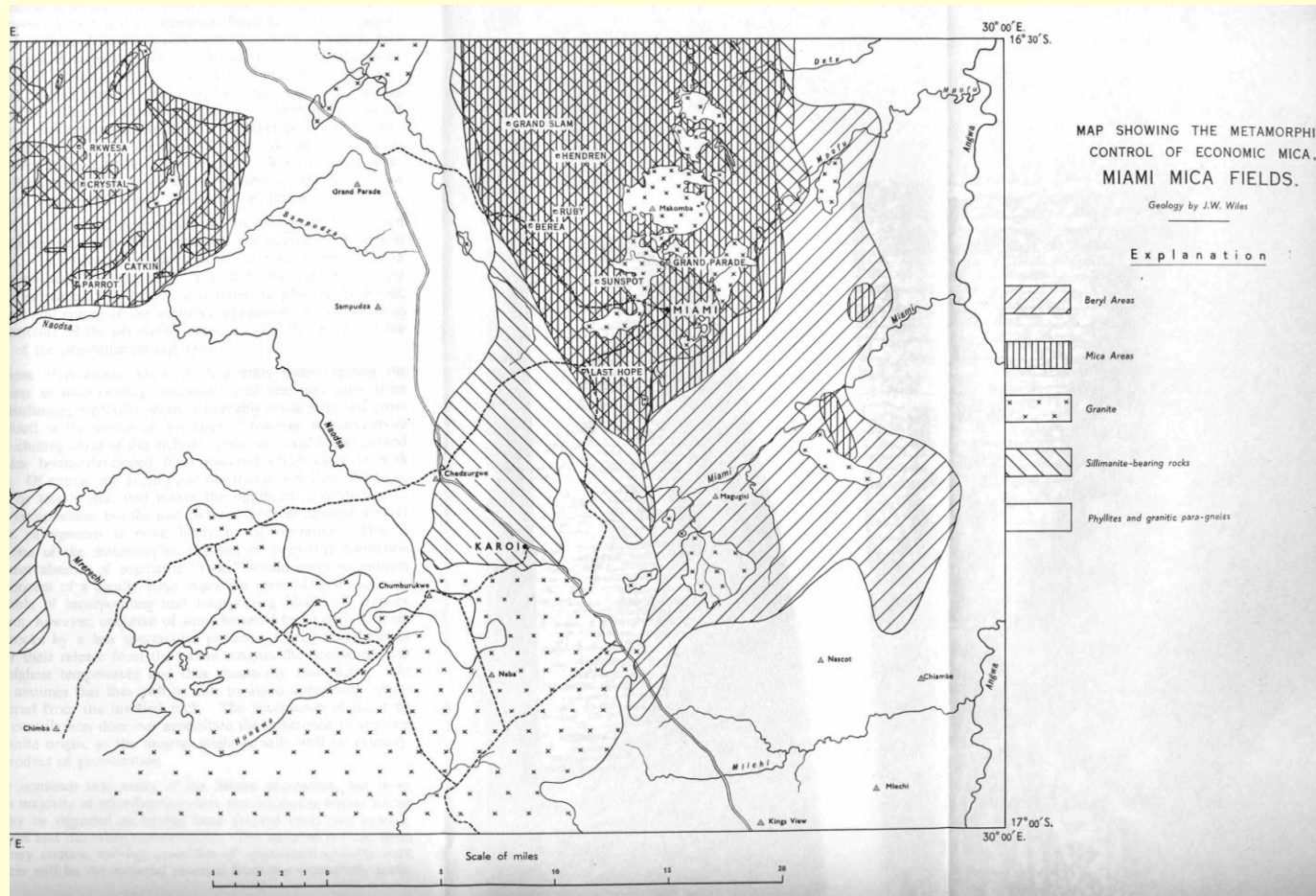


As Mine Manger for Paterson, mining engineer Newby Tatham started his long career on the mica fields. Working with John Wiles who was assigned to geologically map the Miami area, the two formed a close alliance, during which time Newby earned the title of the new 'Mica King'.



John Wiles, Military Cross

Wiles established zones of increasing metamorphic grade especially within metapelitic rocks of the Piriwiri Group, and he showed the close association of mica producing pegmatites with sillimanite-bearing schists and gneisses in the Upper Amphibolite Facies.



Wiles, who gained his PhD from his work, also showed the strong relationship of 'book' mica to zoning within the composite pegmatite bodies. This information, and a knowledge of quality distribution greatly facilitated the efficiency of mica mining.

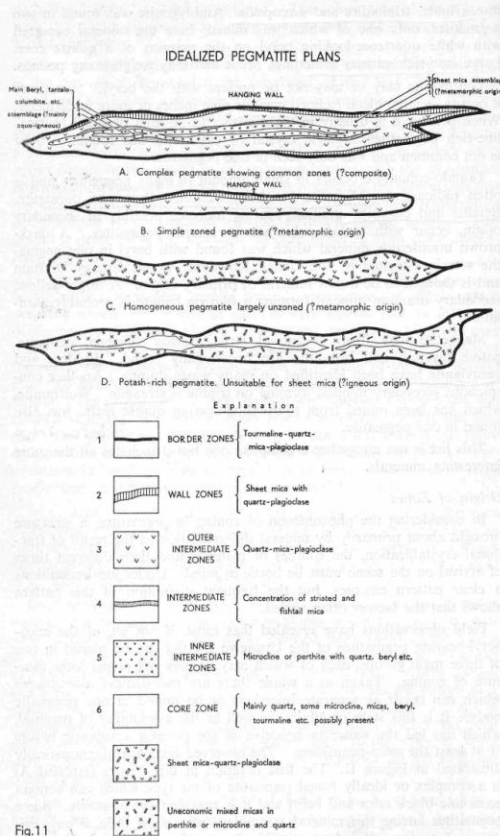
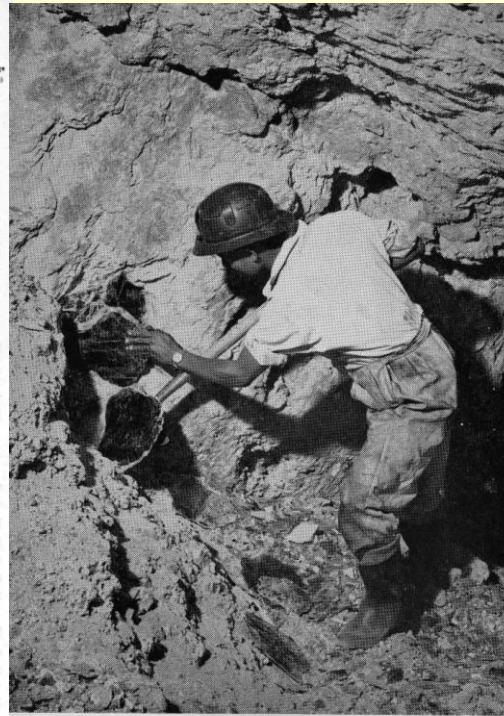


Fig.11



Prizing a book of mica from the Owl Mine pegmatite.

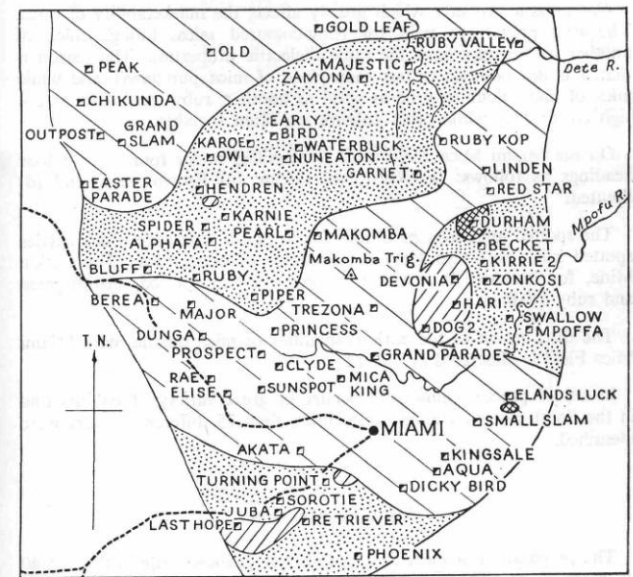
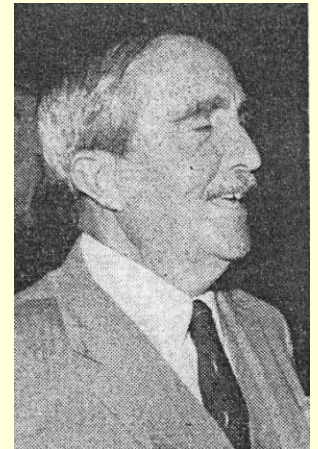


Fig.12. Distribution of mica qualities on the main Miami Mica Field



Scale 1:250,000

The Indian-based mica buyers F.F. Chrestian & Co. bought all of the Paterson mines in 1955, when the Grand Parade Mine had produced well over 500 tons of ruby mica, and Tatham returned as manager to them. Their subsidiary, Rhodesia Mica Mining Co. Ltd set up mica buying and preparation centres at Grand Parade and Madadzi south-east of Karoi. However, ruby grade mica became scarce and no new mines were discovered. Another well known engineer, Arthur Bensusan with John Wiles, made progress on the Idol Mine, but by the end of 1958 all mica production had ceased and the Rhodesia Mica Mining Co. was dissolved in October 1959.



# 1950's - The Beryl Era



However, the 1950's did witness a minor rush, this time for beryl claims, in the realization that the mineral was the chief ore of the new 'atomic-age' metal, beryllium. A plethora of claims mushroomed across the country, but not all mica mines were beryl-bearing. Those that were could supplement their income by hand cobbing crystals from discard dumps. The UK atomic Energy Board stated that Miami-type pegmatites contained an estimated 29% of Zimbabwe's potential beryl reserves.

# The Throes of an Industry

- After F.F. Chrestian mica mining continued at a reduced pace.
- John Wiles visited the Hurungwe West Field where Turner was producing mica, and he regarded the Gil Gil as being the only mica mine of any consequence at the time.
- Government opened a Mica Research Centre at Miami in 1961 with the view of encouraging indigenous small scale mining. However, mostly scrap mica, which abounded on dumps, was sold.
- The Ubique Mine west of Kamativi produced over 100 tons of mica between 1959 and 1974.
- An attempt was made by the Nyaodza Mica Mining Company to open new prospects in Hurungwe West in 1969.

- By the end of 1965 a total of 7593 metric tonnes of cut mica produced since 1919 had been sold for a declared value of Rh\$3,435,256.
- Henry Martin, who had gained experience mining tin in the eastern Congo during WWII, realized the worth of scrap and flake mica. Using the Turning Point Mine as base, he sold many thousands of tonnes gleaned from dumps around Miami during the 1970's and early '80's.
- It was John Wiles' firm belief that many mica mines were abandoned prematurely, without the full extent of their potential being evaluated. He included the Grand Parade, which had reached an underground depth of 130m, and singled out the Gil Gil, which had been reported on under option by Max Mehlis of Goldfields.
- However, no mica mining was in progress when the speaker was mapping the country east of Kariba in 1972.

# End Piece

**Indigenous mica miners have been encouraged since 1961, and a renewal of small-worker interest could be fostered given the advent of the new Mining Promotion Corporation initiative by Government, which seeks to provide professional advice in support of small-scale miners.**



**This presentation serves as a dedication to  
Dr John Walter Wiles MC (1916-2005)  
Former Director, Geological Survey  
Who gave his All.**

