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Surface investigations traced the gold values to a wide zone of siliceous rock up to 50 feet in width. The rock appears to be a shattered intrusive felsite dyke carrying gold-bearing quartz stringers. This formation was opened up by trenching for over 1,100 feet length. The rock showed free gold and gave good pannings. Small pieces of quartz were found with up to 30% of their bulk of gold.

A shaft has been sunk to water level at 75 feet depth, and an adit put in and about 230 feet of underground work had been done to the end of March. The assay values of samples taken on the work to that date were low and the true goldbearing body had not yet been cut. The latest information, however, indicates that the felsite ore body had been entered in the crosscut from the shaft on the 75 foot level and showed good panning values similar to those on the surface. The depth extension of this bedy will also be examined by means of the diamond drill.

The country in between the Kibiri and the Rulungulu deposits is being closely prospected by transverse lines of anger holes. The results of this work to date appear to indicate that the gold mineralisation will extend over the whole of the two miles of country between these two deposits. Should this prove to be the case there is a possibility of developing from two to three miles length of a wide lowgrade ore body of considerable economic value.

#### Kavirondo Concession.

As a result of the application made to the Kenya Government by Tanganyika Concessions, Limited, in March, 1932, for an exclusive prospecting licence over about 5,900 square miles of Kavirondo Territory, the Company has been offered the choice of exclusive prospecting rights over one of three areas from which it will probably select one of 1,550 square miles in which a number of gold occurrences are known to exist, and in which there are considerable possibilities of extensive allovial gold dredging areas.

## (Sgd.) SIR ROBERT WILLIAMS & CO.

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section averages 14.2 dwts. gold over 12.5 inches width (178 inch-dwts.) for a length of 140 feet, and these two branches aggregate 340 feet length with 11 dwts. gold over 12 inches (130 inch-dwts.).

The three veins thus show over 900 feet length averaging 176 inch-dwts. of gold ore. The gold values are practically confined to the quartz in the veins, and there is a fair persistence of the values in depth down to the 50 foot level, the slightly decreased width and values compared with surface showings being compensated by an increased length of strike. A diamond drill is now at work testing the veins at greater depth.

In addition, two zones of ferruginous schists, striking parallel to the No. 2 Vein and from 100 to 200 feet south of it, were found to carry low gold values in surface trenches. They have been cut through by one crosscut on the 50 foot level and sampling has exposed one section of 5 feet width carrying 7 dwts. gold, but the rest showed low values only. No driving has yet been done on these bodies.

#### The Kimingini Claim. (About 4 miles east of Muchang.)

Work has only recently been commenced on this property, where a quartz vein has been opened up by surface trenching over a strike length of about 1,000 feet. The strike is approximately east-west along a steep slope with a 60 degrees south dip into the ridge. The vein is more persistent and with better mefined walls than Muchang. There is a good tonnage of detrital quartz below the outcrop.

One trench in the western part of the claim showed the vein 6 inches wide, and sampling the two walls of the trench gave values of 6 ounces 2 dwts. and 67 ounces gold per ton-respectively, or an average of 731 dwts. gold over the 6 inches width (4,386 inch-dwts.). A trench 50 feet to the west of this showed the vein to be 12 inches wide with 14 ounces 13 dwts. gold (3,516 inch-dwts.). Other trenches at depths of 12 to 16 feet showed :--

No. 4 trench	a	 1 oz.	12	dwts.	over	24	inches	(768 inch-dwts.).
No. 5 trench	i	 4 ozs.	113	dwts.	over	134	inches	(12,296 inch-dwts.).
No. 6 trench	ı	 1 oz.	18.9	dwts.	over	137	inches	(5,335 inch-dwts.).

An average of 7 trenches put in over the 1,000 feet length of strike shows 3 ounces 12 dwts. gold over 52 inches width (3,744 inch-dwts.). The values shown by this vein are the largest yet obtained for any vein in this field by proper sampling methods.

Shafts are being sunk on the vein, and some adits are also being made. Drilling work will be carried out as soon as possible to test the vein at greater depth.

An option has been obtained on the property surrounding the claim and covering the strike and dip extensions. The latest news to hand advises that both east and west extensions of the vein have been found in this ground which thus extends the strike to over 1,500 feet.

#### Other Properties Outside the 35 Square Mile Area.

Quartz voins have been discovered on several other of the Syndicate's properties outside of the Concession area as at Akwirangi, the Lodge block of claims (which straddle the richest alluvial area in the district where 40 ounces of gold per day were being recovered by slucing) and at Claim 175 which is half way between Muchang and Kimingini, but the work done to date has only been on the surface and no outstanding discoveries have so far been made. 53 END

In view of the large amount of alluvial gold which has been recovered from the Yala River and its tributaries, the Eldoret Mining Syndicate applied in January last for an exclusive prospecting licence over eleven miles length of the Yala River (extending from the Yala-Edzawa confluence up river to the edge of the goldfield area) for a width of 1,500 feet, or a total area of about three square miles. We are advised that it will probably be granted shortly.

Application has also been made for an exclusive prospecting licence over the Edzawa flood plain corresponding to that for the Yala River.

These two areas are mainly of interest from the possibility of economic fold dredging propositions.

#### Inside the 35 Square Mile Area.

Kibiri.—The deposit is situated in the north-east corner of the area. It was discovered by surface loaming in the forest where there was considerable superficial overburden and no outcrops. The ground was opened up by surface paddocks from 10 to 40 feet depth, and exposed silicified and highly altered sedimentary schists and conglomerate with mineralisation by arsenical pyrite and showing visible gold. The mineralisation is probably of contact origin. There are some quartz veins, and one gave an assay of 10 dwts. gold over 16 inches width. The sampling from these paddocks indicated a long body of ore with an approximate east-west strike and with ill-defined widths up to 100 feet or so, giving assays of 2 to 7 dwts. of gold.

Two shafts have been sunk and a drainage adit put in. The underground work to the end of March totalled about 590 feet near the water level at about 70 feet depth below the surface. The greater part of the work done to date has been definitely outside of the ore body proper, but the latest information appears to indicate that the ore zone has been entered. It will probably be a wide low-grade body, but one section of 5 feet width gave an average value of 17<sup>1</sup>/<sub>2</sub> dwts. gold from 3 samples.

Preparations to prove the deposit at greater depth by diamond drilling are now in hand.

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#### KAKAMEGA GOLDFIELD, KENYA COLONY.

#### PROGRESS REPORT OF SIR ROBERT WILLIAMS & CO. OF WORK ON THE ELDORET MINING SYNDICATE'S PROPERTIES.

Shareholders were given details, in Sir Robert Williams' Speech at the General Meeting of Tanganyika Concessions Limited on July 30th last year, regarding the option to purchase a controlling interest in the above properties, consisting of an exclusive prospecting licence over 35 square miles and 165 reef and 152 alluvial claims in addition.

The work of investigation has been in progress since April last year, and involved the detailed examination of a large number of individual properties covering a considerable area of country. Up to the present no underground mining work has been done below the water level. For investigation below the water level, diamond drills will be used. The results are so promising as to warrant the extension of the option for a further year until the end of April, 1934, in order to complete the large amount of work required.

The more important results are as follows :-

#### Muchang Claims.

The three quartz veins discovered were among the earliest reef discoveries pegged in the goldfield. In the surface trenching the No. 1 vein showed an assay average of 12.9 dwts. gold over 41 inches width (530 inch dwts.) for a length of about 240 feet. The No. 2 yean, about 500 yards to the north-east of No. 1 vein, showed an average of 15 dwts. of gold over 14 methes width (210 inch-dwts.) for a length of about 170 feet in the surface trenches.

In order to study the characteristics of these veins in depth, as no previous underground work had been done on the field, four shafts were sunk and about 3,200 feet of underground work has been done on the 50 foot level of which nearly half has been exploratory crosscutting and the rest driving on the veins.

The No. 1 Vein and a sheared extension called the 1a Vein show an aggregate of 540 feet lengths averaging about 81 dwts. gold over 24 inches width (201 inch-dwts.).

The South Vein, about 50 yards south of No. 1, is mainly a low grade vein, but 35 feet of its length shows an average of 14.8 dwts. gold over 15.4 inches width (228 inch-dwts.).

The No. 2 Vein shows considerable disturbance underground, but a length of 200 feet, under the surface section mentioned above, gives an average of 7 dwts. gold over 10.3 inches (72 inch-dwts.). A richer north branch of the vein near this

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## TANGANYIKA CONCESSIONS. LIMITED.

THE SECNETARY

TELEGRAPHIC ADDRESS, TANGANYIKA, LONDON

TELEPHONE

Τ.

Princes House

95 Gresham Atred

Jondon . F.C.2

3rd May 1933.

L. B. Freestom, Esq., Colonial Office, Downing Street,

Cutyrd

#### Dear Sir.

With reference to your request on the telephone today, I enclose herewith copy of the Progress Report on the Kakamega Goldfield just issued.

Yours faithfully,

Secretary.

"B.B.Hosking Esq., "Acting Commissioner of Mines, "MAIROBI, "Kenya Colony.

"Dear Sir,

"South Africa Limited; and /or its affiliated Companies "and associates, I would like to place on record that if "Government were prepared to consider granting -

> (1) Exclusive prospecting rights over an area bounded approximately as follows:-

> > North by a west to east line through a point three miles morth of Butere;

East by the boundary of the "Closed area"; South by the Kavirondo Gulf; West by Lake Victoria.

(2) Exclusive rights for alluvial gold on the Yala River from a point 1 mile above its junction with the Edzawa River to its mouth.

"the aforementioned Group would appreciate an apportunity of "negotiating with Government for the same.

" Once established in Kenya the Group would be in a "good position to and would, I am confident, willingly consider "any proposals by Government and private parties having as their "object the further development of the mineral resources of the "Colony.

Yours fai thfully,

(Sgd.) L. POLLAK.

Deputy Chairman.

49

ANGLO AMERICAN CORPORATION OF SOUTH AFRICA LILITED,

(Signed) J. AUSTEN BANCHOFT.

<u>N'KANA.</u> 10.3.1933. JAB: IP seems highly probable that at depth the primary mineralization will involve the presence of much less free gold in the quartz together with disseminated auriferous pyrite, and, in such instances, auriferous pyrihotite and arsenopyrite.

48

In the depth of its soil blanket, its general geology, its occurrences of eluvial gold, and the number of its narrow high-grade veins, the Kakamega Goldfield is remarkably similar to several of the less important of the goldfields in Southern Rhodesia.

Nevertheless, since very much more prospecting work must be done which may lead to the discovery of some gold deposits more important than those disclosed to date, and since development work has yet to be carried below water-level to determine the grade of the primary ores, it is an area worth watching. Within the more favourable portions of "The Closed Area", prospecting may lead to important discoveries. If the Government would grant an exclusive prospecting license for two or three years over a favourable portion of "The Closed Area", the geologist in charge of the group of geologists prospecting that Concession could also watch developments in the Kakamega Area and secure options on some of the most promising properties. At present, there has been much over-pegging at Kakamega, and many of those holding claims are asking ridiculously high prices for them.

It was with these thoughts in mind that prior to our departure from Kenya, Major L. A. Pollak, Deputy Chairman of the Angle American Corporation of South Africa Limited, wrote a letter to E. B. Hosking, the Acting Commissioner of Mines in Nairobi, of which the following is a copy :- present. Some of this superficial concentration of gold in streams and soil has undoubtedly 'sen derived from primary gold-bearing deposits of too low grade to be of any value.

24 -

To date, a considerable number of occurrences of goldbearing quartz rubble have been found and, in the majority of instances, from the size and shape of the quartz fragments, one can safely deduce that the rubble was derived from the disintegration of the quartz stringers, varying up to a few inches in width.

Trenching and shallow pitting have exposed numerous quartz veins, many of which are barren or carry very low values in gold, while some narrow veins, usually one to four inches wide, and very seldom attaining or exceeding a maximum width of 15 inches, and with lengths usually not exceeding one to 200 feet, carry high-grade values. Many of the veins are of lenticular habit.

On the properties examined, the largest vein carrying workable values is that on Claim 984 of Smallwood and O'Brien (see page 14)

Within the field, there are several occurrences of bands of decomposed ferruginous slates, phyllites and schists, traversed parallel to their schistosity by thread-like veinlets of auriferous quartz. The best example of this type examined is on Distell and Landers' property (see pages 5 and 16).

Most of the proppect shafts are less than 50 feet deep and none of them exceed 97 feet in depth. At no point in the whole field has a shaft been extended below water-level.

Undoubtedly to the depths as yet reached, all of the auriferous veins in the district have had their gold content increased by processes of surface enrichment. Work must be carried well below the present water-level to determine how much lower the gold content of the primary ores will be. It

to keep her continuously engaged its over a month. If the results are desired within a week, this Laboratory charges 15 shillings per assay for Golu and Silver.

The writer prefers to believe that exegerated statements concerning the gold content of certain veins or deposits at Kakamega have been due to the lack of assaying facilities, and the attempt on the part of amateurs to estimate the assay of samples from colours in a gold pan. Very few of them, if any, appreciate that a colour worth  $\frac{1}{4000}$  the of - penny is readily visible in pannings.

## CONCLUSIONS.

Some small rich occurrences of both alluvial and eluvial gold have been found at Kakamegā. To the end of last November, a total of 6087 ounces of gold had been recovered from these deposits. It is probable that thorough testing of their gold content will disclose some stretches of stream deposits, both in the Kakamega and "The Closed area", suitable for dredging operations.

Practically the whole area is blanketed with a thick mantle of ferruginous clayey soil which contains widely dispersed particles of gold, and in a few localities, quite rich patches of eluvial gold. Throughout the ages, several (and possibly many) thousands of feet in thickness of rock, traversed by gold-bearing deposits, have been progressively decomposed and removed from these areas by processes of weathering and erosion. Both the gold in the streams and by far the major part in the soil represents a progressive concentration of a portion of the gold content of the thick blanket of rock that has been removed from the area, rather than being a direct index of the gold content of the bed-rock formations underlying the district at

- 23 -

flood plain of the Yala diver, for about 48 miles between Yala Station and Lake Victoria Nyanza, may carry sufficient alluvial gold to warrant dredging operations. The same may be true of the Isioko River, which flows into Lake Victoria Nyanza at a point about 4 miles north of the mouth of the Yala River.

Within the southern portion of "The Closed Area", locally known either as "The Lolgorien Area" or "The Gori Goldfield", certain occurrences of gold have been known ever since 1924.

The McMillan Estates Limited (Sir Northrup McMillan and associates), are reputed to have spent £50,000 in opening up a gold mine in that district. It was not a profitable adventure for them, and the property was abandoned. Since then, at least a portion of this property has been taken up by a Major Webb, who is said to have been successful in working it on a small scale.

Another property in this district is being operated by a Major Lathbury.

Unfortunately, the necessity of being back in Northern Rhodesia on a definite date, prevented us from examining these two properties.

ASSAY LABORATORIES IN KENYA.

Although the field was discovered in September or October, 1931, facilities for the assaying of samples in January 1932 were restricted to the <u>private</u> laboratory of Tanganyika Concessions Limited at Kakamega, and a Government Assay Laboratory in Nairobi (about 275 miles from the field), where assaying is carefully done by a Miss Hichens. The latter informed us that she had sufficient samples on hand

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As a result of the above application, on 19th March, 1933, the Government declared the proposed Concession area of about 5900 square miles to be closed to prospecting, and since then, it has been locally known as "The Closed Area".

- 21 -

Without violating the Proclamation that no prospecting should be done within this area, on the afternoon of 20th January, we motored from Kakamega westward to Mumias, thence southeastward to Butere and Yala, and thence to Maragoli Market, and northward to Kakamega. The aim of this trip was to gain information concerning the geology of the country immediately surrounding the western half of the Kakamega area to ascertain, if possible, whether the formations with which gold is associated at Kakamega extend westward into "the Closed Area", and to obtain a general view of the lower reaches of the valley of the Yala Biver.

From a point three to four miles westward from the Boma at Kakamega to Mumias (a total distance of about 21 miles), the road traverses granite which likewise extends from Mumias southward to a point 1.8 miles north of where the road from Mumias to Butere meets the East to West road from Piccadilly Circus (in the Kakamega area ), to Butere Station. Here is the northern boundary of the westward extension of the rocks that underlie the Kakamega area, and with their southern boundary marked by the intrusive granite contact just south of the Yala River, these rocks are striking into "the Closed free".

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but in the whole of the worth / Central and South

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From a point three to four miles westward from the Boma at Kakamega to Mumias (a total distance of about 21 miles), the road traverses granite which likewise extends from Mumias southward to a point 1.8 miles north of where the road from Mumias to Butere meets the East to West road from Piccadilly Circus (in the Kakamega area ), to Butere Station. Here is the northern boundary of the westward extension of the rocks that underlie the Kakamega area, and with their southern boundary marked by the intrusive gramite contact just south of the Tala River, these rocks are striking into "the Closed Area".

Mestward from Yala Station where joined by its tributary, the Ednawa River, the valley of the Yala River widens out in tracersing "the Closed Area". Since both the Yala and the Ednama Rivers tracerse; the Kakamega Gold Field, there is a possibility that certain stratement of the



#### ALLUVIAL CONCESSIONS.

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The Pakaneusi Prospecting and Development company Limited has been granted an evolusive prospect the lange for a width of 250 feet on each side of the large and of the Isioko River and its tributary, the Luguasidz Hiver, the their sources downstream to where the isioks (or Lusimu), ver crosses the Mumfas-Yala road which involves a total distance of 60 to 70 miles along these rivers.

This Company has also applied for an exclusive program ing license for 14 miles along the Edzawa Biver which joins the Yala River at Yala Station.

Lochead, Moore and Roy, a local group. Nove then granted an exclusive prospecting license for a width of fill feet on each side of the centre line of the Yala fiver for a less th of five miles in the central to western portion of the field

#### "THE CLOSED AREA".

In March, 1932, the Tanganyika Concessions Limited applied to the Government of Kenya for the Frant of an exclusive prospecting license over an area of approximately 5900 square miles in the Kavirondo District, the boundaries of which are shown on the accompanying map. This Company offered "to expend in prospecting the minimum sum of £20,700, during the first two years, which will include the cost of a staff of one Mining Engineer, one Accountant-Secretary, four technical Prospectors, five locally engaged Prospectors, and a force of about 330 native labour, all exclusively employed in this area". They made this application "providing that (in addition to the usual rights as to the subsequent taking up of leases, etc. (as legislated for in the Mining Ordinance and Regulations), we would be granted subsequently dredging rights over the river and lake beds, not only in the specified area,

## D. THE KENYA CONSOLIDATED GOLDFIELDS LIMITED.

This Company has been promoted by a Mr. Haskel of Johannesburg, and has been registered at Nairobi and Fretcria with a capital of 260,000 in 5/- shares.

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They either have secured an option or have acquired control, from Button and Mason, of a large group of claims 4.5 to 8 miles eastward on the road from Oxford Circus. Situated near the eastern limit of the field as at present known, their property is said to be worthy of prospecting, but as yet nothing of value has been proved up.

# FROM KAKAMEGA TO ELDORET VIA KAPSABET FOREST

In Nairobi, we were told that recent discoveries in the Kapsabet Perest and at Kipkarren were worthy of investigation.

Although some prospecting is in progress within the area covered by the rather dense vegetation of Kapsabet Forest, nothing of value has been discovered. At the camp of Mr. Duir

in this forest, we saw numerous samples of rock-types identical with some of those in the Kakamega area.

At the Boma at Kapsabet, we learned that prospecting in that vicinity had not led to any discoveries, but a few claims had been pegged along the road to Eldoret, and immediately north of a tributary of the Kipkarren River. Here ten claims had been pegged by one Engelbrecht. At a discovery post, a shallow pit exposes amphibolites traversed by a few small barren quarts stringers. Nothing of value has been found on these claims.

Although he had heard of the pegging of Engelbrecht's claims, the District Commissioner at Eldoret informed us that no claims had been registered in his district. 14 inches or 15 inches wide, striking approximately North to South, whereas the general trend of the rock formations and veins in the district is usually about East to West. The shaft has reached a depth of 97 feet without encountering water-level (which, however, is probably only a few feet deeper), and the quartz vein has passed downward into a mineralised zone of schists, 4 to 6 feet wide, and containing some parellel quartz stringers. The writer was shown a sample of quartz from the bottom of the shaft which contained two or three specks of visible gold in cavities formed by the oxidation of pyrite, and some unaltered disseminated grains of pyrite. Nothing is as yet known concerning the length of this weith or mineralized zone.

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#### C. THE PAKANEUSI (- BLACK CAT) PROSPECTING AND DEVELOPING COMPANY LIMITED.

With Lieut.-Colonel Lord Francis Scott, D.S.O., as Chairman, and Sir James Allan Horne, K.B.E. as one of its Directors, this Syndicate holds eight scattered groups of reef claims, comprising about five square miles, and an exclusive prospecting license for a width of 250 feet on each side of the centre of the Isicko River and its tributary, the Lugusidz River, from their sources downstream to where the Isicko (or Lusumu) River crosses the Mumias-Yala Road, which involves a total distance of 50 to 70 miles along these rivers. Their Manager is a Mr. P.J.H. Coldham, a settler at Kiambu in Kenya.

In their prospectus, they point out that on several of their reef claims, the soil has been found to be gold-bearing and some auriferous quarts rubble has been found, while in the streams mentioned, alluvial gold and gold-bearing fragments of quarts are known to essur. It has yet to be determined whether their appendice scaling anyable deposits.

#### B. MR. DE GANELL.

This party, reputed to be an American multi-millionaire, has recently acquired the control of certain claims, formerly held by Colonel Swinton-Home, Colonel Fitzgerald and associates, and has at least taken an interest in certain claims adjacent to or in the vicinity of that stretch of the small stream, northeast of Kisumu Kidoga, from which considerable alluvial gold has been recovered. He has also joined a syndicate. (in which Mr. L.A. Johnson of Eldoret, the discoverer of gold at Kakamega is interested), that has obtained exclusive prospecting rights over about 700 square miles in Southern Lgands, within which some of the streams are known to contain a little alluvial gold. It was also said that he has purchased control in a small gold mine, recently operated by a Major Webb, in the vicinity of Lolgorien, within 15 to 20 miles of the Tanganyika Border.

Mr. De Ganell has employed two geologists, one from the United States of America, and the other, Mr. A. J. P. Walters, who, for over three years, was engaged in prospecting with the Loangwa and the Rhodesia Minerals Concessions in Northern Hhodesia.

It was quite obvious that this party did not want technical visitors to examine what is locally considered to be the best discovery that had been made on the claims formerly held by Gelonel Swinton-Home and associates. This is situated just south of the road, and a few hundred yards westward from Picoadilly Circus. From app. ently reliable sources, it was learned that a shaft was started on a high-grade quartz vein

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## A. TANGANYIKA CONCESSIONS LIMITED.

This Company has an option on the holdings of the Eldoret Mining Syndicate, which local Company includes some of the prospectors connected with the earliest discoveries of gold at Kakamega. These holdings consist of a Concession of 35 square miles, and 165 reef claims and 152 alluvial claims outside of the Concession.

We called on Mr. T. Baynes, a nephew of Sir Robert Williams, and local Manager of Tanganyika Concessions Limited, and Mr. G. Barnard their geologist, who informed us that they did not permit visitors on their properties. There are rumours that on a block of claims at Hampstead Heath, about 47 miles south-west of Piccadilly Circus, they have sunk three shafts to water-level, and have done considerable drifting and cross-cutting, and have exposed five lenticular veins which are usually narrow but locally have a width of a few feet. Nothing was learned concerning the length or average width of these veins, or as to values, except that one vein is said to be especially high-grade. None of their prospecting work had been carried below water-level.

On another group of claims, work is said to be progressing on a body of massive igneous rock (diorite?) containing disseminated arsenopyrite and identical in character with the occurrence on the first of the blocks of the Eldoret Kakamega Mining Ventures Limited, described in this report.

In March, 1932, Tanganyika Concessions Limited applied for the grant of an exclusive prospecting license over an area of approximately 5900 square miles in the Kavirondo District.

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## A. TANGANYIKA CONCESSIONS LIMITED.

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## A. TANGANYIKA CONCESSIONS LIMITED.

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We called on Mr. T. Baynes, a nephew of Sir Robert Williams, and local Manager of Tanganyika Concessions Limited, and Mr. G. Barnard their geologist, who informed us that they did not permit visitors on their properties. There are rumours that on a block of claims at Hampstead Heath, about 42 miles south-west of Piccadilly Circus, they have sunk three shafts to water-level, and have done considerable drifting and cross-cutting, and have exposed five lenticular veins which are usually narrow but locally have a width of a few feet. Nothing was learned concerning the length or average width of these veins, or as to values, except that one vein is said to be especially high-grade. None of their prospecting.work had been carried below water-level.

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-16-

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In March, 1932, Tanganyika Concessions Limited applied for the grant of an exclusive prospecting license over an area of approximately 5900 square miles in the Kavirondo District.

#### 8. O. FAYLE.

This block of claims is reached by driving 4 or 5 miles along the road from Kakamega towards Mumias, and then turning southward along a bush road for about 3 miles.

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Where a lenticular vein of dark quartz strikes < N 75°E. (magnetic) and dips steeply southward, a small vertical shaft has been sunk to ground-water level at a depth of 97 feet. Within cross-cuts at depths of 62 feet and 97 feet, the vein is said to be 11 feet and 5.5 feet wide respectively. Sixty chips, representative of the quartz on the dump from the 97 foot level, assayed 0.3 dwts. of gold per ton.

A band of ferruginous slates about 50 feet wide and striking approximately East to West, and dipping steeply southward, crosses these claims. Exhibiting the characteristic features of a gossan in outcrop, this band of slates undoubtedly will be found at depth to carry disseminated grains of pyrite. At depths not exceeding 50 feet, two small adits have been driven through the decomposed equivalent of these mineralized slates which, (apart from one 5-foot sample that included a few veinlets of quartz and assayed 5 dwfs. of gold per ton), were found to carry only traces of gold. From this I would conclude that this band of pyrite-bearing slates at depth will not carry workable gold values.

Considerable potholing and trenching has been done on these claims. The writer walked many hundreds of feet of trenches, usually 10 to 15 feet deep in overburden, and in these only three or four stringers of quartz, varying from one to four inches in width, had been found:

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depth of 10 or 12 feet. For a length of 80 feet and a maximum width of 7 feet, these phyllites are said to yield an average assay of 7 or 8 dwts. of gold per ton. Undoubtedly, these values represent surface enrichment by gold liberated by processes of weathering from the former upward extension of the quartz veinlets. It is highly probable that at a depth where these phyllites are unaltered, their gold content will be too low grade to be workable.

Towards the western end of Claim No. 984, a quartz vein, striking N 80<sup>0</sup>W. and with nearly vertical dip, has been exposed by numerous transverse trenches for a length of about 250 feet. Varying from one to three feet in width, this vein really comprises two staggered lenticular bodies of quartz, the offset between which has locally been incorrectly regarded as a fault.

Within the twenches, the westerly lenticular segment of the wein is said to have yielded assays of 8, 9, 10.5 and 11 dwts. of gold per ton, while one sample, taken across the vein where it had a width of 22 inches, was barren. The easterly lenticular segment of the vein yields assays varying from a trace to 9 dwts. of gold per ton.

Within 25 feet of the eastern end of the westerly lenticular segment, a shaft has been sunk to a depth of 65 feet where a cross-cut is reported to have exposed 46 inches in width of vein assaying 37 dwts. of gold per ton. When visited, foul air in this shaft prevented its inspection.

This voin on Claim No.984 is the best of the "showings" examined at Kakamega, and yet, even granting that workable values will probably persist at depth below water-level, it alone is too small for Company operation.

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considerable trenching has exposed decomposed ferruginous phyllites traversed, parrallel to their schistosity, by a few thread-like veinlets of quartz. It is said that the more ferruginous bands of phyllite (which probably at depth contain sparsely disseminated grains of pyrite) yield a few colours of gold to the pan.

## 6. DISTRLL AND LANDERS (or ANDERSON?)

A few hundred yards south-east of Lisulu, work was progressing within an excavation, approximately 40 feet by 50 feet which had reached a depth of 25 feet in completely decomposed sericite schists, carrying considerable gold, most of which is as fine as flour. A large sample taken across the best fivefeet band of these decomposed schists, traversed by a few threadlike veinlets of quartz was orushed and quartered down. Duplicate portions of this sample were submitted to both the Assay Laboratories of the Kenya Government and of the Broken Hill Mine, Northern Rhodesia, which reported assays of 70 dwts. and 71.1 dwts. of gold per ton, respectively. There is no doubt in my mind that these high values are due to processes of surface enrichment. One fragment of one of the quartz-weinlets was observed to contain a few specks of visible gold.

## 7. SWALLWOOD AND O'BRIEN.

These men held ten claims (including two fractions) which are situated about a half-mile north of the road and 8.5 miles westward from Piccadilly Circus.

Avertical vein, three to seven feet wide, and exposed for a length of about 150 feet, carries only traces of gold.

In close proximity to this large quarts wein, a band of ferroginous phyllites, traversed parallel to their schistosity by a few weinlets of quarts, has been exposed in trenches to a

- 13 -

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of dark quartz 3 inches in width, traverses sericite-schists parallel to their schistosity which strikes N 82°E (magnetic) and dips 60° northward. A sample taken across this vein assayed a "trace" of gold.

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About 600 yards further eastward, a wein of dark quartz attains a width of 65 inches and dips 70<sup>0</sup> northward. A sample taken across its 65 inches of width assayed 0.2 dwts. of gold per ton.

Within the northwestern corner of the property a vein of white quartz, six to eight inches wide, strikes N 52°W (magnetic) and dips steeply northward. It has been exposed along the southern bank of a stream from which a little alluvial gold has been recovered. This vein contains numerous casts of crystals and grains of pyrite, but a representative sample assayed only 0.1 dwts. of gold per ton.

5. ELGON SYNDICATE.

This syndicate includes five Germans headed by a Mr. Balbach. In the general neighbourhood of Lisulu, about five miles westward on the road from Piccadilly Circus, they hold several groups of claims with a total area of about 740 acres.

On claims (342-344 and 355-359) immediately north of the block of claims of the Ghamina Syndicate described above, goldbearing quartsrubble has been found at several points. All of this rubble has the appearance of having been derived from quartz stringers not exceeding 3 or 4 inches in width. In one locality where the rubble carried "a few ounces of gold per ton" they have installed a three stamp mill. Work has shown that here the rubble resulted from the disintegration of a very irregular quarts stringer one to three inches -ide, which dips gently northward.

To the south of the road at Lisulu, on Claims 929-937,

"eastern block" of claims into the Edzaws River.

#### BUTTON AND MASON.

These men hold several groups of claims in various portions of the area. One of these groups, embracing about 460 acres and situated to the south of the road about two miles westward from "Piceadilly Circus", has attracted considerable attention.

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In one locality where the soil was found to carry eluvial gold, an irregular excavation, approximately 125 feet by 50 feet, has attained a maximum depth of about 40 feet. In addition to particles of gold, the soil here contains some gold-bearing quartz rubble. It seems probable that the gold has been derived from the disintegration of two gold-bearing stringers of quartz that have been disclosed.

Immediately north of this excavation, two or three pits have exposed a quartz vein which was said to carry high gold values A representative sample from a point where this vein is 6 inches wide, yielded an assay of 0.6 dwts. of gold per ton.

Mr. Mason informed me that gold to the value of £2000 had been recovered from the soil from the large excavation, and from a few other occurrences of quartz rubble on these claims. A three-stamp mill has been installed on this property.

#### 4. CHAMING SYNDICATE.

This, a local syndicate, including Messrs. Uhlman, Bosman and others, hold several scattered blocks of claims. The block (111-122) on which their "best discoveries" had been made is situated a few hundred yards morth of the road about five miles westward of "Piccadilly Circus".

Within the southern half of this property, one or more weins of dark quarts has been exposed in numerous trenches.

Towards the western and of the block, one of these veins

best showing" as yet found on this property.

Disheartened to a degree in their pitting and trenching because of the relatively thick overburden, the owners have decided to prospect this property by driving three shallow adits each of which will be about 1500 feet in length and possibly attain depths of approximately 100 feet beneath the surface. Two of these adits had reached lengths of 30 and 110 feet.

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#### 2. A. R. DRESSER.

Mr. Dresser holds 20 mining locations, embracing about 400 acres, situated approximately 12 miles west of "Maragoli Market", and immediately north of the Edzawa River.

A vertical stringer of quartz, striking N 70°E (magnetic) has a length of 165 feet and, varying from less than an inch to a maximum of 8 inches in width, has an average width of not more than 3 inches. Trenches have proved that this stringer planches cut at both ends, and have failed to disclose any more stringers. One can find a few specks of visible gold in this quarts.

Near the middle of the eastern block of claims, interlacing transhes, to a depth of 15 feet, have exposed an irregular initicular body of quartz striking approximately East to West and dipping steeply south. This guartz is said to occasionelly yield a few small colours of gold in panning. A representative chipped sample acrass this vein where it was 18 inches wide yielded an assay of 0.2 dwts of gold per ton.

Mr. Dresser conducted me to points where he had located other quartz veins which had proved to be barren.

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had attained about 60 feet. An inspection of the dumps from these shafts showed that the rock was identical in character with that being penetrated by the adit, while its degree of mineralisation was less than that of the sample taken in the face of the adit and hence no further samples were taken away for assay. Crushing and panning of a sample representative of the mineralized rock from the bottom of one of the shafts showed that it carried no trace of gold.

A second block of claims of the Eldoret Kakamega Mining about Yentures Limited, embracing/1400 acres, is situated on the northern side of the road, three miles eastward from "Oxford Circus". Work was here progressing under the direction of Colonel Alan D. Stitt and wife.

In charge of a gang of about 80 natives, Mrs. Stitt was then winning from one to two ounces of alluvial gold per day from a small stream flowing northwestward into the Isioko River.

Considerable pitting and trenching has been done on the claims, but with little success because the overburden is over 50 feet thick. Colonel Stitt showed me a vertical quartz vein, 9 inches wide, striking N.35°W (magnetic) and containing a little tourmaline, but he informed me that it yielded no colours of gold in the pan. At several points the soil contains some quartz rubble obviously derived from stringers of quartz not exceeding a few inches in width.

At one point, a quartz stringer, three inches wide at the surface, was intersected by an adit at a depth of 22 feet, and found to have widened to 17 inches. The adit had collapsed, and hence one had to be content to examine a dump of one to two tons of quarts which was said to carry "an ounce or more" of gold per ton. The owners rightly consider this small wein to be "the

In many instances, considerable gold has been lost ecause of the crude attempts at its recovery.

### PROPERTIES EXAMINED.

Mr. C. T. Cogle, Chief Inspector of Eines at makamega gave us a list of the most promising discoveries, and indivated their location on a map of registered claims. With the exception of those properties under option to Canganyika Concessions Limited, and those recently acquired by a Mr. De Ganeli, we examined all of these properties.

#### 1. ELDORET KAKIMEGA MINING VENTURES LIMITED.

This is a local syndicate that hours several roups of claims. Two blocks of their claims, which were said to have especial merits, were examined.

One of these blocks, comprising about 1:C acres, is situated about two miles morth of east from "Meragoli Market" and adjoins the western boundary of the area of 3: square miles held under option by Tanganyika Concessions Limited. Here there is a low hill of a massive medium-grained greenstone, presumably an altered diorite, which is partially and irregularly silicified, and contains disseminated grains and crystals of arsenopyrite. The silisification and mineralization tends to follow the abundant joint planes from which it extends into the rock to very variable distances.

An adit being driven into the northern side of the hill had a length of about 120 feet. The rock in the face of this adit contained more than an average amount of disseminated arsenopyrite, and hence a representative chipped sample was taken which yielded an assay of only 0.4 dwts. of gold per ton. Three shafts were being put down, the deepest of which

of Piccadilly Circus, and on Distell and Landers' claims, three miles further westward and also south of the road.

(5) <u>ALLUVIAL DEPOSITS.</u> Apparently, all of the streams carry some alluvial gold, but to date only certain stretches of some of the streams have proved to be payable. Most of the gold produced to date (6087 ounces to the end of last November) has been alluvial gold.

By far the richest pocket of alluvial gold encountered was that at a bend of a small stream a few hundred yards northeast of Kisumu Kidoga. The gradient of the stream at this bend and the presence of transverse riffle-like bands of rock formed a natural trap for long-continued concentration of alluvial gold. Here within a length of about 100 feet of the stream, it is said that within two months approximately 1500 ounces of gold were recovered and that one pan of gravel from a depression in the bed-rock yielded 15 ounces of gold. Above and below the bend, the values in the stream fell off so sharply that the same group of natives could recover only about one ounce per day.

In the writer's opinion, the local concentration of gold at this bend in the stream does not indicate that veins of exceptional richness exist in the immediate vicinity. Rather, many of the particles of gold swept downstream throughout the ages have been caught within a trap favourable for their concentration.

On a small stream, flowing into the Isioko niver, three to four miles North-east of Oxford Circus, a gang of 80 natives has been producing one to two ounces of alluvial gold per day.

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28

(3) Within the field, there are at least two occurrences of more or less massive greenstone partially silicified and containing irregularly disseminated grains and crystals of arsenopyrite. One of these areas of mineralized greenstone is situated within a block of claims, two miles north of east from Maragoli Market, owned by the Eldoret Kakamega Mining Ventures Himited. Here; work done to date has failed to find payable values within the greenstone.

Work is said to be progressing on a similarly mineralized body of greenstone on one of the properties held under option by the Tanganyika Concessions Limited.

(4) **ELIVIAL DEPOSITS.** In general, throughout the field the soil blanket is thick. The depth to fresh bed-rock very commonly is as much as 75 feet and in many localities will exceed 100 feet. Particles of gold are of common occurrence within the overburden. In numerous localities, gold-bearing quartz rubble, some of which carries a few ounces of gold per ton, has been found in the soil. Frequently, this rubble is of such dimensions and shape that one can safely deduce that it was derived from veins not exceeding a few inches in width.

In a few places, because of the local abundance of disseminated particles of gold, which usually is associated with the presence of varying amounts of quartz rubble, certain volumes of the soil are highly payable - as, for example, on the property of Button and Mason, south of the road and about two miles west where this band of schists become firm and fresh, their gold content will be very much lower and only work below water level (either shaft-sinking or diamond drilling), will determine whether or/hot this type of deposit contains payable values at depth.

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Undoubtedly, within the zone of oxidation, their gold content (occurring as free gold) has been increased by processes of surface enrichment. Work must be carried well below the present water-level to determine to what degree their values will decline in the primary ore. It seems highly probable that at depth the primary mineralization will involve the presence of much less free gold in the quartz, together with disseminated auriferous pyrite and, in some instances, auriferous pyrrhotite and arsenopyrite.

(2) Certain bands of decomposed slates, phyllites and schists that are more or less ferruginous carry gold. At the surface some of these are capped by gossan, and give inoications that beneath the zone of oxidation, these rocks will be found to contain disseminated pyrite.

Usually even the concentrated gold values within these decomposed rocks are so low-grade that one feels confident that at depth the fresh, pyrite-bearing rocks will not contain payable avalues.

In the one instance observed where a five-foot band of decomposed sericite schists carried high gold values, a few thread-like stringers of gold-bearing quartz trend parallel to the schistosity.

It is obvious that much of the gold content in this band of schists is "shed" gold - viz: particles of gold liberated from the threads of quartz during the progressive denudation of the country, and washed downward along places of schistosity into the decomposed rocks. It is certain that at a depth

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# GENERAL GEOLOGY.

The field is chiefly underlain by the folded and more or less highly metamorphosed rocks of the Karagwe-Ankolean System of Pre-Cambrian age. These include slates, phyllites, various types of schists, sandstones, quartzites and conglomerates and the more or less schistose equivalents of relatively small bodies of intrusive igneous rocks.

In major part, the field is bounded, both to the north and to the south, by extensive areas of intrusive granite. Between these batholiths of granite, the prevailing strike of the Karagwe-Ankolean System of rocks is East to West, but towards the western part of the area their strike swings to the north, and even northwest, apparently conforming roughly with the receding margin of the northern granite batholith. At least within the area between these batholiths, the Karagwe-Angolean rocks are locally cut by a few dykes and other small bodies of granite, syenite and diorite which may well have been intruded during the prolonged period of the invasion of the granite batholiths. They are also cut by certain basic dykes which apparently were injected subsequent to the granites.

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- 2

	Date	Elsewhere	Kakame	ga
E. C. o.	1926	667		
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	1928	707	•	
and a Street	1929	845		
	1930	1789		
Jan. to Sept.	1931	1950		
Oct.	1931	390	110	;~ ,
Nov.	alaan ay sharee ah	104	205	
Dec.		321	89	· · · .
Jan.	1932	250	265	-
Teb.		340	344	
· Nar. <		308	385	
April		560	277	
Мау		259	298	
June	Manufacture and the second second	313	440	
July		496	477	
Aug.		654	511	
Sept.		274	712	
Oct.		328	878	
Nov.	and a second sec	624	1096	
Total	Production	11,640 Ozs.	6,087	Ozs.

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## HISTORY.

There are no ancient workings in the field. Gold was discovered towards the end of 1931 by Mr. L.A. Johnson who, although a farmer in Kenya for many years, had participated in the gold rush to the Klondyke (Yukon Territory, Ganada), in the late nineties. Mr. Johnson had been prospecting without success in Tanganyika Territory and, when on his way homeward, panned some of the streams at Kakamega with gratifying results.

- Within a few months after the discovery became known, there were over 200 Europeans engaged in alluvial operations, and in searching for gold-bearing reefs.

At present, there are about 800 Europeans on the field and, with very few exceptions, these are farmers who previously have had no experience in mining. Having decided that farming is not remunerative, they have developed an exceptionally virulent type of "gold fever".

#### PRODUCTION.

From October 1931 to the end of November 1932, the total production from Kakamega was 6087 ounces of gold derived from either alluvial or eluvial sources, viz., from various streams or from gold-bearing soil and quartz rubble.

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INTRODUCTION.

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The western boundary of the Kakamega Goldfield is situated 37 miles east of the north-easterly corner of Lake Victoria Nyanza. With a length of 30 miles from east to west, and about 13.5 miles from north to south, it includes an area of approximately 400 square miles lying between latitude 0°5' and 0°20'N. and Longitude 34°29' and 34°57'E.

The average elevation of this area is about 5200 feet with local variations of from 4500-feet to 5500 feet above sea-level. Lake Victoria Nyanza is 3726 feet above sea-level. The annual rainfall is between 70 and 80 inches and, although occasional showers may be expected in other months, the rainy season proper extends from March to November.

The area is drained by the Tala River and its tributarles, of which the largest is the Edsawa River, and by the Isioko River, both the Yala and the Nzoia Rivers discharge into the morth-eastern corner of Lake Victoria Nyanza.

Apart from mative villages and their associated cultivated lands, the area is covered with quite dense low bush and a tangle of vines. Certain stretches of the roads through the area are bordered by tall wattles and gum trees which, planted about 15 to 20 years ago, now have diameters of one to two feet. From Nairebi, one may reach Kakamega by good motor roads aither through Kisumu or Eldoret, the distances involved batag about 300 and 270 miles respectively.

The Goldfield lies between two railways. Broderick Falls Station on the Kenya-Uganda Railway, is about 30 miles to the north, while Eisuwu (at the head of Kavirondo Gulf on Inter Finteris Nyanza, and 597 miles by railway from Mombasua) INTHODUCTION.

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REPORT ON

KENYA COLONY

J. AUSTEN BANCROFT



# REPORT ON

21

KENYA COLONY

By

J. AUSTEN BANCROFT



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Assistant Secretary.

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TO BE ADDREMON CO

ODERIA

TELEPHONE: 4870. 4872. LONDON WALL. 4871. 4873.

TELEGRAMS.

MINING DEPARTMENT.

# The British South Africa Company.

(INCORPORATED BY ROYAL CHARTER)

Rhodesia House 2. London Wall Buildings,

Fondon, E.C.2. 5th May, 1933.

RECEIVED 8\_MAY 1933 OOL OFFICE

I am directed to enclose herewith a copy of a Report on the Kakanaga Goldfield in Kenya Colony, by Dr. J. Ansten Bancroft, which it is thought mill be of interest to the Becretary of State for the Colonies.

Dr. Bancroft, who is the British South Africa Company's Consulting Geologist in Northern Shodesis, visited the Kakamega Goldfield on behalf of the Angle American Corporation of South Africa Limited and it is with the consent of that Corporation that the accompanying Report is forwarded for the information of the Secretary of State. It is requested that it may be treated as a confidential domment.

I porrag

The Under Secretary of State, COLONIAL OFFICE, Downing Street, LANDON, S.W.1.

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Rhodesia Mouse. 2. Mondon Wall Bnildings, Tondon, E. C. 2. 9th May, 1933.

My dear Bottomley,

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E LEPRONE MEL

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Will you allow me to reply in this semiofficial way to your official letter 3006/15/33 of the 8th instant, as it was at my instance that we got the consent of the Anglo-American Corporation to our sending you a copy of Dr. Hancroft's report on the Kakamega Goldfield.

I have spoken again to the Anglo-American Corporation, and there is no objection to the Report being communicated to Sir A.Kitson under pledge of confidence and on the understanding (since it is possible that Sir A. Kitson may take a more sanguine view of the Goldfield than Dr. Bancroft does) that there will be no risk of controversy regarding it arising between Sir A. Kitson and Dr. Bancroft or the Anglo-American Corporation.

Yours sincerely,

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Sir Cecil Bottomley, K.C.M.G., Colonial Office, Downing Street, S.W.1.



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CONCLUSIONS. It follows from the foregoing indications that the KAKAMEGA GOLDFIELD today shows very encouraging prospects of becoming an important gold producing centre. The vast area of the concessions, and the diversity of the formations, foreshadow the flotation of numerous subsidiaries.

Under these conditions, the participation of Tanganyika incessions Ltd. in the Eldoret Wining Syndicate may be considered of great value, and it would not be surprising if this easet one day became an important factor for this company.

. . . . . . . . . . . .

November, 1933.

E. & O. E.

The company has obtained options over ground covering extensions of the vein which is known for a length of over 1700 feet, with indications of its existence at 6,000 feet from the present workings.

4. Lodge Claims. The richest alluvial ground of this gold-bearing district has been found close to these claims. At one time 40 oz. of gold per day was produced by slutcing. The surface work has exposed some very interesting quartz veins. One of these averaged 15 dwts. over 10 inches width, at a known depth of 20 feet. An adit was put in on another of the veins and showed 3 oz. over 11 inches width.

A third wein, Bukura, sampled 14.3 dwts. over 24 inches width fon a length of 220 feet. At 50 feet depth, this vein increased to 46 inches with a value of 13 dwts.

Finally, a large fron-bearing vein gave assays of from 8 to 50 dwts. of gold over widths of 8 to 15 feet.

The value of the Lodge claims therefore seems appreciable.

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## KAKAMEGA GOLDFIELD.

(Kenya Colony)

The Eldoret Mining Syndicate, in which the Tanganyika Concessions Ltd. holds a one-third interest, owns in addition to a concession over a gold bearing area of 35 square miles, 250 reef claims and 152 alluvial claims. The Tanganyika also holds, in conjunction with the Zambesia. Exploring and the Rhodesia Katanga, exclusive prospecting rights over an area of 1,550 square miles in North-west Kavirondo.

1. Kakamega Concession. Within the 35 square mile area, the Syndicate has commenced prospecting the Rulungulu and Kibiri streams; sluicing operations have resulted in the winning of about 220 ozs. of gold from the former stream. Banka dmilling is in progress in connection withother streams and very important tonnages of alluvial gold have been other streams and very important tonnages of alluvial gold have been disclosed. Work is progressing with a view to tracing the source of this gold in the alluvial.

At Ribiri a new type of gold bearing deposit in the schists has been discovered occurring over a length of 1500 feet; with widths varying from 15 to 100 feet, the mineralisation containing arsenic. Four shafts and a drainage adit would seem to indicate the presence of a low grade formation, although sampling gave values in places of 17 dwts. per ton.

2. Muchang Claims. Three quartz vains are if course of development: the values, both at the surface and at a depth of 50 feet; wary from 7 to 15 dwts. over widthe of 14 to 40 inches. The average value over 7 to 15 dwts. over widthe of 14 to 40 inches. The average value over 1,000 feet of quartz veins was found to be 9 dwts over 20 inches width.

This is an interesting vein and its continuance in depth will be tested by drilling.

3. Kimingini Claims. Situated at about 4 miles east of Muchang, these claims are characterised by extremely high gold values. Since the opening of the vein by surface trenching over a length of about 1,000 feet, six shafts have been sunk and the 100 foot level has been established.

The average value of the assays in the surface trenches is  $3\frac{1}{2}$  ozs. over 52 inches width.

At the 100 foot level, from Shaft No. 2., the average value of the vein is 11 oz. 18 dwts. over a width of 4 inches for a length of 75 feet. The vein has just been cut again by drilling, at 200 feet depth, giving 4 oz. 8 dwts. over 7 inches width.

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3.

4.

695,729 shares (out of a total of 1,500,000) of the <u>Rhodesia</u> <u>Katanga Co</u>. This Company owns the Kansanshi mine in Northern Rhodesia, where nearly 11 million tons of Copper ore, averaging 4.34% metal, have been developed.

The Tanganyika, the Zambesia Exploring Co. and the Rhodesia Katanga Co. each holds one third of the capital of <u>Eldoret Mining Syndicate</u>, which owns the Kakamega Gold concessions, in <u>Kenya</u> Colony. The Latest developments of these deposits are extremely favourable the ore values reaching 4 and 11 ozs. per ton. The extent of the concessions on the Kakamega gold field is about 35 square miles. The prospects appear to be brilliant. Moreover, on the same conditions, the Tanganyika has a third interest in a concession of 1,550 square miles on the Kakirondo field.

Approximate value of the Assets. On the basis of the present prices of Union Minifere du Haut Katanga capital shares (3,360 Belgian fra.), Dividend shares (3,160 Belgian frs.) and Rhodesta Katanga shares (12/about) the value of the quoted holdings of the Company is £4,500,000, or 10/- per Tanganyika share.

The unquoted stocks (6,138,400 frs. Union Minidre du Haut Katenga 45 bonds, £9,666,960 4% Income Debentures and 2,700,000 shares of the Benguela Ballway) and the 35 1/3% interest in the Kakamega and Kavirondo Goldfields, represent a great potential value, but it is difficult to fix their present worth.

It can be noted, however, that while the quoted stocks represent 10/- per Tanganyika share (Ordinary or "B" Preference), the Benguela Debentures alone cover the whole issued capital.

CONCLUSIONS. It is then reasonable to suggest that the "B" Preference shares are undervalued so long as their price is below par.

The Tanganyika participation in Kenya goldfields shows very attractive speculative possibilities on account of the considerable extent of the concessions and the remarkable value of the deposits and alluvial ores.

In the past, owing to the Tanganyika's liabilities under its agreement to the Bedguela, its shares were looked upon with reserve, although satisfactory dividends were assured by the price of copper; now, for the reasons mentioned above, the situation of the company has completely changed, and the "B" preference shares offer considerable chances of appreciation at their present price of about 14/6d.

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WITH Messrs, GREENER, DREYFUS & Co.'s

COMPLIMENTS.

Salisbury House, London, E.C. 2.

# TANGANYIKA CONCESSIONS LTD.

In May 1933, the authorised capital of the Tanganyika was raised from £5,500,000 to £10,000,000 by the creation of £4,500,000 "B" Preference shares of £1.

The capital is now as follows:-5,473,606 Ordinary shares of £1. 26,394 10% Cumulative Preference shares of £1. 4,500,000 "B" Preference shares of £1., of which 3,871,620 are issued.

This issue of "B" Preference shares was made in order to take over the 5% Debentures of the Benguela Railway and to sattle the latter's indebtodness towards the Tanganyika, which is now the sole debenture helder with 59,666,960 Income 4% Debentures.

This transaction completely liquidates the liabilities of the Tanganyika under its agreement with the Benguela Railway and the debenture holders of that Company.

TANGANYIKA "B" Preference shares. These fl shares have the right to a 6% preference dividend, cumulative from 1936, and are convertible into ordinary shares until the 30th June 1943. These shares are quoted in London, being about 14/6d., while dealings in the ordinary shares are in the neighbourhood of 15/9. This difference in price is abnormal, and it is probable that as soon as the "B" Preference shares are introduced on the Paris and Brussels Bourses, the anomaly will disappear.

It is understood that an application has been made for the introduction on the Coulisse market.

TANGANYIKA's Assets: The principal holdings of the Company are as follows -

97,556 Capital shares of 100 frs, nominal of the Union Minière du Haut Katanga,

61,384 Bonds 45% of 100 frs.

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90% of the Share capital of the <u>Benguela Railway Co.</u> (2,700,000 Ordinary shares); the balance of 10% of these shares is held by the Portuguese Government. The Tanganyika is also the owner of the £9,666,960 4% Income Debentures of this Commany. WITH Messrs. GREENER, DREYFUS & Co.'s

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## TANGANYIKA TERRITORY.

An option has been obtained over an area of about 220 square miles in Tanganyika Territory near the south-west extremity of Lake Victoria. This area contains some interesting occurrences of an auriferous banded ironstone which show good assay values over considerable widths along with extensive strikes. Underground work has commenced in this area, but details are not yet to hand.

The accompanying map shows the position of the properties in Kenyamentioned in this report. The surface plan of Kimingini indicates the disposition of the surface trenches, shafts and borehole.

(Sgd.) SIR ROBERT WILLIAMS & CO.

14th November, 1933.

gul St., King

#### Yalakoa Option.

An option has been obtained over an area of more than two square miles of ground to the east and north-east of the Kimingini and Blue Jay ground, as it appears that the Kimingini Reef and also the rich Musgrave's Reef to the north of the area may extend into it.

The Yala River runs through this area for about 14 miles and an evaluation of the workable deposits of alluvial ground in the river bed shows about 35,500 cubic yards of ground containing about 3,700 ounces of gold.

#### Muchang Claims.

On Nos. 1 and 2 Veins, 60 ft. level, an aggregate of about 1,000 feet length of quartz veins averaging 9.2 dwts. gold per ton over 19.2 inches width has been proved.

#### Lodge Claims.

An adit, put in to examine one of the veins disclosed by surface trenching, cut it at 16 feet in at a depth of about 16 feet from the surface. A drive on the win shows an average of 29 dwts. gold over 411 inches for a length of 20 feet. The adit has also cut another vein at 30 feet in assaying 44 dwts. over 12 inches.

#### Bukura Option.

An option has been obtained over 17 claims, situated about four miles to west of the Muchang Claims, where some interesting quartz reefs were exposed by trenching. One well-defined quartz vein averaged 14.3 dwts, gold per ton over 23 inches width over a strike length of about 220 feet in the surface trenches. Two shafts, 50 feet apart, have cut the vein at the 50-ft. level, showing 17 dwts. gold over 28 inches width and 13 dwts, gold per ton over 46 inches width.

#### Yalakisa Area.

An exclusive prospecting licence has been obtained over a length of about 11 miles of the Yala River, having an area of about three square miles. Banka drilling is in progress, and some important alluvial deposits are being proved.

# Inside the 35 Square Mile Area.

Kibiri Deposit.—The adit has exposed a length of 55 feet averaging 2.2 dwts. gold per ton in a siliceous zone mineralised with arsenical pyrite at a depth of about 90 feet below the surface. This is beneath a surface paddock which showed an average of 3.25 dwts. gold per ton over 25 feet depth for 40 feet length. In Shaft No. 4, about 600 feet to the east, a zone of rock was cut at 20 to 30 feet depth which assayed up to one ounce per ton over a 5-ft, sample.

It is not yet possible to give the true dimensions of this ore body, but, as mentioned in the first report, sampling of the surface paddocks has indicated a longbody of ore with ill-defined widths up to 100 feet, and it is hoped to be able to develop an important low-grade ore body which may be worked by open-cast methods.

Kaimosi Mission and Gori-Gori Deposits.—These are auriferous deposits discovered inside the 35 square mile area. The former is a gold-silver-lead vein, carrying up to 24 dwts. gold per ton. The mineralised zone extends for about 1,500 feet length with widths up to 15 feet.

The Gori-Gori also showed some good values in quartz veins in surface trenches.

Three shafts are in progress on each of these two deposits, but have not yet reached the ore bodies in depth.

## Alluvial Gold.

A summary of the workable alluvial ground proved to date, including the previously mentioned Yalakoa area, but excluding the Yalakisa area and the Kibiri stream, showa about 450,000 cubic yards of ground carrying 11,520 ounces of gold valued at about 579,000. It is estimated that the cost of working this ground will be under 1s. per cubic yard.

KAVIRONDO NO. 1 AREA.

An exclusive prospecting licence over about 1,550 square miles has been granted to Tanganyika Concessions Limited, and prospecting work was commenced in September. The area lies immediately between the newly discovered Busia Goldfield in Uganda on the western side and the Kakamega Goldfield on the eastern side. Work is being carried out on the Uganda side by owners of various exclusive prospecting licences and a number of gold-bearing reefs have been located and alluvial gold has also been found in one of the border streams which partly flows in the No. 1 Area.

One of the strikes has been traced into the No. 1 Area where trenching work is now in progress. An option has been obtained over an exclusive prospecting area of five square miles on the Uganda side which contains the above-mentioned strike.

# SECOND PROGRESS REPORT OF SIR ROBERT WILLIAMS & CO. ON WORK ON THE EAST AFRICAN GOLDFIELDS.

# ELDORET MINING SYNDICATE'S PROPERTIES. KAKAMEGA GOLDFIELD, KENYA COLONY.

The following is a short summary of the more important results since our report of May 1st last.

## Kimingini and Blue Jay Claims.

The result of the surface trenching was stated in our previous report to show an average of 3 ozs. 12 dwts. gold over 52 inches width for 1,000 feet length of strike. An option was acquired over the adjoining ground of the Blue Jay Syndicate, and the strike extension has now been proved for a length of over 2,400 feet.

Seven shafts and an adit are in progress on this vein and damond drilling is also being done.

The follow	ving results have be	en shown by the u	nderground work to date
Shaft	Burface.	of Vein.	Gold Assay.
Not	50 ft.	50 ins.	151 dwts. per Ton.
10. 1	100 ft	15 ins.	38 dwts. per Ton.
No. 1	50 fterra	4 ins	341 dwts. per Ton.
No. 2	106 ft	4 ins	238 dwts. per Ton.

The last-mentioned assay is the average of a series of samples at 5-ft. intervals in the drives East and West over 75 ft. length. Shaft No. 1 is adjacent to surface trench No. 5, which showed 110 inches width averaging 111 dwts. gold per ton. Shaft No. 2 is adjacent to surface trench No. 2, which showed 6 inches width averaging 361 ounces gold per ton.

Borehole No. 1 near Shaft No. 1 cut the vein at 200 feet depth, assaying 88 dwts, gold per ton over about 7 inches width.

No. 6 Shaft at 51 feet depth in the Blue Jay ground (2,000 feet to East of the No. 2 Shaft) gave assays of 2065, dwts. gold over 24 inches, and 25 dwts. gold over 12 inches. Driving is in progress.

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No.4	50 ft.	50 ins>		dwts. per	Ton.
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One of the strikes has been traced into the No. 1 Area where trenching work is now in progress. An option has been obtained over an exclusive prospecting area of five square miles on the Uganda side which contains the above-mentioned strike.

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Shaft.	Depth from Surface.		Average width of Vein.	Gold - Assay-				
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No. 1	 100 ft.		15 ins.	Sec	- 38	dwts.	per Ton.	1
No. 2	 50 ft.		4 ins.		341	dwts.	per Ton.	
No. 2	 106 ft.		4 ins.		238	dwts.	per Ton.	

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I showed this report to Sir A. Fitson who read it through carefully. "Is general conclusion is that Dr.Bancroft has not made a proper examination of the Kenya goldfield. In particular he points out that the most important claims or which gold indications are most promising are just the ones which were not visited. On the whole Sir A. Kitson does not think very much of the report but he does draw attention to the fact that even though it is generally unpromising the last pages advocate that the situation be watched and that an exclusive prospecting licence should be applied for over a reasonable area.

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tanjogika linus les - Bring Stifte B.S.A. G. Ende chy of lipst on Kakamya Edifelt by D. J.A. Baneroft. J. R. after speaking to The Hord. Strentin B/5 Mm AF5 To And Son the africa to ( sea ) - con 15/33 a 1/21:33 3 A o afalidan s.o. -Statio under cutain conditions there is no dyeation . to Be Bancift's report bing communicated to Su A chilton. Sin C. Bottomley I can show this confidentially to Sin a. Kitam some time when he calls . It is not nearly so optimistic as other reports & links like the comment of a level harded person. Spelice his and by as this my lyles of him . The S. H. dowed on the a love any comment this Si 1. Kilon my with Broan friendly bes 11. 5.33 How thanks he procedu T gain a promise

I showed this report to Sir A. Yitson who read it through carefully. "is general conclusion is that Dr.Bancroft has not made a proper examination of the Kenya goldfield. In particular he points out that the most important claims on, which gold indications are most promising are just the ones which were not visited. On the whole Sir A. Kitson does not think very much of the report but he does draw attention to the fact that even though it is generally unpromising the last pages advocate that the situation be watched andthat an exclusive prospecting licence should be applied for over a reasonable area.

The Most The 5. M. will I think be interested. While Si A. kition overetin and may prove blan the extent of the extents I they that his is a reasoned optimism W.c.S. 19.5.33 on 2241

" Tungangeles Concessions Sta \_\_\_\_\_\_ 3- 9/2 23 There and fly fly was Rhort on the Hickory and Billfills ... ( ) There and I with thinks , a restrict to be supplied with my futim reports). This is all very encouraging. It shows that TCL. me being very active in developing their essenting concessions (all in the Kalanmap area) and that this efforts are not unrewarded. Note also the free cast that they will even me their oftim in favour of the Kitson Nº 1 Aux. ( lut pmn.). Them there Sin A. Kilimi alterition to the Report; he is coming in on Monday to tille about T. ? But by (Sofs may can to see) 20 Juntin 17 4 5/33 pra \$15

No 3006/15 SUBJECT CO 533/429 Goldgields in the Konerondo Districts - Crogiesa Reports. Previous main file Subsegment

Any further communication on this subject should be addressed to The Under Beerscory of State for India, ECONOMIC & Department, India Office, Overseas, India Office, India India Office, India Office

Sir,



Shrr

INDIA OFFICE, WHITEHALL,

LONDON, S.W. 1.

C. & O. 2558/33 itehall 8140. LO. Ext. N Retaxandum, London.

OE 12 April, 1933.

I am directed by the Secretary of State for India to inform you that the Government of India have asked to be informed, if there is no objection (1) whether Indians are allowed to participate in the development of the gold fields that have recently been discovered in Kenya, and (2) if there is any differentiation in the matter, what is its nature and what are the reasons for it.

2. Sir Samuel Heare would be glad to receive the observations of Sir P. Cunliffe-Lister as regards the replies to be given to these questions. I am, Sir,

Your obedient Servant,

The Under-Secretary of State, Colonial Office,

() The site.

is not aware of any differentiation on racial grounds by the local Govt.

I am etc.

(Signed) J. E. W. FLOOD

in carrying out the provisions of

the Ordinance.

3006/14/33 Kenya

Mr. Priestman 16 Mr. Parkinson Mr. Tomlinson. Sir C. Bottomley. Sir J. Shuckburgh. Permt. U.S. of S. Parly. U.S. of S. Secretary of State.

UNDER SECRETARY OF

INDIA OFFIC

C. O

21 April, 1933

C.B.

20 APR

Sir, I am to acknowledge the receipt of your letter No.E ~ 0 2558 33 of the 12th of April on the subject of an enquiry by the Government of India regarding the TaoiNities for Indians to participate in the development of the gold fields in Kenya 2. I am to state, for the information of

Sir Samuel Hoare, that, under the provisions of the Kenya Mining Ordinance," prospecting right: may be issued to any

person who is

(a) not under 18 years of age, and(b) able to read and capable of

Copy of correspondence understanding the Ordinance in such to Gor. Keny L.F.

to and restriction on his actions,

2 AN. 33 1. India Office . Engunes Stather Intune are allowed to participate in the development of the gold fields & of there is any difficent. where in thematter, what is its nature & what are reasons fait. ? Reply that under the Thing Ord". property brinds may be used to any present who is (a) not mele 18 years of age (b) able to read & capabile of understanding the Oat " is such a bring as to form a reconcide quite to and restriction on his actions and that S. f. is not amon of any discontion differentiation , - round grounds , by the loved "Goot in coverying out Colon courte for LF. Altereda J.L. 4. 9600 2 Jo 1.0. (1 am.) 21/4/23 20 tor. 270 (~/ 2 1+2) A/1 24 APR 1938