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INDIVIDUAL DESCRIPTIONS OF THE MINES AND PROSPECTS EXAMINED.

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LOLGORIEN GOLDFIELDS LIMITED.

This company was promoted by Mr. Hourse of Messrs. Milligan & Co., Nairobi. The claims were originally pegged by two partners, Davies and Bennett. Mr. Hourse, I believe, agreed to pay a purchase price of £4,500.

The property is the first to be traversed by the road coming from Narek to Lolgorien and is pegged on the eastern extension of the Lolgorien Hill Banded Ironstone formation. A qualified mining engineer is employed, one European assistant, and 70 natives. Authorized expenditure is limited to £3,000.

The potential value of the property is based entirely on the promise of the Banded Ironstone and although it is a little too early to be dogmatic, my opinion is that Conditions I and III will not be met and if Condition II prevails at all, the result will be on a very small scale and not reach the economic limit for a company's operations.

MAGNOR MINES LIMITED.

I first examined this property during January 1933 when I found that the owners had exposed a quartz vein in 3 long trenches. I laid down a plan of development which included the sinking of two inclined shafts to follow the vein.

On my return this year, I found that the programme had been partly followed and that the two shafts were sunk to a depth of some 20 or 30 feet. There they had been left, the temptation to "open-stope" the ore evidently having been too strong to resist.

The vein is about 1 foot wide, strikes east and west, dipping 70° southwards, and has been exposed by trenches for 1,500 feet. The "country-rock" is a massive grit and this is a very favourable feature.

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The vein is naturally being stepped at its richest part where, I was informed, it carries 4 ounces of gold to the ton.

At present, the ore is being crushed by hand and the attached photographs illustrate the vein and the "Mill".

gite
Venus



Open "dope"



The "Mill" capacity - 0.5 ton per day.

Length of strike.....	1500	feet.
Depth.....	200	feet.
Stepping width.....	30	inches.
Average recoverable value.....	10	dwt.
Inch-dwt.....	300	

Total tonnage..... 45,000
Total recoverable gold..... 20,000 ounces.

Value - \$150,000.

These figures will never be attained by the present owners because they have not the capital to develop the property down to 300 feet nor to erect the necessary machinery.

At present, about 40 natives are employed and 2 Europeans.

MAGOR PROSPECTING SYNDICATE.

"Sheba Claims". These claims were pegged by C. Malan and were let under option to the Mager Syndicate in the early part of last year. The purchase price, I believe, is £4,000.

The Syndicate took advantage of the presence in this country of a qualified mining engineer - a Mr. Lang - to have a programme of development laid down for them and this programme has been fairly closely followed.

The work has exposed a quartz vein, varying greatly in width but attaining 3 feet in places, lying close to the contact of a grit with conglomerate. It strikes east and west and dips 60° to the south. North and south faults break the continuity of the vein and it would not be safe to assume a strike-length of more than 1,000 feet.

Length of strike.....	1000 feet.
Depth.....	200 feet.
Stopping width.....	30 inches.
Average recoverable value.....	24 dwts.
Inch-dwts.....	720

Total tonnage.....	24,000
Total recoverable gold.....	28,000

Value at 120/- = £170,000.

There are employed 70 natives and 1 European but as the property is under option to Kenya Consolidated Goldfields, it is almost certain to receive a full measure of development.

CENTRAL MINES LIMITED.

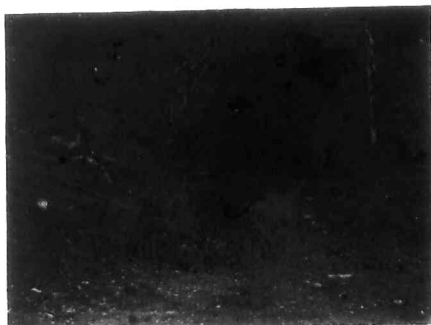
The principal figures of this company are a

31

Mr. Landeman, who pegged the claims and Mr. V.V. Phadke, an Indian Solicitor of Nairobi. The incorporation of the company was made under a cloud of distrust and suspicion and resulted in the resignation of the engineer whom Mr. Phadke had engaged. Things have not improved since then.

The claims are situated on the north-east flank of Lolgorien Hill. Prospects depend entirely on what the Banded Ironstone may yield and, in my opinion, none of the three necessary conditions will be met.

Some 40 or 50 natives are employed.



Central Mines Ltd.
Adit No 1

KILIMA LIMITED.

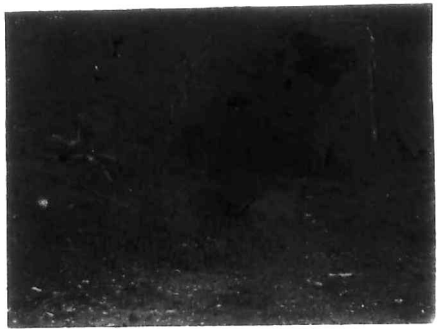
The property of this company runs from the western boundary of Central Mines to the end of Lolgorien Hill. As far as one is able to discover, it appears to be owned by a partnership between Lolgorien Goldfields Limited and Central Mines Limited, (Messrs. Nourse and Phadke).

Prospects again depend on the gold-quartz content of the Banded Ironstone and although two or three of the lenses tested by me gave very good results from panning, I do not think any one of the three

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c.

Central Mines Ltd.
Plot No 1

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Conditions will be realized.

Four adits are being driven into the hill under the supervision of the local storekeeper, a Mr. Geldsack, who also supervises the work of the Central Mines Limited.

J.C.K. SYNDICATE.

The working partners in this concern are Messrs. R.D.Kelly, S.W.Kelly and J.H.Jordan. They all engage themselves on the work and are a very active and genuine trio. Some 65 natives are employed and it is proposed to engage a qualified miner.

On the "Realisation Block", a 3 feet wide quartz vein has been exposed in massive 'diorite' a favourable feature. The vein shows little oxidation and carries a fair amount of pyrite and galena.

The syndicate is extracting the ore by "open-stoping" and is installing a crushing plant capable of handling 9 tons per day. No directed sampling has been done.

Length of strike.....	1500	feet.
Depth.....	250	feet.
Stoping width.....	36	inches.
Average recoverable value.....	10	dwt.
Inch:dwt.....	360	
Total tonnage.....	54,000	
Total recoverable gold.....	27,000	
Value at 120/- =	\$160,000.	

7



Excavation for Mill.

24
33
00
Photo No. 7 shows the excavation for the mill.

I reported this occurrence to Messrs. Forbes (Hellinger Mines), Sandys (Bevick Morsing & Co.,) and Clayton (Consolidated Goldfields) and trust that an option agreement will be made between the Syndicate and one of these three groups.

ALONGDIKE SYNDICATE.

One European and 30 natives are employed on these claims, which are surrounded by the large block of ground held by Lolgerien Goldfields Limited.

A number of shafts have been sunk to "trace" a quartz-vein, which pinches and swells from about 10 inches. It is said to carry 1 ounce and has been exposed for 150 feet.

Photo No. 8 shows one of the shafts.



The inch-dwt figure falls below the economic limit and no value can be given for the prospect.

At the northern end of the claims, trenching has exposed a heavy deposit of rubble, derived most probably from a rich vein named the Alpha Vray and which is the property of McMillan Estates Limited. Samples from the trench yield very erratic results but as there may be several thousand tons of the rubble, a

methodical testing by means of correctly spaced pits seems justified. I have seen the principal partner in Nairobi and have indicated to him the lines on which the work should be done.

TRARNHAM SYNDICATE.

This is another Nairobi Syndicate employing one European and 20 natives. I examined the claims known as the Lalapansi Block a year ago but noticed little of any importance. One small vein was exposed, striking approximately east and west and dipping steeply to the south.

On the present occasion, I found that a shaft some 20 feet deep had been sunk on the vein and a trench had been cut along the strike to expose it. The intention is to "open-steps" and crush by hand. As the vein is only 5 inches wide, in spite of the 30 dwts which it is said to carry, it falls far short of the necessary "inch-dwts."

To the south-west, I was shown the "X" and "White Key" blocks. On both blocks, I examined two far more promising veins on which no work had been done and I advised the local manager to investigate the occurrences.

No value can be given the prospect.

OBAN SYNDICATE CLAIMS.

These are situated on the south flanks of Lolgerien Hill and when I visited them last year, the prospector in charge had discovered by trenching a large mass of quartz which assayed many ounces. I satisfied myself that it was from one of the richer lenses occurring in the Banded Ironstone of Lolgerien Hill and had been brought down by a land-slide, the scar from which could still be discerned on the hill-side. The syndicate has performed a great deal of

work in searching for the continuation of the "vein" and a number of adits, shafts, and trenches have been excavated. All this work now confirms my original deduction and the chances of the syndicate rest, like those of Lelgerien Goldfields, Central Mines and Kilim Limited, on what the Lelgerien Banded Ironstone has to offer and of which I am frankly doubtful.

KISIL SYNDICATE.

There are three belts of Banded Ironstone marked by Longavone Hill, Lelgerien Hill, and a less noticeable outcrop to the south of Lelgerien Hill. This last belt is the closest to the granite and for this reason is more likely to yield one of the three necessary conditions laid down in the preliminary explanation dealing with the Banded Ironstone.

The syndicate purchased from two prospectors, Franklin and Malan, blocks of claims situated on this southern belt of Banded Ironstone and are conducting a fairly intensive campaign of development - mis-directed in parts. At the eastern end of the ground, an enormous shaft is being sunk on an irregular mass of quartz formed by the swelling out of an otherwise insignificant vein. The mass is only 15 or 20 feet in diameter and Photo Nos. 9-10 show its discontinuity. (Note 1) see sketch.

9.



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(Note 1) See sketch.

9



10



Shaft
(9x6')

The lens (see Photo No. 9) lies
sofr. to the left.

The occurrence is of no value.

I became more interested as I proceeded westerly into the claims where I found a series of old trenches, cut by Major Lathbury in 1924, exposing the Ironstones along a strike of 5,000 feet. These trenches showed the ironstone to vary a great deal in width, from a compact mass 20 feet wide down to one or two separate "seams" only 6 inches wide; but each trench showed the presence of a great number of quartz lenticles and veins. The following descriptions taken from east to west along the strike will suffice to illustrate the occurrence.

Trench across Ironstone - 20 feet wide - numerous
lenticles - said to assay 4 dwt. across
full width.

Shallow Shaft sunk by Franklin in Ironstone - 6 feet
wide with a quartz lens, 1 foot wide, running
through it - said to assay 6 dwt. across
the full 6 feet.

Note 1.

Since my examination, I understand, the work
has been abandoned.

Shart being sunk by the present syndicate, 3000 feet from the most easterly exposure on its claims. - Ironstone with abundant quartz containing pyrite - said to have assayed 15 dwts. over 6 feet at the surface and ^{over the same width} 110 dwts. at 27 feet. Tested and confirmed by me.

The most westerly trench on the claims and the intervening trenches show a great deal of division and re-coalescence of the bands of ironstone giving widths varying from 15 feet down to 1 foot. The included quartz masses reach 3 feet in width.

From a mass of evidence obtained, I feel satisfied that the conditions described above are representative of Condition III of the preliminary explanation. (Pages 12-13.)

The inch-dwt. method of assessment cannot be satisfactorily applied in those cases where the width of the ore-body exceeds the lowest stoping-width of 30 inches, and it may be readily seen that a body, 14 feet wide, and only yielding 2 dwts, although giving an inch-dwt. figure of 33%, might well be of no economic value. Other methods of valuation have to be used and my final estimate of the maximum for which a company should aim is as follows:-

Length of strike.....	5000 feet.
Depth.....	60 feet.
Average width.....	3 feet.
Average recoverable value.....	6 dwts.
Total tonnage.....	15,000
Total gold content.....	35,000 ozs.
Total value = \$200,000	

Two hundred yards ⁵ north of the belt of ironstone and striking parallel to it, a quartz vein, called the "White Reef" has been exposed for 1000 feet. It varies in width from 3 inches to 2 feet and is said to carry 4 dwts. It is of no value.

Four Europeans and 100 natives are employed. I have drawn the attention of the representatives of the

big groups to this property.

RAINBOW MINE.

This property is owned by Mr. Rainbow, who has been in the Lolgerine Area for some 20 years. He has recently taken a Mr. Owen as a partner, the consideration being that Mr. Owen should erect a 3 stamp mill on the property. The mill was originally erected on Owen's own claims which he has abandoned.



3 Stamp Battery

Three or four small quartz veins have been worked by Mr. Rainbow to a shallow depth for some time but cannot be given any value. Whilst the ore can be extracted without deep mining the partners may make "bread and butter" from the results of their operations.

PAKARANGI COMPANY LIMITED.

This company has one long history of mismanagement and until an arrangement was made recently with Messrs. Dewick Moring for their representative to undertake the full technical control, money was "poured down the drain". An administrative organisation, composed of a Board of Directors, Secretaries, and clerks has played havoc with the company's capital and only a great stroke of luck now can save

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the concern.

Feeling that the company was representative of Kenya enterprise, I have made efforts to offer all the help and advice that I could give, but to no avail.

Last year, I drew the attention of the company to some claims held at Lolgorien by the Kisumu Prospecting Syndicate. An Italian named Ferrara was working the claims on tribute and by "open-stopping" and hand-crushing was recovering 10 to 20 ounces of gold a month. At the time, the fixed arrangement with Bewick Moreing had not been made, but the services of their representative, Mr. Sandys, were obtained temporarily to advise the company and to lay down a preliminary programme of work which would show expeditiously whether the claims justified more intensive exploration.

At the end of 3 months, the programme had not started, but a manager's house, with a teak-floor, had been erected; four lorries purchased; and immobile and heavy mining equipment of all sorts had been exchanged for the company's capital - only to mention a few of the blunders.

In November of last year, Mr. Sandys prevailed on the directors to discharge the coffee expert they had engaged to manage the mine, and Mr. Harverson undertook temporarily the control of the property. His work resulted in showing that the supposed vein was really a series of disconnected lenses, carrying a very erratic gold content. The rich concentrations which had drawn attention to the claims were products of secondary enrichment and temporary in distribution to justify mining. This fact could have been demonstrated by a qualified engineer for an outlay of \$500 to \$600, whereas some \$4,000 was spent.

The mistakes of the company did not end here.

It purchased from Messrs. Fyfe and Barnes, solely on the advice of the coffee expert, a block of claims that had been pegged to the south of Lelgerica Hill. Not a sample was taken and the only justification for the purchase - which amounted to \$2,000 - was the fact that Fyfe and Barnes had produced 50 ounces of gold from 50 tons of rock. In doing so, they evidently "worked out the mine" for my own examination failed to reveal anything of importance.

Mr. Sandys, I understand, proposes to advise the company to abandon all the existing holdings.

N.A.P. SYNDICATE.

The claims of this concern are situated to the far south on the Nkamba Stream at the contact of the granite. A naturalised, Belgian-born European, named F. Petit, is in charge of prospecting and about 16 natives are employed.

Mr. Petit has discovered by trenching two or three quartz veins on which he is sinking shafts. The largest is 8 inches wide and although said to carry 24 dwts, does not justify any estimate of value being placed on the property at present.

The Banded Ironstone runs through the northern section of the claims and I directed the attention of Mr. Petit to its possibilities.

KENYA SOUTH BORDER SYNDICATE.

One European (J. P. Kelly) and 20 natives have recently been engaged to continue the prospecting of the Syndicate's claims. The conditions under which I found the European living were deplorable and it is quite evident that he can but be given a delc. It is a striking case against mining activities being attempted by people unqualified financially to enter into them. Kelly's predecessor, I was informed, etc

32.
41

out an existence by accepting odd jobs given him by the Pakanusi Company, but on this being discovered by the Syndicate, was dismissed.

I found a shaft, some 50 feet deep, and 6 or 7 trenches had been excavated on a small quartz vein of no importance. The Banded Ironstone runs through the northern part of the claims and I advised Kelly to examine it in the event of failure to discover anything else.

GORI RIVER AREA. (EAST).

MAJOR YEBB'S MINE.

Major Yebb continues the endeavour to operate a property with insufficient initial capital and until these conditions are altered, the "eyes" of the numerous prospects will continue to be "picked" and the eventual successful ^{exploitation} operation of the prospects be jeopardised. The results of the negotiations for participation by Messrs. de Genahl and Alderson are presumably known to Government. Major Yebb has now abandoned hope of meeting "reasonable" people in Kenya and has recently left for London, where he hopes to negotiate a sale.

Seven Europeans are employed and some 500 natives. There are also a number of Indians and South African coloured men, who are in charge of skill work.

The major has prospects scattered all over the countryside and the number of shafts, trenches, and pits resulting from his activity must reach the hundred. In only two cases, however, has this development proceeded to a useful stage.

The prospect known as "no. 5 working" is a reasonably well developed mine and is proved down to 200 feet in the plane of the lode and for 300 feet along the strike. The width of the lode averages 4 1/2 feet and ^{ca} carries 11 dwts. of gold to the ton. 20,000 tons of ore is proved. For the purpose of this report, the depth may safely be extended to 400 feet and the strike to 500 feet, the present continuity being broken only by ^{discon} faulting.

These figures yield a tonnage of 60,000 and allowing for 80% recovery, a total gold content recoverable of 2200,000.

The lode is of a complex ore with abundant sulphide and graphite and will call for special metallurgical processes.

The second prospect is named the "Carlos". Major Webb is installing a compressor and mechanical haulage here, material "taken over" from the Pakaneusi debacle.

The "Carlos" reef is a well-defined quartz vein and at the 80 ft. level is said to carry 37 dwts. over a width of 32 inches. Its presumed extension along the strike has been partly developed some 1000 feet westerly, where it is named the "Carlos West". On a reasonable estimate, the following figures may be used.

Length.....	1000 feet.
Depth.....	250 feet.
Stopping width.....	30 inches.
Average recoverable value.....	15 dwts.
Inch-dwts.....	450
Total tonnage.....	30,000
Total recoverable gold.....	32,000
Total value.....	\$150,000

There is a third interesting vein named the Francis Reef, which lies to the north of Major Webb's crossing over the Gori River. It has had two shallow shafts sunk upon it with an interval between them of 250 feet but trenches trace the strike over 1000 feet.

Length of strike.....	1000 feet.
Depth.....	200 feet.
Steeping width.....	40 inches.
Average recoverable value.....	5 dwts.
Inch-dwts.....	200
Total tonnage.....	30000

The figure for inch-dwts. 200 puts this prospect out of economic bounds at present but it may be seen that were the development of the other two properties to approximate my estimates, it would be possible to introduce the lower grade ore of the Francis Reef into the mill-heads (ore fed to the mill) without unduly diluting the richer ore, and so extract an additional sum of gold equal to \$50,000. This would prolong the life of the venture at the same time.

12



Construction work on Carlos Shaft.

13



Major Webb's Mill.

The total potential value for Major Webb's properties approximates \$380,000.

O.V. KELLY'S CLAIMS. (under option to Kenya Development Limited.)

These claims adjoin Major Webb's and lie to the west. Excellent prospecting by Mr. Kelly is being done but nothing has yet been found to justify any mining.

FILMER SYNDICATE.

The claims of this syndicate lie 1 mile beyond Mr. Kelly's, again to the west. The partners in the syndicate are three Europeans who were brought out here by "the sergeant from Birmingham", who created a stir in the English newspapers last year with his account of the handfuls of gold that he had found in East Africa during the war.

Nothing of value has yet been found on the claims.

GORI RIVER AREA. (WEST)

KENYA CONSOLIDATED GOLDFIELDS LIMITED.

This company pegged 100 locations south-east and south-west of these claims owned by the Kisumu Prospecting Syndicate, in the vicinity of Hamaru-Bacon. Three Europeans and 40 natives are employed and are under the control of a visiting "field-engineer" (Mr. Curwen).

East End Claims.

Ten shafts and numerous trenches have been excavated on a narrow silicified zone in slate in which a series of small lenses of quartz were found. Photo No 14 illustrates this work, which is spread over

a strike length of 2,500 feet.



14

Band of Silicified slate
(Auiferous)

Gold content is erratic and the zone is too narrow to warrant further exploration.

East End Claims.

Numerous trenches and shafts were made in pursuing the same thin auriferous zone found on the East End Claims. In the course of this work, a quartz vein similar in appearance to, and roughly on the same strike as Major Lambury's vein was discovered. I advised abandoning the work on the silicified slate band and concentrating work on the quartz vein.

BARCLAY'S CLAIMS.

These claims adjoin the northern boundary of the L.P.G.'s property. Mr. Barclay is the person who has been tributing from the Hissum Prospecting Syndicate's for some months. He has discovered on his own claims two or three promising outcrops on which a certain amount of shallow work has been performed.

I examined all the workings and as a result notified all the various companies' engineers that I considered the prospect worth preliminary development.

38 4-b

Mr. Sandys was first on the scene and has arranged in behalf of the Pakanusi Company, a short term (2 months) option during which the existing workings will be quickly extended. If results are satisfactory, the agreement states that a further free option for a year will be exercised and employment given to Mr. Barclay. Mr. Barclay, I may say, is the most diligent worker it has been my pleasure to meet in Kenya.

No value can yet be assessed to any of the prospects.

KISUMU PROSPECTIVE SYNDICATE.

This property appears to have come to the end of its tether and the tributor, Mr. Barclay, intended ceasing his operations this month (March). There are one or two veins which might bear further development but nothing of outstanding interest.

KENYA GOLD MINING SYNDICATE LIMITED. (Major Lathbury).

As is well known, this company was floated in London last year, in the course of which financial operation some \$15,000 of "dead" capital was liquidated and a further sum of \$15,000 provided for new "working capital".

Major Lathbury is not a quick worker but is very capable and the property under his charge might form an excellent example to meet of the other operators in Kenya.

Six Europeans are employed and 120 natives.

The principal property is known as "Black-hall's" and it is here that the reduction plant is installed. The main shaft is down to 170 feet (a difference of only 30 feet from when I first saw the property 18 months ago) and two levels have been driven. The reserves, I believe, are stated to be 11,000 tons of ore carrying 14 cwt. of gold per ton. There are

two other properties from which ore is drawn, Steele's Reef, and the M.K. Reef, but I do not know if ore from these is included in the estimate.

Dealing with the prospects of the Blackhall lode, I am of the opinion that there will be no great change in gold content down to 400 feet; the length of the strike, however, is more problematical, owing to sharp breaks by faulting.

Length of strike.....	500 feet.
Depth.....	400 feet.
Stoping width.....	30 in.
Average recoverable value.....	10 dwts.
Inch-dwts.....	300

Total tonnage.....	36,000
Total gold recoverable.....	18,000
Total value	\$110,000.

Photo No. 15 illustrates the headgear over the main shaft.

15



N.B. No timber is used in this shaft only steel and concrete.

Steele's Prospect.

This lode is represented by a quartz vein carrying abundant arsenopyrite. It is very badly broken by faulting. A short length of ore has been stoped to the surface from the 50 feet level and development is being continued from a vertical depth of 87 feet.

I examined all of the underground work and

found the fault-system to be far more complicated than exposures at the surface indicated. For this reason, I am now prepared to assess a figure for length of strike more than 200 feet.

Length of strike.....	200 feet.
Depth.....	200 feet.
Stopping Width.....	30 inches.
Average recoverable value.....	10 dwts.
Inch-dwts.....	300
Total tonnage.....	8000
Total gold recoverable.....	4000 ounces.
Total value.....	\$24,000

M.K. Reef.

This lies some miles to the west of the main workings. It is a very narrow but very rich vein, which "sweetens" the mill-heads and helps to keep the monthly output even.

Three shafts at intervals along the strike prove the ore-body along 250 feet and to a depth of 100 feet. Most of the ore has been stoped between the surface and 75 feet along a length of 150 feet. The average value I will estimate at 3 ounces, but samples have been taken that show a gold content of 8 ounces.

Length of strike.....	250 feet.
Depth.....	150 feet.
Average width of vein.....	6 inches.
Average recoverable value.....	60 dwts.
Inch-dwts.....	360
Total tonnage after allowing for ore stoped.....	900
Total gold content recoverable.....	3,700 ounces.
Total value.....	\$16,000

Total potential value of the syndicate's properties approximates \$150,000.

The company has recently installed a cyanide plant for the treatment of the residual sand and slime from the mill and it appears to be operating successfully.

Photos No. 16-17 illustrate the new plant.

16.



Leaching tanks.

The sand residue from the mill is loaded into these tanks which then receive the cyanide solution. This dissolves the contained gold.

17.



Extractor Boxes

The pregnant solution from the tanks is lead into these boxes (note delivery pipes at left), where the gold is precipitated by zinc shavings.

LIME LIMITED.

This company's property, composed of 10 locations, lies due north of that of the Kenya Gold Mining Syndicate, is bordered to the north by the Gori River, and to the west by the claims of the C.C. Syndicate.

One European and 25 natives are employed.

A low hill divides the eastern end of the property from the M.K. mine, and the hill is formed of a variety of the Banded Ironstone. An adit is being driven into the northern flank with the idea of

exploring one or two narrow quartz veins (6-8 inches wide,) which, I was informed, gave an assay of 3 ounces. Nothing of economic value has been exposed.

G. G. SYNDICATE.

Partners: A. Gensaroni and A. Cardoni.

The activity here represents the most blatant attempt to swindle or is an extraordinary example of buffoonery.

Three Europeans and 100 natives are actively engaged in preparing a site for a reduction plant. The plant is to consist of a Hardinge ball-mill, of 20 tons per day capacity, with all the necessary machinery necessary for its operation. A "3" inch ^{pipe} line has been laid 3000 feet down to the Gori River, where a pump run by a 10 h.p. crude oil engine will deliver water to the mill at the rate of 25,000 gallons per hour.

Photo No. 18 illustrates the excavation on the mill site.

18.



Mr. and Mrs. Gensaroni conducted me round personally and on my asking to see the ore-body, Mr. Gensaroni, with a wide sweep of the arm that stretched to the horizon in all directions, said, in so many words, that "all was gold-bearing."

I noticed a number of pegs buried in the ground and in connection with them was shown a plan illustrating the results of "divining" by the partner, Cardoni, and was told that the pegs represented the "particularly" rich ground." Values were quoted: 5 ounces here, 8 ounces there, and so on.

I naturally took samples from these various spots and later panned them; none surrendered to me a single "colour".

At the time, however, I was taken back to the dwelling-house, and Mrs. Ceasaroni explained to me how she made herself responsible for all the crushing, sieving, and panning. She showed me a small bottle in which she placed the gold recovered from the sampling; she described in singular detail how she amalgamated the gold; and finally, she poured the gold (about 5-8 dwts.) into my hand. On examination, I saw that this gold had never passed through a sieve; it had never been amalgamated; and it certainly never came from these claims; it was ordinary and everyday "alluvial" from Kakanaga, where I afterwards discovered that the C. C. Syndicate also possessed claims.

Ceasaroni is putting \$5,000 into the purchase of the "mill" and, when it is erected, intends sailing for Italy. (His information). Armed with photographs of it, and bottles of Kakanaga alluvial, he will no doubt encourage a few speculatively-minded countrymen to "invest" sufficient money to show a handsome profit to the C. C. Syndicate. (My deduction.)

The pity is that the ground covered by the Syndicate's claims is quite promising and well worth prospecting.

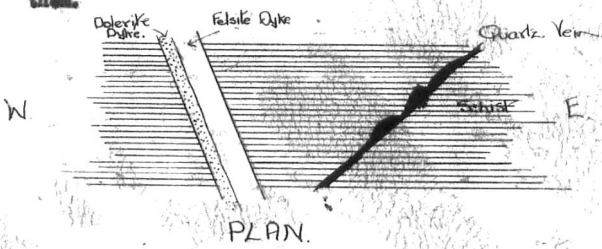
MR. V. P. ALDERSON.

I spent some time in the area granted to Mr. Alderson under an Exclusive Prospecting License but

general reconnaissance was not possible owing to the lack of metering roads.

A mile north of the Kaja River crossing on the Geri-Karungu road, Mr. Alderson is investigating the prospect discovered, I understand, by Opperdale some years ago.

I was immediately attracted to the area by the theoretically ideal conditions prevailing in the vicinity - a series of dolerite and felsite dykes traversing hornblende-schist. The schist strikes practically east and west and the dykes intersect this, running N.W. to S.E. The quartz vein found by Opperdale, follows the complimentary zone of weakness to that followed by the dykes and runs at right angles to them.



These conditions were anticipated by me in Report No. 3 and the case bears out the statement made under the section dealing with Lolgorien in connection with the mapping of that area, viz., that once a set of favourable conditions has been established, it can then be recognized again by means of geological mapping.

The length of the vein may be taken at.....	500 ft.
Depth.....	200 ft.
Stopping width.....	3 ft.
Average recoverable value.....	15 dwts.
Inch-dwts.....	540
Total tonnage.....	15,000
Total gold recoverable.....	11,000 ozs.
Total value.....	\$66,000

HAZAVA RIDGE MINING COMPANY.

These claims are situated on the right bank of the Hazava River a mile or so below the Kakamega-Kisumu road. The principal in this company is a Mr. Dresser. Mr. Dresser does not reside on the property; he employs 3 Europeans and 60 natives to work the mine.

The ore is mined from a series of small veins and lenticles found in the phyllite-quartzite contact described on page 114. They appear to be extraordinarily rich and in the course of their weathering have "shed" gold into the intervening and originally barren country rock, so making a zone, two to three feet wide, of payable ore.

These conditions must cease on reaching a zone where the processes of enrichment were unable to operate - the present water-table probably - and the "mine" will peter out. It cannot be given any value.

KAKAMEGA ORE REDUCTION COMPANY.

This concern is financed by a Mr. Broadhurst, a one-time railway official in Nyasaland, and managed by a Mr. Beacroft. The latter has picked up sufficient mining experience in the past to be able to impress Mr. Broadhurst; one or two prospects have been bought and a mill erected on the left bank of the Hazava River opposite Mr. Dresser's claims.

I examined the "ore-body" on the mill-site and found it to be the "weathered contact" occurrence described on page 114. The weathered country-rock is carrying from 1 to 3 dwts. and although an immense tonnage of such material subjected to an "all-claiming" cyanide process might yield a profit, Mr. Beacroft's attempt to recover the gold in a mill will never do so.

BECKER'S CLAIMS.

These are situated below those of the

Edsawa Ridge Mining Company in the bed of the Edsawa River.

The vein being exploited runs across the river and is about 2 inches wide. In parts, it is said to have carried 7 to 10 ounces of gold to the ton. Interpreting this in terms of inch-dwt., and allowing for a constant content of 5 ounces - quite exceptional - it will be seen that the resulting figure is only 200 and below the economic limit.

A small output may be expected for a few months but it cannot be included in reserves.

WELLMAN'S CLAIMS.

These claims lie to the south of Anshira Hill.

An open excavation has been made on a small lens, 30 feet long, said to have carried 1 ounce.

A mill has been erected on the property but was not in operation at the time of my visit.

The occurrence is of no importance.

NERGI LIMITED.

The principal shareholder in this concern is Mr. C. Payne. The company took over a number of claims pegged by Mr. Prettijohn.

The first block that I examined lay at the south-east point of Anshira where, a long trench has been cut in fresh, unaltered quartzite containing a fair amount of pyrite. The quartzite is similar to that described on page. 144.

Mr. Prettijohn informed me that this trench was methodically sampled and yielded 5 dwts. over 72 feet. Although there are numerous thread-like lenticles of quartz throughout the rock, the gold, if Mr. Prettijohn's statement is correct, must lie in the pyrite.

For an unknown reason, Nergi Limited has abandoned work on the prospect and to discover this reason, I arranged for a complete sampling of the cut.

Either the company has abandoned it through ignorance of the potentialities of such a deposit, or Mr. Prettijohn has exaggerated the facts.

The company also owns a block of claims pegged on the same contact situated between Anahira and Kisa Hill, but here the rocks are deeply weathered and the gold is found in the rotted rocks bordering the contact. The gold content is said to be 1 1/2 dwts over a width of 12 feet.

The length over which this deposit is proved is.....	600 feet.
The depth according to Mr. Prettijohn.....	65 feet.
but as this is not based on any development reaching that depth, I prefer to confine the figure to 40 feet.	
The width is.....	12 ft.

Computing these figures they yield a tonnage of 17,000 with a total gold content recoverable of 1,155 ounces or \$6,600.

The company proposes to erect a cyanide plant to deal with the material and a process known as "all-slizing" will be operated to handle 100 tons per day.

S. M. ENHEDIGATE, LIMITED.

This company has continued its policy of obtaining options from owners of promising ground and must have spent a considerable sum in prospecting. Unfortunately it has not yet been successful in discovering any deposit which justified exploitation.

At present, Mr. Tenberg, the technical head, is conducting a heavy campaign of prospecting on claims belonging to Mr. Dehardt. They are situated to the north of the Yala River and opposite Kisa Hill.

The ground that is being explored is on a similar contact to that described on page 14 and the usual conditions are found: a few small veins - some rich, some poor - with a dissemination of gold through the weathered rock. A diamond-drill is in operation on the left bank of the Leharanga Stream (a tributary

of the Yala River) where one of the more promising veins is being explored at depth.

The "contact" is being explored by trenches for a great length along the strike and, in a westerly direction, it extends into the claims of Messrs. Pritchard and Cowper, which ^{claims} are also under option to the company.

The whole of the work was examined in detail by me, but other than the possibility of defining a body of "weathered ore" similar to that described under Eregi Limited, I do not think any workable deposit will be found. The strike is over three times the length of that "proved" on the property of Eregi Limited, and were the figures for width and gold content to reach those quoted by Eregi Limited, the indicated gold content would be \$20,000.

Personally, I am extremely doubtful of the chances in either of the ventures.

Another of the company's options was that taken over the claims of the Yale-Koa Syndicate situated just below the confluence of the Siale and Koa Rivers and to the south where the ground rises sharply to 200 feet above the rivers.

These claims were examined by me during February, 1935, and at the time the work consisted of an adit driven into the north flank of the hill to explore at depth, a broad outcrop of "gossan" (Note 1) which.

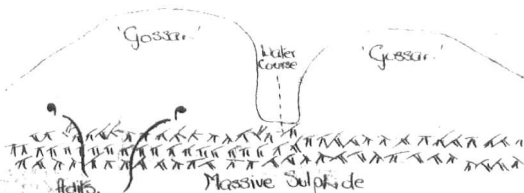
Note 1.

GOSSEAN. - A term applied to the weathered or otherwise decomposed upper zone of a lode, characterized by a n abundance of oxidized and hydrated alteration products such as limonite.

formed the ridge. The "gossan" is the weathered product of a slate member in the Karagwe-Ankolean Series that is replaced over long runs of its strike by iron-sulphide, a process resulting from the initial intrusion of granite with the subsequent metal-bearing solutions.

The member is shown on the geological map of Kakaaga prepared by me last year and if reference is made to that map, it will be seen that this "pyritised slate" outcrops to the north of the Sioko River, (where its gossan outcrop was being prospected by Mr. G. Fayle) and from there runs westerly towards Bukuru; it then turns south-easterly to pass through the claims now under consideration, the ground held by the Sabatia Syndicate, and onwards to Akwirangi Hill.

In the case of Fayle's claims, where I found shafts being sunk on the outcrop, I was able to show Mr. Fayle that Nature had already done all the "shaft-sinking" necessary by incising through the outcrop a small water-course some 200 feet below the outcrop and his shafts, and in this the fresh pyritic ore was exposed. All that was necessary to prove the gold content of the deposit was to sample the fresh exposure in the bed of the watercourse.



Longitudinal Section (diagrammatic) through Fayle's Claims.

Mr. Fayle followed my advice, sampled the fresh exposure, and found it to carry only $\frac{1}{2}$ dwt. over the 20 or 30 feet exposed.

Mr. Tennberg has explored the formation on the Yala Koa Claims by means of two diamond-drillholes. At 180 feet, the drill entered the massive sulphide and continued through it for a further 30 odd feet. Much to Mr. Tennberg's disappointment, the gold content is again less than $\frac{1}{2}$ dwt. and from the point of view of gold mining the prospect may be dismissed.

From the point of view of Government's mineral reserves, however, the proof that this pyritic bed is so extensive is of the greatest importance. The sulphides of iron, pyrite and pyrrhotite are sources of sulphur and sulphuric acid; Cyprus, for example, exported 200,000 tons in 1931, and 174,000 tons during 1932. In 1929, this figure had reached 300,000 tons. The average price for the year (1932) was 10 to 12 shillings per ton.

Although it appears at the moment that this immense body of sulphide - each mile of length and 300 feet of depth represent some 4,000,000 tons - is of no value owing to its situation, the possibility for a demand in the event of war must be borne in mind.



Electrical prospecting - used by
S.M. Syndicate

30



Demountable motor operated on Leishman
from 3 H Syndicate

HOWE'S CLAIMS.

These claims lie to the west of the Yala Koa ^{claim} Claims and adjoin those of O'Brien and Smallwood, which are under option to Tanganyika Concessions Limited.

Mr. Howe has exposed a quartz-vein some 18 inches wide, over a strike of three or four hundred feet; the gold content is said to average 10 dwts. These figures show an inch-dwt figure of only 180 and so far as present development shows, the property cannot be considered of any value.

LISULU SYNDICATE.

The property of this Syndicate is also situate on the Bukuru Ridge. The partners are Messrs. Christman, Balbach, Metzgar, Reutler and Mahnke. The property is under option to Kenya Consolidated Goldfields Limited.

There are two well-defined quartz veins. The easterly ^{ei} vein called the "Boundary Reef" is 6 to 8 inches wide, carries 2 1/2 dwts and is proved over a strike of 600 feet. This vein has provided the syndicate in the past with a gross output valued at 26,000 but such a state of affairs can only last whilst shallow-stopping is possible. The inch-dwt figure is

only 190 and so falls below the economic figure.

The westerly vein called the "Battery Reef" is 6 to 10 inches wide and is proved over 1200 feet. It has provided some spectacular specimens of gold ore but the average content is only 13 dwts. Again, although this vein can be mined profitably in a small way to a shallow depth, the inch-dwt figure is only 130 and therefore of no great value.

There is one chance for this property being mined to 150 feet and it lies in the possibility of waste material being sorted underground and so eliminating all costs in connection with it other than mining. In other words although the mining-width must perforce remain at 30 inches, the hauling and milling charges could be confined to the quartz itself. Following such a method, it might be possible for the present owners to work profitably down to 150 feet (it would not pay a company) so that I propose to include an estimate.

"Boundary Reef".

Length of strike.....	600	ft.
Depth.....	150	ft.
Actual width of vein.....	.8	in.
Average value.....	20	dwts.
Total tonnage.....	5000	
Total gold content recoverable.....	4500	ozs.
Total value.....	\$27000	

"Battery Reef".

Length of strike.....	1200	ft.
Depth.....	150	ft.
Actual width of vein.....	.10	in.
Average value.....	.11	dwts.
Total tonnage.....	7500	
Total gold content recoverable.....	4000	ozs.
Total value.....	\$24000	

Value of Total Recoverable Gold \$50,000.

Photo No. 21 shows the entry to an inclined shaft following the "Boundary Reef". Note reef resting on top of the timbers.

21



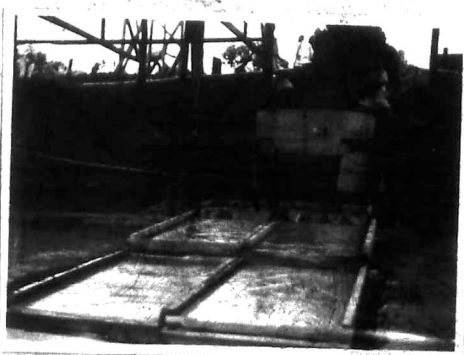
Lisulu Syndicate "Bakery Reef" Inclined Shaft.

BLUE REEFS LIMITED.

This property only calls for mention as illustrating the peculiar lack of perspicuity evinced by unqualified people when dealing with mining.

I visited the mines in January last and found an immense open-cast working - some 300 feet long by 50 wide - being excavated by hand. It was situate ~~on a slope and is illustrated in Photo No.~~

22.



Blue Reefs Limited - Teherwood semi-rotary Mill.

The only reason that I could discover for the work was the existence of a 2 inch vein situate at the top end of the open-cast and which the excavation was

for
to open to extraction.

A rotary-mill built locally by Isherwood and Company with all the necessary machinery to drive it, was installed and was working under the charge of a European. No gold was being caught on the plates.

On the occasion of the present visit, I found that the Isherwood Mill was scrapped and that it was the company's intention to erect two Nissen-stamps costing \$900 each. I failed to find any justification for this programme but I am given to understand that the company has been acting on the advice of Mr. Cogle.

The total output of the company has been £120.

KENYA CONSOLIDATED GOLDFIELDS LIMITED.

In addition to the ground held by this company under title of an Exclusive Prospecting License, and which is valueless, it owns the "Guy Fawkes Claims" situate north of Mr. de Gansahl's "Jitsama" Reef at Piccadilly Circus.

I found a new three compartment shaft being sunk, and a number of others which have been abandoned.

The hope of the company is to discover the extension of the Jitsama reef of Mr. de Gansahl.

MR. DE GENAHL'S PROPERTY.

It is heart-breaking to a mining-engineer to view the methods that have been followed in developing this promising property. Had the original Hjersey Syndicate worked the property itself, things could not have been worse.

At Piccadilly Circus, there appear to be three fairly well-defined ore-zones named in order from east to west the "Dudgeon", the "Jitsam", and the "Sirius".

Wherever development of these three zones has stopped in depth, the gold content has been high and most encouraging.

I refer to "zones" rather than to "veins" because the veins are broken a great deal in detail, but the continuity of each as a zone is apparent.

To obtain an approximate idea of the value of the property, I am assuming certain measurements which are designed to cover the discontinuity of the veins.

The Dudgeon Zone.

Length.....	1500 feet.
Depth.....	300 feet.
Width.....	30 inches.
Average value.....	154
Inch-fts.....	405
Total tonnage.....	55,000
Total gold content recoverable.....	55,000
Total value.....	\$200,000

The Jitsam Zone.

Length.....	500 feet.
Depth.....	300 feet.
Width.....	30 inches.
Average value.....	154
Inch-fts.....	405
Total tonnage.....	27000
Total gold content recoverable.....	12000 ounces.
Total value.....	\$100000

The Sirius Zone.

Length.....	500 feet.
Depth.....	300 feet.
Width.....	30 inches.
Average value.....	154
Inch-fts.....	405

Total tonnage..... 15,000
Total gold content recoverable..... 12,000
Total value..... \$72,000

Total gold content recoverable..... \$370,000.

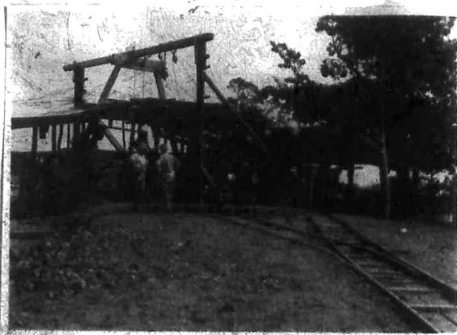
The all-in cost of treating the ore is estimated to be thirty six shillings per ton so that there would remain a profit of \$170,000. Mr. de Genahl has already spent \$100,000 and has not yet proved one-fifth of the above estimate of potential reserves.

Mr. de Genahl, like Major Lathbury, appears to be nervous of ^{to} stoping operations. Major Lathbury is frank and states - not quite correctly - that he cannot find a qualified miner to do the work. Mr. de Genahl is not so frank but going on the principle - "quantity before quality" - insists on employing a number of incompetent men at low wages rather than paying a few capable miners £40 to £45 per month. Recently there has been an accident on his property in which three Europeans were caught by a premature blast. The number of holes being lit were 18, so that there were two Europeans too many for that simple operation and the fact that the accident was due to a ^{possible} faulty fuse indicates that each coil of fuse before being used was not tested.

To return to the effect of Mr. de Genahl's policy on the proper exploitation of his mine, ore is being stoped at the surface and no preparation for stoping is being made underground. The Ili Saha lode, which is the northern extension of the Dudgeon zone is being open-stoped at the rate of 25 tons a day - although ore could be extracted between the 150 feet and 100 ^{foot} levels at the Dudgeon shaft.

Photos Nos. 23, 24, 25, 26 show surface equipment and saw-mill, main shaft, etc.

23.



Preliminary stages of sinking Main Shaft
on Jilsama Zone.

24.



Jaw Mill

25



Open slope on the Ili Saha Lode -
northern extension of Dudgeon

26



Detail of Main Shaft showing style of timber used. The cost of sinking this shaft is about \$2.50 per foot. The Wacheche holdings are of no value at

present.

KGA MULLEN COMPANY.

This company's property is situated to the north of Mr. de Genahl's Dudgeon claims, and there form the southern boundary. The Anglo-Continental Mines Limited, (Sir Edmund Davis) holds an option over, and are developing the claims. Two qualified engineers are in control; Mr. Rees for mining; Mr. Hughes for geology.

Mr. Hughes visited London recently to submit a report in person and his company has agreed to increase the monthly expenditure from \$300 to \$500.

The basis of Mr. Hughes' report lay in the fact that two veins on the property had been shown to yield 400 inch-dwts. along a strike of 300 feet, and 140 inch-dwts. along a strike of 200 feet, respectively; that the geological setting was excellent; and that more ground could be obtained under option and the whole form a considerable holding.

I examined the two veins mentioned above, known as No. 2 Vein and No. 4 Vein, and found that the greatest depth from the surface attained by the adits along which the veins have been explored, was only 70 feet. I also found that the country is very heavily

weathered and the gold content is extremely erratic in distribution. (Samples in one or two places yielded 190 ounces). In short, the present development lies in an horizon of heavy secondary enrichment and the gold in this zone has been shed into the adjoining country-reef by the processes described on page 13 of this report.

The chances of success lie in one or more of the three Conditions laid down in that explanation (see pages 12, 13 and 14) being realised and at present, the property can only be termed an encouraging prospect.

The ground under which the company proposes to extend its explorations is owned by Messrs. Smith, Wreford Smith, and Colonel Stitt, representing three local syndicates. I have examined it in some detail and agree with Mr. Hughes that the ground is promising; but the various veins which have been exposed and developed by the respective owners do not, in any one case, approach economic size and value. This is not to say that one such will not be found for the excellent Musgrave reef (see below) lies in the same area.

Musgrave's Claims

These claims are situate to the east of Maceno Beacon and were first made notorious by the reference in Sir Albert Elison's Report to "quartz peppered with gold". At that time, Sir Albert referred to loose blocks of vein material that were found in the stream below the vein, for the vein itself had not then been exposed.

Since then, Mr. Musgrave has exposed his "reef" along a strike-length of 1,600 feet. It runs approximately north and south, dipping 70° to the west. It is said to average 30 dwts. over 14 inches.

Length of strike.....	1500	feet.
Depth.....	100	feet.
Width.....	30	inches.
Average gold content.....	12	ozs.
Inch-ore.....	360	
Total tonnage of payable ore.....	50,000	
Total gold content recoverable.....	37,000	
Total value.....	250,000	

An agreement has recently been signed with Tanganyika Concessions Limited for an option over the property and that company is initiating an intensive campaign of development.

RYANZA GOLDFIELDS LIMITED.

This company's claims are on the right slope of the Yala, about a mile above Kisingini. I inspected the work last January and could find nothing to justify the erection of the \$3,000 mill that I found there. (See photo 27 overleaf)

Major Sprett was in charge and to him I suggested a mild programme of work that would prove, or disprove, any suggestion that the Tanganyika Concessions Limited's "Kisingini" reef traversed his company's claims.

On the occasion of this present visit, I found that my suggestion had been disregarded, that the money was finished, and that Major Sprett was making a wild endeavour to continue operations by scraping up every bit of quartz he could see himself and by obtaining small lots of ore for milling from other claim-holders.

The total production from the claims is 40 ounces (\$240).

I imagine that the close-down must be imminent.



21

Nyanza Gold-fields Ltd. The 18ft tube Mill.

TANGANYIKA CONCESSIONS LIMITED.

In the introduction to this report I referred to Sir Robert Williams' estimate of the potential value of the combined Kisingini and Musgrave properties so will not make the full computations again. Suffice to state that his valuation of Kisingini alone amount to \$700,000.

Owing to Sir Robert's presence in Kakamega at the time of my own visit, I considered it not a convenient occasion to ask his staff to allow me to make any extensive examination of the company's activities. This must be reserved for my next visit. I know that the company is endeavouring to develop a large, low-grade mine at Kabiri in the Kakamega Forest, but it must be some time before development can reach a stage where figures will be reliable.

BOSTERMAN SYNDICATE.

This syndicate's claims are under option to Tanaani Gold Mining Syndicate which company is managed and represented by Messrs. Bewick Horsing. Mr. Sandys is in control.

The syndicate, under the terms of its agreement is allowed to work the various outcrops down to 15 feet and has been engaged on this work for the past year.

A 2 stamp Nissen Mill designed to crush 9 tons of ore per day was recently erected and will replace the method of crushing by hand. Of this ore, there is about 2000 tons left to be treated and should yield \$12,000 to \$15,000.

There are two veins being developed by Mr. Sandys, named the "Horet Reef" and "Ross Reef" respectively, but progress has been very slow owing to the difficulty of projecting a shaft through the highly weathered country-rock which, near the water-level, is similar in consistency to "quick-sand". Five shafts have been abandoned in this material and now the shafts are being sunk in the hard rock of an adjoining formation and the veins approached by cross-outs. This type of work demands great skill and Mr. Sandys has brought out three Cornish miners for it.

Length of strike	
Horet and Ross Reefs combined.....	1800 feet.
Depth.....	250 feet.
Average width.....	50 inches.
Average value.....	20 dwts.
Inch-dwts.....	600
Total tonnage.....	58,000
Total gold recoverable.....	55,000
Total value.....	\$350,000

28.



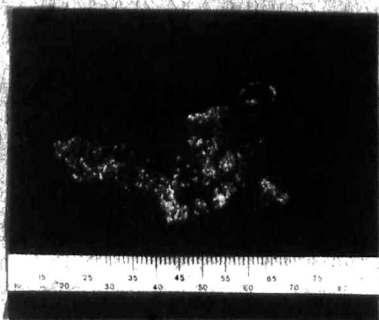
"Nugget" from Horet Reef

29.



"Nuggets" from Horst Reef

30.



The nugget above is of gold that was taken into solution and precipitated in a crack between the vein and the country rock.

ENKA DEVELOPMENT LIMITED.

I made no methodical examination of this company's workings on this occasion. I have seen most of them at other times and consider them all worthless.

I was satisfied to consult with the directors, engineers, and other officials, all of whom failed to convey to me that they knew the elementary fundamentals of mining-technique, mining-administration, or mining-finance. Mr. Maria, the Consulting Engineer, has no policy and is so ignorant of the everyday, ordinary, demands of evaluation, that his statements leave one amazed.

There is one exception - Monsieur du Nouy, a French engineer who has had experience in alluvial work. His mode of presenting the results of his work is correct and his technical skill cannot be doubted.

Monsieur du Nouy has been in charge of the company's alluvial work and accompanied by him I visited a number of points on the Yala where he is working.

I cannot give figures for the Alluvial work, but it is fairly obvious that the Lockhead, Moore and Hoy concession is of no great value.

Other options extending over the ^{bank} banks and old benches of the river offer more promise and it is possible that the company might extract eventually 2000 ounces. In one spot opposite Anchira, Monsieur du Nouy discovered an old water-course which had not been pegged, and from it alone, I estimate 500 ounces will be obtained.



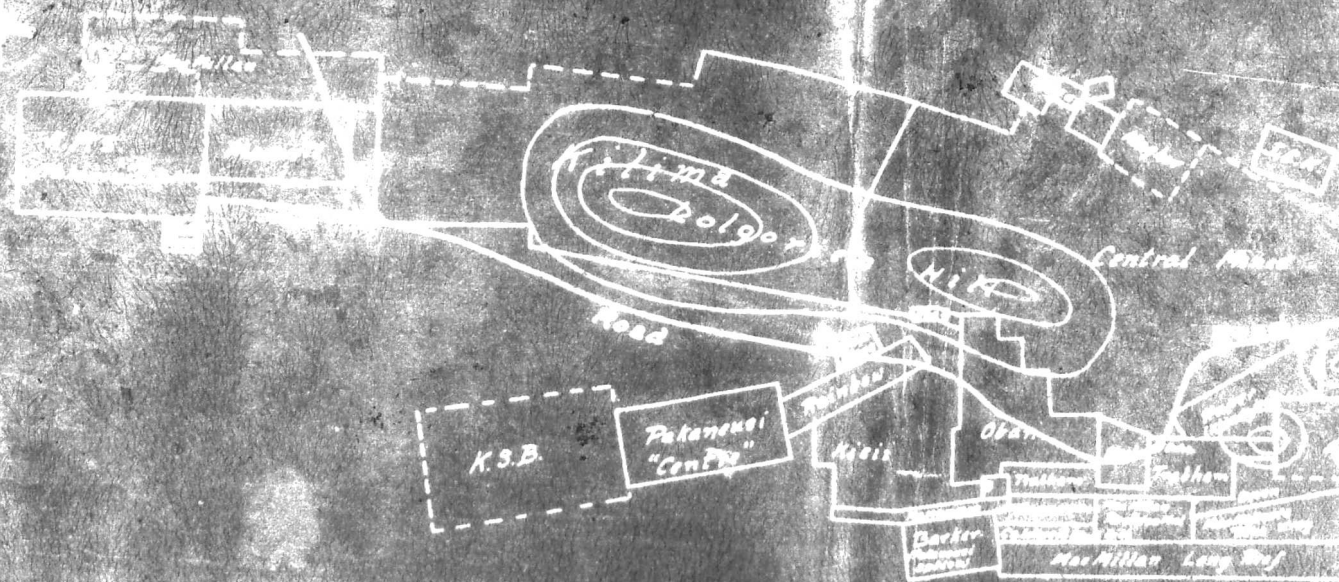
Photo No. 31 illustrates a useful little sampling machine which Monsieur du Nouy imported from America. It is capable of treating 1 1/2 tons of gravel per day and is operated by a 1 h.p. motor.

Before leaving Kakonege, I paid a courtesy

call on Sir Albert Kitson, who is now a director of the company; Monsieur de Longiville, the resident Director; and Mr. Clayton of the Consolidated Goldfields of South Africa, which Company had been invited by Sir Albert Kitson to examine the holdings of the Kenya Development Limited with a view to participation.

Mr. Norman V. Spence, who was appointed to the local management at Kakamega, I have since seen in Nairobi and he informs me that he leaves the employ of the company at once.

Diagram Showing Ultimate Positions
of Properties in Lalguis.



Petit

GRANITE COUNTRY

74

APPENDIX TO REPORT ON GENERAL MINING CONDITIONS.

NOTES ON AREAS
2 and 3

AREA NO. 2 South.

A few days were spent in this area to determine the extent to which it might be advisable for Government to continue to exercise its right of closure.

The area lying between the Yala River and the Kavirondo Gulf, was examined in company with Mr. D. Harverson, recently appointed to the post of Assistant Geologist.

There is only one outstanding occurrence in this section that might be the scene of a rush and that is in the vicinity of the Njaka Mission Station. A wide quartz-vein (6 feet), with which is associated a number of smaller branches, runs very nearly due east and west and passes under the Mission School. The "grab" samples which I took from the vein yielded only 1 to 2 dwts., but the result is sufficient to indicate that the vein is gold-bearing and not barren. Were it found to average in value 5 to 6 dwts. of gold per ton, it might well constitute the biggest mine in Kenya and is therefore worth testing on proper lines by a qualified group.

The remaining indications are so scattered that I do not anticipate in the first stages a concentration of prospecting activity in any one spot but I think I may say that the eventual areas of prospectation will follow the granite contact lines indicated approximately on my map of the general geology of Western Kenya (1). These contacts have been pricked out in red on the attached copies.

AREA NO. 2 North

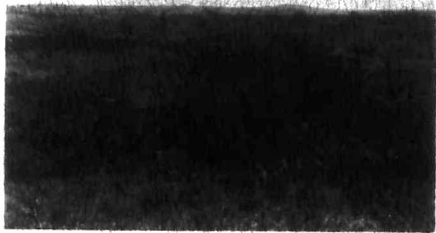
The section of Area No. 2 that lies to the north of the Yala River was also quickly traversed and a day or two spent on foot "safari" in critical localities.

The prospector in this area will suffer even more than one in Southern Kavirondo. The topography is very nature and this astuity is characterized by immensely broad valleys with flat divides. Trees are confined to these few small plantations marking the sites of mission schools. The overburden is deep and the re-distribution of detrital gold by a changing river system will result in similar conditions to those which puzzled the prospector in the Kakamega Area - gold everywhere in the soil, but the source of it obscured.

General geological conditions are good and in spite of Coombe's (2) unfavourable report, I believe that thorough prospecting will reveal a deposit of value.

I should have no hesitation in advising a company to spend £50,000 on a three-year's campaign of prospecting in Area No. 2.

- (1) Report No. 3 Notes on the Geological Succession, Tectonics, and Economic Geology of the Western Half of Kenya Colony.
- (2) Coombe, A. D.: Unpublished Report dated February 24th, 1925.



Typical Country in Area 2. (North.)

-3-

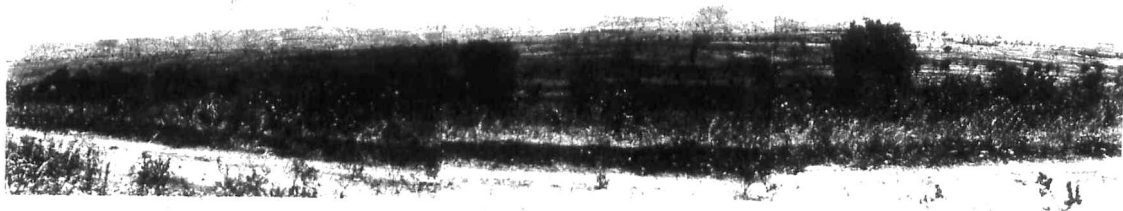
AREA NO. 3.

Owing to the active programs of road development that has been in progress in Southern Kavirondo during 1933, I was able to examine parts of this district that had not been previously traversed. Such an examination was particularly desirable as any information obtained directly by the Department will facilitate the control of the operations about to be started in the district by the concessionaires.

The new road from the Suva-crossing over the Geri River runs some miles to the west of the old road and affords some excellent exposures of the contacts between the granite and older rocks. It is difficult to correlate the latter with those of the Muva-Angolan System found elsewhere and it will require far more field-work to determine their stratigraphic horizon.

The granite contact is the locale here, as it is in the other district, for gold-bearing veins and I discovered one such at the contact where it is cut by the Kaja River on the new Geri-Kisii road.

The area underlain by the rock groups of economic interest will be found to be a very trying one by the individual prospector. Topographically, there is a very sharp line drawn between it and the area underlain by the Kisii System; the latter forms a high, healthful country with an abundance of good water. The economic area, on the other hand, is low, very bare, and poor in running streams, and it will be very difficult for the prospector to find suitable spots where to erect his temporary camp.



Panorama showing the sharp distinction - between the
flat fertile country of # 1 & the highlands near the
cliff.



Nearer view of Venjo Hill

C. O.

23191/34
Kenya

Mr. Jackson 18/1

Mr. Ford 19

Mr. J. Campbell

Mr. Parkinson.

Sir G. Tomlinson

Sir C. Bottomley 20.7.34 for.

Sir J. Shuckburgh

Parly. U.S. of S.

Parly. U.S. of S.

Secretary of State.

2/7/34

Answered by NO 4
Coul. A.R. N. 3

2

C. O.
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23 JUL 1934

Sit

DRAFT

The Principal
Mineral Resources Dept.
Nairobi, Kenya

I am sorry to have written to you a copy of a despatch from the Gov. of Kenya, enclosing a Report by the Govt. Geologist on general mining conditions in the Colony. It will be desired that the Governor invites an expert opinion on Mr. Murray-Hughes' appreciation of S. P. Curcliffe's notes will be glad to receive such advice as the Mineral Resources Dept. may be in a position to offer.

FURTHER ACTION.

2

2) I am to request that the enclosed Report,
of which no other copy ^{of the report} is available in
London, ^(I am so required that it) may be returned with your
reply.

J. E. W. FLOOD

KENYA.

NO.58

CONFIDENTIAL.



GOVERNMENT HOUSE,
NAIROBI,
KENYA.

16th APRIL, 1934.

RECEIVED
12 APR 1934
C. P. 1934

Sir,

I have the honour to transmit for your information a copy of a report on General Mining Conditions by Mr. K. Murray-hughes, Geologist and Mining Engineer.

Enclosed (5)

(2)

Copy of Report - orig. to
Mineral Resources Dept.

2. The Report, which is dated the 24th March, indicates that in the areas which have been closely prospected, namely the Kakamega, Gori (Area 5) and Lolgorien areas, there is a potential gold yield of just under £4,000,000 value, and that, if properly worked, these areas would be exhausted in six years. This estimate does not include Areas 1, 2 and 4 nor the whole of Area 3 of the Mitson report. Mr. Murray-hughes has not yet reported on Area 1. The Appendices to the report show a reasonable prospect of mines in Areas 2 and 3.

3. I should be glad to learn whether your expert advisers, on the material presented in this report, concur with Mr. Murray-hughes in his appreciation of the potentialities of the field.

4. Attention is invited to the reference to a large body of sulphide on page 49 of the Report.

I have the honour to be,
Sir,
Your most obedient,
humble servant,

BRIGADIER-GENERAL,
GOVERNOR.

THE RIGHT HONOURABLE
MAJOR SIR PHILIP CUNLIFFE-LLISTER, P.C., G.B.E., M.C., M.P.,
SECRETARY OF STATE FOR THE COLONIES,
DOWNING STREET, LONDON, S.W.1.