

The Yukon Consolidated Gold Corporation, Limited

DAWSON, Y.T.

CANADA

SUPPLEMENTAL REPORT ON LIARD - HYLAND RIVER PROPERTIES

To obtain further and more definite information regarding the above properties, J. F. Sealey and myself left Dawson by car on the morning of January 5th, arriving in Whitehorse that evening where we met Mr. H. E. Boyd, who informed us that he had already arranged to have Mr. E. N. Butler meet us at Watson Lake. The following morning, January 6th, after purchasing maps of the Liard-Hyland River District from the Mining Recorder at Whitehorse, we proceeded to Watson Lake where we arrived late that evening. We immediately got in touch with Mr. Butler and arranged for a trip over the properties the next day. On the morning of the 7th, we travelled south on the Alaska Highway to a point opposite the lower extremity of the property on the Liard River, stopping en route at the crossing of the Highland River.

On returning to Watson Lake, we contacted two other men who had mined on the bars of the Liard, Mr. Victor Johnson and Mr. Nazar Zinechuk. Later we returned to Mr. Butler's cabin where we spent the remainder of the afternoon discussing the amount and nature of the prospecting he had done and acquiring all information pertinent to the property which he was able to furnish. When this was concluded, we started on our return to Whitehorse, arriving at Teslin about 10:00 P.M. where we spent the night. We continued on to Whitehorse the following forenoon and consulted with Mr. Boyd and Mr. Braden during the afternoon. We returned to Dawson Sunday, January 9th.

SOURCE OF INFORMATION

On meeting Mr. E. N. Butler, we found that he was a former employee of the Yukon Consolidated Gold Corporation, Limited, having worked under A. B. MacDonald at the Arlington for two or three years and after that for a short while on Dredge No. 4. He left Dawson about 1939, moving to Whitehorse where he worked during the wartime period. About 1948 he left Whitehorse and went to Watson Lake where he worked around the airport. He commenced prospecting on the Liard River about 1951. When working for the Company, he was generally known as "Bob" Butler, and of course neither Mr. Sealey nor I had thought he was the same person. Butler is of the garrulous type, prone to exaggeration, and whose statements should usually be taken with reservation. Therefore, we felt that we should not place too much confidence in what he told us. For this reason, we were particularly relieved to find three other men whose statements corresponded closely to what Butler had told us concerning the mining and prospecting done on the Liard River. While on our way back to Whitehorse, we stopped at Upper Rancheria where we saw Mr. Len Kieffer, who had done considerable prospecting and some mining on the Upper Liard. His statements as to the nature of the deposit and the quantity of gold found were approximately the same as those stated by the others.

TOPOGRAPHY

The general topography of the Liard River district is typical of glacial filling and subsequent stream erosion. It is a part of what is generally called the Rocky Mountain Trench, which is bordered on the west by the Cassiar Mountains and on the east by the main Rockies. It is characterized by broad, flat terraces rising at intervals of 50 to 100 feet each. The Liard River generally follows the lower level and has banks of approximately 8 to 20 feet high, that level extending back from the river distances varying between 200 feet and one mile before rising to the next higher terrace. During its course, however, the river has in places incised itself into rock promontories forming canyons whose walls are almost vertical and are from 75 to 100 feet high. These canyons are spaced from 10 to 15 miles apart along the course of the stream. They are, perhaps, ridges which existed between valleys prior to glaciation and their bottoms do not indicate a true bedrock horizon of the areas between the canyons. Geological reports state the general flow of the ice mass in this particular area was southerly and the length of the canyons and their continuity give some indication that the pre-glacial valleys were normal to the ice movement and if so, it may be possible that the gravels in the original streams were not completely destroyed. The depth to these original gravels may be too great for mining or even to be reached by drilling, therefore, whatever gold that is recoverable would be derived from the glacial drift.

The portions of the Liard and Hyland Rivers, which we are presently concerned with, are between canyons, and there is nothing on the surface that would indicate an obstacle to a dredging operation. The surface of the Hyland River valley above the point where the Alaska Highway crosses it, appears almost ideal for dredging. It is flat, a mile or more wide, rising only a few feet above the stream level. Both the Hyland and Liard Rivers are large streams and if it were not for the numerous canyons, they would be navigable for small boats. No large boulders were seen lying on the surface of the ground nor was anyone able to tell us that they existed in the gravels of the immediate area. The surface gravels that lie above the general water table are classified as medium in size, with a few large pieces not exceeding a foot or two in diameter. They contain large amounts of sand, of which the so-called "rare earths" are a constituent. Only a small amount of glacial clay has been observed along the rivers.

PROSPECTING AND MINING

Mining on the bars of the Liard River has been carried on sporadically since 1872, when a Mr. McCollock discovered gold and worked on a bar which has been subsequently called "McCollock's Bar". It is located near Old Fort Halcut at the mouth of Smith

River. Later, some Chinamen mined on the bars and on the tops of the banks a short distance below where the Alaska Highway crosses the Upper Liard. In recent years a few men have mined in the same locality because of its present accessibility. No coarse gold nor anything really rich has ever been found, but the amount of gold and its distribution has been fairly consistent. At the present time there are two persons mining on the Hyland River, one below the point where the Alaska Highway crosses it and the other several miles above. They have been able to make a reasonable living by the usual mining method employed, which is using a short sluice about 8 feet long and furnishing water with a small gasoline-driven pump. The material is all hand-shovelled. Corduroy cloth and expanded metal are the gold saving medium. Last year Mr. Butler and his partner, Mr. H.J. Baker, worked on the Liard River approximately two and one-half miles below the highway bridge across the Upper Liard. They also did casual prospecting along the various bars of the river downstream as far as the first canyon, which is about 16 miles below the bridge. Mr. Johnson and Mr. Kieffer stated that they had worked on several of the better bars in the same locality and were able to recover as much as one ounce per day using the conventional mining apparatus. They estimated they handled approximately two cubic yards in a day. This represented the best they were able to do. Many of the bars contained less gold, but rarely on any was the gravel barren. Both Mr. Johnson and Mr. Kieffer said that they only dug from one to two feet deep, because they thought the best values were near the surface and also, if they dug deeper, the water would enter their pits, which were naturally near the river in order to operate the pump.

Mr. Zinechuk spent many years in the Liard district, going there first in 1926. The greatest amount of his prospecting was done on the Nehanni River, which is a tributary of the Liard, entering several miles downstream. His prospecting on the Liard and Nehanni Rivers showed conditions very similar to those reported by the other men, but he stated that he had taken out as much as two ounces in a day. He also said that on the Lower Nehanni there were strata of pure black sand several inches in thickness, which contained gold. He also said that he had found very good prospects on the Liard River farther downstream, and believed it to be as good if not better than the area we were investigating.

The conventional way of travelling, prospecting and mining is to use a small boat with an outboard motor, stopping at various bars, taking a few pans of gravel to see what gold there is in it and if the indications are favourable, set up their small sluice and pump and then work there for a few days or until they feel that they have worked out the best of it, and then proceed to another place. The information they are able to give is nothing on which the value of ground can be reckoned, but the fact exists that there is a substantial amount of gold present in the sands and gravels on these river bars, the source of which is unknown and may be a concentration by

erosion of the river banks upstream and gold accretion on the bars or else by the erosion or carrying away of the lighter materials on the bars themselves. There appears to be a renewal of gold on some of the bars from time to time but there is no evidence of any extensive bank cutting upstream. Mr. Butler stated that he panned gold taken from dirt around the roots of trees some distance from the river and Mr. Kieffer said he had found a streak of very fine gold where the bank had been recently washed. Mr. Zinechuk stated that he had found gold to a depth of six feet in a prospecting pit he had dug on the Lower Liard.

CHARACTER OF GOLD

The gold in the Liard District is generally very fine even to the point where it must be gathered together to be clearly visible. The coarser pieces rarely exceed the size of a pin-head. The consensus of the men interviewed was that it is difficult to save, particularly since it is associated with heavy sands. They feel that their gold losses both in prospecting and mining are substantial. The gold we saw when panning down some of the concentrate was much finer than what we have in Dawson, the coarser pieces only being large enough to be readily seen. The fineness of the gold is, of course, characteristic of glacial deposits.

CHARACTER OF SANDS

The heavy sands which form a part of the gravel are composed of very fine particles varying in color and specific gravity. The major constituent appears to be magnetite, which gives a dark hue and for this reason the sands are called "black sands". There are many other particles of grey, brown and red color which form a fairly large part. Some of the latter are believed to be of economic importance, and have been classified as "rare earths". For many years these sands have been considered a hindrance to mining operations and an annoyance to the miner. In 1953, Mr. Butler had an assay made by G.S. Eldridge, of Vancouver and also sent a small sample to Derby & Co. of London, England, for analyzing. The results indicated that the sands contained some rare metals. He believed the degree of concentration in obtaining these samples was approximately one-half of one percent but he had taken no actual measurement or weight of the raw gravels nor of the final concentrate, so his figure at best is a rough estimate. During the past summer he set up a short sluice using a pump and reduced approximately 27 cubic yards of raw material to 500 pounds of concentrate which he has stored. The concentrating device employed was a sluice on the bottom of which he placed canvas covered with corduroy cloth, over which he placed a screen with fairly fine holes and on the top expanded metal. He felt that it was a fairly efficient concentrator. Also during the last season, in approximately the same area which was two miles downstream from the Alaska Highway bridge crossing the Upper Liard, the Tecumseh Petroleum carried on a small testing operation using a Wilfley table. They shipped several hundred pounds of concentrate for analyzing and processing by plants in the Eastern

United States. They also have a considerable amount presently stored at the site of their operations. Mr. Butler was not greatly impressed with the efficiency of the Wilfley Table and thought that his own device was much more efficient. He also believed that much of the gold and fine sands were lost when using a Wilfley table.

We were able to procure samples of both Mr. Butler's concentrate and that of Tecumseh Petroleums. The ground from which the samples were taken and where the mining was done by Butler, Johnson and Kieffer lies between the Upper Liard highway crossing and the first canyon below and is not ground that we are now considering. The Liard River is known as Upper Liard from the townsite of Lower Post upstream, and Lower Liard below. All of our ground is on the Lower Liard. The ground on which Mr. Butler's work was done and also the Tecumseh Petroleums, is held by many different people in claims and small leases, Butler and Baker being among them. The Tecumseh Petroleums also hold a fairly substantial block.

PROPERTY RIGHTS AND TERMS

While in Whitehorse, we conferred with Mr. Boyd and Mr. Braden relative to the status of the property now held under a lease or an application for lease, and to the extent of the Company's commitment in undertaking a drilling program on all or any part of the ground. The Gold Commissioner at Victoria, B.C., has issued regular leases in the names of the various persons who staked the ground on the Liard River and on that portion of the Hyland River lying within British Columbia. The date of issuance of the leases is January, 1955, and all rental payments and fees necessary have been paid to January, 1956. For the portion of ground on Hyland River lying within Yukon Territory, grants for prospecting leases on the first ten miles were issued on 19th August, 1954 and will not expire until 19th August, 1955. The applications for prospecting leases farther upstream have not been granted as of this date. The terms of agreement they suggest between the Company and themselves are as follows:

DRILLING

1. The Company to pay \$100.00 per square mile or fraction thereof before commencement of drilling.
2. Company to have drilling option until June 30th, 1955, at which time they will decide to accept or reject the ground under option.
3. Drilling results to be made available upon request.
4. Certificate of assessment work to be provided.

MINING

1. Upon acceptance of the ground, the Company to pay \$25,000. as advance royalties and once each year thereafter until commercial production is reached, with a minimum advance royalty of \$25,000. payable each year whether the Company operates or not.
2. All ground optioned to be kept in good standing according to B.C. or Yukon regulations as the case may be and surveyed at the Company's expense if required to be done. If the Company intends to drop any ground under option, they are to notify the lease-holders at least three months prior to the expiration of the lease.
3. Any future staking by the Company in the vicinity of the lease-holders placer leases to be in the lease-holders' names and to be considered as forming part of the original leases and subject to the conditions specified herein.
4. Royalties on gold to be at the rate of 5% on gross mint returns and on all other minerals to be 15% of the gross production. Royalties to be paid as returns are received by the Company.
5. Certified annual returns of production to be furnished to the lease-holders.

In undertaking a drilling program, our commitment, besides the cost of the drilling program itself, is the payment of \$100.00 per square mile or fraction thereof for the option agreement. If on June 30th we decide to abandon the examination, we do so free from all further liability.

CONCLUSION

From all information available, it appears that the gravels of the Liard River and its tributaries, from their upper reaches down as far as the mouth of the Nehanni River, contain gold of appreciable quantity. The deposit may be the result of natural concentration of the gold in the glacial drift by stream action, and therefore may be of superficial depth and one with little continuity. However, the evidence is sufficient to warrant further investigation and possibly a small drilling program. The extent of the area is so great that no one company could undertake the whole of it, and at the present time there is nothing to indicate that one part is more desirable than another.

The ground that we are now contemplating has no better physical assets for dredging than many other places which are now open or probably will be shortly. From the standpoint of accessibility, the ground on Hyland River upstream from the highway appears to be the most suited for reconnaissance drilling and the possibility of favourable results are as great there as elsewhere.

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In reviewing the terms suggested by Mr. Boyd and Mr. Braden, the optional period in which the drilling is to be done and the terms concerning the drilling are satisfactory. However, some of the terms concerning the final mining of the ground appear exorbitant and unfair. The payment of advance royalty in Clause I. was not a part of the agreement when the matter was first discussed with Mr. Boyd, but it probably is one that could be undertaken by the Company without too much difficulty. Clause 2. is quite proper. Clause 3 is objectionable on the grounds that it permanently alienates the right of the Company to expand freely and gives the present lease holders extra lateral rights that they are not entitled to. The royalties of 5% on gold and 15% on other minerals is too high. They predicate their royalties on the assumption that the unit value of the ground will be at least 50¢ per yard and that the revenue from the other minerals will far exceed that for gold. They have no tangible basis for their presumption and if the ground value should be much below, we would be encumbered with a contract royalty load greater than the ground would warrant. On the other hand, we have no idea what the concentrating, transporting and processing costs of the other minerals might be and a royalty on gross output could not be justified. If it were at all possible to negotiate for an outright purchase of their rights, it would be most desirable. Of course, they have great expectations of the productivity of the ground and it will no doubt be most difficult to arrive at a mutually satisfactory figure. Mr. Boyd and associates have expended less than \$10,000. to date, of which they expect to have a substantial portion reimbursed them by us, in taking up the drilling option. Since so little is known of the worth of the ground and their financial outlay has been so small, a total figure of approximately \$250,000. payable in annual installments of \$50,000. per year should not be unreasonable. If no arrangement can be made for the outright purchase, a royalty of 2-1/2% on gold and 10 or 15% on the net returns from the other minerals would appear to be fair royalties. Clause 5 is the expected procedure.

I believe that both Mr. Boyd and Mr. Braden would be favourably disposed to discuss these matters and arrive at an agreement that would be satisfactory to both themselves and the Company. They fully realize that the actual worth of their holdings depends on the outcome of the Company's prospecting, and if the Company rejects the ground, they will lose everything they have invested in it, therefore, they are most anxious to arrange an agreement that would encourage the Company. I would suggest that discussions be held with them with the object of obtaining a more equitable royalty arrangement, and the

elimination of their Clause 3, and if this is accomplished, we should start a drilling program on the Hyland River at an early date.

Dawson, Y.T.
January 14th, 1955.

The Yukon Consolidated Gold Corporation, Limited

DAWSON, Y.T.

CANADA

PRELIMINARY REPORT ON LIARD AND HYLAND RIVER PROPERTIES

LOCATION

The general location of the property is southeast Yukon and Northeast British Columbia. More specifically, it is located on the Liard River, opposite and below the mouth of the Hyland River, and on the latter stream both in British Columbia and Yukon Territory.

PROPERTY AND TITLE

Within British Columbia: The portion of the property which lies within the Province of British Columbia consists of six parcels of ground on which application has been made to the Gold Commissioner at Victoria, B.C. for placer mining leases. All provisions for the granting of these leases have been fulfilled with the exception of financial responsibility to conduct a mining programme commensurate with the amount of ground applied for. Five of the blocks of ground on which applications are pending are on the Liard River and are contiguous, forming a solid block of ground approximately seventeen miles long and averaging about one and one-half miles wide. There is one isolated lease on the Hyland River that extends from the Yukon border southward a distance of approximately two miles, where it comes to the boundary of the Alaska Highway reserve. Its width is about two miles.

Within Yukon Territory: In Yukon Territory, four prospecting leases and two river leases have been granted covering ground from the Yukon border upstream a distance of ten miles following the sinuosity of the stream, and extending one thousand feet back from the river banks on either side. The river leases cover that portion of the stream that is included within the two leases and its lateral boundaries conform with the same flexures which form the interior boundaries of the prospecting leases, thus forming a solid block of ground approximately twenty-five hundred feet wide and ten miles long. Above this, on the Hyland River, applications have been made for an additional twenty miles covering a like width. As of this date, the grants had not been issued. The applications and the grants are in the name of Liard Black Sands. Those having interests in the association are H.E. Boyd, A.H. Braden, E.N. Butler, D. Porter, W. Stratton and H.J. Baker. Mr. Boyd is acting as spokesman and has authority to make any agreement for the property. He is the manager of the Automotive Department of the N.C. Company at Whitehorse. Mr. A.H. Braden acts as Secretary and is the senior partner in the accounting firm of Braden and Porter, who have among their clients many of the prominent business firms of the City of Whitehorse.

HISTORY

Gold has been known to exist in the gravels of that portion of the Liard River and its immediate tributaries for many years. In their report on Exploration in the Yukon District, Northwest Territories and Adjacent Northern Portion of British Columbia, which was made in 1887, G.M. Dawson and R.G. McConnell stated that miners had been working on the bars of the Liard River as early as 1872. In the Cassiar District, which is situated to the southwest and whose major stream, the Dease River, is tributary to the Liard, active mining operations have been carried on for many years and has been a substantial producer of gold. Although there are no Government reports presently available on the immediate Liard and Hyland Rivers Mr. McConnell, in the above mentioned report, stated that some prospecting had been done on the latter stream but with indifferent results. In the year 1924, when there was a rejuvenation of mining in the Cassiar District through the discovery of new creeks, many prospectors ascended the Liard River even as far as Francis Lake and some mining was done at the mouth of the Finlayson River. Dr. H. S. Bostock, in his memoir on Mining Industries of Yukon, 1935, states that in 1933 and 1934 there was considerable activity in placer prospecting on the tributaries of the Liard River. Two companies were formed and the exploration work carried on by them indicated that there were considerable areas of gold bearing gravel, but that the undeveloped state of the district made mining costs too high and the properties were abandoned. With the construction of the Alaska Highway, more people were brought in and when the construction activities were over and the influence of high wages had subsided, many of the men who had worked in that vicinity began prospecting for gold. In 1953, it was found that the black sands or the concentrate found in the gravels of the Liard and Hyland Rivers, contained rare minerals, and when this became publicly known, practically the entire length of the Liard River and its larger tributaries were staked.

Mr. Ernest N. Butler, who had been in the Watson Lake area for a number of years and had done some cursory prospecting on the Liard and Hyland River bars and banks, had saved some of the concentrate of his pannings. He sent a sample of it to Derby and Company Limited, London E.C. 4, England, where tests were made, and it developed that the material contained several of the more rare minerals. The report by Derby and Company was so encouraging that he staked a considerable block of ground himself and interested others to do so also.

EXPLORATION

Although a tremendous area of ground has been staked in the vicinity of the Liard and Hyland Rivers, very little exploration has been done and the knowledge of what the ground actually contains is meagre. Mr. Butler has been doing a small amount of surface prospecting

with pan and rocker and has not really compiled any definite information. Besides the sample of concentrate, he also sent a sample to G.S. Eldridge & Company, Vancouver, B.C. where the assay made, indicated extraordinary gold content. What degree of concentration was involved in producing these samples from insitu gravels is not known. Mr. Butler, who is presently at Lower Post, B.C. could, no doubt, give this information in a general way, as in ordinary prospecting practises, these refinements are given little thought. However, regardless of the degree of concentration, there is a positive indication of the presence of gold and rare metal.

Early in the spring of 1954, during what one might term the peak of promotional activity in the Whitehorse area, the Tecumseh Petroleum Company, of which I have no knowledge, and whose principal activities were in the acquiring of potential oil lands, became interested in the possibilities of the Liard River becoming a gold and rare earths producer. They apparently did a considerable amount of exploratory work and spent several weeks in the area. They also staked and acquired by lease a substantial amount of ground. A copy of the report by the Board of Directors to their shareholders is enclosed.

Mr. Alex Berry, the Territorial Councilor from Mayo, who is also the Field Exploration Representative for the Conwest Company Limited, became interested in the Liard field and spent several days there at the very peak of excitement and made a brief examination. He produced a sample of concentrate by panning material from the Bank of the Liard River near where it is crossed by the Alaska Highway. The ratio of concentrate according to his figures was twelve to fifteen pounds to a ton of raw gravel. The assay value of his concentrate was 0.54 ounces in gold per ton. He had no return on platinum or other rare metals. He reported his findings to Mr. Fred Connell, the president of his company, who stated that the Conwest Company was not interested in a placer project.

Also during the summer of 1954, Mr. Oliver Warren, who for many years has operated a dragline and washing plant in Northern California, was in the Burwash District looking for a possible site for a dragline operation in that vicinity. He immediately became interested in the possibilities of the Liard and acquired the right to prospect the lower five miles of the Hyland River from the Liard Black Sands, who had filed an application for a lease covering that ground. Mr. Warren sank six pits varying from six to twelve feet in depth on the banks of the river. He stated to Mr. Boyd and Mr. Braden that the results of this preliminary prospecting showed values from 52¢ to \$3.65 per cubic yard. Since then, Mr. Warren has interested Mr. Frank Crawford of Anderson, California and Mr. Sam Fortino, of Chico, California to become partners with him in a dragline operation on that part of the Hyland River. Mr. Crawford and Mr. Fortino are both interested in the lumbering business in Northern California, having lumber mills and lumber products plants of their own. They have taken a lease on the ground from the Liard Black Sands on the same

terms which were offered us, namely 5% of the gold produced and 15% on any other mineral. They have also paid \$1,000.00, or \$100.00 per square mile for a block five miles long and two miles wide. Mr. Warren and his associates plan to prospect the property next spring by drilling and have already arranged for the purchase of a dragline and washing plant that is on McDane Creek and owned by the Harms Larson Company, which operated there a few years ago.

CONCLUSION

Since the information available is so scant, and what Mr. Boyd and Mr. Braden were able to give us was nothing more than what might be termed secondary, it is difficult to form a fixed opinion. There is a vast discrepancy between the values of the sands as found by Derby & Co., the Tecumseh Petroleums and Mr. Warren, compared to the value found by Mr. Berry. It can be presumed that the former values greatly exaggerate the true value, and that the value found by Mr. Berry might be ultra-conservative, but probably most realistic. Using Mr. Berry's results, and assuming a concentrate of twelve pounds per ton, gold valued at \$30.00 per ounce and one cubic yard equal to one and three-quarters tons of gravel, we have:

$$\frac{12 \times 54 \times 30 \times 1.75}{2000} = 17.0\phi$$

This gives a value of 17.0¢ per cubic yard. The value of \$30.00 per ounce was taken as the information was based on assay instead of native fineness of the gold. The value of 17.0¢ per cubic yard is, of course, marginal. However, if there are other minerals present in economic quantities, it may add to the attractiveness. All of the prospecting or sampling from which the foregoing information was derived, was surface. There is no knowledge whatsoever as to the depth of the ground or the penetration of values into it. The sampling was all done near the river bank which was the most accessible place and also the easiest to obtain a concentrate sample. Mr. Boyd and Mr. Braden said the general level of the ground for some distance on either side of the river was about eight feet above mean water level and this, no doubt, was the reason why Mr. Warren's test pits did not extend deeper than twelve feet. They also said there was a topsoil about two to four feet thick which supported vegetation and fairly good tree growth. Below this there is sand and gravel to water level. As far as they know, the black sands are uniformly distributed through the sand and gravel to the bottom depth of the test pits. They believe that the depth to bedrock would be forty to fifty feet but their information is based only on outcrops of bedrock at distant places and may not be anywhere near the actual. That part of British Columbia and Yukon Territory has been glaciated and the surface gravels may be underlaid with a depth of glacial till, as was demonstrated in our drilling on the Fraser River. However, if the values are sufficient and penetrate to a depth of ten to twenty feet, there is no need of reaching bedrock. In the largest dredging fields of California, bedrock has never been reached.

LEASE OF PROPERTY

Mr. Boyd and Mr. Braden propose that the Yukon Consolidated Gold Corporation lease all of the property now held by grant and all that applied for either for dredging leases in British Columbia or prospecting leases in Yukon Territory. The terms would be 5% royalty on all gold produced and 15% on rare earths. They also ask a payment of \$100.00 per square mile, which is to partly reimburse them for the money they have already expended toward the acquiring of the leases, knowing that it will be possibly two or three years before they would receive any substantial returns through ordinary royalties. Mr. Boyd and Mr. Braden are conscientious men and firmly believe that the ground is what they report it to be. They are both prominent men in the business and social life of Whitehorse.

Enclosed:

Map showing the various pieces of ground for which dredging leases have been applied and the ground in Yukon Territory for which grants have been issued and on which applications for prospecting leases have been made.

A copy of the regulations covering placer mining leases as granted in British Columbia by the Lieutenant-Governor in Council as provided for in Clause 127 of the Placer Mining Act of the regulations of the Province of British Columbia.

A copy of the report to Mr. E.N. Butler by Derby & Co. showing the analysis of a black sand concentrate.

A copy of the report to the shareholders of Tecumseh Petroleums.

Copy of letter to Mr. E.N. Butler from G.S. Eldridge & Co. Ltd. together with Certificate of Assay on sample of black sand.

Copy of letter from H.E. Boyd to Yukon Consolidated Gold Corporation, making agreement not to commit the ground presently controlled by them to any other party until January 31st, 1955.

On Page 52 of Memoir 247 titled, "Physiography of the Canadian Cordillera" by Dr. H.S. Bostock, you will find a good picture of the Hyland River at its junction with the Liard. Unfortunately, I am unable to furnish you with a copy of this publication. It may be available in Vancouver at the Chamber of Mines or at the Public Library. Before venturing on an extensive prospecting programme, it would be well to consult Mr. Butler to get what further information he may have regarding the ground and also to acquaint ourselves better with the general physiography. However, a small drilling programme would not be costly, and a few holes would probably provide data to make a final decision in the matter. The greatest cost would be the transportation of the drill which, due to property being so accessible, to the Alaska Highway, would be no great undertaking.

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DERBY & CO. LTD.
London, E. C. 4.

September 29th, 1953

Mr. Ernest M. Butler,
Watson Lake P.O.,
Canada

Dear Mr. Butler,

Further to my letter of the 14th September, I have now pleasure in communicating to you the result of the analysis on your sample of black sand concentrate which has been tested by our chief chemist, who reports as follows:

	Arsenic	0.10%				
	Gold	62.04 oz.	per long ton			
	Platinum	0.13	"	"	"	"
S	Silver	11.30	"	"	"	"
	Nickel	a trace				

As you know, blacksand is practically all Iron Oxide containing precious metals, and the assay shows that your concentrate is of very high value indeed.

If this sample of concentrate is truly representative of what you may be able to produce, and especially in substantial quantities, then I should say that you have a very valuable proposition which should be highly profitable to you.

I need say no more now but that we should be very pleased indeed to receive as much as you can ship of such concentrate, and if it would take too long for you to accumulate one ton lots, then I suggest that this material is so valuable that it might pay you to ship as little even as half a ton at a time.

It is difficult to estimate the value of your material, the amount that could be paid depends upon so many different factors, but without committing my firm I should say that you would be safe in reckoning that the material of the same assay as we reported to you should be worth approximately \$2,000 per long ton delivered either to England or to the United States.

We do hope that we will hear from you soon with advice that you are able to begin delivery shipments.

For material as valuable as this you would, of course, have to be careful that it is safely contained in good sound drums or, alternatively, in first-class sound bags or sacks of close texture or paper lined.

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Mr. Ernest M. Butler

September 29, 1953

You may remember that you sent us a sample of the unconcentrated black sand some time ago, and on the 13th July we wrote to you giving you the assay, which was as follows:

Gold	13.42 oz. per long ton
Silver	2.4 oz. per long ton
Platinum	0.02 oz. per long ton

If it should not be possible for you to ship concentrates you may decide that it would pay you to ship as much as you can of the unconcentrated material, which would serve to supply you with a certain amount of funds more quickly than if you have to wait some time in order to get some concentrates.

We do wish you the best of luck in your venture, and shall be very much obliged if you can let us have some early news on your progress and perhaps more particularly when we may expect to receive some shipments.

Yours faithfully,

DERBY & CO. LTD.

H. Levy

REPORT TO THE SHAREHOLDERS OF TECUMSEH PETROLEUMS

On May 1st, 1954, the Company prepared to send equipment to the "Canadian Creek" property about 260 miles north west of Whitehorse near the Yukon River. The ice was very late in moving out of the Yukon River and the spring thaw was very prolonged until quite late on Canadian Creek.

While waiting for the thaw, close to June 1st, a gold strike was reported on the Liard River in the vicinity of Watson Lake. We immediately investigated this and subsequently staked 25 miles of placer rights along the Liard River. We have also optioned an additional 4 miles of ground to consolidate our acreage.

This prospect was easily accessible so the Company moved equipment and crews into the area for widespread sampling and testing. The equipment was set up on a "pilot run" basis to produce a concentrate to readily assay the gold, silver and platinum values. We were primarily interested in these values since the overall mining method would be determined by them. It has been suspected for years that Liard "Black Sands" contained other rare minerals including some mild radioactive minerals.

The pilot run consisted of washing the sands and gravel, screening them to fine size, and separating the heavy minerals from the sands and clay by washing across oscillating tables. We were able to establish a concentrative ratio of approximately 1%, i.e., 100 pounds of crude gravel produces somewhat less than 1 pound of concentrate.

Initial assays of this concentrate indicated the presence of gold, platinum, chromium, titanium and zirconium in commercial or near commercial quantities plus other rare metals. These rare metals are commonly known as "rare earths". Of these rare earths, prominent in our concentrate are Columbian and Gallium, both of which are extremely valuable when refined. The Gold-Platinum values indicate that we definitely have a commercial dredging prospect, the proportions of which are tremendous when the amount of potentially productive acreage is considered. With commercial values also indicated in several other minerals, notably chromium and zirconium, and with an additional possibility of having a commercial "rare earth" concentrates the potential of this property excites the imagination.

Further to the matter of the "rare earth" potential, the Company has engaged the Mineral Refining Company of Murray, Utah, who are a leading research organization in concentrating, extracting and refining of rare metals. This group is currently analyzing our concentrate and are designing the process by which these rare metals can be commercially extracted after the initial extraction of gold and platinum. Results to date have been most encouraging.

Plans for the balance of the summer include an extensive sampling program over the entire area. A large scale photomosaic is being prepared which will simplify this sampling program.

Meanwhile, Tecumseh has retained the Canadian Creek property and the LaForma Gold Mine property in the Carmacks area. These properties will be kept in good standing for future development.

Tecumseh has retained its interest in various oil properties as well as a 7-1/2% interest in 7 producing wells in the Chauvin Field.

In summary, the Directors of Tecumseh are tremendously encouraged by results to date on the Liard River prospect and can now state that there should be some very interesting developments to report at the time of the Annual Meeting in December, if not sooner.

THE BOARD OF DIRECTORS

Eldrige's report (Aug. 1954)

AL AU AG CA CR CE FE GA (8% per ton conc.) MG MN NA PB PT S10
TI TA TH VA ZR GE

G. S. ELDRIDGE & CO. LTD.
AND
STANDARD TESTING LABORATORIES

633 Hornby Street,
Vancouver 1, B. C.

April 23rd, 1954

Mr. E. N. Butler,
P.O. Box 23,
Whitehorse, Y.T.

Dear Sir,

Thank you for your letter dated April 18th. We are enclosing herewith 3 copies of our assay report showing the results of your sample of Black Sand. If you are still interested in marketing this sand, we suggest that you send one copy of the report with accompanying letter to each of the companies listed below.

Derby and Co. Ltd.,
St. Swithin's House,
11 - 12 St. Swithin's Lane,
London E.C. 4, England

Philipp Brothers (Canada) Ltd.,
1440 St. Catherine Street, West,
Montreal, P.Q.

Yours very truly,

G. S. ELDRIDGE & CO. LTD.

per:

(signed) G.S. Eldridge

CERTIFICATE OF ASSAY

G. S. ELDRIDGE & CO. LTD.

Provincial Assayers, Analytical and Consulting
Chemists, Metallurgical and Cement Inspectors

WE HEREBY CERTIFY that the following are the results of assays made by us upon samples of BLACK SAND
 herein described and received from Mr. E. N. Butler April 23rd, 1953.

MARKED	GOLD		SILVER		PLATINUM		TOTAL VALUE Per Ton (2000 Lbs.)
	Ounces Per Ton	Value Per Ton	Ounces Per Ton	Value Per Ton	Ounces Per Ton	Value Per Ton	
	9.38	\$328.30	1.7		0.03		

Gold Calculated at \$35.00 per ounce

Silver calculated at _____ per ounce

NOTE: Samples only retained 3 months unless otherwise specified (signed) G. S. Eldridge Provincial Assayer.



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