

PROPERTY FILE

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HUB

**Mining &  
Exploration  
Ltd.**

(N.P.L.)

103I-62,63

**PROSPECTUS**

B. G. CLEMENT & CO.  
NANAIMO, B. C.

DECEMBER 1965

HUB MINING & EXPLORATION LTD.  
(N.P.L.)

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PROSPECTUS

SECURITIES OFFERED BY THIS PROSPECTUS HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE BRITISH COLUMBIA SECURITIES COMMISSION. THE PROSPECTUS SUPPLIES THE INFORMATION REQUIRED BY THE SECURITIES ACT BUT THE BRITISH COLUMBIA SECURITIES COMMISSION HAS NOT PASSED UPON THE ACCURACY OF THE PROSPECTUS OR THE INFORMATION.

ANY REPRESENTATION TO THE EFFECT THAT THE BRITISH COLUMBIA SECURITIES COMMISSION HAS IN ANY WAY ENDORSED THE OFFERING OF THE SECURITIES CONTAINED IN THIS PROSPECTUS WOULD BE AN OFFENCE UNDER THE SECURITIES ACT.

A PURCHASE OF SHARES OFFERED BY THIS PROSPECTUS MUST BE CONSIDERED A SPECULATION.

(a) Hub Mining & Exploration Ltd. (N.P.L.) (hereinafter called "the Company") has its head office and its registered office at 85 Commercial Street, in the City of Nanaimo, in the Province of British Columbia.

(b) The Company was incorporated by Memorandum of Association under the Companies Act of the Province of British Columbia by Certificate issued by the Registrar of Companies and dated the 7th day of November, A.D. 1963.

(c) There have been no amendments to the Memorandum of Association of the Company since incorporation which are not covered by this Prospectus.

(d) The Directors of the Company are:

<u>Name and Address</u>	<u>Occupation</u>
B. G. Clement, R. R. #1, Qualicum, B.C.	Securities Broker.
Alfred C. Fillinger, 833 Chestnut Street, Nanaimo, B.C.	Retired.
Olaf Fedje, 42 Wakesiah Avenue, Nanaimo, B.C.	Businessman.
George Avery, #603, 1395 Beach Avenue, Vancouver, B.C.	Retired.
Donald Beaton, Qualicum, B.C.	Businessman.

The promoter of the Company is B.G. Clement & Co. The Vendor/Optionor of the mineral claims described in paragraph (m) (i) (a) herein is Sileurian Chieftain Mining Co. Ltd. (N.P.L.). The Vendor of the mineral claims described in paragraph (m) (i) (b) is B.G. Clement & Co., 85 Commercial Street, Nanaimo, British Columbia.

(e) The auditors of the Company are Messrs. Bestwick,

McDougall, Lavery & Krell, P.O. Box 328, Nanaimo, British Columbia.

(f) The Registrar and Transfer Agent is National Trust Company Limited, 510 Burrard Street, Vancouver 1, British Columbia.

(g) The authorized capital of the Company is \$2,500,000.00 divided into 5,000,000 shares with a nominal or par value of 50¢ each, of which 878,574 shares have been issued as fully paid and non-assessable. There is no other class of shares.

(h) The Company has not created or issued any bonds or debentures nor does it propose to do so and no bonds or debentures are offered by this Prospectus.

(i) 678,572 shares in the capital stock of the Company are being held in escrow with the National Trust Company Limited, Vancouver, British Columbia, subject to release and transfer only with the written consent of the Superintendent of Brokers of the Province of British Columbia.

(j) Shares sold for cash to date are as follows:

Number of Shares	Price per Share	Discount	Total Cash Received
2	50¢	Nil	1.00
200,000	10¢	40¢	\$20,000.00
			<u>\$20,001.00</u>

(k) No securities other than shares have been sold for cash to date.

(l) No cash has been paid to any promoter at the date hereof, nor is it proposed at the present to pay cash to any promoter. B.G. Clement & Co. was allotted the 678,572 shares referred to in paragraph (i) herein, as well as having purchased 23,000 shares in the capital stock of the Company at 10¢ each, as referred to in paragraph (i) herein.

(m) (i) (a) The Company is an Optionee under an Option Agreement in writing dated for reference the 5th day of May, 1965 between Sileurian Chieftain Mining Co. Ltd. (N.P.L.) (therein called "the Optionor") and the Company (therein called "the Optionee") (hereinafter called "the Option Agreement") as amended by Agreement in writing dated the 3rd day of December, 1965 between Sileurian Chieftain Mining Co. Ltd. (N.P.L.) (therein called "the Optionor") and the Company (therein called "the Optionee") (hereinafter called "the Amending Agreement") whereby the Company has acquired the sole and exclusive option to purchase the Hub 1 to 20 mineral claims located in the Omineca Mining Division near Terrace, British Columbia (hereinafter called "the option claims");

(m) (i) (b) The Company is also the recorded owner of the F.M. 1 to 6 mineral claims located in the Omineca Mining Division near Terrace, British Columbia, adjacent to the option claims (hereinafter called "the said claims");

(m) (ii) (a) The Optionor of the option claims is Sileurian Chieftain Mining Co. Ltd. (N.P.L.) and the purchase price for the option claims is the sum of \$25,000.00 payable \$500.00 upon execution of the Option Agreement (which sum has been paid), \$1,000.00 prior to December 31st, 1965; \$1,000.00 prior to June 1st, 1966; \$1,000.00 prior to December 31st, 1966; \$5,000.00 prior to June 30th, 1967; \$5,000.00 prior to December 31st, 1967; \$5,750.00 on or before June 30th, 1968 and \$5,750.00 on or before December 31st, 1968.

In addition, the Optionor shall be entitled to a carried two and one-half per cent (2 1/2%) of the net smelter returns received from the option claims and payment of such 2 1/2% of the net smelter returns will run during the commercial production of the option claims. On payment of all the purchase price, excluding payment of the net smelter returns, all right, title and interest in the option claims shall pass to the Company or its assignee absolutely.

This property consists of twenty (20) recorded mineral claims held by location in the Omineca Mining Division near Terrace, British Columbia.

(m) (ii) (b) The Vendor of the said claims is B.G. Clement & Co., Nanaimo, British Columbia, and this property consists of six (6) recorded mineral claims situate in the Omineca Mining Division near Terrace, British Columbia.

(m) (iii) So far as the signatories hereto are aware, no person or company received, or is to receive, from the Optionor of the option claims to the Company, a greater than five per cent (5%) interest in the consideration received therefor. The following parties have received, or will receive, from the Vendor of the said claims a greater than five per cent (5%) interest in the consideration received therefor:

B.G. Clement,  
R. R. #1,  
Qualicum, B.C. - 250,000 shares;

George Avery,  
#603, 1395 Beach Ave.,  
Vancouver, B.C. - 50,000 shares.

(m) (iv) Access to the option claims and the said claims in the past was via a thirteen mile wagon road and packhorse trail from the Skeena River up Legate Creek. The juncture of the Skeena River with Legate Creek is ~~forty-four miles by road from Terrace. The former combination wagon road and packhorse trail is now obliterated by dense new growth and rock slides and access for the present is via helicopter from the Airport at Terrace, a one-way trip takes from twenty to twenty-five minutes. Helicopter landings can be easily made on the mountain ridge along the north-eastern boundary of the option claims and the said claims at an elevation of 5,300 feet or on gravel bars in the east branch of Legate Creek.~~

Access could be obtained by constructing a road along the old wagon road route for twelve to thirteen miles up Legate Creek from the Prince Rupert/Prince George Highway. The road would have a gradient of only a little over one hundred feet per mile until within two miles of the said claims.

(m) (v) Underground development work on this copper-lead-silver prospect consists of an adit tunnel at elevation 4,640 feet which has ~~been driven on a bearing north fifty degrees east for a distance of 74 feet from which point branches have been driven south fifty degrees east for 50 feet and North thirty degrees west for 90 feet respectively. Another tunnel, elevation 4,200 feet and approximately parallel to the upper one, has been driven for a distance of 70 feet. (See the Report of Dr. Allan P. Fawley, Ph.D., P.Eng., dated December, 1965 attached hereto and forming part of this Prospectus).~~

(m) (vi) For information respecting the character, extent and conditions of all surface explorations, see the Report of Dr. Allan P. Fawley, Ph.D., P.Eng. dated December 1965 attached hereto and forming part of this Prospectus.

(m) (vii) For information respecting the history of the properties see the Report of Dr. Allan P. Fawley, Ph.D., P.Eng. dated December 1965 attached hereto and forming part of this Prospectus.

(m) (viii) Work done and improvements made by the Company under present management consists of prospecting, slucing and trail cutting on the option claims during July 1965. In addition, the Company staked the said claims during the summer of 1965.

(n) (i) No securities of the Company are subject of an underwriting agreement, sub-underwriting agreement, option agreement or sub-option agreement. The Company offers hereby 200,000 shares at a price of 35¢ per share and a discount of 15¢ per share is to be allowed. A maximum commission of 25% is allowable.

(o) The Company intends to use the proceeds from the sale of securities as follows:

Payment of commissions (maximum)	\$17,500.00
To carry out recommendations of	
<u>Dr. Allan P. Fawley</u>	35,000.00
Legal and audit	2,500.00
General administration	3,500.00
Reserve for property payment	1,000.00
Reserve for contingencies	10,500.00
	<u>\$70,000.00</u>

No part of the proceeds will be used to invest, underwrite or trade in securities other than those that qualify as investments in which trust funds may be invested under the laws of the jurisdictions in which the securities offered by this Prospectus may lawfully be sold.

Should the registrant propose to use the proceeds to acquire non-trustee type securities after the initial distribution of the securities offered by this Prospectus, approval by the shareholders will be obtained and disclosure will be made to the regulatory securities bodies having jurisdiction over the sale of the securities offered by this Prospectus.

(p) The preliminary expenses incurred in the formation of the Company approximate \$2,000.00. No further expenses on preliminary matters are contemplated.

(q) There is no other indebtedness to be created or assumed by the Company that is not shown on the balance sheet reported on by Messrs. Power, Bestwick, McDougall & Lavery dated the 31st day of August, A.D. 1965 and attached hereto.

(r) The principal business of each Director and Officer for the past three years and their present business is as follows:

DIRECTORS:	<u>B. G. Clement</u>	President, B.G. Clement & Co. Broker-Dealer.
	Alfred C. Fillinger	Retired, previously Lumber Executive.
	Olaf Fedje	Logging supplies, Vancouver Island.
	George Avery	Retired, previously partner Scott & Foster, Welding Supplies.
	Donald Beaton	President, Qualicum Construction Ltd.
OFFICERS:	B. G. Clement	<u>President</u>
	S. David Anfield	<u>Secretary</u> - Solicitor and partner with law firm of Russell & DuMoulin, Vancouver, B.C.
	George Pinkett	<u>Treasurer</u> - Vice-President of B.G. Clement & Co.

(s) (a) S. David Anfield is a Director of Sileurian Chieftain Mining Co. Ltd. (N.P.L.) the Vendor/Optionor of the property referred to in paragraph (m) (i) herein.

(s) (b) B.G. Clement & Co. are underwriters of Sileurian Chieftain Mining Co. Ltd. (N.P.L.) stock and involved in the distribution of the shares of that Company which is the Vendor/Optionor of the property referred to in paragraph (m) (i) herein.

(t) No remuneration has been paid by the Company since incorporation to any of its Directors or Officers.

(u) It is anticipated that no remuneration will be paid to the Directors and Officers as such during the current financial year. However, if any remuneration or fee is paid to the Directors or Officers, it will be commensurate with their responsibilities.

(v) The owners of the 678,572 shares referred to in paragraph (i) herein are, by reason of beneficial ownership, able to elect, or cause to be elected, a majority of the Board of Directors.

(w) No dividends have been paid by the Company.

(x) There are no other material facts not disclosed by this Prospectus.

(y) The foregoing constitutes full, true and plain disclosure of all material facts in respect to the offering of the securities referred to above as required by the Securities Act of the Province of British Columbia. There is no further material information applicable other than in the financial statements or Reports where required.

DATED at Vancouver, British Columbia, this 3rd day of December, A.D. 1965.

(Signed) "B. G. CLEMENT"  
B. G. Clement

(Signed) "ALFRED C. FILLINGER"  
Alfred C. Fillinger

(Signed) "OLAF FEDJE"  
Olaf Fedje

(Signed) "GEORGE AVERY"  
George Avery

(Signed) "DON W. BEATON"  
Donald Beaton

HUB MINING & EXPLORATION LTD.

(Non-Personal Liability)

NANAIMO, B.C.

BALANCE SHEET

As at August 31, 1965.

AUDITOR'S REPORT

To the Shareholders,  
Hub Mining & Exploration Ltd.  
(Non-Personal Liability)

We have examined the balance sheet of Hub Mining & Exploration Ltd., (non-personal liability) as at August 31, 1965. Our examination included a general review of the accounting procedures and such tests of the accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion the accompanying balance sheet and notes to the balance sheet of Hub Mining & Exploration Ltd. (non-Personal liability) presents fairly the financial position of Hub Mining & Exploration Ltd. (non-personal liability) as at August 31, 1965 in accordance with generally accepted accounting principles and as shown by the books and records.

Respectfully submitted,

"BESTWICK, McDOUGALL, LAVERY & KRELL,"  
Chartered Accountants

Nanaimo, B.C.  
September 27, 1965.

ASSETS

CURRENT ASSETS

Cash in bank	\$ 13,005.51	
Prepaid expenses	149.68	\$ 13,155.19

FIXED ASSETS

Mineral Claims - at cost - Note I	\$237,500.20	
Deposit on mineral claims option - Note II	500.00	
Development Account - Schedule I	7,403.36	245,403.56

OTHER ASSETS

Incorporation expenses	1,320.78	
		<u>\$259,879.53</u>

LIABILITIES AND SHAREHOLDERS' EQUITY

CURRENT LIABILITIES

Accounts payable		\$ 769.58
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SHAREHOLDERS' EQUITY

<u>Capital</u>		
Authorized - 5,000,000 common shares par value 50¢	\$2,500,000.00	
Issued and fully paid - 878,574 common shares - Note III	\$257,501.20	
Capital Gain on Sale of Investments	1,608.75	259,109.95
		<u>\$259,879.53</u>

The attached notes, schedule and auditor's report are an integral part of this statement.

Approved:

"B. G. CLEMENT  
Director

"H. B. MATTHEWS"  
Director

SCHEDULE "I"

HUB MINING & EXPLORATION LTD.

(Non-Personal Liability)

NANAIMO, B.C.

Development Account from Inception of Company

November 7, 1963 to August 31, 1965

Geological Services, Prospecting, etc.	\$ 5,603.25
Helicopter Hire	424.00
Licenses	250.32
Legal and audit	303.00
Stationery, office and telephone	647.79
Travel expenses	175.00
	<u>\$ 7,403.36</u>

NOTES TO THE BALANCE SHEET AS AT AUGUST 31, 1965

Note I

The company acquired the F.M. 1 to 6 Mineral Claims, all situated in the Omineca Mining Division of the Province of British Columbia for the following consideration:

678,572 common shares @ 35¢ each \$ 237,500.20

Note II

The company has paid \$500.00 on an option to purchase from Sileurian Chieftain Mining Co. Ltd. (N.P.L.) the M & M 1 to 15 Mineral Claims all situated in the Omineca Mining Division of the Province of British Columbia for cash consideration amounting to \$25,000.00. The balance is to be paid as follows:-

Prior to December 31, 1965	\$ 1,000.00
Prior to June 1, 1966	1,000.00
Prior to December 31, 1966	1,000.00
Prior to June 30, 1967	5,000.00
Prior to December 31, 1967	5,000.00
On or before June 30, 1968	5,750.00
On or before December 31, 1968	5,750.00
	<u>\$ 24,500.00</u>

In addition, the optionor shall be entitled to a carried two and one-half percent (2 1/2%) of the net smelter returns received from the option claims and payment of such 2 1/2% of the net smelter returns will run during the commercial production of the option claims.

Note III

The authorized capital of the company is \$2,500,000.00 divided into 5,000,000 shares with a nominal or par value of 50¢ each, of which 878,574 shares have been issued as fully paid and non-assessable.

Shares sold to date are as follows:-

<u>Number of Shares</u>	<u>Price per Share</u>	<u>Discount</u>	<u>Total Capital</u>	<u>Method of Payment</u>
2	50¢	Nil	\$ 1.00	Cash
200,000	10¢	40¢	20,000.00	Cash
678,572	35¢	15¢	237,500.20	Mineral Claims
<u>878,574</u>			<u>\$257,501.20</u>	

Of the 878,574 common shares in the capital stock of the company, 678,572 shares are being held in escrow with the National Trust Company Limited, Vancouver, British Columbia, subject to release and transfer only with the written consent of the Superintendent of Brokers of the Province of British Columbia.

ALLAN P. FAWLEY, PH.D., P.ENG.

CONSULTING MINING ENGINEER AND GEOLOGIST

1947 WEST KING EDWARD AVENUE  
VANCOUVER 9, BRITISH COLUMBIA

LEGATE CREEK GROUP OF MINERAL CLAIMS,

TERRACE AREA, B.C.

OF

HUB MINING AND EXPLORATION COMPANY LIMITED (N.P.L.)

by

Allan P. Fawley

Property Examined August 14 - 18, 1964

Report Written December 1965

## LEGATE CREEK GROUP OF MINERAL CLAIMS,

### TERRACE AREA, B.C.

#### HUB MINING AND EXPLORATION COMPANY LIMITED (N.P.L.)

#### INTRODUCTION

The Legate Creek group of mineral claims belonging to Hub Mining and Exploration Co. Ltd. are in rugged mountainous country in west-central British Columbia. Considerable exploration work was done on the claims prior to 1930 and shipments were made of rich copper-lead-silver ore. The claims were examined by the writer during the period August 14 - 18th, 1964. Mr. W. Tremblay and Mr. Dwight Britz prospected the Legate Creek property during July, 1965. They carried out sluicing and trail cutting and staked an additional six claims.

#### PROPERTY, LOCATION AND ACCESS

The claims group consists of 26 claims, named HUB 1 - 20 and FM 1 - 6, they are in one block near the headwaters of Legate Creek in the Bulkley Mountain range, about 25 miles northeast of Terrace, B.C. The claims group covers the old M & K and M & M mineral properties and is southerly from the nearby Frisco and Zona May claim groups.

Access in the past was via a 13 mile wagon road and packhorse trail from the Skeena River up Legate Creek. The juncture of the Skeena River with Legate Creek is 44 miles by road from Terrace. The former combination wagon road and packhorse trail is now obliterated by dense new growth and rock slides and access for the present examination was via helicopter from the airport at Terrace; a one-way trip takes 20 to 25 minutes. Helicopter landings can be easily made on the mountain ridge along the northeastern boundary of the claims at an elevation of 5,300 ft. or on gravel bars in the east branch of Legate Creek; the east branch flows through the claims group and divides the M & K from the M & M property.

Access could be obtained by constructing a road along the old wagon road route for 12 to 13 miles up Legate Creek from the Prince Rupert - Prince George highway. The road would have a gradient of only a little over 100 ft. per mile until within 2 miles of the claims group (Min. of Mines, 1928).

#### HISTORY

Both the M & K and the M & M properties were discovered about 1916 and prospecting and surface and underground development work were undertaken on them periodically until 1930. Since then, so far as known, no further work has been done. In 1917, a 123 ton shipment of float was shipped to the smelter at Anyox from the M & K property, the shipment assayed 22.5 oz. silver per ton, 25.5% copper and 32.7% lead, it probably also contained about 10% zinc. At present prices, without including the zinc, the gross value of the ore would be \$312.00 per ton. In 1919 a second shipment of about 110 tons of rich ore was made from the M & K and about 10 tons was shipped from the M & M property.

#### TOPOGRAPHY AND GENERAL GEOLOGY

The claims group is in an extremely rugged mountainous area. The slopes are precipitous and nearly vertical in places; rock slides are common. The claims are at an elevation of from 2,700 to 2,500 ft. Roughly, one-third of the claims area is covered with scrub evergreen, heather, etc., one-quarter is tall timber, one-third is talus, and the remainder is bare rock.

The higher sections of the M & K property are Hazelton Group volcanic rocks of Jurassic age. The M & M property and lower parts of

the M & K are quartz diorite (part of the Coast Intrusives) of Cretaceous, or later, age which intrudes the volcanic rocks.

The volcanic rocks include andesite, porphyry, and breccia, and besides being intruded by quartz diorite are also cut by pale greenish rhyolite dykes.

#### MINERAL OCCURRENCES

During the examination in August 1964, several old pits and trenches on small veins and sulphide bodies were found; but the old tunnels were not located, possibly due to rock slides that have taken place since the tunnels were completed. Rich float of the type shipped in 1917 and 1919 were not found, but numerous pieces of float were found that ranged from massive sulphides to a trace of copper staining.

The following descriptions are from the Annual Reports of the Minister of Mines British Columbia and the Geological Survey of Canada:

##### (1) M & K Group

"On this property occur two separate modes of mineral occurrence known respectively as the 'Lower Showings' and the 'Upper Showings'.

'Lower showings' - The mineral occurrence is that of a vein of quartz, about 1.5 feet in width in diorite country-rock, which is exposed over a length of somewhat over 100 feet by open-cuts and a shaft 10 feet deep. Mineralization extends somewhat beyond the vein into the bleached diorite hanging-wall, the total mineralized width being 3 feet in places, but heavy mineralization is confined to a width of about 15 inches. This vein strikes about N.20° W. (mag.) and dips southwest at 60°. The elevation of this exposure is 3,500 feet. A sample taken from the shaft across a width of 15 inches assayed: Gold, 0.02 oz. to the ton; silver, 17.4 oz. to the ton; lead, 0.2 per cent; zinc 0.6 per cent.

'Upper Showings' - These lie between elevations of 4,510 and 4,760 feet. In this region several approximately parallel veins, varying in width from a few inches up to 3 feet, strike into the mountainside at a small angle. The strike varies from due north and south (mag.) to N. 30° E. (mag.) and the dip is about 30° southeasterly. The mineralization is an inter-growth of galena and bornite, and in addition many other copper minerals are present and striking and beautiful specimens may be obtained. From this region some 123 tons of float-ore was shipped in 1917, assaying approximately: Silver, 25 oz. to the ton; copper, 20 per cent; lead, 25 per cent.

These veins appear to conform in strike and dip with the enclosing andesitic country-rock and the mineral occurrence exhibited is apparently that of mineralized volcanic beds, the strike and dip of which are approximately the same as the slope of the mountain.

At elevation 4,760 feet one such vein, 3 feet in width, is well mineralized. The strike is N. 27° E. and the dip southeasterly. A sample of selected mineral assayed: Gold, trace; silver, 4.2 oz. to the ton; copper, 7.3 per cent. At 4,630 feet elevation another vein, 1.5 feet in width, of similar strike and dip to that last mentioned, is also well mineralized. A sample of this across 1 foot assayed: Gold, trace; silver, 0.3 oz. to the ton; copper, 3.6 per cent. At 4,640 feet a tunnel starting from the surface follows more or less the strike of mineralized volcanic beds for a distance of 60 feet. It is understood that this tunnel is being continued by the Consolidated Mining and Smelting Company of Canada, Limited." (Min. of Mines, 1928.)

"Development work has been confined to the 'Upper Showings' and consists of an adit-tunnel at elevation 4,640 feet, which has been driven on a bearing N. 50° E. for a distance of 74 feet, from which point branches have been driven S. 50° E. for 50 feet and N. 30° W. for 90 feet respectively. Very little mineralized matter was found in the branches, but the main tunnel carries disseminated chalcocopyrite and bornite through most of its length. Another tunnel, elevation 4,200 feet and ap-

proximately parallel to the upper one, has been driven for a distance of 70 feet, about 50 feet of which was on fairly well-mineralized matter." (Min. of Mines, 1929.)

(2) M & M Group

"A series of approximately parallel quartz veins occur near the top of the mountain in coarsely crystalline albite diorite. The veins occupy faults or shear zones that strike southeast and dip steeply south.

The upper vein has been traced by a series of test pits for about 600 feet along the north slope of the mountain, at an elevation of 4,600 feet. It ranges in width from 55 inches at the west end to 6 inches at the east end, and averages about 2 feet. The strike is north 60 degrees west and the dip 60 degrees southwest. The vein quartz is bordered on both sides by several feet of brown, altered diorite. Pyrite galena, tetrahedrite, and chalcopyrite are sparsely disseminated throughout the vein quartz, with occasional rich sections containing up to 5 per cent of sulphide. The writer collected a 30-inch channel sample across the vein at one of the richer sections, 100 feet from the west end of the vein, which assayed: Gold, 0.02 ounce a ton; silver, 39.28 ounces a ton; copper, 0.36 per cent; lead, 0.82 per cent." (Kindle G.S.C. 1937)

Additional work was done in 1928 to "better expose the largest shear-zone at an elevation of 4,500 feet, where it outcrops on the precipitous slope of the main creek. The width of the shear-zone here exposed is 20 feet. The filling is largely bleached diorite, with seams of quartz mineralized with zinc-blende, galena, grey copper, and malachite. The strike is N. 57° W. (mag.) and the dip 70° southwest. While mineralization is on the whole sparse, silver values are good. A sample of selected mineral from this exposure assayed: Gold, trace; silver, 66.6 oz. to the ton; lead, 8.6 per cent; zinc, 0.8 per cent." (Min. of Mines, 1928)

Massive specular hematite (iron ore) float with about 3% copper was found in 1964 by Mr. Gerald Priest in Legate Creek above the junction with Frisco Creek.

Assays of samples collected during the examination of the Legate Creek property during August 1964 were as follows:

1. A sample of pieces of oxidized copper stained volcanic rocks lying beside old, caved workings near the crest of the ridge assayed: 0.01 oz. gold, 1.9 oz. silver and 5.10% copper.
2. About 5 lbs. of rusty, porous specimens containing up to 50% pyrite and about 1% chalcopyrite from beside old workings assayed: 0.015 oz. gold and 1.10 oz. silver.
3. A specimen of andesite float with bands of quartz containing chalcopyrite and bornite assayed: 0.45% copper.
4. A large piece of float from a talus slope of banded quartz and silicified rock, about 18 inches in diameter, containing chalcopyrite in blebs up to 1/4 inch in diameter assayed: Tr. gold, 0.85 oz. silver and 2.53% copper.

#### CONCLUSIONS AND RECOMMENDATIONS

Prior to 1929 several small but high-grade veins were discovered on property now covered by the Legate Creek group of claims, and about 250 tons of high-grade ore were shipped. Most of the ore shipped was float that contained a gross value of \$312.00 per ton in copper, lead and silver at to-day's metal prices. The main interest at present is to try and locate the source of the rich float, which was in large blocks, or of other similar deposits.

The geology of the area, granitic rocks intruding volcanics, is favorable for the occurrence of mineral deposits. The source of the high-grade float (22 oz. silver, 25% copper and 33% lead) has not been found although as this particular type of float was fresh in appearance and angular (oral information from old prospectors) it is almost certainly of local origin. Another alternative for an ore body is that large bodies of low-

grade copper ore may exist as considerable copper stained float occurs and disseminated chalcopyrite and bornite are reported to occur throughout most of the main tunnel.

Work on the property by the original discoverers, and also by the Consolidated Mining and Smelting Co. prior to 1930 was undoubtedly thorough for that period. However, geophysical equipment is much more efficient now and also at that time only comparatively high-grade material was of economic interest.

The present program should include careful prospecting and geochemical and geological surveying, to try and discover all the old workings, to search for float in the talus slides and for mineralization in place, and to try and discover geochemical (soil) anomalies. The location of all float, mineralization in place, and geochemical anomalies should be mapped along with the different rock types, fault zones, etc.

When the geological mapping, geochemical sampling, and prospecting is complete, geophysical surveys should be carried out over the areas of interest. The E.M. (electromagnetic) method should be tried first as it will locate veins and zones of strong sulphide mineralization; later the I.P. (induced potential) method should be used to try and locate disseminated sulphide bodies.

Anomalies that are discovered will need testing by trenching, diamond-drilling, or hydraulicking -- the method to be used being dependent on local conditions.

#### ESTIMATED EXPLORATION EXPENSES

As always, exploration costs are difficult to estimate, as the amount and type of work done generally depends on the results obtained as exploration proceeds. However, the total amount estimated to be necessary for an adequate exploration program on the Legate Creek group of mineral claims is \$35,000.00. Details are given below:

1. To set up a base camp on the property, for helicopter and other transportation expenses, to maintain a geologist and prospecting crew based at the property, and for a geochemical soil survey -- about \$10,000.00.
2. For geophysical surveys, including line cutting and other expenses -- about \$10,000.00. (If Induced Potential geophysical surveys have to be used, then a larger sum will be necessary.)
3. If geophysical anomalies that indicate possible ore bodies are discovered then \$10,000.00 will be needed to test them by a preliminary diamond-drilling program.

Respectfully submitted,

"ALLAN P. FAWLEY"  
Allan P. Fawley, B.A.Sc.,  
M. Sc., Ph.D., P.Eng.

Vancouver, B.C.  
December 10, 1965

Consulting Mining Engineer  
and Geologist



50 120' NE

CERTIFICATE

I, ALLAN PRIEST FAWLEY, of the City of Vancouver, in the Province of British Columbia, HEREBY CERTIFY:

1. THAT I am a Consulting Mining Engineer and Geologist, and my address is 1947 West King Edward Avenue, Vancouver 9, B.C.
2. THAT I am a graduate of the University of British Columbia with the degree of B.A.Sc. (1937) in Mining Engineering, of Queen's University with the degree of M.Sc. (1946) in Geology, and of the University of California with the degree of Ph.D. (1948) in Geology.
3. THAT I am a registered Professional Engineer in the Geological Section in the Province of British Columbia, and also a member of the Society of Economic Geologists, of the Canadian Institute of Mining and Metallurgy, and of the Geochemical Society.
4. THAT I have practised my profession as a geologist for more than twenty years.
5. THAT I have no direct interest or indirect interest, nor do I expect to have any interest in Hub Mining and Exploration Company Limited (N.P.L.) or in the Legate Creek properties.
6. THAT I have no direct or indirect interest in any company acquiring control or intending to acquire control of Hub Mining and Exploration Company Limited (N.P.L.) or in the Legate Creek properties.
7. THAT this report on the Legate Creek properties is based on my personal examination of the properties during the period August 14 - 18, 1964.

DATED this 10th day of December, 1965.

"ALLAN P. FAWLEY"  
 Allan P. Fawley, Ph.D.  
 Consulting Mining Engineer  
 and Geologist

