THIS PROSPECTUS CONSTITUTES A PUBLIC OFFERING OF THESE SECURITIES ONLY IN THOSE JURISDICTIONS WHERE THEY MAY BE LAWFULLY OFFERED FOR SALE AND THEREIN ONLY BY PERSONS PERMITTED TO SELL SUCH SECURITIES.

NO SECURITIES COMMISSION OR SIMILAR AUTHORITY IN CANADA HAS IN ANY WAY PASSED UPON THE MERITS OF THE SECURITIES OFFERED HEREUNDER AND ANY REPRESENTATION TO THE CONTRARY IS AN OFFENCE.

# PROSPECTUS



(the "Issuer") 530 - 800 West Pender Street Vancouver, B.C. V6C 2V6

# PUBLIC OFFERING: 500,000 COMMON SHARES

Price to Public	Commission Payable	Proceeds To Be Received by Issuer
 \$0.60 *	\$0.08	\$0.52
 \$300,000	\$40,000	\$260,000 **

ing price of the shares has been determined by the Issuer in negotiation with the Agent.

duction of expenses of this issue estimated to be \$30,000.

#### ; NO MARKET THROUGH WHICH THESE SECURITIES MAY BE SOLD.

ASE OF THE SECURITIES OFFERED BY THIS PROSPECTUS MUST BE CONSIDERED A SPECULATION. HE PROPERTIES IN WHICH THE ISSUER HAS AN INTEREST ARE IN THE EXPLORATION STAGE ONLY AND IOUT A KNOWN BODY OF COMMERCIAL ORE. NO SURVEY OF ANY PROPERTY OF THE ISSUER HAS BEEN ID THEREFORE IN ACCORDANCE WITH THE LAWS OF THE JURISDICTION IN WHICH THE PROPERTIES ATE, THEIR EXISTENCE AND AREA COULD BE IN DOUBT. SEE HEADING "RISK FACTORS" HEREIN.

is authorized by the Issuer to provide any information or to make any representation other than those contained in this in connection with the issue and sale of the securities offered by the Issuer.

MPLETION OF THIS OFFERING THIS ISSUE WILL REPRESENT 22.7% OF THE SHARES THEN OUTSTANDING ARED TO 44.3% THAT WILL THEN BE BENEFICIALLY OWNED BY DIRECTORS AND SENIOR OFFICERS OF 3R. NO SHARES OF THE ISSUER ARE OWNED BY UNDERWRITERS. FOR A COMPARISON OF THE SECURITIES FERED TO THE PUBLIC FOR CASH AND THOSE ISSUED TO THE PROMOTERS, DIRECTORS, SENIOR OF-

FICERS AND OTHER INSIDERS OF THE ISSUER, REFERENCE IS MADE TO "PRINCIPAL HOLDERS OF SECURITIES" HEREIN.

ONE OR MORE OF THE DIRECTORS OF THE ISSUER ARE DIRECTORS OF OTHER REPORTING COMPANIES AND HAVE POTENTIAL CONFLICTS OF INTEREST WHEN SERVING IN SUCH CAPACITIES. REFERENCE IS MADE TO "CONFLICT OF INTEREST".

The Vancouver Stock Exchange has conditionally listed the securities being offered pursuant to this Prospectus. Listing is subject to the Issuer fulfilling all the listing requirements of the Exchange on or before August 8, 1988, including prescribed distribution and financial requirements.

REFERENCE SHOULD BE MADE TO THE HEADING "DILUTION" HEREIN TO ASCERTAIN THE PERCENTAGE OF DILU-TION IN THE BOOK VALUE OF EACH COMMON SHARE OF THE ISSUER UPON COMPLETION OF THIS OFFERING.

This Prospectus also qualifies for sale to the public at the market price prevailing at the time of sale any shares of the Issuer which the Agent may acquire pursuant to the Agent's Warrants, Please refer to "Plan of Distribution" herein.

WE, AS AGENT, CONDITIONALLY OFFER THESE SECURITIES SUBJECT TO PRIOR SALE, IF, AS AND WHEN ISSUED BY THE ISSUER AND ACCEPTED BY US IN ACCORDANCE WITH THE CONDITIONS CONTAINED IN THE AGENCY AGREEMENT REFERRED TO UNDER THE "PLAN OF DISTRIBUTION" HEREIN.

Agent:

### MERIT INVESTMENT CORPORATION

1500 - 625 Howe Street Vancouver, British Columbia 687-4800

Effective Date: February 8, 1988

# TRIPLE STAR RESOURCE CORP.

# PROSPECTUS

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## SALES OTHERWISE THAN FOR CASH

None of the securities being offered under this Prospectus are to be offered otherwise than for cash.

## SHARE AND LOAN CAPITAL STRUCTURE

Amount out- standing as Designation date of fin of Security cial state- and amount ments attac authorized hereto		<b>Am</b> ount out- standing at date of this Prospectus	Amount outstanding if all securities are sold
50,000,000 Common	1,675,001	1,705,001	2,205,001*

\* This figure does not include any shares which may be issued upon the exercise of the Agent's Warrants, the Greenshoe Option, and incentive stock options.

The Issuer does not have any long-term debts.

#### NAME AND INCORPORATION OF ISSUER

The name of the Issuer is Triple Star Resource Corp.

The Issuer was incorporated by Articles and Memorandum under the British Columbia Company Act on May 30, 1986.

The address of the Head Office of the Issuer is 530 - 800 West Pender Street, Vancouver, British Columbia, V6C 2V6.

The Registered and Records Offices of the Issuer is c/o Maitland & Company, Barristers and Solicitors, 700 - 625 Howe Street, Vancouver, British Columbia, V6C 2T6.

#### DESCRIPTION OF BUSINESS AND PROPERTY OF THE ISSUER

#### Business

The Issuer is a natural resource company engaged in the acquisition, exploration and development of natural resource properties. The Issuer is currently involved principally in mineral properties.

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#### Property

#### The Kalamalka Mine Property

By agreement of November 21, 1986, as amended by an addendum dated December 1, 1986, and by a letter dated December 11, 1987, between the Issuer and Trans-Arctic Explorations Ltd. ("Trans-Arctic"), of Vancouver, British Columbia, the Issuer acquired an option to earn a 100% interest in the following mineral claims, located in the Vernon Mining Division, which claims form part of the "Kalamalka Mine Property":

Claim Name	Record No.	No. of Units	Expiry Date
Gus l	2146	1	September 29, 1990
Gus 2	2147	1	September 29, 1990
Chance	2200	20	November 12, 1990
Gus 3	2201	1	November 12, 1990
Gus 4	2202	1	November 12, 1990
Gus 5	2203	1	November 12, 1990
Gus 6	2204	1	November 12, 1990

In consideration for the Gus 1 and 2 and Chance claims, the Issuer has paid a total of \$30,000 cash to Trans-Arctic.

Further cash payments are due to Trans-Arctic as follows:

(a)	\$30,000 on or	before the earlier of the completion of	£
	this Offering	or February 29, 1988;	
(b)	\$15,000 on or	before December 31, 1988; and	
(c)	\$15,000 on or	before December 31, 1989.	

The \$15,000 payments due under (b) and (c) above may, at the sole discretion of the Issuer, be made in cash or the equivalent value in shares of the Issuer, to be determined by the average trading price of the Issuer's shares on the Exchange for the 30 previous trading days.

In addition, the Issuer has agreed to allot and issue the following shares in its capital stock to Trans-Arctic:

- (a) 50,000 shares on the 7th day following the Listing Date (being the day on which the shares of the Issuer are posted and called for trading on the Vancouver Stock Exchange);
- (b) 50,000 shares on completion of the first stage of exploration on the Kalamalka Mine Property as determined by the consulting engineer, after the Listing Date; and
- (c) 50,000 shares on completion of the second stage of exploration on the Kalamalka Mine Property as

determined by the consulting engineer, after the Listing Date, it being understood that, in any event, these shares will not be issued before August 31, 1988.

The Issuer has also agreed to pay a 2.5% net smelter return from products mined from the Kalamalka Mine Property to Trans-Arctic. Upon Trans-Arctic receiving a total of \$2,000,000 from net smelter returns the payments shall terminate.

private Trans-Arctic is а British Columbia company controlled by Eugene Dodd, a Director of the Issuer, and Richard Simpson, both of Vancouver, B. C. At the time the Issuer acquired the option on the Gus 1 and 2 and the Chance claims, Mr. Dodd was not a Director of the Issuer. However, because of his expertise in the industry, he was requested by the Issuer to join its Board of Directors. Mr. Dodd became a Director of the Issuer on May 15, 1987.

In addition to the Gus 1 to 6 and the Chance mineral claims, which are optioned to the Issuer, the Kalamalka Mine Property consists of the Kal and Kal 1 to 4 mineral claims. The Kal and Kal 1-4 claims were staked over the mine in February of 1987 by Richard Simpson on behalf of Trans-Arctic. All of the Kalamalka Mine Property claims were staked by Eugene Dodd.

The Issuer also owns a 100% interest in the Grizzly 1 to 5 mineral claims, Record Nos. 2227 to 2231 inclusive, in the Vernon Mining Division. The Grizzly claims adjoin the Chance mineral claim, which is part of the Kalamalka Mine Property. The Grizzly claims were staked on behalf of the Issuer at a cost of \$8,700.

The Kalamalka Mine Property is situated approximately 4 km. south of Lavington and 15 km. southeast of Vernon, British Columbia. It is centered over the old Kalamalka mine adits and occupies a ridge between Craster and Brewer Creeks.

All-season access to the Kalamalka Mine Property can be gained via Learmouth Road south of Lavington, and then by Dawes Road to the boundary of the Bellevue farm property. Α small triangle of land attached to a private dwelling legally overlies the last 55 feet of access to the Bellevue property. The old mine access road continues from the end of Dawes Road through private farmland to the 2900 mine portal. This track provides excellent access to most parts between of the claims Craster and Brewer Creeks. Alternative access can be developed from the southwest across Crown Land in the Okanagan Provincial Forest.

The Kalamalka Mine was the largest producer of gold in the North Okanagan region with a recorded total of 7,267 tons mined for 2,898 oz. gold and 3,474 oz. silver.

A report dated February 27, 1987 was prepared on the Kalamalka Mine Property by F. Marshall Smith, P.Eng. and Peter G. Dasler, M.Sc., a copy of which report is attached to and forms part of this Prospectus. In the summary of the report, it is stated:

". . . The mine portal has been rehabilitated and the geology of the workings has been mapped. An exploratory underground drill program was completed to look for further mineralized shoots parallel to the existing mined shoot, and the continuation of the old shoot to depth. This program produced gold values to 0.924 opt in the shear zone adjacent to the vein and gold values to 0.376 opt in the vein.

It appears as if the property was not drilled prior to production, and the only recorded drilling was one hole drilled in 1967. The property was developed in 1934-35, but for some unknown reason had limited production until 1937. In this and the following two years 5,268 tons Work continued until 1944, but at a much were mined. pace because slower of the confiscation of the compressors for the war effort. No production and limited exploration is known after this date.

The mineralization encountered in the Kalamalka mine is typical of a mesothermal vein deposited within dilatant zones associated with regional and local faulting. There are at least two generations of quartz veins, the latter heavily mineralized with pyrite and pyrrhotite. The gold values increase within the central portion of the mine, characteristic of a central mineralizing path or "shoot". Further areas with gold values in excess of an ounce per ton are known at two other widely separated locations within the workings, and it is anticipated that exploration will determine the location of a series of other mineralized shoots of equivalent size to that mined in the past. In addition the present drilling has extended the main shoot below the 2900 level beyond where the previous operators had stopped because of "faulting".

The Kalamalka property has excellent potential for the development of high grade gold mineralization in a series of "shoots" geometrically related to the existing ore zone. This existing zone can be extended to depths over 500 ft below the present workings if the

mineralization conforms to known mesothermal type deposits, (e.g. the Bralorne Camp)."

The Issuer has spent a total of \$97,053 on the Kalamalka Mine Property to date. The Issuer intends to carry out Phase 1 of the program recommended in the report of Messrs. Smith and Dasler, at an estimated cost of \$150,000.

The Kalamalka Mine Property has no surface or underground plant or equipment and there is no known body of commercial ore on the Property.

#### Split Claims

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By agreement dated September 15, 1986 as amended March 27 and August 28, 1987 between the Issuer and Stephen E. Arnold of Lavington, B. C. and Robert W. Yorke-Hardy of Spallumcheen, B. C. (together, the "Optionors"), the Issuer acquired an option to earn a 100% interest in the "Split Claims" located in the Vernon Mining Division of British Columbia, more particularly described as:

Claim	Name	3	Record No.	No. of Units	Expiry Da	ate	
Split	No.	1	2031	18	November	18,	1989
Split	No.	2	2032	15	November	18,	1989
Split	No.	3	2028	9	November	18,	1989
Split	No.	4	2029	15	November	18,	1989
Split	No.	5	2030	1	November	18,	1989

In consideration for the option, the Issuer has paid the sum of \$2,500 cash to the Optionors. In addition, the Issuer agreed to allot and issue shares in its capital stock to the Optionors, as follows:

- (a) 10,000 shares on the Effective Date of this Prospectus;
- (b) 10,000 shares when an amount of \$50,000 or more has been expended on exploration on the Split Claims;
- (c) 10,000 shares after the issuance of the shares set out in (b) above, and after an additional amount of \$75,000 has been expended on exploration on the Split Claims. Any excess over the \$50,000 required to issue the shares set out in (b) above shall be applied to the \$75,000 required to issue the shares set out in this sub-paragraph; and
- (d) 200,000 shares upon the commencement of production on the Split Claims.

All of the above share issuances will be made as to 50% each to the Optionors, as individuals.

In addition, the Optionors will retain a 2.5% net smelter return from production from the Split Claims, which will remain in effect until a total of \$1,000,000 is received by the Optionors.

The Split Claims were optioned by the Issuer because of the epithermal alteration occurring thereon indicating the presence of epithermal gold vein mineralization on the northern border of the property. A program of heavy metal stream sediment sampling was carried out by the Issuer along some of the streams and associated swamps within the Split The samples were divided into coarse and fine Claims. The fine fraction samples fractions and tested for gold. assayed highly anomalous in gold indicating the source was probably epithermal gold mineralization. Two different heavy metal stream sediment programs followed which also revealed positive results and narrowed the location of the causative sources more accurately. Some soil sampling was done during the first program across one of the epithermal zones, but revealed negative results. Resistivity measurements to ten separations were done across the one known epithermal zone and two possible epithermal zones. The responses were positive giving good drill targets.

The Issuer has to date spent the sum of \$29,886 on the Split Claims. While the Issuer does intend to continue the exploration program on the property, no monies will be expended from this Offering on the Split Claims.

There is no surface or underground plant or equipment, nor is there a known body of commercial ore, on the Split Claims.

# PPACC Mineral Claim

By Bill of Sale dated December 22, 1986 the Issuer acquired a 100% interest in the PPACC mineral claim ("PPACC"), Record No. 7721(7), located in the Omineca Mining Division of British Columbia, from David Mark, a Director of the Issuer. The Issuer paid Mr. Mark the sum of \$2,000 for PPACC.

The PPACC is located near the end of Tahtsa Lake in west-central British Columbia, 105 km. south of Houston.

A Geological and Soil Geochemical Investigation report was prepared by Arctex Engineering Services of Vancouver, B. C. This report is dated December 10, 1986 and is available for inspection at the offices of Maitland & Company, Barristers and Solicitors, 7th Floor, 625 Howe Street, Vancouver, British Columbia. During July 1986 a program of geological mapping and soil sampling was carried out at PPACC. Several lead, zinc and silver soil anomalies were delineated within a zone of strong pyrite mineralization hosted in Early Cretaceous marine sediments of the Skeena Group. Other important rock types occurring within the pyrite zone include granodiorite and andesite dykes and plugs. Sphalerite and galena in veinlets occur in the area and may contribute to the soil anomalies. An arcuate anomaly pattern may reflect a halo of mineralization around an intrusive or breccia pipe. The Issuer has expended a total of \$19,686 on the PPACC to date.

Locke P. Goldsmith, P.Eng., Consulting Geologist, and Paul Kallock, Geologist, of Arctex Engineering Services, recommend that detailed geological mapping with rock and soil geochemical sampling should be completed within and adjacent to the pyrite zone. It is not intended that this program be carried out at the present time and no monies will be expended from funds derived from this Offering.

There is no underground plant or equipment, and no known body of commercial ore on the PPACC.

#### DILUTION

The following table reflects the dilution which will result from the purchase of the Shares from this Offering:

#### Dilution per Share

Offering price per Share	\$0.60
Net tangible book value before the Offering	\$0.1216
Increase of net tangible book value attributable	
to the Offering	\$0.0778
Net tangible book value after the Offering	\$0.1994
Dilution to the subscribers	<b>\$0.40</b>
Percentage of dilution in relation to the	
Offering Price	. 67%

#### PROMOTERS

Pursuant to the definition contained in the British Columbia Securities Act, the Directors of the Issuer are the Promoters of the Issuer. No direct remuneration has been paid to the Promoters of the Issuer. See "Description of Business and Property of the Issuer", "Escrowed Shares", "Pooled Shares", "Executive Compensation" and "Options to Purchase Securities" for particulars of interests of the Promoters in transactions disclosed herein.

#### LEGAL PROCEEDINGS

The Issuer is not a party to any legal proceedings nor are any such proceedings contemplated.

#### **ISSUANCE OF SHARES**

The share capital structure of the Issuer consists of 50,000,000 common shares without par value. The common shares of the Issuer, both issued and unissued, rank equally as to dividends, voting rights and as to any distribution of assets on winding-up or liquidation. There are no indentures or agreements limiting the payment of dividends and there are no conversion rights. The presently outstanding share capital is not subject to any call or assessment and the Shares offered hereby when issued and sold as described in this Prospectus will not be subject to any call or assessment.

#### DIRECTORS AND OFFICERS

The name and address of the Directors and Officers of the Issuer and the principal business or occupation in which each of them has been engaged during the immediately preceding five years is as follows:

# DAVID EDWARD KONNERT Vancouver, British Columbia Chief Executive Officer, President and Director

Mr. Konnert has been a self-employed Management and Financial Consultant since February 1986. From June 1984 to January 1986 he was the Sales Manager, Real Estate Sales for Montreal Trust Company in Vancouver. Prior to that Mr. Konnert was at the University of British Columbia completing his Masters Degree in Education.

#### DAVID GEORGE MARK

Vancouver, British Columbia Chief Financial Officer, Secretary/Treasurer and Director

Mr. Mark is a self-employed Geophysicist doing business in Vancouver, B. C. as Geotronic Surveys Ltd.

#### FRANK THIESSEN

Whistler, British Columbia Director

Mr. Thiessen is an airline pilot employed by Canadian Pacific Airlines Ltd.

# TRIPLE STAR RESOURCE CORP.

### NOTES TO FINANCIAL STATEMENTS

# NOVEMBER 30, 1987 (unaudited)

# 5. RELATED PARTY TRANSACTIONS

- (a) During the period the company paid \$6,000 to a director for management of the company's affairs.
- (b) The mineral claim referred to in Note 2 (d) was acquired from a director.
- (c) The mineral property referred to in Note 2 (a) is under option from a company in which a director has an interest.
- (d) The mineral claims referred to in Note 2 (b) were staked for the company by a company in which a director has an interest.
- (e) Exploration advances of \$15,262 have been made to a company controlled by a director.

# 6. COMPARATIVE FIGURES

The May 31, 1987 comparative figures are for the period from date of incorporation, May 30, 1986 to May 31, 1987.

Certain of the comparative figures have been changed to conform with current presentation.

### 7. SUBSEQUENT EVENT

Subsequent to November 30, 1987 the company has entered into an agency agreement for the sale of 500,000 common shares for net proceeds of \$260,000. As consideration for agreeing to purchase any shares not sold in the offering the company has granted the agent non-transferable share purchase warrants for the purchase of up to 125,000 shares at \$.70 per share to a date one year from the date the company's shares are listed for trading on the Vancouver Stock Exchange.

# F. Marshall Smith Consulting Inc.

218-744 West Hastings Street, Vancouver, British Columbia, Canada, V6C 1A5 Phone: (604)684-2361 or (604)271-6556

## REPORT

# of the

# GEOLOGICAL SURVEY

#### AND

# DRILLING PROGRAM

on the

#### KALAMALKA MINE PROPERTY

# (GUS 1-6, and CHANCE CLAIMS)

#### VERNON MINING DIVISION

## BRITISH COLUMBIA

Latitude: 050<sup>0</sup> 12' 20"N Longitude: 119° 05' 30"W

## N.T.S. 82 L/3NE

**OWNER:** 

EUGENE DODD 815-850 West Hastings Street, Vancouver, B.C., V6C 1E2

OPERATOR:

**AUTHORS:** 

TRIPLE STAR RESOURCE CORP. 530-800 West Pender Street, Vancouver B.C., V6C 2V6

PETER G. DASLER, M.Sc.

and

F. MARSHALL SMITH, P.Eng.

SUBMITTED:

February 27, 1987.

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#### SUMMARY

The Kalamalka mine was the largest producer of gold in the North Okanagan region<sup>2</sup> with a recorded total of 7,267 tons mined for 2,898oz. gold, and 3,474oz. silver, (0.4opt Au., 0.48opt Ag.).

Triple Star Resources Corp. have obtained the mineral rights to the mine and the immediate surroundings through the option of the GUS 1&2 and CHANCE claims.

The mine portal has been rehabilitated and the geology of the workings has been mapped. An exploratory underground drill programme was completed to look for further mineralized shoots parallel to the existing mined shoot, and the continuation of the old shoot to depth. This programme produced gold values to 0.924 opt in the shear zone adjacent to the vein and gold values to 0.376 opt in the vein

It appears as if the property was not drilled prior to production, and the only recorded drilling was one hole drilled in 1967<sup>9</sup>. The property was developed in 1934-35, but for some unknown reason had limited production until 1937. In this and the following two years 5,268 tons were mined. Work continued until 1944, but at a much slower pace because of the confiscation of the compressors for the war effort. No production and limited exploration is known after this date.

The mineralization encountered in the Kalamalka mine is typical of a mesothermal vein deposited within dilatant zones associated with regional and local faulting. There are at least two generations of quartz veins, the latter heavily mineralized with pyrite and pyrrhotite. The gold values increase within the central portion of the mine, characteristic of a central mineralizing path or "shoot". Further areas with gold values in excess of an ounce per ton are known at two other widely separated locations within the workings, and it is anticipated that exploration will determine the location of a series of other mineralized shoots of equivalent size to that mined in the past. In addition the present drilling has extended the main shoot below the 2900 level beyond where the previous operators had stopped because of "faulting".

The Kalamalka property has excellent potential for the development of high grade gold mineralization in a series of "shoots" geometrically related to the existing ore zone. This existing zone can be extended to depths over 500ft below the present workings if the mineralization conforms to known mesothermal type deposits, (e.g. the Bralorne Camp).

A programme of surface and underground exploration totaling \$265,000 is budgeted within this report for the underground workings and surrounding area.

Mr. David Konnert, President of Triple Star Resource Corp., requested the authors to review the history of the Kalamalka mine and to undertake a programme of rehabilitation and mapping of the old workings to determine the potential of discovering further mineable gold mineralization. This report summarizes two months of fieldwork including drilling within the old mine workings.

The Kalamalka mine was the largest producer of gold in the North Okanagan region<sup>2</sup> with a recorded total of 7,267 tons mined for 2,898oz. gold, (0.4opt), and 3,474oz. silver, (0.48opt). The mine produced over 70% of its recorded gold in the first 4 years of its development 1935-1940, was minimally worked during the war years, and closed in 1944. Exploration effort for more ore since that time has been minor.

The property was developed along the strike of a strong shear zone which crosses a diorite intrusive. Several stages of quartz veining are apparent. The first periods of quartz flooding prepared the diorite for brittle fracture, and retained the proto-ore zone opening during faulting. We are able to see, from within the main stope, the character of the "ore shoot" and the trend of the shear offsets. The lack of clay alteration in the hangingwall of the shoot and the abundance of pyrrhotite indicate the mesothermal character of the deposit, and hence the potential for a vertical extent of gold mineralization exceeding 500 feet.

Our estimate of the tons mined, calculated from the dimensions of the main stope, is 12,250 tons. It is apparent that the pre-war operators had considered further development, (shown on early plans), and that the 1940's efforts were primarily scalping of the existing development, and not directed towards finding new ore shoots. The stated reasons for the closure of the mine were severe faulting and marginal grades<sup>3</sup>.

This type of mineral deposit should have several more minable "shoots" and ore grade mineralization should be found below the existing base of extraction (2900 level). The existing stope produced 54 tons of ore per vertical foot, using published figures, and 91 tons per vertical foot using our calculations. These values indicate the potential of mining 50-100 tons per day from the continuation of this shoot and similarly from adjacent shoots which are indicated from the current mapping. The two month programme described in this report concentrated on making the underground workings safe and accessible, and to re-establishing the reported ore grades shown on the early assay plans (see figures 7 & 8). Limited surface prospecting was attempted because of snow cover, however this abated to some extent by late February, and some of the early pits and roadcuts were inspected. The underground drilling location was limited by the extent of debris in the old workings, the position of an old backfilled stope, and the nearby winze. The drilling was exploratory in nature, and limited in extent, however significant assays were obtained from the projected extensions of the ore zone.

## Location and Access

The claims are situated approximately 4km south of Lavington and 15km south east of Vernon, B.C. and can be found on NTS map 82 L/3, (Oyama). The property is centered over the old Kalamalka mine adits at 050° 12' 20" N latitude, 119° 05' 30"W longitude, and occupy a ridge between Craster and Brewer creeks.

All-season access to the property can be gained via Learmouth road south of Lavington, thence by Dawes Road to the boundary of Mr. Bellevue's farm property. A small triangle of land attached to a private dwelling legally overlies the last 55ft of access to Mr. Bellevue's property. The old mine access road continues from the end of Dawes road through private farmland to the 2900 mine portal. This track provides excellent access to most parts of the claims between Craster and Brewer creeks. Alternative access can be developed from the south west across Crown Land in the Okanagan Provincial Forest.

#### **Physiography and Vegetation**

The GUS claims are situated on the southern flanks of a small ridge between Craster Creek and Brewer Creek and are characterized by moderately steep, relatively open slopes. The elevation of the No.2 portal is 2900ft, and the ridge above the mine 3000ft. This ridge gradually climbs to an elevation of 4000ft to the southwest where it meets a little used forest road which gives access to the Channel claims.

The CHANCE claim, which overlies the GUS claims, encompasses similar ground and the tributaries to Craster and Brewer Creeks, the property's main drainage. The eastern edge of the CHANCE claim is 1000 meters to the west of Bluenose mountain, and the Aberdeen Lake road.

Most of the more open ground is privately owned and used for ranching. To the south and west the land rises to a plateau of approximately 4500ft elevation which is managed as the Okanagan Provincial Forest, and is the scene of active logging operations.





The area is characterized by mature stands of conifer trees typical of the Interior Douglas fir biogeoclimatic zone. The more abundant species include Douglas fir, ponderosa and western white pine, and white spruce. Undergrowth is moderate and more prevalent on north facing slopes, while southern slopes tend to be drier and open. Logging companies are presently active south west of Brewer Creek and there is evidence of logging on the property some years (30?) ago. Precipitation here varies from 36-56 cm per annum, much of it falling as snow from November until March.

## Property

The claim group consists of the following six contiguous 2 post claims, and one 20 unit modified grid mineral claim, staked by Mr. Eugene Dodd, but at present under contest by the stakers of the Bluenose 1-4 claims, in accordance with section 50 of the Mineral Act. The Kal claims overly these earlier claims.

Claim	Units	Record No	Anniversary Date
GUS 1-2	2	2146-47	29 September, 1987
GUS 3-6	4	n/a	12 November, 1987
CHANCE	20	n/a	12 November, 1987
KAL	4	n/a	n/a
KAL 1-4	4	n/a	n/a

The GUS 1-2 claims were staked on 28 August 1986, and the GUS 3-6 claims were staked November 7 1986. The CHANCE claim was staked on November 8, 1986. All were staked by Mr. Eugene Dodd.

The Bluenose 1-4 claims were staked over the GUS 1-2 claims on 7 September 1986 by Mr. Nelson Pentecost, and on 11 November 1986, Mr. Nelson Shewchuck restaked these same claims in his name, also retaining the name Bluenose 1-4. Mr. Shewchuck later completed staking the Bluenose claim, a 20 unit claim extending west from Craster creek, on 29 November 1986.

In February 1987 a further four two-post claims, and one modified grid claim, the KAL claims, were staked over the mine by Mr. Richard Simpson, Mr. Dodd's partner.



A land title search showed that the Kalamalka mine, and the GUS1-2 claims are on private land owned by Mr. W. Bakker of Edmonton, and that the present access road passes through six other private land lots. These owners have been notified of our exploration intentions, and have agreed on conditions of access, or have provided free access for specified durations.

## <u>History</u>

The property was first worked in 1896 following the finding of a large reddish quartz vein near the brow of the ridge dividing the two major creeks. The prospecting produced low gold values on surface, so work was planned to drive a crosscut adit lower on the hillside to intersect the vein to look for better values. The writer is not sure when this crosscut was completed as the records show no further activity until 1928 when 21ft of tunnel was driven. By 1933 the (2975 level) crosscut had been completed along with some drifting on the vein, and another short crosscut and shaft had been completed.<sup>4</sup>

In 1934 390ft of tunneling was reported on the affidavits of work, this was followed by 617ft of tunnel (the 2975 and 2900 level drifting?) by April 1935. The first shipment of ore is reported in 1935 as 30ton grading 1.0 ounces per ton (opt) gold.<sup>5</sup>

Production in 1936 was only 38 tons, then in 1937 more development is recorded, and production peaked at 2816tons (@ 0.42 opt gold). The following two years had mining tonnages of 1277tons and 1175 tons respectively. At this time the mine was under the ownership of Kalamalka gold mines Ltd.

The ownership changed to a lease to Messrs Stan and Cecil Penney of Vernon in 1940 and mined tons dropped to 511. The following years production reflected the scalping operations of the Penney's operations with tonnages of 917, 433, 38, and 32 tons recorded. It was reported that in 1941 mining was by hand steeling only, this was confirmed by a discussion the author had with Mr. Aubrey Penny (a brother), who reported that the mine compressors were confiscated during the war.

The mine closed in 1944. Then in 1952 Mr. Aubrey Penney staked the property. He retained the ownership by occasional rehabilitation work, until it was optioned to Coin Canyon Mines around 1966. Coin Canyon drilled one surface hole that was reported in the 1966 and 1967 affidavits of work, and in the B.C.D.M. report. There is no record of the drill information in this hole, however Mr. A. Penney provided photographs of the site, sufficient for the drill collar to be located. The dip of the hole was estimated from the photographs, and the vein intercepts were from Mr. Penney's recollection, (Figure 5).

There are various records of optioning company's buying surface land titles to the ground in the 1970s. The present owners of the surface rights, Mr. Bakker and Mr. Nyland, had the mineral claims until they expired in August 1986, and were subsequently staked by Mr. Eugene Dodd.

Other hardrock exploration in the area is reported to have occurred on the northeast side of Harris Creek, approximately 3.5 miles southeast of its confluence with Bessette Creek. Here, several small quartz veins occurring in both sedimentary and plutonic rocks were explored in a series of shallow open cuts. The width of these veins was reported to vary up to two feet, although most were less than six inches. One sample of rusty quartz assayed 1.02 oz/ton gold and 0.1 oz/ton silver, while other samples returned values ranging from trace to 0.41 oz/ton gold.

The location of this mineralization probably occurred as a result of the activity generated when placer gold was discovered in Harris creek. Several leases still exist today and evidence of placer testing along the creek bank is common. The total amount of gold extracted from Harris Creek is, however, unknown.

#### Summary of Work

The 1987 program carried out on the GUS claims consisted of the following exploration assessment work:

TYPE OF WORK	CLAIMS INCLUDED
Geological mapping at a scale of 1:250 of the mine workings	GUS 1-2
Lithogeochemistry - 59 samples	GUS 1-2
Mine rehab. portal and 300ft crosscut	GUS 1-2
Underground drilling 439ft	GUS 1-2

## **GEOLOGICAL SURVEY**

# **REGIONAL GEOLOGY** (Gilmour 1979)<sup>1</sup>

The Kalamalka property is located near the western margin of the metamorphic Shushwap Terrane. The regional geology is transitional between the Omineca crystalline belt, of which the Shushwap Terrane is part, and the Intermontane Belt of eugeosynclinal volcanic, sedimentary and intrusive rocks. The rocks in the area range in age from Lower Paleozoic (possibly Precambrian) to Miocene/Pliocene.

The oldest rocks in the area belong to the "Monashee" metamorphic rocks of Proterozoic? to Paleozoic age. This unit generally comprises layered gneiss with lesser amounts of pegmatite, marble, greenstone and gabbro. Less metamorphosed volcanic rocks of Carboniferous-Permian and Upper Triassic ages also occur in the area.

These rocks have been intruded by Jurassic to Eocene plutons. The "Nelson" plutonic rocks are biotite-hornblende diorites, granodiorites and granites with a strong to moderate foliation. The Late Jurassic "Valhalla" plutonic rocks are generally porphyritic quartz monzonite to granite and the Eocene Coryell plutonic rocks, mainly syenites, monzonite and granite, both contain high background uranium values.

In late Cretaceous to early Eocene times a profound erosional period levelled the entire region. Intense continental volcanic and tectonic (graben formation) activity with extensive deposition of volcanic and sedimentary rocks commenced in the Eocene.

A more mature topography existed in the Miocene with the formation of fluvial quartz pebble conglomerates and sandstone. In late Miocene to Pliocene times olivine plateau basalt flows covered much of the area. Later uplift has resulted in the erosion of most of the Tertiary rocks.



### PROPERTY GEOLOGY

There are no detailed geological maps available for the mine area. Within the mine, and on the surface, the author has mapped a medium grained hornblende diorite, which shows intense deformation along a major NE-SW trending shear zone. This shear zone is occupied by quartz veins and lenses discontinuously along its length. Apparent shear offsets are noted in a conjugate array local to the main shear, but their character becomes more subtle at distances over 50ft from the main shear.

The mine workings intersected a contact with fine grained, very chloritized, grey-green metasediment, which in places is brecciated and silicified. Veinlets and dykes of diorite intrude the sediments at their margin, but no quartz vein style mineralization has been shown within the metasediments. The brecciated and silicified zones are however probably related to the veining within the diorite, and ore grade mineralization could extend into these zones.

# MINERALIZATION

The shear zone hosts the main gold mineralization in pyrite and pyrrhotite rich quartz pods and veins, and in the chlorite-quartz matrix. The drill programme showed that the narrow veinlets within the wall rock which showed bleaching were also auriferous, and the sampling programme indicated areas within the mine with significantly elevated gold/silver ratios. Further work is required to confirm a relationship between elevated precious metal ratios and ore shoot development.

In 1934 the mines annual report stated... "The main shear zone, about 22 feet wide, on which most of the work has been done, consists of nearly vertical bands of quartz from 2 to 10 inches wide, generally free on the walls, with alternating bands of argillaceous and altered diorite between accompanied by graphite, pyrite, and manganese oxide. Free gold can be panned from some of this material."... A 1935 metallurgical report on a sample of this material is included in Appendix 3.

This material described in the early reports has since been mined, however the mapping in 2900 drift south of the raise showed similar material, although with a maximum gold value of 0.19 opt (sample 9258). The recent exploratory drillholes were to determine if the ore shoot continued below or around this zone

The drilling was successful as it picked up extensions of the high grade mineralization below the drift in drill hole K-87-2, - with 0.924 opt gold in the chloritized shear zone between 16' 9" and 21' 10", (5' 1"), and values to 0.254 opt gold in the adjacent quartz vein, hole K-87-3.





These drill values are similar to the values obtained from sampling in the drift at the 2900 level, where the author obtained 0.376 opt gold over 80" (sample 9255) from the quartz vein adjacent to the drill station, and to the values reported on the 1934 and 1937 assay plans, (see figures 7 & 8).

The following table details the more significant assay results, a full descriptive listing is in appendix 2.

WIDTH	Au.opt	Ag.opt	REMARKS
5'1"	0.924	5.98	K-87-2, 16'9"-21'10"
2'6"	0.107	0.80	K-87-3, 13'6"-16'0"
2'8	0.085	0.69	K-87-3, 50'0"-54'6"
2'0"	0.316	-	K-87-6, 33'0"-35'0"
8"	0.136	0.09	Vein at winze.
10"	0.260	0.13	Vein in cross shear
80"	0.376	-	Main vein at 2900
grab	0.190	<b>-</b> 2	Debris at 9255
12"	0.140	-	Main shear
32"	0.100	-	End of 2900 level
grab	0.170	-	2975 stope SW end
	WIDTH 5'1" 2'6" 2'8 2'0" 8" 10" 80" grab 12" 32" grab	WIDTHAu.opt5'1"0.9242'6"0.1072'80.0852'0"0.3168"0.13610"0.26080"0.376grab0.19012"0.14032"0.100grab0.170	WIDTHAu.optAg.opt5'1"0.9245.982'6"0.1070.802'80.0850.692'0"0.316-8"0.1360.0910"0.2600.1380"0.376-grab0.190-12"0.140-32"0.100-grab0.170-

In addition to the samples collected as above, Mr. Penney has retained two excellent samples obtained from the workings of the Nol open cut, which show spectacular free gold, and these have been offered to the author for further examinations.

The author is particularly interested in excavating the No.1 open pit, and to drilling the extensions of the mineralized zone shown there. The extremely high gold values reported for vein samples in this area and the geometry of the vein indicate the existence of a major ore shoot.

Similar high gold (1.6 opt) was obtained from a sample taken at the intersection of the 2975 crosscut and drift (see 1934 sampling, #19), and at this location the author noted a secondary quartz vein in an oblique shear. This shear trends toward the quartz float noted on surface to the southwest, and may represent a further shoot. Surface excavation will assist in this determination.







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#### CONCLUSIONS

1.0 The Kalamalka Mine produced more material from the mine stopes than was accounted for by the official records, (7267 tons compared with our 12,250 tons). The records show that processing equipment was set up at the mine in the late 1930's, and this equipment was probably used to process the material within the shear zone. The massive quartz appears to have been the only product sent to the smelter, as returns indicate that this had a silica content of 80%.

2.0 The mine was closed because of "low grades and faulting". This is realistic in light of the economic conditions in 1944, and the the moderate amount of development required to extend the mining operation deeper on the main shoot. The detailed vein geometry is shown in figure 6, and this shows the "fault-offset" of the vein. The author considers that this is not a true vein offset, but rather a vein fill in offset dilatant zones. Similar "off-sets" were mapped along the length of the main shear zone, and because of their relationship to high gold values, or to high gold-silver ratios in the assays, the author considers there to be a number of other ore bearing shoots in the vicinity of the workings.

3.0 Drill holes were targeted below the 2900 level drift to intercept the shear zone and the quartz vein down the anticipated plunge of the "shoot". The drilling intercepted very high gold grades in the silicified shear zone, indicating the shoot does continue to depth. Two holes which would have passed through the quartz vein shown on the southeast side of the 2900 drift encountered a backfilled stope. The drill information was used to determine the dip of the vein below the 2900 level, but the vein grade could not be determined. This vein assayed 0.376opt across 80 inches at the 2900 level. Further holes were not possible in this area because of unstable ground conditions and rubble.

4.0 Discussions with Mr. Aubrey Penney, the owner of the property from 1952-1967, assisted in locating the collar of the drill hole completed in 1967, and determining its orientation. In a report by Mr. L. B. Halferdahl, Ph.D., P.Eng.<sup>8</sup>, hearsay reports of this drilling indicate a vein intercept at about 450 feet, but assays of less than 0.5 opt. The author has concluded that this hole intercepted the main shear below the junction of the 2975 crosscut and drift, at a depth of at least 218 feet below the 2900 mining level. This is consistent with a vein dip of 85 degrees to the northwest. According to Mr. Penney the hole showed between 12 and 20 feet of quartz.

5.0 In the course of the inspection of the claim posts, the author noted float of red quartz within outcrops of diorite. This area is over 400 meters southwest of the main workings, and on strike with the main shear zone. This float is a significant indicator for further mineralization similar to that mined in the past. Silicified sediments in a road cut north of this area is also another indicator of potential vein mineralization.

6.0 The gold mineralization within the mine is consistent with a several stages of mesothermal vein formation, filling tension gashes within a diorite intrusive. The solution path for the gold mineralization in the central part of the mine plunges south east from the drill station on the 2900 level, and was intercepted in drill holes K-87-2, K-87-3, and K-87-6. This style of mineralization is known to extend to depths of over 500 ft, eg. at the Bralorne Camp.

7.0 Further drill programmes will define the dimensions of the ore shoot, and determine the existence of geometrically related ore shoots.

### RECOMMENDATIONS

1.0 Construct a drill station off the 2900 level access to enable underground drilling to continue to trace the mineralized zone to depth. This drill station and access can also be used to develop a by-pass of the 2900 level drift stoping, and to allow drilling from the south west extremity of the 2900 level drift.

2.0 Re-excavate the old trenches above the mine workings to determine the orientation of possible sub-parallel ore shoots. Continue these excavations to the north east and south west, at least to the extent of the quartz float noted near the Gus 3 final claim post.

3.0 Establish a surveyed mine grid, and in areas of minimal outcrop soil sample on a staggered grid pattern with 50 meter spacing. Soil sample for gold, including plus 80 mesh gold. Resample all anomalous areas on a 25 meter staggered spacing, and excavate remaining anomalies.

4.0 Establish an orientation IP geophysical survey over the known mineralization, for possible future exploration use of "Resistivity Profiles" to target diamond drilling.

5.0 Surface drill all quartz filled shear zones discovered during exploration. Surface drill the high grade veining in the vicinity of the No.1 open cut.

## BUDGET

The following is a budget for the project to carry out the programmes described in this report.

Phase I

Geophysical Survey	\$5,000
Geochemical Survey	\$10,000
Assays	\$6,000
Trenching	\$15,000
Underground development	\$35,000
Drilling	\$40,000
Room and Board	\$4,500
Travel	\$2,500
Salaries	\$15,000
Support and Supervision	<u>\$12,000</u>
Sub Total	\$145,000
Contingencies	<u>\$5,000</u>
Total Phase I	\$150,000

The following is the expected Phase II budget which will be carried out if the results of the first phase as detailed above results in the definition of significant mineralization on the property.

Geophysical /Geochemical Survey	\$10,000
Geology	\$10,000
Assays	\$10,000
Trenching	\$15,000
Room and Board	\$5,000
Travel	\$2,500
Salaries	\$15,000
Support and Supervision	\$4,000
Drilling	\$30,000
Mill testing	<u>\$8.000</u>
Total	\$109,500
Contingencies	\$5,500
Total Phase II	\$115,000
Total Phase I & II	\$265,000
2 PROVINCE TO	
F. MARSHALL SMITH	
F. Marshall Smith, P.Eng.	
February 27, 1987.	
Contractore	

## CERTIFICATE

I, F. Marshall Smith, do hereby certify that:

1. I am a consulting geologist and geochemist with offices at 218-744 West Hastings Street, Vancouver, British Columbia.

2. I am a graduate at the University of Toronto with a degree of B.Sc., Honors Geology.

3. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.

4. I have practiced my profession continuously since 1967.

5. This report is based on reports by Professional Engineers and others working for the previous owners and operators of the property and an examinations of the claims in January of 1987.

6. I have no interest in the property or shares of Triple Star Resource Corp. or in any of the companies with contiguous property to the Kalamalka Project claims.

F. MARSHALL SMIT F. Marshall Smith, P.Eng February 27, 1987.

## CERTIFICATE

I, Peter G. Dasler, do hereby certify that:

1. I am a geologist for Searchlight Resources Inc. with offices at 218-744 West Hastings Street, Vancouver, British Columbia.

2. I am a graduate at the University of Canterbury, Christchurch, New Zealand with a degree of M.Sc., Geology.

3. I am a Fellow of the Geological Association of Canada, an Associate Member in good standing of the Australasian Institute of Mining and Metallurgy, and a Member of the Geological Society of New Zealand.

4. I have practiced my profession continuously since 1975.

5. This report is based on information received from old mine records, the writers personal fieldwork, and reports by Professional Engineers and others working for the previous owners and operators of the property.

6. I have no interest in the property or shares of Triple Star Resources Corp., nor in any of the companies with contiguous property to the Kalamalka Project claims.

Peter G. Dasler, M.Sc. February 27, 1987

#### BIBLIOGRAPHY

1. Gilmour W. Nov. 6, 1979: Geological geochemical and geophysical Assessment report on the Channel Property, Vernon Mining District for Banquest Resources Ltd.

2. Hedley M. S., Watson K. DeP. 1945: Lode Gold Deposits Of Central British Columbia. B.C. Dept of Mines Bulletin No. 20, Pt. #3.

3 ----- Geological Survey of Canada Memoir 296-145,153.

4 BCDM report 1934 ppD32

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5. BCDOM, Bureau of Economics and Statistics: File Kalamalka

8. Halferdahl L. B. 1980: Report to Mr. Nywening, owner of Mineral Claim 5393, Vernon Mining Division, (Kalamalka Mine)

9. A. Penney Pers. Comm.

# **APPENDIX 1**

# Assay Certificates

CERTIFICATE OF ANALYSIS A8710497

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#### Chen nex Labs Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER, BRITISH COLUMBIA, CANADA V7J-2CI PHONE (604) 984-0221

# To : SEARCHLIGHT RESOURCES INC. 218 - 744 W. HASTINGS ST.

VANCOUVER, B.C. V6C IAS

Page No. :1 Tot. Pages:1 : 4-FEB-87 Date Invoice # : 1-8710497 P.O. I NONE

Project : KALAMALKA

Comme a t a :

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SAMPLE DESCRIPTION	PREP CODE	Ag FA oz/T	Au FA oz/T				
9251 G 9252 G 9253 G 9255 G 9257 G	207 2 207 2 207 2 207 2 207 2 207 2	31         0         09           31         0         07           31         0         13           31         0         08           31         0         03	0 . 1 3 6 0 . 0 8 6 0 . 2 6 0 0 . 3 7 6 0 . 0 1 4				
9258 G 9259 G 9261 G 9262 G 9263 G	207 2 207 2 207 2 207 2 207 2 207 2 207 2	31     1.98       31     0.03       31     0.06       31     0.07       31     0.01	0.190 0.078 0.012 0.006 0.062				
9264 G 9265 G 9267 G 9268 G 9269 G	207 2 207 2 207 2 207 2 207 2 207 2 207 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
9270 G 9271 G 9273 G 9274 G 9275 G	207 2 207 2 207 2 207 2 207 2 207 2 207 2	31       0.06         31       0.08         31       0.21         31       0.05         31       0.05         31       0.01	0.004 0.008 0.018 0.100 0.042				
9276 G 9277 G 9278 G 9279 G 9280 G	207 2 207 2 207 2 207 2 207 2 207 2 207 2	31       0.01         31       0.02         31       0.03         31       0.01         31       0.01	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
9281 G 9283 G 9284 G	207 2 207 2 207 2	31         0.02           31         0.08           31         0.67	0.006 0.068 0.082				

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION : W. Men Imanini





Analytical Chemists \* Geochemists \* Registered Assayers 212 BROOKSBANK AVE , NORTH VANCOUVER, BRITISH COLIMBIA, CANADA V7J-2C1 PHONE (604) 984-0221

# CERTIFICATE OF ANALYSIS A8711324

To : SEARCHLIGHT RESOURCES INC.

218 - 744 W. HASTINGS ST. VANCOUVER, B.C. V6C 1A5

Page No. : 1 Tot. Pages: 1 Date : 21-FEB-87 Invoice # : I-8711324 P.O. # :NONE

Project : KALAMALKA

Comme n t s :

SAMPLE DESCRIPTION	PRE COE	EP DE	Ац рр <b>ь</b> FA <del>+</del> AA						
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212 BROOKSBANK AVE., NORTH VANCOUVER, BRITISH COLUMBIA, CANADA V7J-2CI PHONE (604) 984-0221

#### **CERTIFICATE OF ANALYSIS** A8711256

To : SEARCHLIGHT RESOURCES INC.

218 - 744 W. HASTINGS ST. VANCOUVER, B.C.

Page No. : 1 Tot. Pages: 1 : 20-FEB-87 Date Invoice # : 1-8711256 P.O. # :NONE

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V6C 1AS Project : KALAMALKA

Comments:

SAMPLE DESCRIPTION	PRE COD	P E	Au ppb FA+AA							
8601 8602 9288 9289 9290	208 208 208 208 208 208		660 < 5 < 5 120 920							
9291 9292 9294 9295 9296	208 208 208 208 208 208		950 70 20 60 3000							
9297 9298	208 208		330 145							
				,						
						CFR	TIFICATION :	Iter	ABre	fler



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#### Chemex Labs Ltd Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER, BRITISH COLUMBIA, CANADA V7J-2C1 PHONE (604) 984-0221

#### CERTIFICATE OF ANALYSIS A8711255

To : SEARCHLIGHT RESOURCES INC.

218 - 744 W. HASTINGS ST. VANCOUVER, B.C. V6C 1AS

Page No. :1 Tot. Pages:1 :23-FEB-87 Date Invoice # : I-8711255 P.O. I :NONE

Project : KALAMALKA

Comments:

SAMPLE DESCRIPTION	PREP CODE		Ag FA oz/T	Au FA oz/T					
9285 9286 9287 9293 9299	207 207 207 207 207 207	2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1	5.98 0.17 0.52 0.80 0.69	0.924 0.005 0.007 0.107 0.085					
9300	207	231	1.87	0.254					
		-							

CERTIFICATION :

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212 BROOKSBANK AVE , NORTH VANCOUVER, BRITISH COLUMBIA, CANADA V7J-2C1 PHONE (604) 984-0221

To : SEARCHLIGHT RESOURCES INC.

218 - 744 W. HASTINGS ST. VANCOUVER, B.C. V6C 1A5

CERTIFICATE OF ANALYSIS

Page No. :1 Tot. Pages:1 : 26-FEB-87 Date Invoice # : I-8711325 P.O. # :NONE

A8711325

Project : KALAMALKA

Comments:

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SAMPLE DESCRIPTION	PRE COD	P DE	Ag FA oz/T	Au FA oz/T									
8610 8611 8612 8613 8614	207 207 207 207 207 207	231 231 231 231 231 231	$ \begin{array}{c} 0 & . & 6 & 7 \\ 0 & . & 0 & 3 \\ 0 & . & 0 & 1 \\ 0 & . & 0 & 1 \\ 1 & . & 0 & 2 \end{array} $	$\begin{array}{c} 0 & . & 3 \ 1 \ 6 \\ 0 & . & 0 \ 1 \ 5 \\ 0 & . & 0 \ 2 \ 5 \\ 0 & . & 0 \ 0 \ 6 \\ 0 & . & 1 \ 7 \ 0 \end{array}$									
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ALL, ASSAY DETERMINATI	L ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY BC. CERTIFIED ASSAYERS CERTIFICATION :												

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# Chemex Labs Ltd.

212 BROOKSBANK AVE., NORTH VANCOUVER, BRITISH COLUMBIA, CANADA V7J-2CI PHONE (604) 984-0221

# CERTIFICATE OF ANALYSIS A8710498

To : SEARCHLIGHT RESOURCES INC.

218 - 744 W. HASTINGS ST. VANCOUVER, B.C. V6C 1A5 Page No. : 1 Tot. Pages: 1 Date : 31-JAN-87 Invoice #: I-8710498 P.O. # : NONE

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Project : KALAMALKA Comments:

SAMPLE DESCRIPTION	PRE COD	P E	Ag ppm Aqua R	Ац ррь FA+AA		-		
9272 G	205		0.1	5				

CERTIFICATION :



# Chemex Labs Ltd.

212 BROOKSBANK AVE., NORTH VANCOUVER, BRITISH COLUMBIA, CANADA V7J-2C1 PHONE (604) 984-0221

# CERTIFICATE OF ANALYSIS A8711689

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To : SEARCHLIGHT RESOURCES INC.

218 - 744 W. HASTINGS ST. VANCOUVER, B.C. V6C 1A5 Page No. : 1 Tot. Pages: 1 Date : 3-MAR-87 Invoice # : 1-8711689 P.O. # : NONE

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Project : KALMALKA Comments:

SAMPLE DESCRIPTION	PREP CODE	Au FA oz/T					
8601 9290 9291 9296 9297	214 2 214 2 214 2 214 2 214 2 214 2 214 2	231       0.0         231       0.0         231       0.0         231       0.0         231       0.0         231       0.0	9 8 32 76 77				
8607 8609	214 2 214 2	231 0.0 231 0.0	5 2 6				

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY BC. CERTIFIED ASSAYERS



# KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT ---- KAMLOOPS, B.C. V2C 5P5 PHONE: (604) 372-2784 --- TELEX: 048-8320 CERTIFICATE OF ASSAY B.C. LICENSED ASSAYERS GEOCHEMICAL ANALYSTS METALLURGISTS

Certificate No.	<u> </u>	7848	
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Date \_\_\_\_\_ January 26, 1987.

Vancouver, B.C. V6C 1A5

218-744 West Hastings St.,

TO Searchlight Resources Inc.

Kral No.	Marked	Au				
		ozs/ton				
1 2 3 4 5	9254 G 9256 G 9260 G 9266 G 9282 G	.177 .223 .063 .014 .008				
		2				
				-		

# APPENDIX 2 Sample Descriptions

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In the course of mapping, a total of 30 lithogeochemical samples were taken from the mine workings. Samples were collected using pneumatic hammer and chisel and were shipped in 12 x 20 inch pvc bags for shipment to Chemex Labs in North Vancouver, B.C. with check samples to Kamloops Research and Assay Laboratory. Sample locations are plotted along with geology on figure 4. A further 29 samples were taken from splits of AQ drill core, these were all analyzed by Chemex Labs either for trace gold values or for gold/silver assay.

Gold analysis required samples to be crushed to -100 mesh after being dried for three hours. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay. Ten gram subsamples were then fused in litharge, carbonate and siliceous flux with the addition of ten milligrams of gold-free silver metal. The fusion was then cupelled and parted with dilute nitric acid and treated with aqua regia. The remaining salts were then dissolved in dilute HCl and analyzed for gold and silver via atomic absorption spectrophotometer with a five parts per billion detection limit.

For gold values reported in parts per billion only were geochemically analyzed. A description of the technique used is as follows:

A 1.0 gram sample is digested in a concentrated nitric acid-aqua regia solution for approximately two hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Gold is determined by atomic absorption technique using background correction on analysis. The detection limit is 0.1 ppm.

# KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C. V2C 5P5 PHONE: (604) 372-2784 — TELEX: 048-8320

# FIRE ASSAY METHOD - GOLD

Please note that this is a general outline only.

1. Weigh between 10gms and 29.167 grams of sample depending on the sample matrix. (See note a )

2. Flux in crucible using litharge, silica, soda ash and borax. Amounts used will vary with sample matrix.

3. Add flour or potassium nitrate depending on whether the ore is oxidising or reducing. (See note b).

4. Mix well and add a silver inquart.

5. Fuse @ 1900 degrees F for 25 minutes to one hour depending on sample type. (See note c).

6. Pour, cool, remove lead button and hammer alag off. Resulting button should be free from slag and square.

7. Charge furnace with cupels 10-15 minutes prior to adding the lead buttons.

8. Cupel @ 1650 degrees to blick (Cupel absorbs approx. 1gm PbO per minute).

9. Remove cupels from furnace, cool.

10. Remove foreign matter from bead, place bead in test tube, dissolve in aqua regia, bulk to 10ml and read on atomic absorption spectrophotometer.

#### Notes

a.	Ore	e Type	Weight				
	Class	I ore	1 A.T.				
	Class	II ore	10gm5 A.	.т.			
	Class	III ore	10gm5 /	А.Т.			
b.	Class	I & III ore	es add flour	<b>.</b>			
	Class	II ore add	potassium m	nitrate			
c.	Class	I & III ore	es fuse for	30 min.	to	one	hour
	Class	II ore fuse	a for 25-35	minutes			

DRILL HOLE	INTERVAL	DESCRIPTION	SAMPLE	Oz/T Au	Oz/T Ag
K _ 87_ 7	16'0"- 21'10"	Ota Chlorita	0295	0.004	
K-0/-2	10 9 - 21 10	Qtz-Chlorite	9285	0.924	5.98
K-07-2	49.0 - 34.0"	Chlor. Tracts	9286	0.005	0.17
K-8/-2	68'0"-69'0"]	Bleached Diorite	9287	.007	.052
K-8/-2	84'0"-86'6"	Bleached Diorite	9288	<5ppb	-
K-87-2	86"6"-93"10"1	Bleached Diorite	9289	120ppb	-
<b>K-8</b> 7 <b>-</b> 2	102'-106'6"1	Banded Chlor. Dior.	9290	0.018	-
K-87-3	4'0"-7'0"	Alt. Diorite	9291	0.032	-
K-87-3	10'0"-12'6'	Alt. Diorite	9292	70ppb	-
K-87-3	13'6"-16'0"1	Breccia Si. Flood	9293	0.107	-
K-87-3	19'0"-23'0"	Chlor. Diorite	9294	20ppb	-
K-87-3	25'0"-30'0"	Chlor. Breccia	9295	60ppb	-
K-87-3	30'0"-35'0"	Chlor. Breccia	9296	0.076	-
K-87-3	40'0"-45'0"	Chlor. Breccia	9297	0.007	-
K-87-3	45'0"-47'4"	Chlor. Breccia	9298	145ppb	-
K-87-3	47'4"-50'0"	Qtz Vein	9299	0.085	0.69
K-87-3	50'0"-54'6"	Qtz Vein	9300	0.254	1.87
K-87-3	54'6"-56'6"	Chlor. Breccia	8601	0.019	
K-87-3	56'6"-61'0"	Si. Chlor Brecc.	8602	<5ppb	-
K-87-5	2'6"-5'0"	Chlor. Diorite	8603	80nnh	
K-87-5	19'0"-22'0"	Fine Dk Dyke?	8604	200nnh	-
K-87-5	25'0"-30'0"	Shear zone	8605	65nnh	_
K-87-5	30'0"-35'0"	Diorite	8606	<5ppb	-
K-87-6	11'10"-13'0"	Brecc Qtz Flood	8607	0.052	-
K-87-6	20'0"-25'0"	Chlor. Shear	8608	240ppb	-
K-87-6	28'0"-33'0"	Chlor. Shear	8609	0.026	-
K-87-6	33'0"-35'0"S	il. Chlor Breccia	8610	0.316	-
K-87-6	35'1"-35'2"	Qtz Vein	8611	0.015	-
K-87-6	36'10"-40'6"	Brecc. Diorite	8612	0.025	-
K-87-6	40'6"-44'0"	Brecc. Diorite	8613	0.006	-

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Property KALAWIALKA

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Date	Working Place	Location	Sample No.	Width	Au.	Ag.	Cu.	Pb.	Zn.	Remarks
	2900 LEVEL DEET	Δτ. μίματε	9251	S"	.136	.09				
23JAN 87	2 TW LEVEL THIFT	SOL SOUTH DEVENT	(J)50	10"	1086	70'				Arrose Main Suran
<u></u>		SU SUCH OF WINZE	(1252	10						ILCO E TATA A A A A A A A A A A A A A A A A
		35 SOUTH OF WINZE	(203	10		-13				HEAVY SULPHIDE X CUTING VEIN
		30 SOUTH OF WINZE	9254	10"	<u></u>					SAME AS 9263 KAMLOOPS LAB
• <del>••••</del> •••	2400 STOPE	35'SOUTH OF WNZE	4255	80	13/6	1.08		<b> </b>		MAIN VEN - ALL QUARTZ
	и <sub>1</sub> л		9256	GRAB	·223					DEBRIS AT BASE OF STOPE SE 9255
<del></del>	2900 LEVEL	BELOW RAISE	9257		· 014	103				QUARTZ VEIN .
	u u	BROW PAST RAISE	9258		1.90	1.98				MAIN QUARTZ VEIN IN SHGAR
	ii (I	SHEAR ZONE	9259	18 "	.078	•03			, , <del>, , , , , , , , , , , , , , , , , ,</del>	SHEAR ZONE SAMPLE
			9260		.063					SAME AS 9259
			9261	14"	.012	.06				RUSTY QUARTZ SHEAR
	2900 LEVEL	JUNCTION, AT Y.	9262		.006	.07				QUARTZ VEIN X CUTTING JUNCTION
	2400 LEVEL	SNDRIFT	9263	36"	·062	10				QUARTZ VEIN W. SIDE
	- j\ _i\	SW DRIFT	9264	34"	800.	.05				QUARTZ VEN. NSIDE
		SW DRIFT	9265	45"	.016	.05				REST OF ADIT of 9264
		SW DRIFT END	9266		1014					SAME AS 9265
		SW DRIFT END	9267	42"	4.002	4-01				WHITE QUARTZ MIN SUPIT .
		SW. DRIFT END	9268	12"	.140	.55				SMALL SHEAR ZONE
	<i>h</i> , y	SE DRIFT START	9269	18"	·002	<•01				QUARTZ NEIN
		SE DRIFT MID.	9270	57''	.004	.06				ACROSS SE DRIFT
		FALE OF SE FORK	9271	25"	.006	.08				FACE QUARTZ NEIN
	2975 LEVEL	NORTH END	9272	GRAB .	-1ppm					SAMPLE OF DIORITE NO SULPH.
	۱	NORTH STUB.	9273	8"	.018	•21				sthere zone .
		NORTH STUB	9274	32"	100	·05				
	1 <sup>1</sup>	SHEAR	9275	20''	·042	·01				VGRY CHLORITIC

# ASSAY REPORT - Chip Sample

Property KALAMALKA .

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Date	Working Place	Location	Sample No.	Width	Au.	Ag	Cu.	Pb.	Zn.	Remarks
	2975	MAIN DRIET WITH	9276	134	.011	.01				ACROSS DRIFT
<u> </u>		Interest Die	9277	43"	1016	•07		1		ACROSS DRIFT
<b></b>	~		9278	23"	.004	.03	1			QUARTZ POD
			9279	18"	4.002	101				ACROSS SHEAR
			9280	22"	.002	·01				ACROSS QUARTZ PODIN STUPE
			9281	105"	.006	.02				ACROSS QUARTZ VEIN JUNCT.
			9282	108'	1008					· · · · · · · · · · · · · · · · · · ·
	······································		9283		.068	.08				MUCK FROM RAISE
			9284		.082	.06				· · · ·
	2975	SOUTH END	8614		0111	1.02				BROW. STHEND OF STOPG- PLAPR
<u> </u>										
	· · · · · · · · · · · · · · · · · · ·									
	· · · · · · · · · · · · · · · · · · ·									
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# APPENDIX 3 Metallurgical Report

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#### Ore Dressing and Metallurgical Investigation No. 646

#### GOLD ORE FROM THE KALAMALKA MINE, SITUATED ABOUT SEVEN MILES SOUTHWEST OF VERNON, BRITISH COLUMBIA

Shipment. A shipment of two sacks of ore, net weight 150 pounds, was received on September 6, 1935. The shipment was submitted by William Warner, Secretary, Kalamalka Gold Mines, Limited, 102-106 Pacific Building, Vancouver, B.C.

Characteristics of the Ore. Specimens were selected and six polished sections were prepared and examined microscopically for the purpose of determining the character of the ore.

The gangue is white translucent quartz, locally stained by iron oxides.

The metallic minerals comprise an appreciable proportion of the ore, perhaps from 15 to 20 per cent. They occur chiefly as masses and coarse to fine irregular stringers forming a network in the quartz. In their order of abundance in the polished sections, they are as follows:

Pyrrhotite Marcasite Pyrite	Major metallic minerals.
"Limonite") Chalcopyrite)	
Unknown No. 4 Galena (?) Sphalerite Unknown No. 1 Native gold Unknown No. 2 Unknown No. 3	Accessory metalic minerals.

The tests on the unknown minerals are given below:

#### Unknown No. 1:

Tentative identification: Nagyagite (?).
Formula: Doubtful, (Pb, Au, Te, S).
Colour: Galena-white.
Hardness: Very soft, A. Soratohy surface, probably sectile. No apparent cleavage.
Crossed nicols: Moderate to strong anisotropism; colours, light blue-grey to dark brown-grey.
Etch tests: HNOs-Slowly differentially grey; pitted surface. Action on some surfaces is rapid.
HCl, KCN, FeCls, KOH, HgCls-Negative.

Unknown No. 2:

Tentative identification: Unknown.

Colour: Light bluish grey. Hardness: C.

Crossed nicols: Questionable; possibly faintly anisotropic. Etch tests: HNO-Rapidly differentially black to iridescent. HCI-Slowly tarnishes to dark grey.

FeCls-Tarnishes irideecent. KCN, KOH, HgCls-Negative.

Unknown No. 3:

Tentative identification: Native bismuth (?) Colour: Brassy-yellow with a rough surface which takes a poor polish and which appears to be iridescent. The grains are exceedingly small.

Hardness: Soft, A. Crossed nicols: Difficult to determine with such tiny grains, but possibly strongly anisotropic (?). Etch tests: HNOr-Instantly blackens. HCI-Instantly blackens. FeCIs-Stains iridescent. KCN-Negative. KOH, HgClr-Action undetermined.

Unknown No. 4:

Tentative identification: Cosalite (2PbS . BisSs). Colour: Galena-white. Hardness: B. Moderately anisotropic. Crossed nicols:

Etch tests: HNO-Rapidly blackens. HCI-Tarnishes iridescent to dark grey.

KCN, KOH, HgCl-Negative.

Occurrence of Metallic Minerals. Pyrrhotite is abundant and occurs chiefly as masses and irregular stringers. Marcasite masses are common, but the relationships indicate that this mineral has partly replaced the pyrrhotite; it occurs as areas and replacement veinlets in pyrrhotite, and the structure is typically colloform as revealed under the microscope. Pyrite occurs as coarse to fine disseminated grains, which are veined by pyrrhotite, and as narrow veinlets in pyrrhotite; this indicates two generations of pyrite.

"Limonite" occurs as rusty stains in the quartz and as films along narrow fractures that traverse both quartz and sulphides; it is present only in small amounts. Chalcopyrite is present in small quantity as irregular patches and grains in quartz, usually associated with pyrrhotite stringers.

The accessory metallic minerals occur in amounts ranging from very small to bare traces represented by rare tiny grains. Unknown No. 4 (cosalite) occurs as small grains usually associated with pyrrhotite but rarely isolated in the quartz. A few grains of a mineral, thought from etch tests to be galena, occur in the same relationship. Rare grains of sphalerite are associated with chalcopyrite. Unknown No. 1 occurs almost solely in the pyrrhotite as small elongated grains having the appearance of flakes which are curved slightly; rarely it occurs with chalcopyrite and in one case with a grain of native gold in quartz. Unknown No. 2 occurs as tiny irregular grains in pyrrhotite and contains extremely small irregular inclusions of Unknown No. 3; both are so rare and so finely divided as to be extremely difficult to determine.

The modes of occurrence of the native gold are very varied. Small grains occur along the borders of pyrrhotite stringers and occasionally within the pyrrhotite. Another mode of occurrence is as small grains

isolated in the quartz. Rarely thin films of gold are present along tiny fractures in the quartz, usually very close to and radiating from pyrrhotite masses. The proportions of each mode of occurrence as determined microscopically are shown in Table I.

#### TABLE I

#### Modes of Occurrence of the Native Gold

	Gold.
Mode of occurrence	per cent
Along borders of pyrrhotite Within dense quarts Within pyrrhotite	46 31 15 8
	100

The grain size of the native gold, as determined microscopically, is shown in Table II.

TABLE II

#### Grain Size of the Native Gold

Mesh	Gold, per cent
+ 200	9.5
- 200 + 280	
- 280 + 400	
- 400 + 560	
- 560 + 800	
- 800 +1100	
-1100 +1600	••••••••••••••••••••••••••••••••••••••
-1600 +2300	<b>2</b> ·1
-2300	
	100.0

Character of the Native Gold. Several hundred grammes of the ground feed sample was panned in a special panner and the gold was examined under the binocular microscope. With the exception of two grains, which were over 200 mesh in size, all of the panned gold was very fine. When examined under fairly high power, the grains are seen to be irregular and ragged in outline and coated with rust. A few grains had the appearance of tiny rust wheat grains.

Sampling and Analysis. The shipment was crushed and sampled according to standard practice and the feed sample thus obtained assayed as follows:

Gold	).545 os./ton	
Silver	) · 28 4	
Copper	0.02 per cent	
Iron	· 90 "	
Sulphur	5-61 "	
Arsenic	Nü	

#### EXPERIMENTAL TESTS

The work done on this ore consisted of tests by cyanidation, amalgamation, and concentration, both alone and in combination.

By straight cyanidation of the raw ore, 98 per cent of the gold can be extracted in 48 hours when the ore is ground 79 per cent through 200 mesh. By aerating the ore in lime pulp before it comes in contact with the cyanide solution, the same extraction can be obtained in 24 hours.

When the ore is ground 52 per cent through 200 mesh and the sulphides concentrated out on a table and reground by themselves,  $97 \cdot 2$  per cent of the gold can be extracted by cyanidation.

With the ore ground 79 per cent through 200 mesh, 77 per cent of the gold can be recovered by barrel amalgamation.

Details of the tests follow:

#### CYANIDATION

#### Tests Nos. 1 to 8

Samples of the ore were ground 52,  $65 \cdot 5$ ,  $78 \cdot 9$ , and 85 per cent through 200 mesh in ball mills and agitated in cyanide solution,  $1 \cdot 0$  pound of potassium cyanide per ton, for periods of 24 and 48 hours. The cyanide tailings were filtered, washed, and assayed for gold. Protective alkalinity was maintained by the addition of lime.

Summary:

Test Grinding, per cent hours Os./ton	Grinding,	Agitation.	Tailing.	Extraction.	Reagents consumed, lb./ton		
	per cent	KCN	CaO				
1	52·0	24	0.045	91.7	0.70	15.3	
2	65-5	24	0.05	90-8	0-70	15.4	
3	78-9	24	0.03	94-5	0.70	15.5	
4	85-0	24	0.025	95-3	0.82	15-6	
5	52.0	48	0.015	97.2	1-34	15-5	
6.	65-5	48	0.015	97.2	1.34	15.6	
7	78.9	48	0.01	98-2	1.59	15.7	
8	85-0	48	0.01	<b>98</b> -2	1.59	15-8	

#### BARREL AMALGAMATION AND CYANIDATION

#### Tests Nos. 9 and 10

Samples of the ore were ground  $65 \cdot 5$  and  $78 \cdot 9$  per cent through 200 mesh in ball mills and amalgamated with mercury in jar mills for one hour. The amalgamation tailings were sampled and assayed and portions of each agitated in cyanide solution,  $1 \cdot 0$  pound of potassium cyanide per ton, for 24 hours. The cyanide tailings were also assayed for gold.

#### Summary:

Test	t Grinding, Amal-		Extraction,	Reagents consumed,			
No.	gamation tailing, Per cent tailing, An, per cent tailing, assay, Au,		per cent	lb./ton			
	-200 mean	os./ton		os./ton		KCN	CaO
9	65-5	0·155	71.5	0·025	23 · 8	0-30	14-50
10	78-9	0·125	77-0	0·015	20 · 2	0-30	14-50

#### CYANIDATION WITH PRE-AERATION

#### Tests Nos. 11 and 12

Samples of the ore were ground 65.5 and 78.9 per cent through 200 mesh in ball mills and aerated in lime pup for 22 hours. The pulps were then thickened and made up to 2.5 : 1 dilution with cyanide solution, 1.0 pound of potassium cyanide per ton, and agitated for 24 hours. The cyanide tailings were assayed for gold.

#### Summary:

Test No	Grinding,	Tailing	Extraction,	Reagents consumed, lb./ton		
lest No.	-200 mesh	os./ton	per cent	KCN	CaO	
11 12	65-5 78-9	0-02 0-01	96-4 96-2	0+30 0+30	1-80* 1-90*	

"In addition to each of the above, 12 pounds of lime per ton of ore was used in the aerator.

#### CYANIDATION WITH TABLE CONCENTRATION AND REGRINDING OF THE SULPHIDES

#### Test No. 15

A sample of the ore was ground  $52 \cdot 0$  per cent through 200 mesh in a ball mill and agitated in cyanide solution,  $1 \cdot 0$  pound of potassium cyanide per ton, for 24 hours. The cyanide tailing was then passed over a small concentrating table where a sulphide concentrate was taken off. The concentrate was reground  $97 \cdot 4$  per cent through 325 mesh and re-agitated in cyanide solution,  $1 \cdot 0$  pound of potassium cyanide per ton, for 24 hours. The table tailing and the cyanide tailing from the reground concentrate were assayed for gold.

#### Summary:

The dead	Weight,	Assay, Au.	Extraction.	Reagents consumed, ib./ton		
Product	per cent	os./ton	per cent	KCN	CaO	
Table concentrate	11.0	0.02				
Average tailing (cal.)	100-0	0-015	97-2	0-93	1-84	

#### FLOTATION AND BLANKET CONCENTRATION

#### Test No. 14

A sample of the ore was ground  $65 \cdot 5$  per cent through 200 mesh in a ball mill and floated. The flotation tailing was passed over a corduroy blanket set at a slope of  $2 \cdot 5$  inches per foot. The flotation concentrate and the blanket tailing were assayed for gold. The gold recovered in the blanket concentrate was calculated by difference.

Charge to Ball Mill:	
Ore	
Water	
Soda ash	4-0 lb./ton
Reagents to Cell:	
Potassium amyl xanthate	00.10 lb./ton
Pine oil	

Summary:

Product	Weight,	Assay. Au,	Distribution,
	per cent	os./ton	per cent
Flotation concentrate:	12·4	3.60	82-0
Blanket concentrate (cal.).	0·6	11.35	12-5
Blanket tailing.	87·0	0.035	5-5
Feed.	100·0	0.545	100-0

#### PLATE AMALGAMATION AND FLOTATION

#### Test No. 15

A sample of the ore was ground  $65 \cdot 5$  per cent through 200 mesh in a ball mill and passed over an amalgamation plate. The plate tailing was, then conditioned with soda ash,  $4 \cdot 0$  pounds per ton, and floated with potassium amyl xanthate  $0 \cdot 10$  pound per ton and pine oil  $0 \cdot 05$  pound per ton. The flotation concentrate and tailing were assayed and the amalgamation tailing was calculated from them.

Summary:

i

Product	Weight,	Assay, Au,	Distribution,
	per cent	os./ton	per cent
Flotation concentrate	16-9	1-67	85·0
Flotation tailing	83-1	0-06	15·0
Plate tailing (cai.)	100-0	0-33	. 100·0

#### CONCLUSIONS

The results of test work carried out on this ore show that it should be treated by cyanidation.

Because the ore contains considerable pyrrhotite it should be ground in water and aerated in lime pulp before it comes in contact with the cyanide solution. This will prevent the formation and accumulation of fouling matter in the mill solutions and keep extraction up.

Some advantage may also be gained by grinding the ore rather coarsely, as was done in Test No. 13, and tabling out and regrinding the sulphides to nearly all through 325 mesh in a separate circuit, after which they could be reunited with the table tailing and the whole aerated and cyanided.

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this Prospectus as required by the <u>Securities Act</u> and its regulations.

DATED at the City of Vancouver, in the Province of British Columbia, this 29th day of January, 1988.

David Edward Konnert Chief Executive Officer and Promoter

Frank Thiessen Director and Promoter

David George Märk Chief Financial Officer and Promoter Eudéné Do'd d Director and Promoter

### CERTIFICATE OF THE AGENT

To the best of our knowledge, information and belief, the foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this Prospectus as required by the <u>Securities Act</u> and its Regulations.

DATED at the City of Vancouver, in the Province of British Columbia this 29th day of January, 1988.

MERIT INVESTMENT CORPORATION Per: Attonaha