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0920

R E P O R T

on the

YALAKOM GOLD PROPERTY,

LILLOOET MINING DIVISION

BRITISH COLUMBIA

for

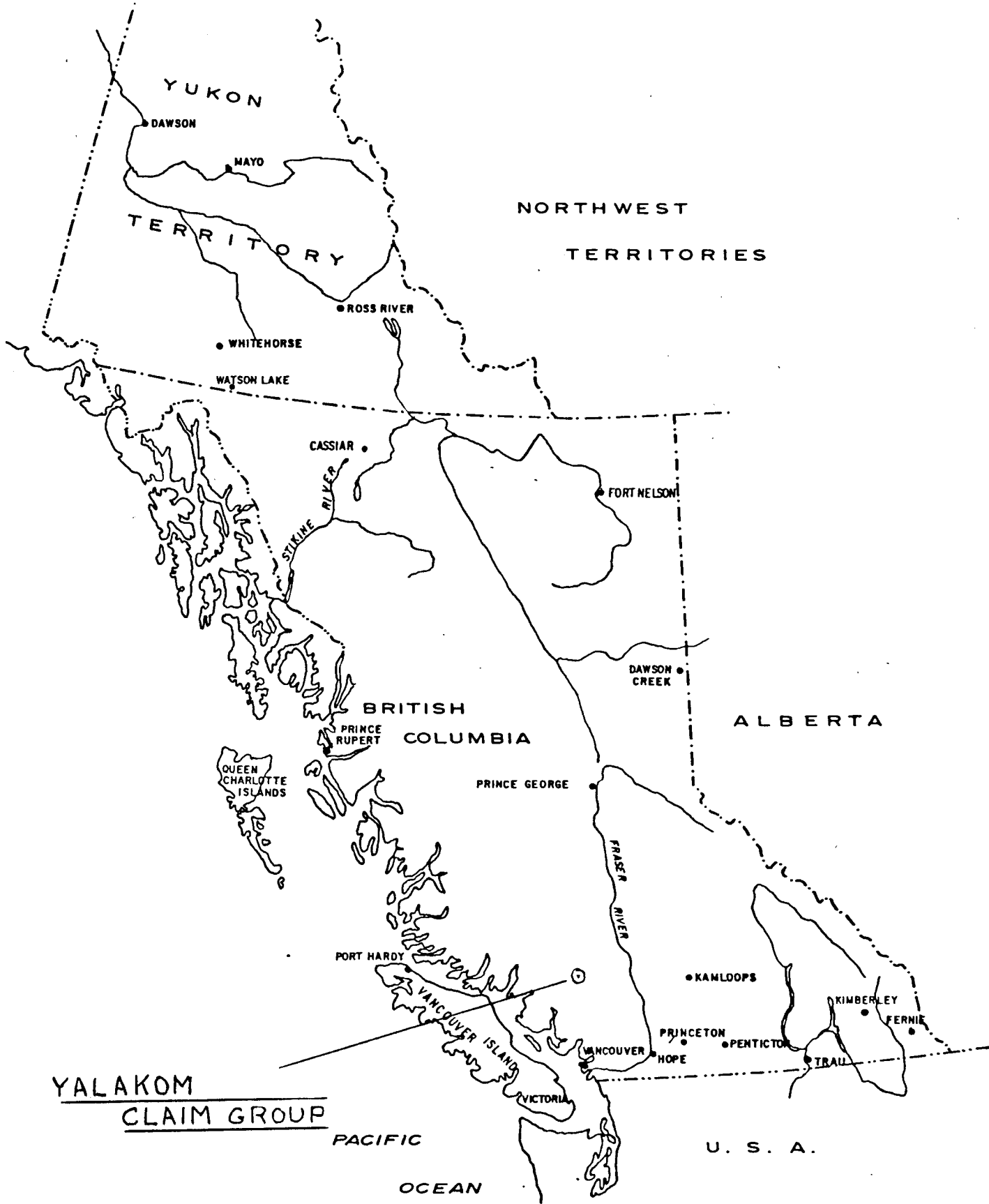
SOUTHERN LIGHTS RESOURCES LTD.

by

R.W. PHENDLER, P. ENG.

Vancouver, Canada

December 10, 1982



YALAKOM  
CLAIM GROUP

LOCATION MAP	
VANCOUVER	BRITISH COLUMBIA
SOUTHERN LIGHTS RESOURCES LTD.	
SCALE 1"=200 MILES	
NTS.	DATE: DEC 1972 FIG. No. 1

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PART "A"

SUMMARY AND CONCLUSIONS

The Yalakom property is located at an elevation of 2,280 meters about 240 kilometers north of Vancouver in the Bridge River area of southwest British Columbia and can be considered to be a narrow vein gold property.

The Yalakom group consists of 8 Crown Granted and one claim of 20 units and is part of the Elizabeth gold camp, which was explored by Bralorne Mines, Ltd. in the late 1940's when underground development work was carried out and when the No. 9 vein was discovered on the Yalakom claim. In 1949 and 1950 246 meters of drifting was carried out on this vein, with a 50 meter length reported to average 0.94 oz Au (cut) across a width of 0.37 meters.

The remainder of the No. 9 adit was apparently not sampled but old reports indicate that gold is present over a large part.

During the late summer of 1982 the caved portal of the No. 9 adit was opened up and secured and the adit was found to be ice-filled. About 60 meters of ice was removed and a 12 meter long zone that contained a quartz vein averaged 0.26 oz Au across 0.2 meters. This section is well short of the previously reported mineral zone and confirms the belief that only the better looking vein material was sampled by Bralorne and possibilities exist that additional lengths of gold bearing vein material exists.

It is believed that 4,000 tons of reserves exist on the No. 9 adit level that averages 0.77 oz Au per ton and that additional tonnage may be present depending upon the results of sampling after ice removal.

The property warrants further exploration by rehabilitation of the No. 9 adit, sampling and diamond drilling.

If results are encouraging exploration raises should be driven and a lower level adit on the No. 9 vein should be considered.

Host rocks are diorite.

#### RECOMMENDATIONS

It is recommended that:

##### Phase I

- 1) The No. 9 adit be completely rehabilitated.
- 2) The No. 9 adit be sampled at 1.5 meter intervals.
- 3) The No. 9 adit be geologically mapped.

PHASE II

- 1) Exploration raises be driven where sampling indicates the presence of gold bearing vein material.
- 2) Diamond drilling of the No. 9 vein be carried out from surface.
- 3) A new level be driven 50 meters vertically below the No. 9 level if results of Phase I so warrant.

COST ESTIMATE

Phase I

1) Rehabilitate No. 9 adit (de-ice)	\$25,000
2) Sample No. 9 adit	2,500
3) Geologically map No. 9 adit	1,500
4) Assay chip samples	1,000
5) Establish camp	10,000
6) Engineering and geology	<u>3,500</u>
Total -	\$43,500
15% Contingencies -	<u>6,525</u>
Total - Phase I -	-\$50,025

Phase II

1) Drive raises 60 meters @ \$350/mtr.	21,000
2) Diamond drilling - 300 mtrs. @ \$75/mtr.	22,500
3) 150 meters of drift @ \$700/mtr.	105,000
4) Engineering and geology	10,000
5) Travel and Accommodation	10,000

6) Assaying, sampling	5,000
7) Mobilization	<u>10,000</u>
Total -	\$183,500
15% Contingencies -	<u>27,525</u>
Total - Phase II -	\$211,025

The sum of \$50,000 should be made available at this time to carry out Phase I of the above program. Results of this phase will determine if Phase II be carried out.

Respectfully submitted,

R.W. Phendler, P. Eng.

PART "B"

INTRODUCTION

At the request of Mr. J.K. Newton, President of Southern Lights Resources Ltd., the writer examined the Yalakom property on August 13 and 14, 1979. At that time the portal of the No. 9 adit was caved and consequently seven samples were taken from the vein extensions on surface and one 80 pound bulk sample was taken of selected vein material from the No. 9 dump.

Again on September 14, 1982 the writer visited the property, checking on the progress of ice removal from the adit. Nine chip samples were taken from the adit.

All samples mentioned herein were sampled at Acme Analytical Laboratories, Vancouver.

LOCATION AND ACCESS

The Yalakom property is located at an elevation of 2,200-2,500 meters about 240 kilometers north of Vancouver in the Bridge River area of southwestern British Columbia. The claims are 27 kilometers northeast of Gold Bridge, 60 kilometers northwest of Lillooet and 15 kilometers north of Carpenter Lake.

Road access is via Lillooet northwest along the Gold Bridge road to Moha (22 kilometers) and thence up the Yalakom River and Blue Creek for 58 kilometers to the Elizabeth Mine at an elevation of 2,000 meters. The No. 9 adit is 280 meters vertically above and 1.5 kilometers to the west at an elevation of 2,280 meters.

The Elizabeth mine building is in the valley bottom in moderate timber while the Yalakom (No. 9) adit is above the tree line on barren moderate slopes. The last kilometer or so of road to the portal is steep but can be easily managed by a two wheel



drive vehicle.

Ample water for mine operations is available about half a kilometer west of the portal about one hundred meters vertically above, where a road can be constructed with little difficulty.

A wooden camp building was constructed in 1982 and will serve as living quarters for a small crew.

PROPERTY AND OWNERSHIP

The property consists of the following claims:

<u>Name</u>	<u>No.</u>	<u>Acreage</u>
Yalakom #1	Lot 7408	36.84
Yalakom #2	" 7409	47.96
Yalakom #3	" 7410	42.03
Yalakom #4	" 7411	48.99
Plateau #5	" 7416	50.30
Plateau #6	" 7417	51.65
Plateau #7	" 7418	31.82
Plateau #8	" 7419	45.98
Blue (20 units)	Record No. 867	

The first 8 claims are reverted Crown grant mineral claims and were acquired by J.K. Newton of Vancouver and were recorded at Lillooet on March 1, 1978.

The Blue claim was recorded in August, 1979. All claims are presently held by Southern Lights Resources Ltd.

## HISTORY

The earliest recorded work in the vicinity of the Yalakom property is in 1946 when some open cuts and trenches existed on the nearby Elizabeth prospect. A report by J.W. McCammon in the Report of the Minister of Mines (British Columbia) for 1946 describes the four visible quartz veins (see page A98 - Blue Creek).

In 1948 a 2,204 foot long westerly crosscut existed on the Elizabeth showings, which were located on a 53 claim parcel which included the Yalakom group. Bralorne Mines Ltd. operated the property and discovered some large boulders of gold-bearing quartz on the Yalakom No. 2 claim. Trenching exposed a vein striking northerly that was 2 to 3 feet wide and traceable for 200 feet. In 1949 and 1950 a total of 807 feet of drifting was carried out on this vein (No. 9). Additional trenching exposed the vein in two cuts 400 and 600 feet north of the portal. Although the vein showed encouraging amounts of gold, it did not contain the spectacular free gold found in the float (B.C. Minister Of Mines Report, 1949 and 1950 by J.E. Merrett and J.S. Stevenson).

In 1956 Bralorne drove a low level crosscut on the Elizabeth vein as recommended by Dr. W.H. White. Dr. R.M. Thompson, who examined the workings for Dr. White, noted that the No. 9 adit was blocked by ice but calculated a tonnage reserve of 800 tons containing 1,770 oz. Au, based on an earlier undated assay plan of Bralorne Mines Ltd. (see Fig. 3)

In 1979 the property was examined by D.M. Taylor, P. Eng. and the writer.

During 1982 the No. 9 portal was rehabilitated and 60 meters of the adit was de-iced.

## GEOLOGY AND MINERALIZATION

The region in which the Yalakom property is located is underlain by two principal rock types. These are quartz diorite porphyry and serpentine and these rocks intrude folded schistose sediments and minor volcanics of Triassic to Tertiary age. All known veins in the area occur within the diorite, which is considered competent and should present no difficult mining problems.

The original discovery of the "high-grade" gold quartz was made by Dr. W.H. White (later head of the Department of Geology at the University of British Columbia and now deceased) in 1947. Dr. White states in his report on the property in 1957 that the No. 9 vein is very much narrower than the Elizabeth West vein (2 - 3 feet) but it is higher grade than the West vein and a greater part of its developed length (807') is gold bearing. A comparison of the geological and assay plans (by Dr. White) suggests that the ore shoots occur in places of cross fracturing and small strike deflections. The Bralorne Mines Ltd. assay plan of the No. 9 adit appears to show only the significant gold assays covering only 50 meters length of the total 250 meters. Assays reported are as follows:

<u>Width (ft.)</u>	<u>oz. Au per ton</u>	<u>Width (ft.)</u>	<u>oz. Au per ton</u>
0.5	11.00	1.3	0.98
0.6	0.84	1.3	1.34
1.7	0.50	1.0	1.44
1.8	0.42	1.2	0.28
1.7	0.35	1.3	0.78
1.4	0.24	1.2	1.70
1.2	0.32	1.2	0.82
1.3	0.29	1.3	1.74
1.3	1.14	1.3	15.48
1.1	0.01	1.0	0.57
1.3	0.05	1.2	0.51

<u>Width (ft.)</u>	<u>oz. Au per ton</u>	<u>Width (ft.)</u>	<u>oz. Au per ton</u>
1.2	0.77	1.3	0.35
1.3	0.68	<u>1.0</u>	<u>0.72</u>
		1.23'	1.45 uncut
	undiluted	1.23'	0.94 cut to 3.0 oz
	diluted to	3.00'	0.38 oz Au per ton

At present prices (\$500.00 per ounce) the estimated gross metal value is \$190.00 per ton and at an 85% recovery, \$161.50 per ton (using 0.38 oz Au/ton).

During Mr. D. Taylor's 1979 inspection five samples of vein material were selected from the No. 9 dump. Assays are as follows:

<u>Sample No.</u>	<u>% Pb</u>	<u>% Zn</u>	<u>% As</u>	<u>% Ag</u>	<u>oz. Au</u>
20-2-1	0.01	0.01	0.55	1.84	4.676
20-2-2 less than	0.01	0.03	0.06	0.22	0.418
20-2-3 less than	0.01	0.01	0.01	0.02	0.174
20-2-4	0.03	0.02	0.48	0.20	0.484
20-2-5	0.01	0.02	0.33	0.18	<u>0.282</u>
				Average (uncut) -	1.21
				Average (cut -	
				samples over 1.21 oz Au	
				cut to average and re-	
				averaged) -	0.514

Dr. R.M. Thompson in his letter report (September 23, 1957) to H. Huestis states that the value of the two high grade shoots in No. 9 are as follows:

Section 1 - 28' long, two foot width, height 100' - assays  
0.51 oz. Au

Section 2 - 65' long, 2.5' wide, height 100' - assays 0.45  
oz. Au

On August 13 and 14, 1979 the writer visited the Yalakom property with Mr. W. Landells, who had been rehabilitating roads, etc., on the ground for the past several days. An attempt had been made to open up the No. 9 portal but frozen ground and caved sets requires more elaborate equipment than was available at the time.

The surface area was prospected and extensions of the No. 9 vein were found and chip sampled. Results are as follows:

<u>Sample No.</u>	<u>oz. Au</u>	<u>oz. Ag</u>	<u>width</u>	<u>Location</u>
1557	0.005	0.20	dump	upper dump 120' S of porta
1558	0.003	-	0.5'	120' south of portal
1559	* 0.003	-	0.3'	120' south of portal
1560	0.005	0.18	1.0'	180' south of portal
1561	0.040	-	0.8'	400' north of portal
1562	* 0.003	-	1.0'	400' northwest of portal
1563	* 0.003	-	float	300' northwest of portal

The prefix \* indicates 'less than'.

An eighty pound sample of selected vein material was taken from the No. 9 dump and delivered to Northair Mines Ltd. at Squamish for metallurgical testing. This sample assayed 0.54 oz. Au per ton and results indicated that no problems would be encountered in the treatment of this material. Recovery was in the 85 - 90% range.

During the writer's September 14, 1982 visit the following chip samples were taken from the back (roof) of the No. 9 adit:

<u>Sample No.</u>	<u>Width</u>	<u>oz Au/ton</u>	<u>Location</u>
17151	0.5'	0.614	20 meters south of portal
17152	0.5'	0.054	21.5 " " "
17153	0.7'	0.510	23.0 " " "
17154	0.6'	0.084	24.5 " " "
17155	0.5'	0.044	26.0 " " "
17156	0.8'	0.060	27.5 " " "
17157	0.7'	0.496	29.0 " " "
17158	0.4'	0.291	30.5 " " "
17159	0.4'	0.148	32.0 " " "

No vein was observed prior to the 20 meter point as much of the adit was timbered. An additional 28 meters of adit was de-iced prior to the closing down of the program because of adverse

weather conditions. The crew reported that the vein widened to 2.0 feet in width and chip samples taken by them are as follows:

<u>Sample No.</u>	<u>Width</u>	<u>oz Au/ton</u>	<u>Location</u>
17165	1.5'	0.155	38.0 meters south of portal
17166	1.5'	0.304	41.0 " " " "
17167	1.5'	0.011	42.5 " " " "
17168	1.5'	0.014	44.0 " " " "
17169	1.5'	0.009	47.0 " " " "

The 12.0 meters sampled by the writer averaged 0.26 oz Au per ton across an average vein width of 0.6'. Insufficient samples were taken in the zone between 32.0 and 47.0 meters to average but appears to be somewhat lower.

The mineral zone reported in earlier Bralorne records commenced 75 meters from the portal and continued to a point 125 meters from the portal.

The No. 9 vein has been traced for 400 meters along the surface.

#### RESERVES and POSSIBILITIES

The 50 meter (165 foot) length of vein material that averages 0.94 oz Au per ton (cut grade) across an average width of 1.23 feet is assumed to project above the level for a distance equal to half the strike length. A dilution factor of 20% can be applied to the 1.23 foot width and with this, reserves above and below the No. 9 level are as follows:

$$\frac{165' \times 165' \times 1.50'}{10 \text{ cubic feet per ton}} = 4,083 \text{ tons}$$

It is proposed that the narrow vein can be extracted by re-suing, where the vein is mined out first and the stope is then widened to a practical working width with this material remaining in the stope.

Diluted grade is 0.77 oz Au per ton.

Additional lengths of commercial grade material are expected to exist in the 250 meter length of the No. 9 level.

COMMENT

Recent chip sampling of the No. 9 adit vein, which is being cleared of ice, are very encouraging and reaffirm the writer's belief that only the better looking vein material was sampled by Bralorne and that the possibilities exist that additional lengths of gold-bearing vein material exists.

Upon the completion of the de-icing and rehabilitation of the No. 9 adit, consideration should be given to the commencement of mining and shipping the blocked out reserves. Mining by re-suing should be carried out to keep the grade close to 0.77 oz Au per ton. It is understood that custom milling costs at the Tacoma smelter of American Smelting and Refining Ltd. are in the \$25 per ton range as compared to \$130 per ton at the Trail Smelter of Cominco Ltd. Consequently the mined material should be hauled to Tacoma, with distance from the property about 100 miles shorter than to Trail.

In general the Yalakom property shows promise of becoming a low tonnage producer of good grade gold-bearing material and warrants a considerable amount of exploration.

Respectfully submitted,

R.W. Phendler, P. Eng.



C E R T I F I C A T I O N

I, Roy William Phendler, of the Municipality of Richmond, in the Province of British Columbia, hereby certify as follows:

- 1) THAT I am a registered member of the Association of Professional Engineers in the Province of British Columbia - No. 4421 (1963).
- 2) THAT I have received a Bachelor of Science degree in Geology from McGill University, Montreal.
- 3) THAT I have practiced my profession as mine, exploration and consultant geologist continuously for the past 29 years in Quebec, Ontario, Newfoundland, Nova Scotia, Saskatchewan, British Columbia, the Yukon and Northwest Territories in Canada, in the U.S.A., in Mexico, Peru, Colombia and Chile.
- 4) THAT I have not received nor do I expect to receive any interest indirectly or directly in the Yalakom property nor do I hold or expect to hold any shares in Southern Lights Resources Ltd.
- 5) THAT the information contained in this report was compiled as a result of my examination of the Yalakom property on August 13 and 14, 1979 and September 14, 1982 and a study of all available information.
- 6) THAT I hereby consent to the publication of this report for purposes of a prospectus or statement of material facts.

R.W. PHENDLER, P. Eng.

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To: Mr. Roy Phendler,  
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V7C 4E9

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 82-1156

Type of Samples Rocks

Disposition \_\_\_\_\_

Project : Yalakom

# ASSAY CERTIFICATE

FA

No.	Sample	Au oz/ton						No.
1	17151	.614						1
2	17152	.054						2
3	17153	.485						3
4	17154	.084						4
5	17155	.044						5
6	17156	.060						6
7	17157	.496						7
8	17158	.291						8
9	17159	.148						9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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DATE SAMPLES RECEIVED Sept. 18, 1982

DATE REPORTS MAILED Sept. 24, 1982

ASSAYER

*Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Mr. Roy Phendler,  
7360 Decourcy Cres.,  
Richmond, B.C.  
V7C 4E9

File No. 82-1241

Type of Samples Rocks

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

Project : Yalla Kom

No.	Sample	Au oz/ton						No.
1	17165	.155						1
2	17166	.304						2
3	17167	.011						3
4	17168	.014						4
5	17169	.009						5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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DATE SAMPLES RECEIVED Sept. 28, 1982

DATE REPORTS MAILED Oct. 1, 1982

ASSAYER \_\_\_\_\_  
*Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

BIG DOG MOUNTAIN  
9391'

BLUE CLAIM  
(20 UNITS)

8500'  
8000'

7417 7416

7419  
7418

No	Wth	03 Au	03 Ag
1561	0.8	0.040	-
1562	1.0	40.003	-
1563	-	40.003	Flag
1557	-	0.005	dump 0.20
1558	0.5	0.003	-
1550	0.3	40.003	-
1560	1.0	0.005	0.19

7000'

7409  
No. 9 ADIT  
7537'

ROAD

7411  
7410  
7408

YALAKOM No 2

YALAKOM No 1

70° ←

SOUTHERN LIGHTS  
RESOURCES LTD

YALAKOM CLAIM GROUP.

LILLOET MINING DIVISION,  
BRITISH COLUMBIA.

R.W. PHENDLER, P. ENG. DEC. 1982  
0 500 METERS

SCALE 1:12500



PORTAL 7537'

WIDTH	oz Au
1.3'	1.14
1.1'	0.01
1.3'	0.05
1.2'	0.77
1.3'	0.68
1.3'	0.98
1.3'	1.34
1.0'	1.44
1.2'	0.28
1.3'	0.78
1.2'	1.70
1.2'	0.82
1.3'	1.74
1.3'	15.48

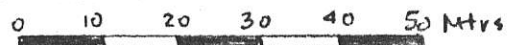
WIDTH	oz Au
0.5'	11.00
0.6'	0.84
1.7'	0.50
1.8'	0.42
1.7'	0.95
1.4'	0.24
1.2'	0.32
1.3'	0.29

WIDTH	oz Au
1.0'	0.57
1.2'	0.51
1.3'	0.35
1.0'	0.72

VEIN DIPS  
70° TO WEST

SOUTHERN LIGHTS RESOURCES LTD

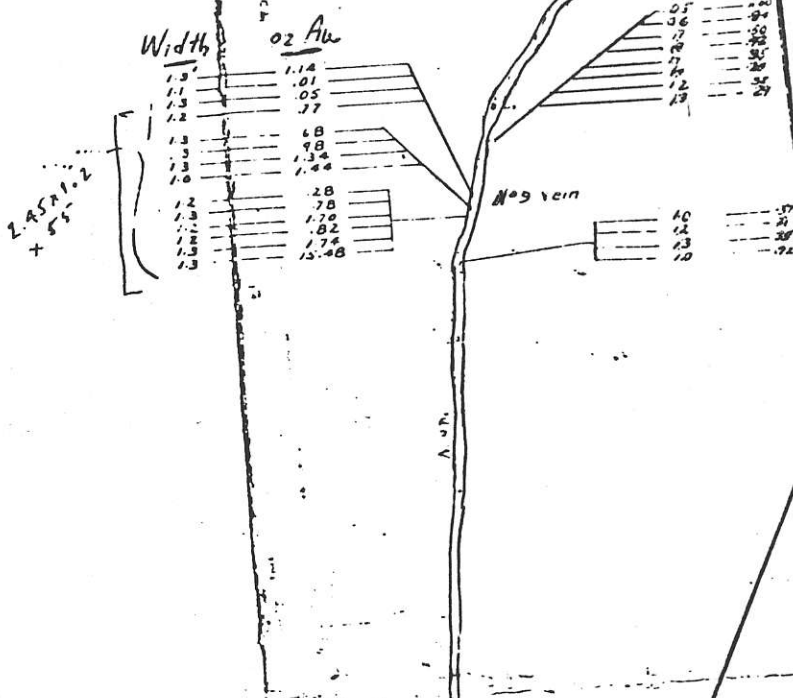
No 9 ADIT, YALAKOM CLAIM GROUP,  
LILLOOET MINING DIVISION BRITISH COLUMBIA  
SHOWING ASSAYS OF BRALORNE SAMPLES



R.W. PHENDLER P. ENG SCALE 1:10000

DEC. 1982

YALAKOM No 2



ELIZABETH No 4

ELIZABETH No 3

YALAKOM No 1

BRALORNE MINES LTD. (IN P.L.)  
BRACHIN, B. C.

Scale Map of \_\_\_\_\_  
 Plan of SUREKLE EXP. 2000  
 Contour Interval N.S. 1.5

SCALE 1" = 200'

CORRECT \_\_\_\_\_ DATE \_\_\_\_\_  
 Year \_\_\_\_\_ Level \_\_\_\_\_