

Geological and Geochemical
Assessment Report

on the

Alpine Glacier Group
(Alpine and Bozo Claims)

located

20 air kilometres southwest of Lytton

Latitude 50°10'N; Longitude 120°50'W

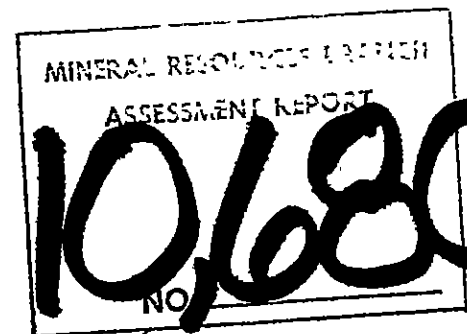
N.T.S. 92 I/4

Kamloops Mining Division
Southern British Columbia

Field work between August 9 and August 13
1982

for

AQUARIUS RESOURCES LTD



Report by

D. G. Cardinal, P. Geol.
September 20, 1982
Vancouver, B. C.

AQUARIUS RESOURCES LTD.



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Introduction

In mid August 1982, the Alpine claims were examined and evaluated with recommendations made based on the potential of the ground. The claims were originally staked over ground believed to be the extension of the Coquihalla Serpentine-Gold Belt.

This report outlines the work carried out and results obtained and submitted for assessment work credits. The assessment report is based on work conducted by Messers. W. Chase, prospector and assistant, and D. Cardinal, geologist.



Location and Access

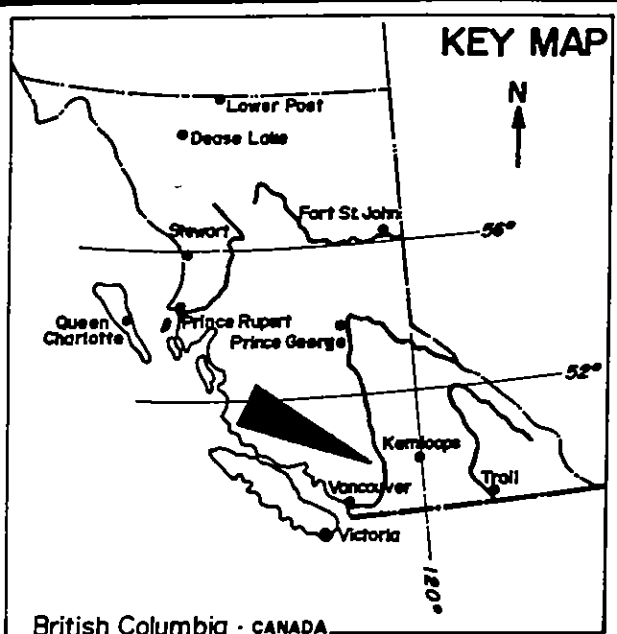
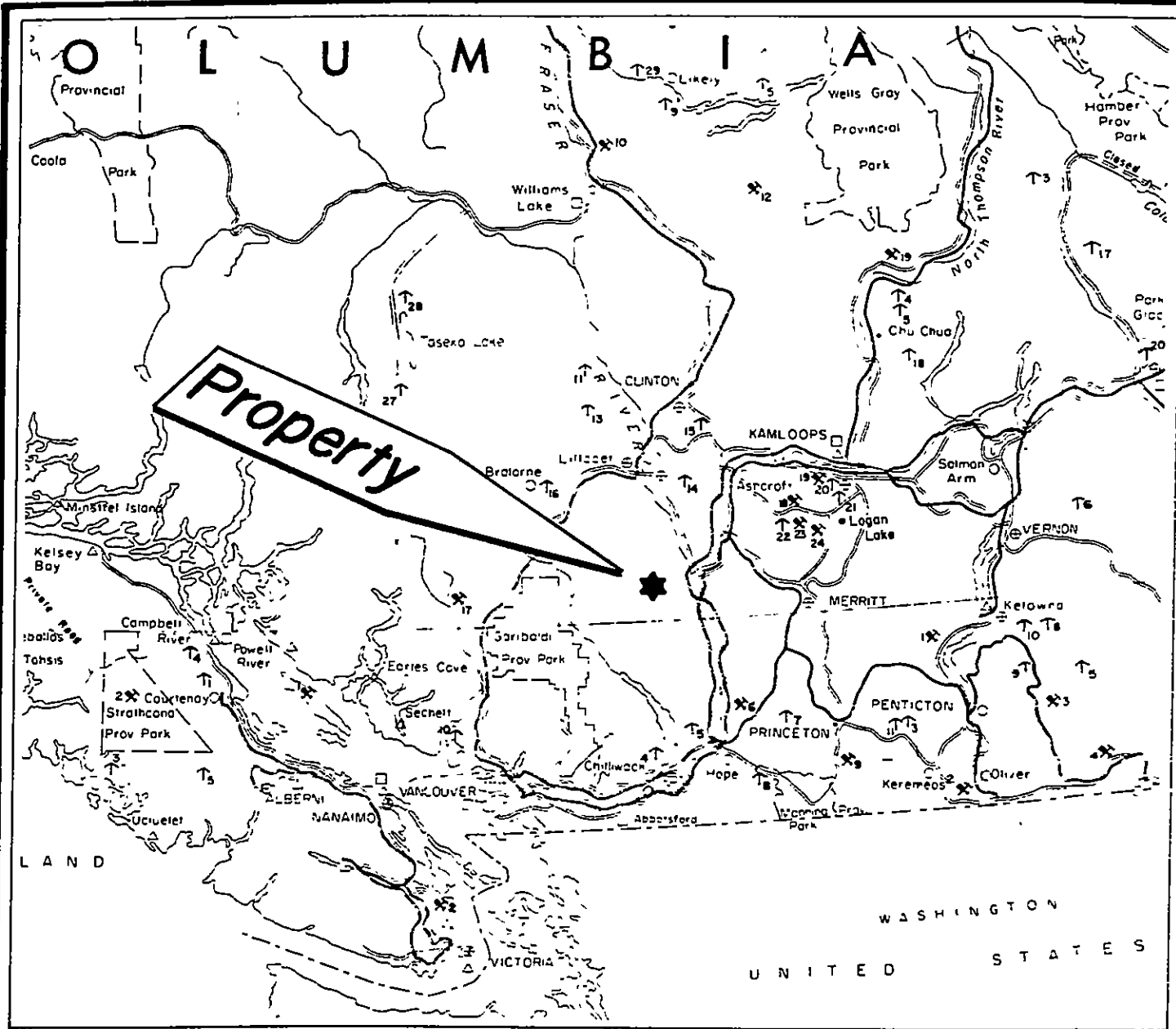
The Alpine Glacier Group of mineral claims is situated 20 air kilometers southwest of Lytton, B.C. (Figure I). The claims straddle a ridge between north Kwoiek and Kwoiek Creek in the coast mountains. The elevation of the property is located at about 2500 meters above mean sea level. The topography consists of rugged peaks and steep valleys.

Access to the area is via ferry at Lytton or North Bend along a four-wheel drive road to the mouth of Kwoiek Creek and by recently constructed logging roads up North Kwoiek Creek, near its headwaters.

Direct access to the claims is by helicopter from bases in Agassiz or Kamloops, B.C.

Latitude 50°10'N; Longitude 120°50'W,
92I/4.





AQUARIUS RESOURCES LTD.

Alpine Glacier Group Kwoiek Cr. area, B. C.

Kamloops Mining Division N.T.S. 92 I/4



SCALE 1 inch = 50 miles

LOCATION MAP

Figure 1

Claim Information

The Alpine and Bozo claims are owned by Aquarius Resources Ltd., of Vancouver, B.C.

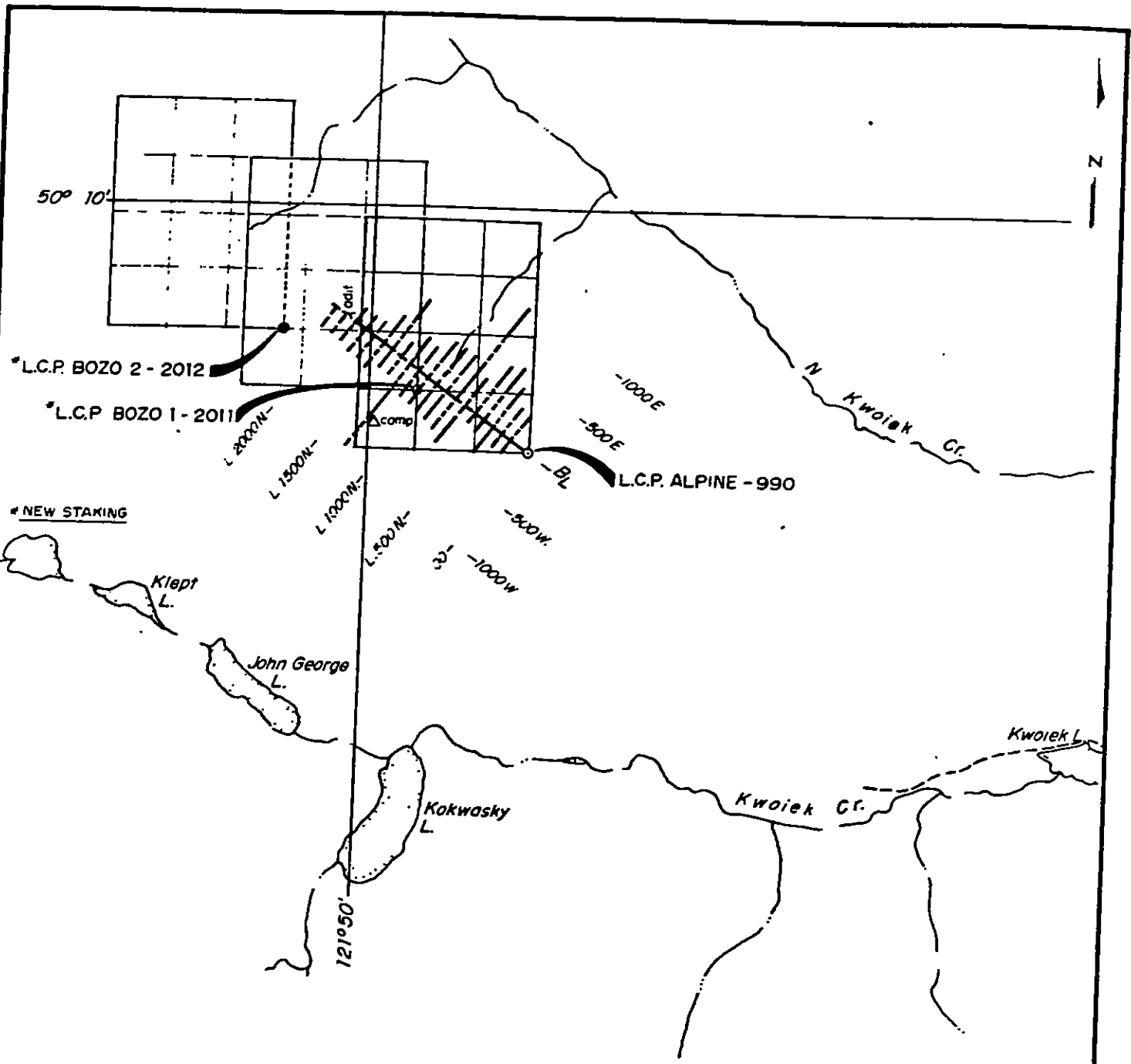
The following table describes the pertinent claim information.

Claim Name	No. of Units	Record No.	*Expiry Date	**Expiry Date
Alpine	12	990	Aug. 18/82	Aug. 18/83
Bozo No. 1	12	2011	Aug. 16/82	Aug. 16/83
Bozo No. 2	12	2012	Aug. 16/82	Aug. 16/83

* Before Assessment Work

** After Assessment Work credits





AQUARIUS RESOURCES LTD.

ALPINE GLACIER GROUP, Kwoiek Cr. Area
Kamloops Mining Division N.T.S. 921/4

CLAIMS MAP

FIGURE 2

SCALE 0 500 1000 1500 2000 3000m
 1: 50,000

General Setting and Background

The first recorded work in the claims area was reported in the Minister of Mines Annual Report 1929. Work was centered around a quartz vein in argillite that was traced for 800 feet. Samples from the vein varied from trace to .16 oz/ton gold and from .04 to 13.2 oz/ton silver. The vein was explored by a series of open cuts and a 40 foot adit.

A work program by Longbar Minerals Ltd. in 1978 consisted of prospecting, soil and rock sampling in the vicinity of the old workings. Values in excess of .5 oz/ton gold were taken across vein widths of up to 4 meters.

In 1979 Aquarius Resources Ltd., established a 14 line-kilometer grid on the Alpine Group. Soil samples were taken at 50 meter intervals on lines spaced 100 meters apart. A total of 273 soil samples from the B Horizon were collected and analyzed for gold. Reconnaissance prospecting was also conducted.

This summer (August, 1982) silt sampling and reconnaissance geologic mapping was carried out and the



old workings bulk sampled.

The geology of the claim area has been described by S. Duffell and K. C. McTaggart in 1952 (Ashcroft Geology map sheet, Map 1010A). The claims overlie the contact between Coast Range Lower Cretaceous Granodiorite and Triassic or earlier phyllites. The phyllites are also in contact with ultrabasic and basic rocks believed to be the extension of the Coquihalla Serpentine Belt (K.C. McTaggart, G.S.C.).



Field Work and Results Obtained

Stream Sediment Sampling

A number of small streams and creeks cut the claim group (Figure 4). These were silt sampled and analyzed for their gold, silver and arsenic content. Sample stations are approximately 100m apart with a total of 52 samples collected. The method for analyzing the silt samples include; for silver-nitric, perchloric digestion with atomic adsorption (A.A.); arsenic-spectrophotometric; and gold-aqua regia with A.A. All samples were collected in special 4" x 7" wet strength waterproof kraft sample bags and identified according to station number.

The analyzed samples range from a background of 5 ppb to anomalous high of 560 ppb in gold with arsenic highs associated with the gold highs. The silver values are all consistently low ranging between 0.4 ppb to 1.0 ppb. Two (2) local gold anomalous areas were outlined (Figure 4) and both occur in the vicinity of the old workings and appear to reflect the auriferous quartz vein found in the area.



Geologic Mapping

The geology mapped on the Alpine Group was conducted at a scale of 1:5,000 (1 cm = 50 meters) and mappable sections traversed (Figure 3). The majority of the prominent outcrops occur along a cirque like ridge with the quartz-gold show outcropping within the cirque basin.

The rocks encountered consist of northwest striking, steeply dipping (east), foliated phyllites. The phyllites are generally conglomeratic to graphitic and in part garnet and andalusite bearing, particularly near the intrusives, reflecting a probable local pressure temperature isograd. Immediately north of the old workings (adit and trenches) the phyllite is fossiliferous and contains ammonites. The phyllites are in fault contact (Figure 3) with sheared and altered schistose greenstone (probably volcanic). The fault zone is made up of a series of shears with narrow lenses of talc and serpentine occurring within the shears. Minor asbestos was also noted along slickensides. The fault-shear zone is approximately 150 meters across and strikes northwest cutting through the claims. Only very minor chalcopyrite and malachite was



noted in the zone.

The old adit, trenches and quartz-gold vein occur within the phyllite (Figure 3). The trenches and adit expose a massive sugary textured quartzite cut with a secondary quartz vein carrying abundant arsenopyrite and minor gold. The quartzite exposed at the adit entrance is approximately 1.5 meters wide and a 1.5 meter chip sample taken across the adit floor assayed 0.258 oz/ton Au and .02 oz/ton Ag. A bulk grab sample also obtained from the adit entrance assayed 0.111 oz/ton Au and .02 oz/ton Ag. Three (3) other bulk grab samples obtained from the nearby trenches assayed between 0.001 oz/ton to 0.095 oz/ton Au and 0.01 oz/ton to 0.15 oz/ton Ag.

The quartzite hosting the secondary quartz-arsenopyrite-gold veins disappears to the north and appears to be cut off by the granite intrusive. Trenches 100 meters south of the adit (Figure 3) also lose the mineralization and quartz veins. The quartzite parallels the phyllite bedding and appears to be of sedimentary origin and is relatively thin and appears to pinch and swell along strike. The potential economic possibilities of the mineralized vein and quartzite is limited and shows no evidence of a possible large replacement type gold deposit similar to the Carolin mine.



Conclusion and Recommendations

- The overall lithological assemblage bears very little resemblance to the Coquihalla Serpentine - Gold Belt which occurs northeast of Hope B.C. The Major differences found on the property include:

- (a) sediments occur on the east and volcanics on the west side of the fault contact.
- (b) only thin lenses (up to 50 meters wide) of serpentine and talc occur along the fault zone.
- (c) sediments consist of fine grain phyllites, no greywacke was noted and only vaguely resemble the Ladner sediments.
- (d) the sedimentary and volcanic rocks are strongly metamorphosed and highly foliated and appear to be older than the Ladner Group.

- The local geochem anomaly outlined from the silt sampling occurs near the old workings and probably reflects the auriferous quartz exposed from the workings.



- The quartzite hosting secondary auriferous quartz veins is of limited size (1.5 meters wide) and shows little evidence of increasing in size or hosting large tonnage replacement type deposit.

- The remote location of the property, approximately 2500 meters (+7,000') above sea level and approximately 1,000 meters above the nearest logging road also reduces it as a potential prospect.

- Based on the above observations further work and investment on the Alpine claims would yield little if any positive or optimistic results.

Respectively submitted,

D. G. Cardinal, P. Geol.



APPENDIX I

Assessment Work Details

Personnel:

Geologist, August 10 - 13, 1982 4 days @\$300.00/day	\$1,200.00
Prospector and Field Assistant, August 9 - 13, 1982 5 days @\$250.00/day	1,250.00

Field Expenses:

Room and Board 2 men @ 5 days @ \$150.00/day	750.00
Supplies	59.62
Vehicle, 4 days @\$95.00/day	380.00
Helicopter, 3 hours @\$415.00/hr and fuel	1,373.70
Geochem and Assays	660.45

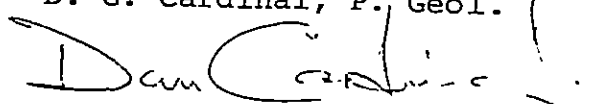
Office Expenses:

Typing 10 hours @ \$20.00/hr	200.00
Drafting 16 hours @ \$30.00/hr	480.00
Report Writing, 2 days @ \$300.00/day	600.00

\$6,953.77

Respectively submitted

D. G. Cardinal, P. Geol.



APPENDIX II

Geochemical Analysis Data Sheet



MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Alpine Date of report Aug. 19/82.
File No. 2-518 Date samples received Aug. 16/82.
Samples submitted by: ..
Company: Aquarius Resources
Report on: 52 silt Geochem samples

Assay samples

Copies sent to:

- Aquarius Resources, Vancouver, B.C.
- Aquarius Resources, Hope, B.C.
-

Samples: Sieved to mesh -80 Ground to mesh ..

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: Ag-nitric, perchloric digestion. A.A.,

As-Spectrophotometric., Au-Aqua Regia. A.A.

Remarks: ..

PROJECT No.: Alpine

MIN - EN Laboratories Ltd.

DATE: Aug. 19

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

1982.

ATTENTION:

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
A- 1							08			32		10				
2			(40 mesh)				07			52		5				
3			(40 mesh)				08			91		55				
4			(40 mesh)				08			32		5				
5			(40 mesh)				07			28		5				
6			(40 mesh)				06			64		5				
7			(40 mesh)				08			60		5				
8			(40 mesh)				06			15		10				
9			(40 mesh)				07			46		5				
10			(40 mesh)				06			34		5				
11			(40 mesh)				06			36		5				
12							06			21		10				
13							07			15		5				
14							06			19		15				
15							07			44		5				
16							07			44		10				
17			(40 mesh)				06			33		15				
18			(40 mesh)				05			25		5				
19							06			32		10				
20							08			45		5				
21							04			4		5				
22			(40 mesh)				08			36		10				
23			(40 mesh)				06			41		10				
24							07			45		5				
25			(40 mesh)				08			31		5				
26			(40 mesh)				08			34		5				
27			(40 mesh)				06			32		20				
28							06			132		35				
29			(40 mesh)				06			13		5				
A- 30			(40 mesh)				07			350		130				

CERTIFIED BY

PROJECT No.: Alpine

MIN - EN Laboratories Ltd.

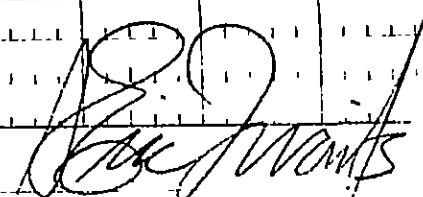
DATE: Aug. 19

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

1982.

ATTENTION

Sample Number	6 Mo ppm	10 Cu ppm	15 Pb ppm	20 Zn ppm	25 Ni ppm	30 Co ppm	35 Ag ppm	40 Fe ppm	45 Hg ppb	50 As ppm	55 Mn ppm	60 Au ppb	65	70	75	80
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
Al-31							06			325		85				
32							06			250		90				
33							05			360		115				
34			(40 mesh)				07			430		175				
35			(40 mesh)				05			300		100				
36			(40 mesh)				07			495		235				
37			(40 mesh)				04			182		15				
38			(40 mesh)				04			130		5				
39			(40 mesh)				05			85		10				
40			(40 mesh)				05			99		5				
41							05			144		560				
42			(40 mesh)				06			245		35				
43			(40 mesh)				05			235		40				
44			(40 mesh)				06			171		10				
45			(40 mesh)				06			144		25				
46			(40 mesh)				05			141		15				
47			(40 mesh)				04			39		5				
48			(40 mesh)				05			38		5				
49			(40 mesh)				06			17		5				
50			(40 mesh)				10			15		10				
51			(40 mesh)				07			14		5				
Al-52							06			6		5				
							:									
							:									
							:									
							:									
							:									
							:									
							:									
							:									
							:									
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CERTIFIED BY: 

APPENDIX III

Certificate of Assay



MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project ... **Alpine** ... Date of report **Aug. 19/82.**
File No. ... **2-518** ... Date samples received .. **Aug. 16/82.**
Samples submitted by: ..
Company: ... **Aquarius Resources** ..
Report on: .. Geochem samples
.....
..... **5** .. Assay samples
.....
Copies sent to:
1. **Aquarius Resources, Vancouver, B.C.** ..
2. **Aquarius Resources, Hope, B.C.** ..
3.
Samples: Sieved to mesh Ground to mesh ... **-100** ..
Prepared samples . stored discarded
rejects stored discarded
Methods of analysis: **Ag-Acid digestion-chemical analysis.** ..
..... **Au-Fire Assay.** ..
Remarks: ..

Certificate of Assay

TO: Aquarius Resources,
920-475 Howe St.,
Vancouver, B.C.

PROJECT No. Alpine
DATE: Aug. 19 / 82.
File No. 2-518

SAMPLE No.	Ag	Au				
	oz/ton	oz/ton				
21301	.15	.010				
02	.10	.095				
03	.02	.111				
04	.01	.001				
21305	.02	.258				

MINE-EN Laboratories Ltd.

CERTIFIED BY: *[Signature]*

APPENDIX IV

Certificate

I, Daniel G. Cardinal of the Municipality of Hope, British Columbia, do hereby certify that:

1. I am a professional geologist residing in Hope, B.C., mailing address, P. O. Box 594, Hope, British Columbia, V0X 1L0.
2. I am a graduate of the University of Alberta (1975) with a B.Sc. degree in Economic Geology and a graduate of the Northern Alberta Institute of Technology with a Geological Technologist diploma (1970).
3. I am a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and a member of the Canadian Institute of Mining and Metallurgy.
4. Since 1968, I have been actively involved in the Canadian mining industry both as a prospector and a professional geologist, and have assisted and instructed prospector's courses through the Department of Extension, University of Alberta.
5. I am presently employed by Aquarius Resources Ltd., as a permanent staff geologist to systematically carry out geological mapping, prospecting, geochemical, geophysical and diamond drilling programs.


Daniel G. Cardinal, P. Geol.

September 20, 1982



APPENDIX V

BIBLIOGRAPHY

Report of the Minister of Mines 1929
p. C236

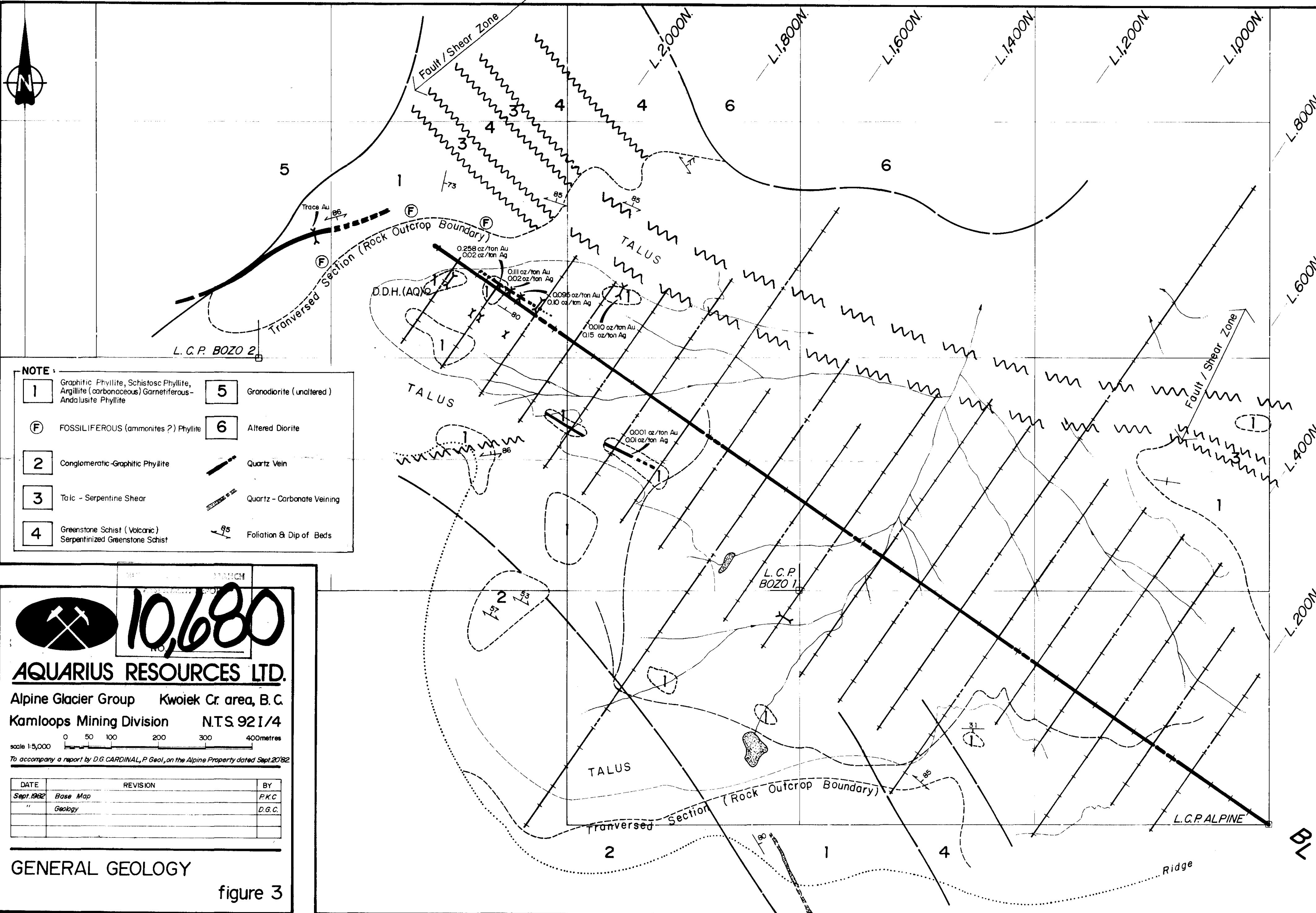
Duffell and McTaggart (1952), Glacier
Group (24), G.S.C. Memoir 262, Ashcroft
Map Area. p. 104.

Littlejohn, Cochrane (1978), Geological
and Geochemical Assessment Report on the
Alpine Claim (12 units)

Madeisky, Cochrane (1979), Geological
and Geochemical Work on the Alpine Glacier
Group

Sinclair, A.J. (1974). Selection of
threshold values in geochemical data
using probability graphs, J. Geochem.
Exploration 3: 129-149





NOTE:

1	Graphitic Phyllite, Schistose Phyllite, Argillite (carbonaceous) Garnetiferous-Andalusite Phyllite	5	Granodiorite (unaltered)
(F)	FOSSILIFEROUS (ammonites?) Phyllite	6	Altered Diorite
2	Conglomeratic-Graphitic Phyllite		Quartz Vein
3	Talc - Serpentine Shear		Quartz - Carbonate Veining
4	Greenstone Schist (Volcanic) Serpentinized Greenstone Schist		Foliation & Dip of Beds

10,680

AQUARIUS RESOURCES LTD.

Alpine Glacier Group Kwoiek Cr. area, B.C.
 Kamloops Mining Division N.T.S. 921/4

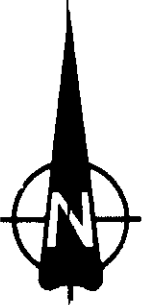
scale 1:5,000 0 50 100 200 300 400metres

To accompany a report by D.G. CARDINAL, P. Geol., on the Alpine Property dated Sept. 20'82

DATE	REVISION	BY
Sept. 1982	Base Map	P.K.C.
"	Geology	D.G.C.

GENERAL GEOLOGY

figure 3



Sample No.	Au-ppb	Ag-ppm	As-ppm
A-1	10	0.8	32
A-2	5	0.7	52
A-3	55	0.8	97
A-4	5	0.8	32
A-5	5	0.7	22
A-6	5	0.6	64
A-7	5	0.8	60
A-8	5	0.6	15
A-9	5	0.7	46
A-10	5	0.6	34
A-11	5	0.6	36
A-12	5	0.6	27
A-13	5	0.7	19
A-14	5	0.6	14
A-15	5	0.6	44
A-16	5	0.6	44
A-17	5	0.6	34
A-18	5	0.5	25
A-19	5	0.8	50
A-20	5	0.8	44
A-21	5	0.8	44
A-22	5	0.7	45
A-23	5	0.8	46
A-24	5	0.7	45
A-25	5	0.8	34
A-26	5	0.6	32
A-27	5	0.6	13
A-28	5	0.6	35
A-29	5	0.6	25
A-30	130	0.7	350
A-31	130	0.6	25
A-32	90	0.6	50
A-33	115	0.5	60
A-34	175	0.0	30
A-35	10	0.5	39
A-36	35	0.4	90
A-37	5	0.5	20
A-38	5	0.5	20
A-39	5	0.5	20
A-40	5	0.5	20
A-41	5	0.5	20
A-42	5	0.5	20
A-43	5	0.5	20
A-44	5	0.5	20
A-45	5	0.5	20
A-46	5	0.5	20
A-47	5	0.5	20
A-48	5	0.5	20
A-49	5	0.5	20
A-50	5	0.5	20
A-51	5	0.5	20
A-52	5	0.5	20
A-53	5	0.5	20
A-54	5	0.5	20
A-55	5	0.5	20
A-56	5	0.5	20
A-57	5	0.5	20
A-58	5	0.5	20
A-59	5	0.5	20
A-60	5	0.5	20
A-61	5	0.5	20
A-62	5	0.5	20
A-63	5	0.5	20
A-64	5	0.5	20
A-65	5	0.5	20
A-66	5	0.5	20
A-67	5	0.5	20
A-68	5	0.5	20
A-69	5	0.5	20
A-70	5	0.5	20
A-71	5	0.5	20
A-72	5	0.5	20
A-73	5	0.5	20
A-74	5	0.5	20
A-75	5	0.5	20
A-76	5	0.5	20
A-77	5	0.5	20
A-78	5	0.5	20
A-79	5	0.5	20
A-80	5	0.5	20
A-81	5	0.5	20
A-82	5	0.5	20
A-83	5	0.5	20
A-84	5	0.5	20
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A-86	5	0.5	20
A-87	5	0.5	20
A-88	5	0.5	20
A-89	5	0.5	20
A-90	5	0.5	20
A-91	5	0.5	20
A-92	5	0.5	20
A-93	5	0.5	20
A-94	5	0.5	20
A-95	5	0.5	20
A-96	5	0.5	20
A-97	5	0.5	20
A-98	5	0.5	20
A-99	5	0.5	20
A-100	5	0.5	20

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,680



AQUARIUS RESOURCES LTD.

Alpine Glacier Group Kwoiek Cr. area, B.C.
Kamloops Mining Division N.T.S. 921/4

scale 1:5,000 0 50 100 200 300 400 metres

To accompany a report by D.G. CARDINAL, P. Geol., on the Alpine Property dated Sept. 20'82

DATE	REVISION	BY
Sept 1982	Base Map	P.K.C.
"	Silt Samples	D.G.C.

ALPINE SILT PROGRAM (Au-ppb, Ag-ppm, As-ppm) figure 4

