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GEOLOGICAL ASSESSMENT REPORT
ON THE
BARNATO CLAIM GROUP
BARNATO PROPERTY
STEWARTSON CREEK AREA
GREENWOOD MINING DIVISION

NTS: 82E/7W
LATITUDE: 49° 27.5'N
LONGITUDE: 118° 54.3'W

BY
MOHAN R. VULIMIRI, M.S. F.G.A.C.

FOR
CARMAC RESOURCES LTD.

**SUB-RECORDER
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JAN 8 1990
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VANCOUVER, B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,524

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SUMMARY AND CONCLUSIONS

Mineralization consisting of mainly pyrrhotite, pyrite, magnetite, arsenopyrite and chalcopyrite, with significant gold values occurs along the contact of andesitic volcanic rocks and quartz diorite intrusive rocks. The andesitic volcanic rocks belong to the Late Paleozoic Wallace Formation, and the plutonic rocks are Jurassic in age.

The district has a long history of sporadic mining exploration. Mineralization in the area was discovered in 1870's.

The author conducted the property evaluation with the purpose of designing a program for systematic mining exploration in the area. Preliminary mapping, chip sampling and evaluation of all existing data, suggests that the property and the area has a very good potential for the occurrence of a significant sized mineral deposit.

INTRODUCTION

The author, accompanied by Grant Crooker, conducted property evaluation on the Barnato Group from October 17 to October 21, 1989. The evaluation consists of geological mapping, representative chip sampling, sampling of the dumps and grab sampling.

Extensive geochemical surveys, geophysical S.P. and magnetometer surveys, trenching, diamond drilling were performed during early 1980's. Minor percussion drilling was carried out in 1986.

The Barnato Claim Group consists of 22 reverted crown grants. The claim group is located approximately 50 kilometres east of Penticton and 6 kilometres west of Kettle River.

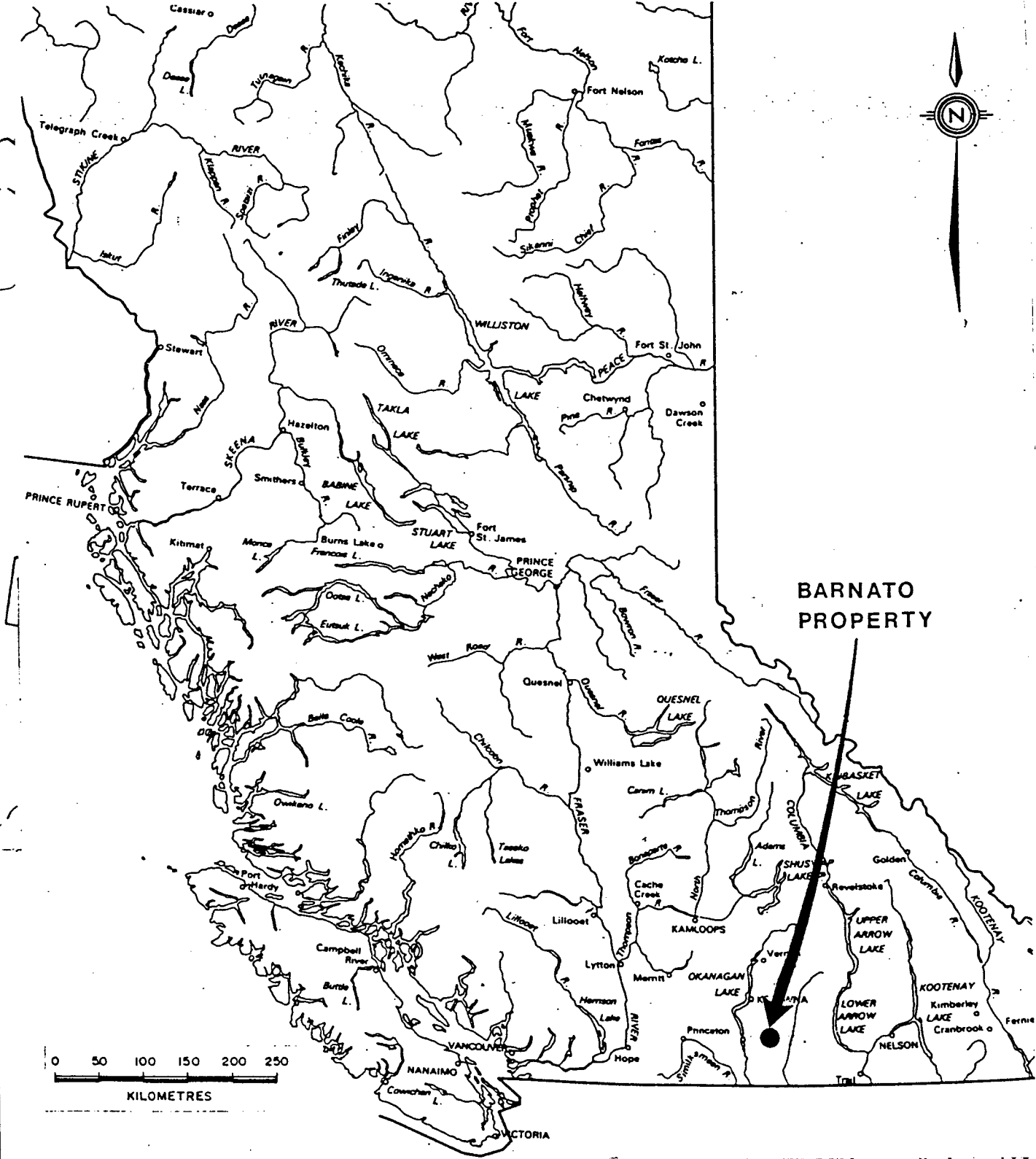
PROPERTY DESCRIPTION

The Barnato Claim Group consists of 22 reverted crown grants (Figure 2). The claims data is given in Table 1 below. Expiry dates given are valid on acceptance of this report.

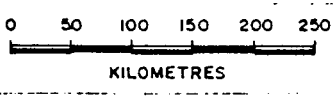
TABLE 1

<u>CLAIMS</u>	<u>UNITS</u>	<u>TITLE NO.</u>	<u>EXPIRY DATE</u>
Mame	1	1582	22/5/1991
Silver Dollar	1	1583	22/5/1991
Rambler	1	1584	22/5/1991
Hunter	1	1585	22/5/1991
Barnato Fr.	1	1586	22/5/1991
Hackla	1	1587	22/5/1991
Anchor	1	1588	22/5/1991
Denver	1	1589	22/5/1991
Champion	1	1590	22/5/1991
Utopia	1	1591	22/5/1991
Monetor	1	1592	22/5/1991
Yorkshire Lass	1	1593	22/5/1991
Silver Bell	1	1594	22/5/1991
Barnato	1	1595	22/5/1991
Kaffir King	1	1597	22/5/1991
Kingston Fr.	1	1822	22/10/1990
North Star	1	1823	22/10/1990
Caledonia	1	1824	22/10/1990
Houston	1	1825	22/10/1990
Kingston	1	1831	22/10/1990
Boston	1	1833	22/10/1990
Coin Fr.	1	2444	22/10/1990

Carmac holds 100% interest in the above reverted crown grants.



BARNATO
PROPERTY



BLUEJAY 8D
4356(6)
BLUEJAY 8B
4354(6)

Guttridge

MONTANA
4309(4)
45x4E

65594

3842(7)
L2639
Rev. C.G.

225(6)
L2645
Rev. C.G.

4757(10)

3840(7)
Rev. C.G.
L2642

L2641
Rev. C.G.

3839

CARMAC RESOURCES
BEAVERDELL CHRISTIAN VALLEY AREA
 GREENWOOD MINING DIVISION
LOCATION MAP
BARNATO GROUP

LOCATION, ACCESS AND PHYSIOGRAPHY

The property is located in southeastern British Columbia, 22 kilometres north of Westbridge. Access to the property is via a logging road from the main Kettle River road, or from Beaverdell located towards the west.

Topography is moderate to steep with elevations ranging from 760 metres to 1220 metres. Vegetation cover is approximately 90% and consists of fir, spruce and pine.

Average precipitation consists of 24 centimetres of rain and 100 centimetres of snow. Average temperatures range from 1° C in winter to 15° C in summer. The property is snow-free from June to October.

HISTORY AND PREVIOUS WORK

Many of the claims in the area were staked and considerable surface work was completed by 1878. Gold mineralization was discovered in the area between 1896 and 1897. In 1937 - 1938, two cars of sorted ore, totalling approximately 84.9 tons, grading 1.58 oz/ton gold, 0.23 oz/ton silver and 10.17% arsenic were shipped to Tacoma smelter. Subsequently in 1938, Cominco optioned the Barnato Claim, and conducted a trenching and drilling program.

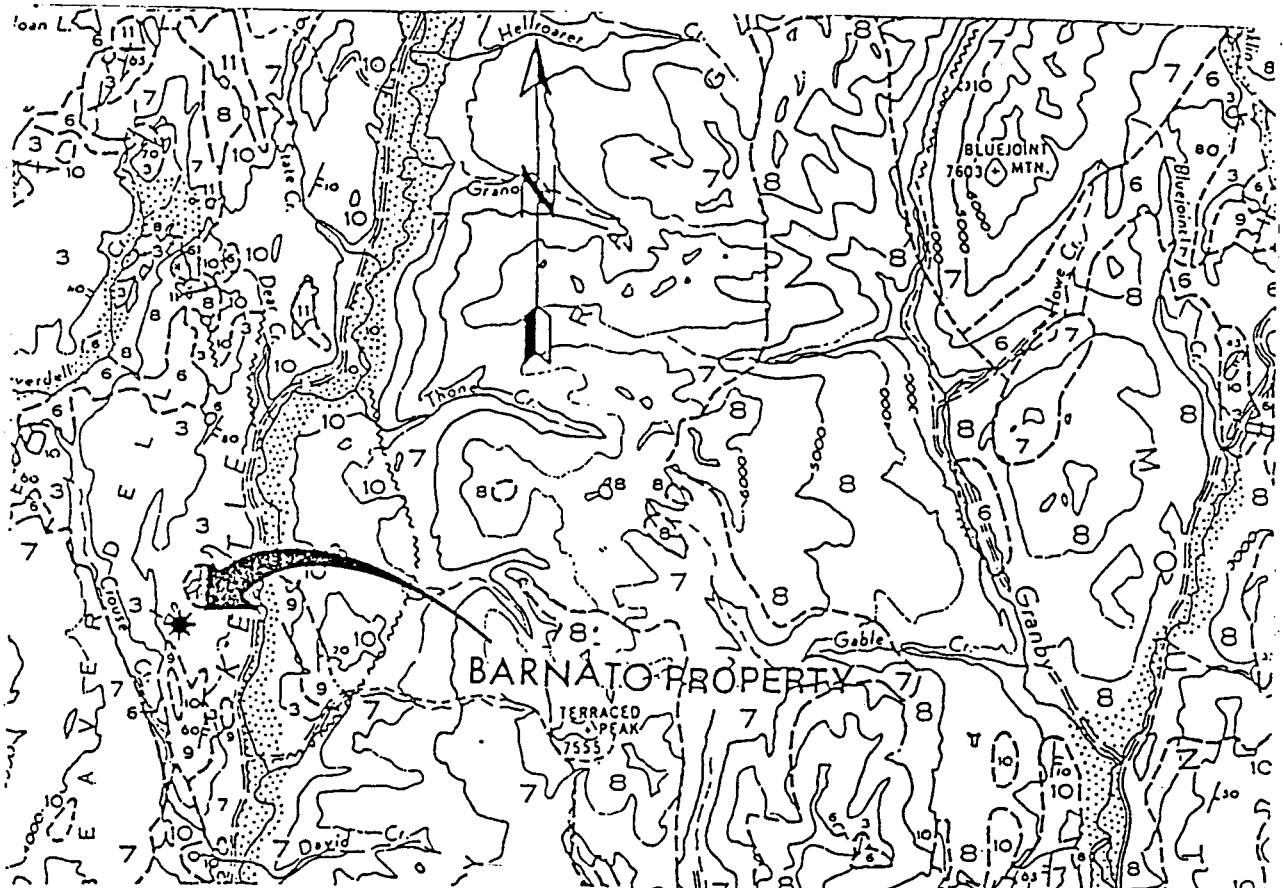
In 1965 - 1966, Amcana Gold Mines carried out road improvements, claim survey, trenching and diamond drill program consisting of four short holes.

During 1978 - 1981, Carmac Resources Ltd. conducted VLF Survey, geochemical survey, Airborne VLF-EM magnetometer survey, trenching, reconnaissance mapping, prospecting and diamond drilling (4 NQ holes).

In 1986, Golden Seal Resources carried out a small percussion drilling program.

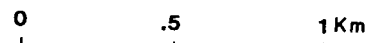
REGIONAL GEOLOGY

The Barnato area is mainly underlain by mostly andesitic volcanic rocks of the Wallace (Anarchist) Formation of late Paleozoic and Early Mesozoic age. These rocks consist of metamorphosed andesitic tuffs, cherts, flows and volcanic derived sedimentary rocks. The Wallace Formation is intruded by diorite plugs and dykes belonging to Jurassic Westkettle Pluton (Figure 3).



LEGEND

- GENEOIC**
 - TERTIARY**
 - MIOCENE(?)**
 - 11 Basalt, olivine basalt
 - PALEOCENE OR EOCENE**
 - PHOENIX VOLCANIC GROUP**
 - 10 Andesite, trachyte; minor basalt; locally, interbedded tuff, shale, and/or siltstone
 - 9 KETTLE RIVER FORMATION: rhyolite and dacite tuff; locally, conglomerate, sandstone, and shale; minor rhyolite flows and intrusive porphyritic rhyolite
 - PALEOCENE(?)**
 - 8 CORYELL INTRUSIONS: syenite; monzonite, shonkinite and granite
- MESOZOIC**
 - CRETACEOUS(?)**
 - LOWER CRETACEOUS(?)**
 - 7 VALHALLA INTRUSIONS: granite, porphyritic granite
 - 6 NELSON INTRUSIONS: granodiorite, porphyritic granite, diorite, monzonite, quartz monzonite
 - 5 Ultrabasic intrusions, serpentinite
 - JURASSIC**
 - 4 ROSSLAND GROUP
 - Andesite, tuff; agglomerate and flow breccia, minor greywacke
 - PALAEZOIC**
 - PERMIAN(?)**
 - 3 ANAACHIST GROUP
 - Greenstone, greywacke, limestone, paragneiss
 - PENNSYLVANIAN AND/OR PERMIAN**
 - 2 MOUNT ROBERTS FORMATION: greywacke, greenstone, limestone, paragneiss
 - PROTEROZOIC (?)**
 - 1 MONASHEE AND GRAND FORKS GROUPS
 - Paragneiss; minor crystalline limestone and pegmatite



CARMAC RESOURCES
BEAVERDELL - CHRISTIAN VALLEY AREA
 GREENWOOD MINING DIVISION
 REGIONAL GEOLOGY
 BARNATO GROUP

Fig.3

The volcanic rocks trend approximately north - northwest.

Details with regards to Regional Geology can be referred to in G.S.C. Memoir 79 (Reinecke, 1910, 1915), Geological Series and Geology, No. 65 (Little, 1953, 1956).

PROPERTY GEOLOGY

Rock exposures in trenches and outcrops on Barnato and Hackla claims were examined (Figure 4). Mainly two dominant rock types were observed.

1. Quartz diorite or granodiorite plugs and dykes. Texture is medium to coarse-grained, and in places porphyritic. The mafic content varies rich to poor.
2. Andesitic volcanic rocks. Texture is fine-grained and foliated in places. Composition varies from felsic to mafic.

Other rocks documented on the property include a calcareous unit interbedded within the andesitic unit. Porphyritic dykes were observed to cross-cut all the units in the area. These dykes are medium to coarse-grained, light to dark green in colour, and partly porphyritic.

The andesitic rocks are intensely hornfelsed along the contact with quartz diorite and/or granodiorite plugs.

MINERALIZATION

Mineralization, consisting of mainly pyrrhotite, pyrite, minor magnetite, arsenopyrite and chalcopyrite with significant gold values, occurs along the contact of the andesitic rocks with the quartz diorite and granodiorite plugs, as well as within the andesitic and intrusive rocks.

Several zones of significant mineralization have been outlined by trenching on the Barnato and Hackla claims. Chip and grab samples were collected from the main trenches. Sample locations and geology are shown in Figures 4 and 4a.

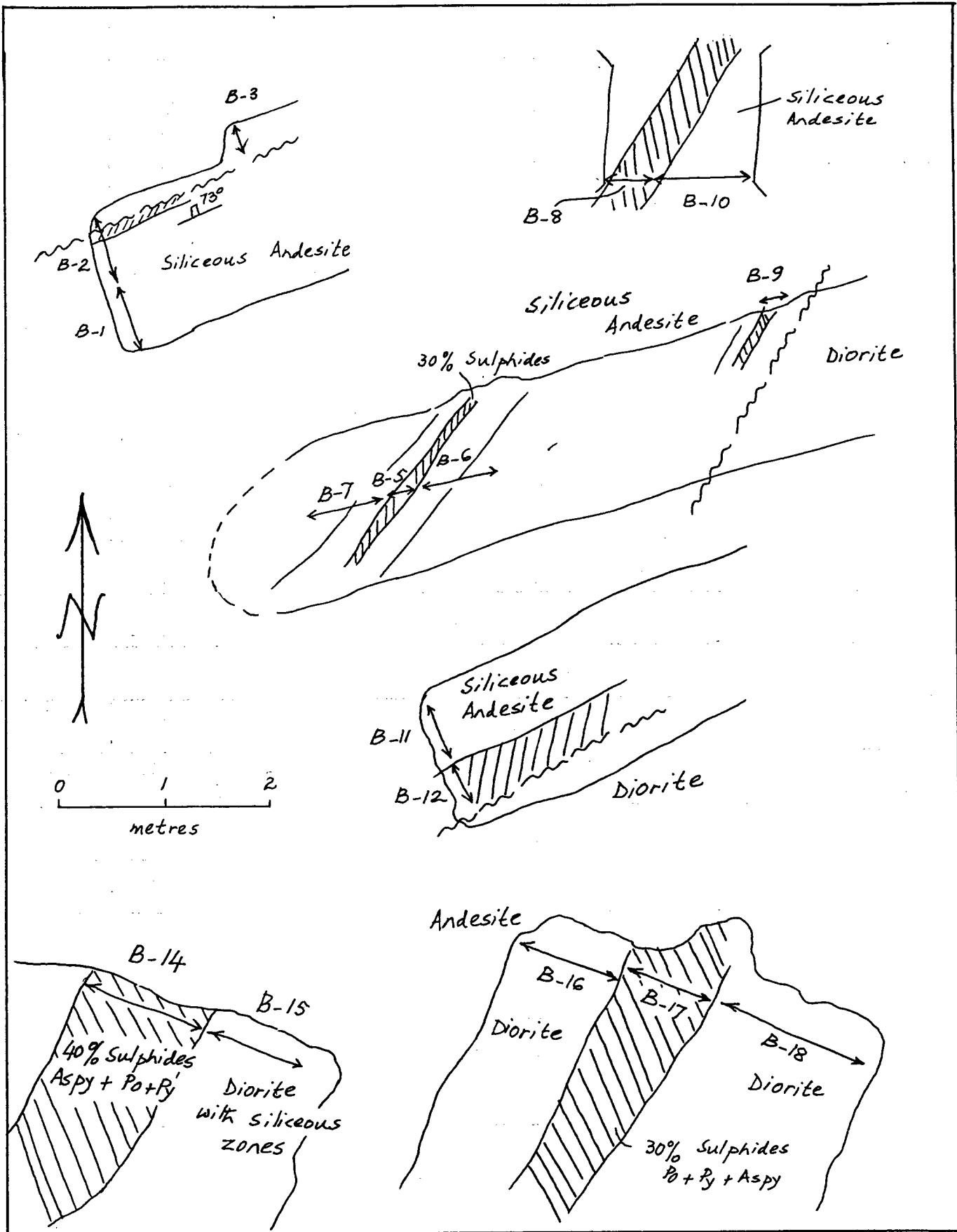


Fig 4a: Workings with Chip Samples and Geology - Barnato Group.
 For locations see Fig. 4

Sample assays and descriptions are given below:

Sample No	Type	Au oz/ton	Ag oz/ton	Description
B1	Chip 20cm	0.001	0.01	Quartz veining with shear
B2	Chip 60cm	0.001	0.01	Quartz veining with shear
B3	Chip 60cm	0.009	0.01	Quartz diorite
B4	Dump	0.007	0.02	40% sulphides, Po+Aspy+Cpy
B5	Chip 25cm	0.375	0.04	10% sulphides, Po+Aspy+Cpy
B6	Chip 80cm	0.030	0.01	2% sulphides
B7	Chip 90cm	0.001	0.01	Andesite
B8	Chip 45cm	0.176	0.01	60% sulphides, Po+Aspy+Py
B9	Chip 40cm	0.003	0.01	Quartz vein, Po+Aspy+Py
B10	Chip 90cm	0.001	0.01	20% sulphides, Po+Aspy
B11	Grab	0.189	0.04	Quartz vein with Aspy
B12	Chip 50cm	0.002	0.01	Diorite
B13	Chip 40cm	1.960	0.10	Quartz vein, Po+Aspy
B14	Chip 1.2m	0.060	0.02	40% sulphides, Po+Aspy+Py
B15	Chip 1.0m	0.030	0.01	Diorite with siliceous zones
B16	Chip 1.0m	0.002	0.01	Diorite with rusty stain
B17	Chip 0.9m	0.091	0.02	20% sulphides, Aspy+Po
B18	Chip 1.6m	0.001	0.01	Diorite with rusty stain

Samples were also collected on the Mame and Anchor claims. Sample locations are given on Figure 5. Sample descriptions and geochemical analyses are given below:

<u>Sample No.</u>	<u>Au ppb</u>	<u>Description</u>
A1	5	Altered quartz diorite with rusty stain
A2	5	Altered quartz diorite with rusty stain
A3	5	Altered quartz diorite with rusty stain
M1	130	Siliceous andesite with rusty stain
M2	90	Siliceous andesite with rusty stain
M3	10	Siliceous andesite with rusty stain

RECOMMENDATIONS

Evaluation of all previous data, and examination of rock types and associated mineralization, suggests that a very systematic program consists of detailed geological mapping, plotting of all sampling data, constructing detailed cross-section with interpretive geology, and further chip sampling of mineralized outcrops where necessary, should be carried out.

If results warrant, a diamond drilling program be initiated.

January, 1990

lower case.
 HTTP://
 Natural = only.
 Gov. BC. CA/
 GEOSMIN/
 MINPOT.htm

Mohan R. Vulimiri
 Mohan Vulimiri

REFERENCES

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DETAILED COST STATEMENTWages *

Grant Crooker 2 days at \$350.00/day	\$ 700.00	
Mohan Vulimiri 3 days at \$350.00/day	\$1050.00	
Report writing 2½ days at \$350.00/day	\$ 875.00	
Xeroxing, drafting, typing	\$ 550.00	
	<u>\$3175.00</u>	\$3175.00

Assays

18 Samples Au & Ag (12.75 + 3.50)	\$ 292.50	
6 Samples Au geochem (4.75 + 3.50)	\$ 49.50	
	<u>\$ 342.00</u>	\$ 342.00

Transportation

Vehicle rental 4 x 4 at \$60.00/day (5 days)	\$ 300.00	
2000 km at \$.15/km	\$ 300.00	
Gasoline 200 l at \$.55/l (10km/l 2000km)	\$ 110.00	
	<u>\$ 710.00</u>	\$ 710.00

Board and Lodging

5 man-days at \$60.00/man-day	\$ 300.00	<u>\$ 300.00</u>
TOTAL		\$4527.00

* Wages include office overhead and administration costs.

CERTIFICATE OF QUALIFICATIONS

I, Mohan R. Vulimiri, hereby certify that:

I am a Consulting Geologist, with business address at 822 East 12th St., North Vancouver, B.C. V7L 2L1.

I am a graduate of Indian Institute of Technology, Kharagpur, India with a B.Sc., Honours in Geological Sciences.

I received a Master of Science degree in Economic Geology from the University of Washington, Seattle, U.S.A.

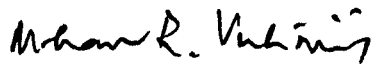
I am a Member of Society of Economic Geologists, Member of Society of Mining Engineers and a Fellow of the Geological Association of Canada.

I have practised my profession as a Geologist since 1970, and in responsible positions since 1974, in British Columbia, Yukon, Saskatchewan, and South Western U.S.A.

The information, conclusions and recommendations in this report are based on a field examination of the property.

I have no interest, direct or indirect, in the property or in the securities of Carmac Resources Ltd.

Dated at Vancouver, British Columbia, this 1st day of January, 1990.



Mohan R. Vulimiri

APPENDIX 1

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3H1
Ph: (604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : CARMAC RESOURCES
860-625 HOWE STREET
VANCOUVER, B.C.

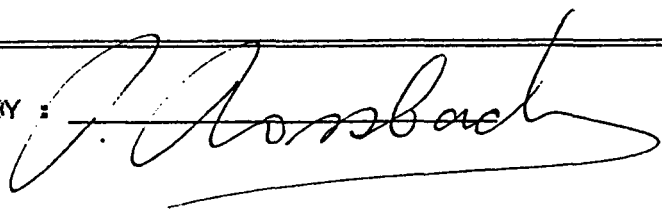
CERTIFICATE # : 89437
INVOICE # : 10109
DATE ENTERED : 89-11-08
FILE NAME : NAG89437
PAGE # : 1

PROJECT :
TYPE OF ANALYSIS : ASSAY

PRE FIX	SAMPLE NAME	oz/t Au	oz/t Ag
A	B 1	0.001	0.01
A	B 2	0.001	0.01
A	B 3	0.009	0.01
A	B 4	0.007	0.02
A	B 5	0.375	0.04
A	B 6	0.030	0.01
A	B 7	0.001	0.01
A	B 8	0.176	0.01
A	B 9	0.003	0.01
A	B 10	0.001	0.01
A	B 11	0.189	0.04
A	B 12	0.002	0.01
A	B 13	1.960	0.10
A	B 14	0.060	0.02
A	B 15	0.003	0.01
A	B 16	0.002	0.01
A	B 17	0.091	0.02
A	B 18	0.001	0.01
A	HM 1	0.323	0.13
A	HM 2	0.001	0.01
A	HM 3	0.550	0.17
A	HM 4	0.349	0.04
A	HM 5	0.001	0.01
A	HM 6	0.502	0.06
A	HM 7	1.770	0.14
A	OK 1	0.022	
A	OK 2	0.002	
A	OK 3	0.001	
A	OK 3 A	0.019	
A	OK 4	0.004	
A	OK 5	0.002	
A	OK 6	0.001	
A	OK 7	0.035	
A	OK 8	0.002	
A	OK 9	0.001	
A	OK 10	0.007	
A	OK 11	0.001	
A	OK 12	0.001	
A	OK 13	0.002	

Barnato Group

CERTIFIED BY :



ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3M1
Ph: (604)299-6910 Fax: 299-6252

CERTIFICATE OF ANALYSIS

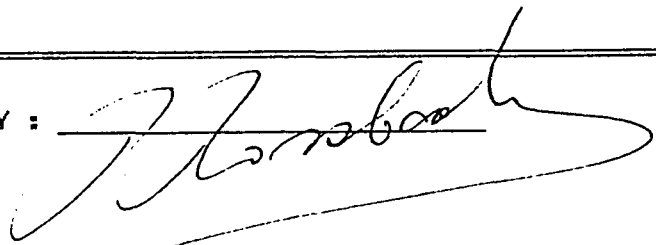
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860-625 HOWE STREET
VANCOUVER, B.C.

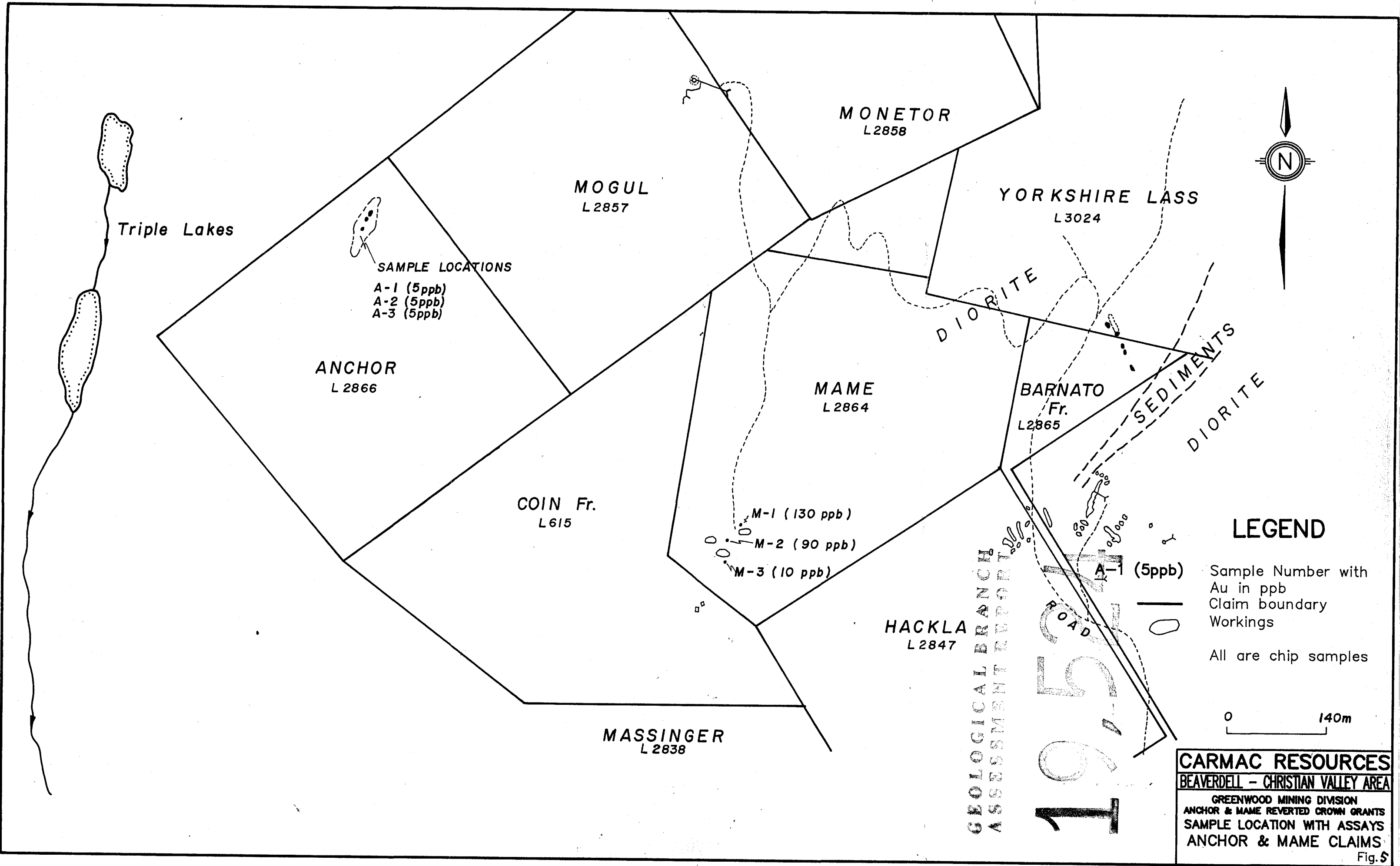
CERTIFICATE # : 89437
INVOICE # : 10109
DATE ENTERED : 89-11-08
FILE NAME : NAG89437
PAGE # : 2

PROJECT :
TYPE OF ANALYSIS : GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPB Au	
A	A 1	5	} Barnato Group
A	A 2	5	
A	A 3	5	
A	M 1	130	
A	M 2	90	
A	M 3	10	

CERTIFIED BY :





Triple Lakes

ANCHOR
L 2866

MOGUL
L 2857

MONETOR
L 2858

YORKSHIRE LASS
L 3024

MAME
L 2864

BARNATO
Fr.
L 2865

COIN Fr.
L 615

M-1 (130 ppb)
M-2 (90 ppb)
M-3 (10 ppb)

HACKLA
L 2847

MASSINGER
L 2838

SAMPLE LOCATIONS
A-1 (5ppb)
A-2 (5ppb)
A-3 (5ppb)

DIORITE

SEDIMENTS
DIORITE

LEGEND

- Sample Number with Au in ppb
- Claim boundary
- ◻ Workings
- All are chip samples

0 140m

CARMAC RESOURCES
BEAVERDELL - CHRISTIAN VALLEY AREA
 GREENWOOD MINING DIVISION
 ANCHOR & MAME REVERTED CROWN GRANTS
 SAMPLE LOCATION WITH ASSAYS
 ANCHOR & MAME CLAIMS
 Fig. 5

GEOLOGICAL BRANCH ASSESSMENT REPORT

1957

