

1981 DIAMOND DRILLING REPORT

for the

BARNATO ONE CLAIM GROUP
GREENWOOD MINING DIVISION

LATITUDE: 49°25'N LONGITUDE: 118°55'W

NTS #82E/7W

AUTHOR: R.D. HOGARTH

DATE: JANUARY 1982

CLAIM NAME	# OF UNITS	RECORD #	DATE OF RECORD
Kingston Fr.	1	1822	Oct 22, 1979
North Star	1	1823	Oct 22, 1979
Caledonia	1	1824	Oct 22, 1979
Houston	1	1825	Oct 22, 1979
Boston	1	1828	Oct 22, 1979
Ivanhoe	1	1829	Oct 22, 1979
Mona	1	1830	Oct 22, 1979
Kingston	1	1831	Oct 22, 1979
Mexico	1	1832	Oct 22, 1979
Boston	1	1833	Oct 22, 1979
Highland Mary	1	1835	Oct 22, 1979
7:30	1	1836	Oct 22, 1979
Montana Fr.	1	1837	Oct 22, 1979
Kettle 1	20	1969	Jan 17, 1980
Kettle 2	20	1970	Jan 17, 1980
Kettle 3	20	1971	Jan 17, 1980
Mayflower	1	1826	Oct 22, 1979
Lillie May	1	1827	Oct 22, 1979
Superior	1	1834	Oct 22, 1979
Jewel	1	1838	Oct 22, 1979
Globe	1	2039	Feb 22, 1980
Riverside	1	2040	Feb 22, 1980
Hard to Beat	1	2041	Feb 22, 1980
Coin Fr.	1	2444	Oct 27, 1980
Go 1	1	2729	Jun 08, 1981
Go 2	1	2730	Jun 08, 1981

83

OWNERS: N. WYCHOPEN, J.W. MACLEOD, G. BLEILER

OPERATOR: NORTHAIR MINES LTD./CARMAC RESOURCES LTD.

10,098

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APPENDIX I

DIAMOND DRILL LOGS

INTRODUCTION

The Barnato claim group covers a gently mountainous plateau area ranging in elevation from 1000 to 1390 metres along the west slope of the Kettle River Valley. The area is covered by immature forest growth consisting mainly of fir, spruce and lodgepole pine.

Mineralization was first discovered in 1898, and considerable work was done on the property. From 1898 to 1933 sporadic work was carried out and between 1933 and 1938, a few tons of ore were shipped. Diamond drilling and test pitting was carried out by Cominco on the Barnato claim in 1938. In 1961 (approximately) Amcana Mines carried out a small program of road improvement, claim surveying and surface trenching. Programs of geological mapping, geophysical surveys, geochemical surveys and trenching have been carried out by Carmac Resources since 1977.

Mineralization in the area is quite wide spread and complex, and with the limited amount of work to date, is not fully understood. Strong gold and silver values are found associated with sulphides in quartz-carbonate gangue fissure veins. Several of these veins have had production on them with several tons of ore shipped to the smelter. Old records show gold values shipped of 1.76 ozs./ton.

The property is presently owned by Mr. J.W. MacLeod, Mr. G. Bleiler and Mr. N. Wychopen. A program of diamond drilling was carried out between October 25th and November 15th, 1981, under the direction of Northair Mines Ltd. staff for the operator - Carmac Resources Ltd. Four NQ diamond drill holes were drilled on the Kettle 1 claim for a total of 180.3 metres drilling. One hole was drilled on the Barnato claim to a depth of 122.6 metres. This program was carried out for a total cost of \$48,076.96.

A continued program of prospecting, geological mapping, geochemical sampling and geophysics will be carried out to further assess the value of the property.

The core is stored on the property

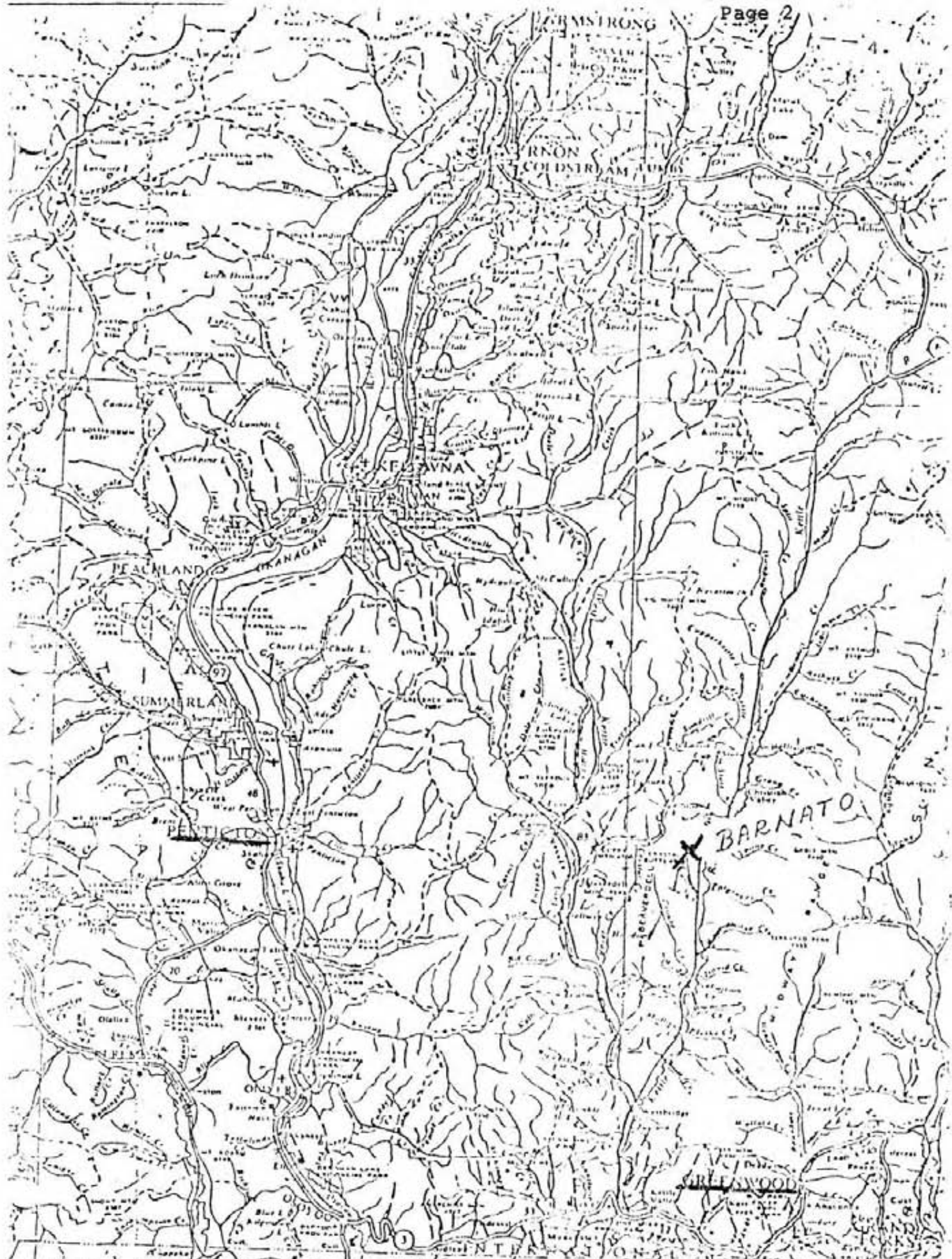


FIGURE 1. 1 inch = 10 miles

Rc

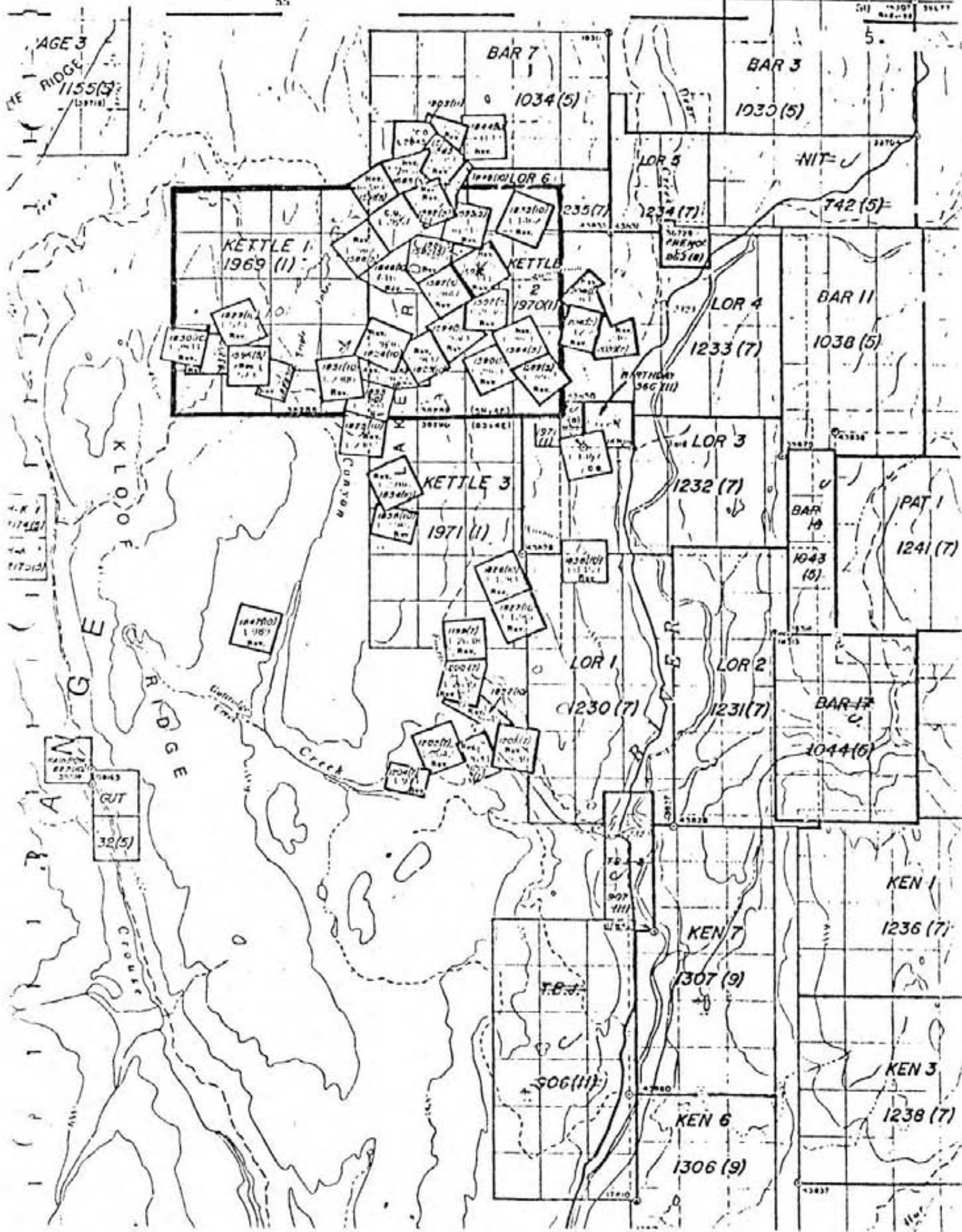
LOCATION & ACCESS

Latitude: 49°25'N
 Longitude: 118°55'W
 NTS #82E/7W

A steep logging road suitable for pick ups and four wheel drives leaves the main Kettle River Road 34 kilometres north of Westbridge, B.C., and climbs to the property at an elevation between 1000 and 1390 metres on the west slope of the Kettle River Valley. The area has been logged and several roads pass through the property.

DESCRIPTION OF CLAIMS

<u>CLAIM NAME</u>	<u># OF UNITS</u>	<u>RECORD #</u>	<u>DATE</u>
Kingston Fr.	1	1822	October 22, 1979
North Star	1	1823	October 22, 1979
Caledonia	1	1824	October 22, 1979
Houston	1	1825	October 22, 1979
Boston	1	1828	October 22, 1979
Ivanhoe	1	1829	October 22, 1979
Mona	1	1830	October 22, 1979
Kingston	1	1831	October 22, 1979
Mexico	1	1832	October 22, 1979
Boston	1	1833	October 22, 1979
Highland Mary	1	1835	October 22, 1979
7:30	1	1836	October 22, 1979
Montana Fr.	1	1837	October 22, 1979
Kettle 1	20	1969	January 17, 1980
Kettle 2	20	1970	January 17, 1980
Kettle 3	20	1971	January 17, 1980



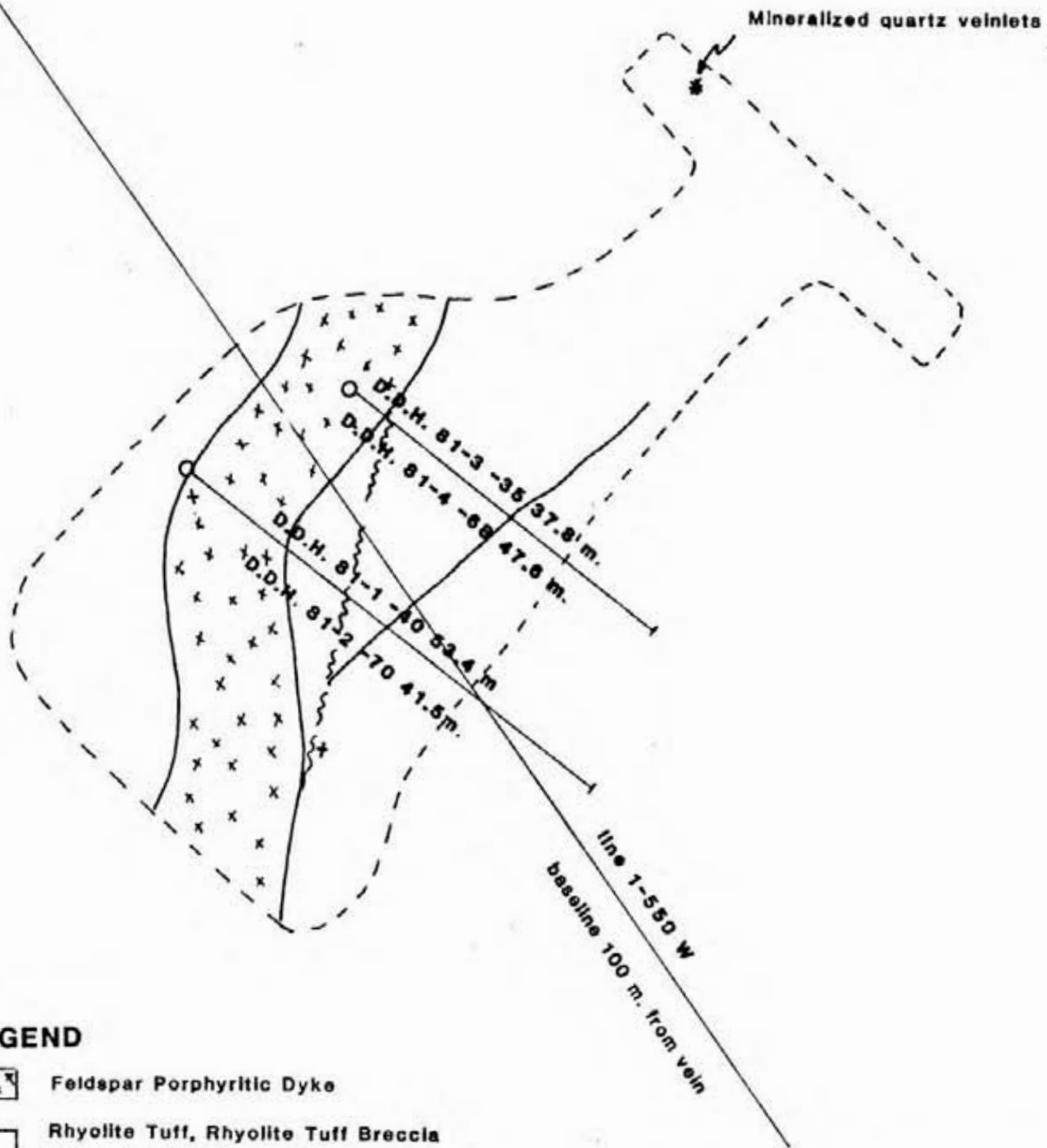
CLAIM NAME	# OF UNITS	RECORD #	DATE
Mayflower	1	1826	October 22, 1979
Lillie May	1	1827	October 22, 1979
Superior	1	1834	October 22, 1979
Jewel	1	1838	October 22, 1979
Globe	1	2039	February 22, 1980
Riverside	1	2040	February 22, 1980
Hard to Beat	1	2041	February 22, 1980
Coin Fr.	1	2444	October 27, 1980
Go 1	1	2729	June 08, 1981
Go 2	1	2730	June 08, 1981
	<u>83</u>		

1981 FIELDWORK


A program of diamond drilling commenced on October 15, 1981 as a followup to previous fieldwork. Two areas carrying sufficient gold values were outlined as the drill targets.

The primary target was a narrow vein with a known surface extension of 23.0 metres and open at each end. Gold values of up to 2.0 ozs/ton Au. were found in surface trenching. Four holes totalling 180.3 metres were drilled on this vein. Hole 81-1 was drilled to a depth of 53.4 metres at -40° on an azimuth of 128° and intersected the vein between 20.2-22.4 metres. Hole 81-2 was drilled on the same line at -70° to a depth of 41.5 metres. No vein zone was intersected. Holes 81-3 and 81-4 were drilled on an azimuth of 128° , 13 metres east of holes 81-1 and 81-2. Hole 81-3 was drilled to a depth of 37.8 metres at -35° and intersected the vein from 19.0-19.3 metres. Hole 81-4 was drilled to a depth of 47.6 metres at -70° . No vein was intersected.

Hole 81-5 was drilled on the second target which consisted of a series of paralleling veins which were outlined by trenching, but not clearly defined. The veins were exposed along the slope



LEGEND

-  Feldspar Porphyritic Dyke
-  Rhyolite Tuff, Rhyolite Tuff Breccia
Cherty Sediments, Argillite
-  Vein
-  Fault
-  Trenched area

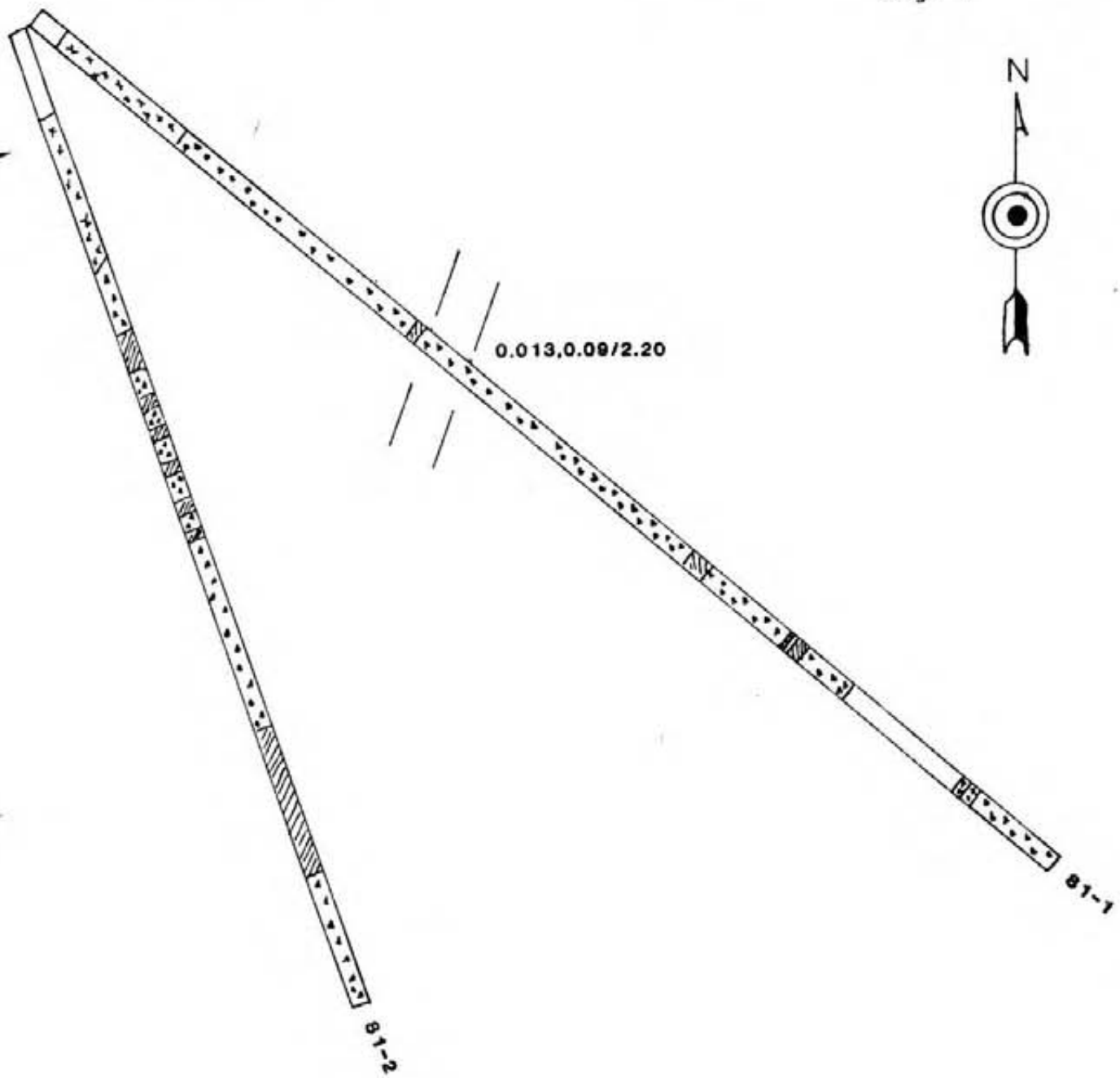
Carmac Resources Ltd.

Surface Plan of Primary

Target Area

Sc. 1:500

Date Jan./82



LEGEND

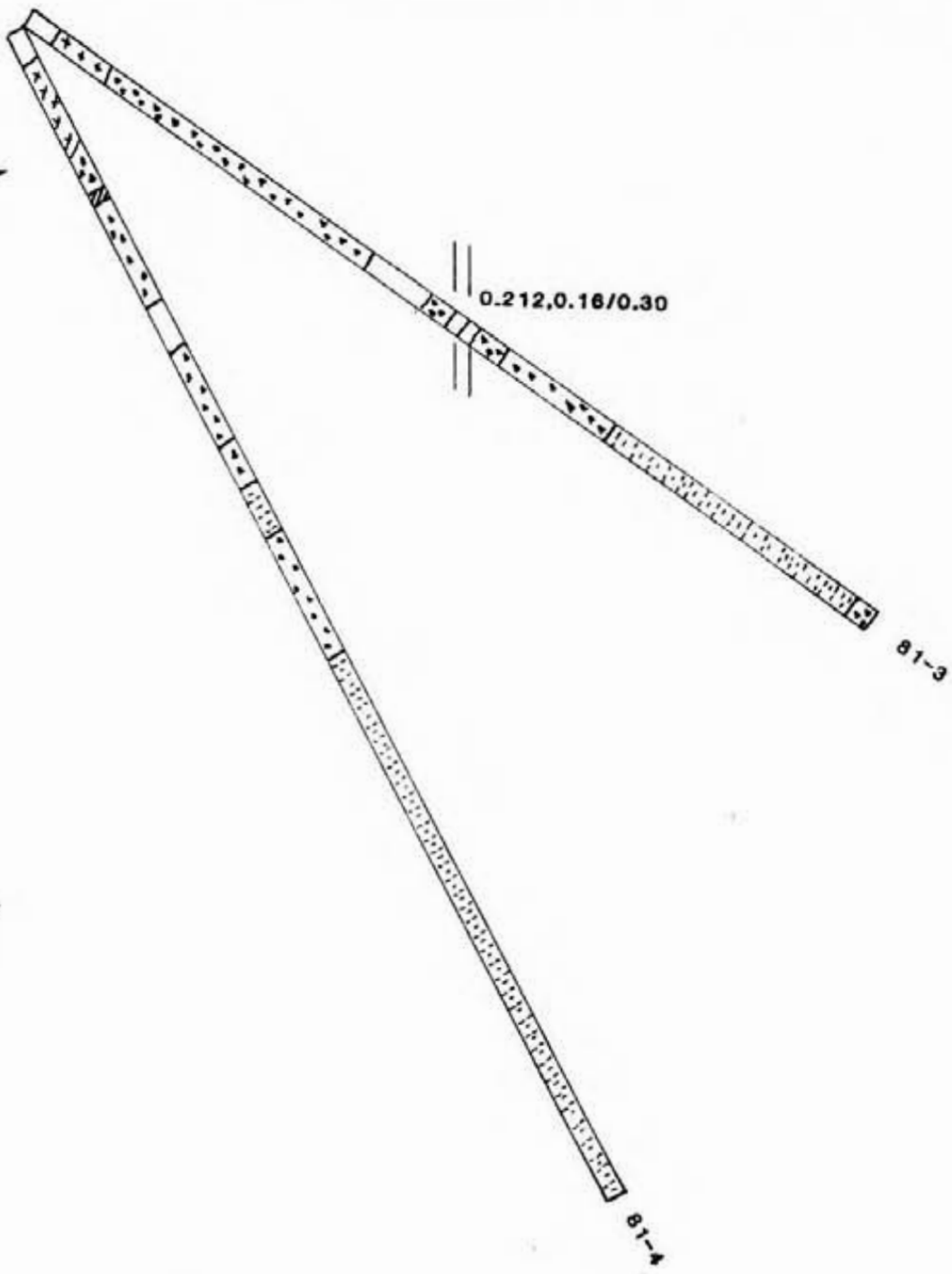
-  Rhyolite Tuff Breccia
-  Rhyolite Tuff
-  Feldspar Porphyritic Dyke
-  Cherty Sediments
-  Argillite

Carmac Resources Ltd.

D.D. X-section 81-1,81-2

Sc. 1:250

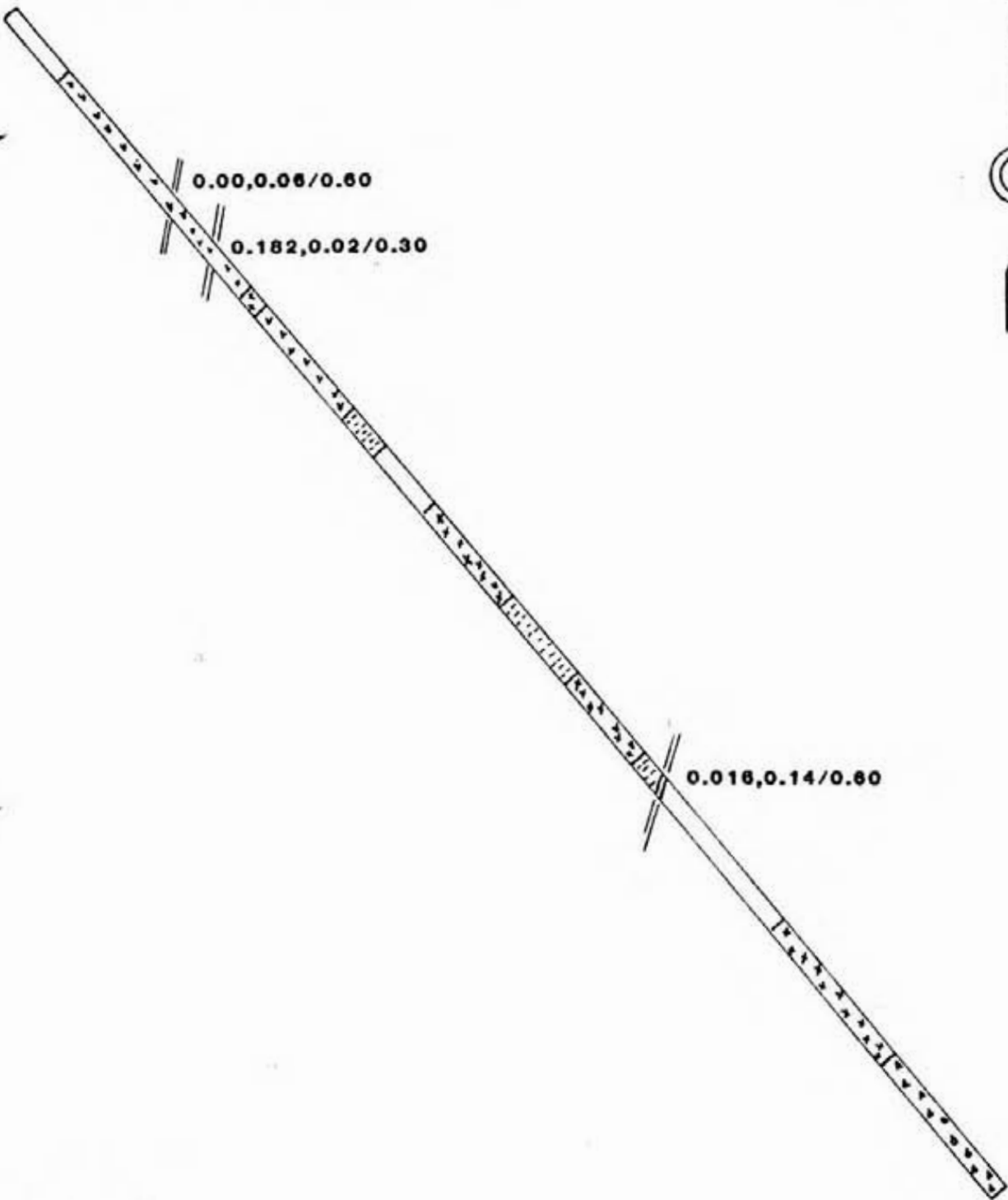
Jan./82



LEGEND

-  Rhyolite Tuff Breccia
-  Rhyolite Tuff
-  Feldspar Porphyritic Dyke
-  Cherty Sediments
-  Argillite

Carmac Resources Ltd.	
D.D. X-section 81-3,81-4	
Sc. 1:250	Jan./82



LEGEND

-  Quartz Diorite
-  Rhyolite Tuff Breccia
-  Rhyolite Tuff
-  Cherty Sediments
-  Feldspar Porphyritic Dyke

Carmac Resources Ltd.

D.D. X-section 81-5

Sc. 1:500

Date Jan./82

of a fairly steep hill with an average slope angle of 35° . The hole was drilled from the top of the hill at a -50° angle. A total of three veins were intersected. Minor veins were intersected from 19.1-19.7 and from 24.3-24.6 metres, and the main vein was intersected from 79.6-80.2 metres.

GEOLOGY

In the primary target area the country rock is a volcanic and sediment pile consisting of rhyolite tuff, rhyolite tuff breccias and cherty sediments. The distinction between rhyolite tuff and cherty sediments is not well defined. Silicification has occurred to a minor degree overall with some beds being intensively silicified. Lenses of randomly spaced argillite are found throughout the pile. Their association within the pile is not clear. A possible marker horizon is found in holes 81-3 and 81-4 which indicates the beds are fairly flat lying and pinch and swell over short distances (10 metres). In the drill core the rock is intensively fractured at $80-90^{\circ}$ to the bedding. This fracturing is very evident on surface and the dips support the idea of fairly flat lying bedding. The intensive fracturing on surface made it impossible to get an accurate strike on the beds, but they are approximately N30-50E. The country rock is cut by several northeast trending medium to dark green feldspar porphyritic dykes. The dyke in the drill area has an erratic strike, but in the area of the drill holes has an attitude of N40E/65W.

In the second target area (Barnato Claim) the same volcanic and sedimentary pile exists. This is locally intruded on the west side by quartz diorite. This system is then cut by several randomly oriented, generally paralleling, northeast trending medium to dark green feldspar porphyritic dykes.

MINERALIZATION

Economic mineralization is of two types in the primary target area (Kettle 1). The first is randomly oriented quartz veinlets in the country rock mineralized with arsenopyrite, galena, pyrrhotite, and pyrite which carry strong gold and silver values (0.673 ozs/ton Au., 8.06 ozs./ton Ag.). This type of mineralization appears to be fairly limited. The second type is a narrow, well defined, but erratic, fissure vein with a general attitude of N40E/70-90W. Mineralization consists of disseminated to massive arsenopyrite and pyrite, with minor disseminated pyrrhotite and galena. Strong values are found on surface (1.984 ozs./ton Au., 1.55 ozs./ton Ag.), but drilling indicates that the vein weakens quickly with depth; being a poorly defined structure 10 metres below surface, and disappeared 30 metres below surface. Pervasive pyrite and pyrrhotite mineralization as disseminations and fracture fillings up to 2% combined but averaging 0.5% is found within 20 metres of the dyke.

In the second (Barnato) target area similar pervasive pyrite and pyrrhotite mineralization is found. Economic mineralization consists of several roughly paralleling fissure veins mineralized with lacy pyrite. The veins appear to strike approximately N30-40°E, but were not clearly defined. Work completed indicates that they pinch and swell rapidly along strike and with depth. Not all veins found on surface extended to the depth of the drill hole which was approximately 15 metres below surface.

CARMAC RESOURCES LTD.COST ACCOUNT FOR DIAMOND DRILL PROGRAMWages

R. Hogarth-Jan 5- Jan 14 @\$133.30/day	1,066.40	
R. Hoagrth-Oct 25-Nov 11 @ \$133.30/day	2,266.10	
N.Wychopen-Oct 25-Nov 15 @ \$133.30/day	2,799.30	
J.Steinburger-Oct 25-Nov 15 @ \$125.00/day	<u>2,625.00</u>	8,756.80

Travelling Expenses & Vehicle Rental

Vancouver-Beaverdell & Return-N.Wychopen	275.00	
Vancouver-Beaverdell & Return-R.Hogarth	240.00	
4 Wheel Drive rental \$0.20/km. & fuel	<u>650.00</u>	1,165.00

Room & BoardTrailer rental

\$7.50 per man/day-N.Wychopen - 21 nights	157.50	
-J.Steinburger-21 nights	157.50	
-R.Hogarth - 17 nights	127.50	
-4 diamond drillers-		
-15 nights	450.00	

Food - Power's General Store	<u>1,387.87</u>	2,280.37
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Contractors

F. Boisvenu Drilling Ltd.	28,777.29	
D-8 Rental-Ken Fillmore \$75.00/hour	4,972.50	
Drill rig transport	<u>2,125.00</u>	<u>35,874.79</u>

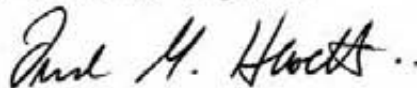
TOTAL:

\$48,076.96

STATEMENT OF QUALIFICATIONS

I, Fred G. Hewett, with business address in the City of Vancouver, and residential address in the District of Coquitlam, in the Province of British Columbia,
DO HEREBY CERTIFY THAT:

1. I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geology.
2. I am a registered member of the Association of Professional Engineers of the Province of British Columbia.
3. I am a member of the Canadian Institute of Mining & Metallurgy, a fellow of the Geological Association of Canada, and a member of the Society of Economic Geologists.
4. I have practiced various levels of my profession in Canada for approximately fifteen years.
5. I am presently employed by Northair Mines Ltd., and did personally supervise the work described in this report.



Fred G. Hewett. P. Eng.

Dated at the City of Vancouver,
In the Province of British Columbia,
This 17th day of January, 1982.

CERTIFICATE OF QUALIFICATIONS

I, Roy D. Hogarth, a geologist with a business address at #1450-625 Howe St., in the City of Vancouver, in the Province of British Columbia,

DO HEREBY CERTIFY:

1. That I graduated from the Haileybury School of Mines as a Mining Technician in 1967.
2. That I have been employed in various capacities in the mineral resource industry for the past fourteen years and am presently employed by Northair Mines Ltd.
3. That I have compiled and prepared the information contained in this assessment report on the Barnato One Claim Group of Carmac Resources Ltd.


Roy D. Hogarth

Dated at the City of Vancouver,
In the Province of British Columbia,
This 17th day of January, 1982.

APPENDIX I

DIAMOND DRILL LOGS

DIAMOND DRILL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-1

DIP TEST		
	Angle	
Footage	Reading	Corrected
0	-40°	

Hole No. 81-1 Sheet No. 1 of 5 Lat. _____ Total Depth 53.4 M
 Section _____ Dep. _____ Logged By R. Hogarth
 Date Begun Oct. 31/81 Bearing Az 128° Claim _____
 Date Finished Nov. 1/81 Elev. Collar 1420 Core Size NQ
 Date Logged Nov. 1/81

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	AU	AG		
FROM	TO										
0.0	1.5		Casing								
1.5	7.6	6.0	Dyke. Medium green feldspar porphyritic. Very minor diss. pyrite. Contains minor blebs of biotite, chlorite and epidote. Sharp contact at 70°.								
7.6	19.8	12.2	Rhyolite Tuff Breccia. Light tan green. Contains 20-30% angular to sub-rounded fragments of quartz which vary in size up to 5 cm. with the majority between 1 mm and 1 cm. Original bedding was 25-30° to A of C. This has been cut by strong fracturing at 70-90° to A of C with minor movement along them. Contains minor pyrite and phyrrotite mineralization which is diss. and as veinlets along original bedding and post bedding fracture surfaces. 50% of post bedding fractures have been quartz filled. Also contains minor chlorite along fractures which gives light green color.	24751	7.6	9.4	1.8	0.023	0.23		
				24752	12.2	12.7	0.5	0.171	0.76		
			10.0-10.3 Strong bedding at 35° to A.								
			12.2-12.7 Strong quartz filled, fractures at								

DIAMOND DRILL RECORD

PROPERTY CARMAC BEVERDELL

HOLE No. _____

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-1 Sheet No. 2 of 5 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	AU	AG		
FROM	TO										
7.6	19.8		80° to A & C. 2.5-5.0 cm wide, well-mineralized with pyrite, arsenopyrite pyrrhotite and galena. At 12.5 cm. of sulphides 80% arsenopyrite 20% pyrite.								
			12.7-13.0 Fault zone 80° to A & C sharp contacts. Vuggy and limonite-stained fracture. Contains 10 cm fragments of argillite. Minor pyrite mineralization.								
			13.0-19.8 Rhyolite tuff breccia as above with slight increase in the percentage of pyrrhotite.								
19.8	20.2	0.4	Argillite - Black fine-grained Contact at 60° to A of C. (sharp) 1 mm-1 cm. stringers of quartz at 50-70° to A of C with a few minor finer stringers randomly oriented. Minor diss. pyrite. Contact at 45° to A of C.								
20.2	34.2	14.0	Rhyolite Tuff Breccia. Light Tan-green as above.	24753	20.2	21.3	1.1	0.017	0.09		
			20.2-22.4 Contains diss. & blebs of pyrite, pyrrhotite and arseno mineralization.	24754	21.3	22.4	1.1	0.009	0.09		
			22.4-22.6 Very tight limonite stained fault zone.								

DIAMOND DRILL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-1

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-1 Sheet No. 3 of 5 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	AU	AG		
FROM	TO										
			22.6- Contains minor pyrite & pyrr.								
			30.2-31.4 Contains 3-7 cm breccia fragments of black fine-grained argillite.								
34.2	35.2	1.0	Argillite, Black fine-grained. Faulted limonite stained brecciated contacts at 60° to A of C. Contains minor randomly oriented quartz stringers and minor diss. pyrite.	24759	34.2	35.2	1.0	-	0.01		
35.2	39.2	3.8	Rhyolite Tuff Breccia. With limonite stained fracture surfaces. 35.8 - 10 cm fragments of black argillite.								
39.2	39.3	0.1	Argillite - Black fine-grained. Web-like randomly oriented quartz stringers.								
39.3	39.5	0.2	Rhyolite Tuff Breccia - Tan-green colour.								
39.5	40.1	0.6	Argillite. Black fine-grained. Irreg. brecciated contact at 45° to A of C. Contains minor web- like qtz. stringers. In centre contains 4 cm								

DIAMOND DRILL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-1

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 81-1 Sheet No. 4 of 5 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
			fragments of rhyolite tuff breccia. Minor diss. pyrite 7 pyrr. Sharp contact at 55° to A of C.								
40.1	42.5	2.4	Rhyolite Tuff Breccia. Light tan-green. Brecciated fragments of argillite in first 30 cm from contact. 41.3 & 42.1 shows clear bedding at 45° to A of C.								
42.5	48.2	5.5	Rhyolite Tuff. Sharp contact at 70° to A of C. Light tan-green. Shows 1-2 metre individual beds at 45-60° to A of C. Post-bedding cross-fracturing at 90° to bedding. Minor diss. chlorite. No sulphides.								
48.2	48.7	0.5	Rhyolite Tuff Breccia. Light tan-green. Minor pyrite and pyrr. mineralization.								
48.7	49.1	0.4	Dyke. Medium green, porphyritic. Contacts are sharp but brecciated. Contains minor pyrite & pyrr. mineralization.								

DIAMOND DRILL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-1

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. <u>81-1</u>	Sheet No. <u>5-5</u>	Lat. _____	Total Depth _____
Section _____		Dep. _____	Logged By _____
Date Begun _____		Bearing _____	Claim _____
Date Finished _____		Elev. Collar _____	Core Size _____
Date Logged _____			

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	AU	AG		
FROM	TO										
49.1	53.4	3.4	Rhyolite Tuff Breccia - Light tan-green. Contains 20% qtz. fragments. Minor pyrite & pyrr. min. Bedding (2-3 m) at 50-60° to A of C. Intense X-fracturing at 90° to bedding.	24760	51.8	52.3	0.5	.018	0.01		
			53.4 EOH								
			% Recovery 97.3								

DIAMOND DRILL RECORD

PROPERTY CARMAC-BEAVERDELL

HOLE No. 81-2

DIP TEST		
Footage	Angle	
	Reading	Corrected
0	70°	

Hole No. 81-2 Sheet No. 1 of 3 Lat. _____
 Section _____ Dep. _____
 Date Begun Nov. 2/81 Bearing Az 128°
 Date Finished Nov. 2/81 Elev. Collar 1420
 Date Logged Nov. 2/81

Total Depth 41.5
 Logged By R. Hogarth
 Claim _____
 Core Size _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
0.0	3.7		Casing								
3.7	9.9	6.2	Dyke. Dark green feldspar porphyritic. Diss. fragments of biotite, epidote and chlorite. Minor diss. pyrite & pyrr. min. Sharp contact at 65° to A of C.								
9.9	12.9	3.0	Rhyolite Tuff Breccia. Light tan-green. Fine-grained 10% qtz. breccia fragments. Bedding at 50-60° to A of C.								
12.9	14.6	1.6	Argillite. Black fine-grained. Brecciated contact 60° to A of C. Randomly oriented web-like qtz-carb. stringers 7 cm of rhyolite tuff breccia at 13.9. Contains minor diss. pyrite & pyrr. min.								
14.6	21.6	7.0	10-100 cm sections of R.T. breccia interbedded w/ argillite. Some contacts sharp at 60° to A of C, some highly brecciated & gradual. Minor pyrite & pyrr. min.								

DIAMOND \square LL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-2

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-2 Sheet No. 2 of 3 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
21.6	24.8	3.0	Rhyolite Tuff Breccia. Brecciated contact approx. 60° to A of C. Light green. Contains 30% qtz. fragments. Minor pyrite & pyrr. min. 24.6 - 15 cm of black argillite.								
24.8	29.7	4.8	Rhyolite Tuff Breccia. Bedding 45-60° to A of C. Light green fine-grained matrix. Brecciated w/ 1 mm to 15 cm fragments of light brown to grey rhyolite. Contact 50° to A of C.								
29.7	36.0	6.0	Argillite. Black, fine-grained cut by minor beds and brecciated w/ rhyolite tuff breccia fragments which vary from 1-15 cm. Very re-worked bed. Minor pyrite & pyrr. min. Bed has been silicified.								
36.0	41.5	6.0	Rhyolite Tuff Breccia. Light tan-green fine-grained. 36.0-39.6 RTB has light green matrix & is brecciated w/ 1-10 cm fragments of brown rhyolite. In places a flow structure noted at 15° to A of C.								

DIAMOND DRILL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-2

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81.2 Sheet No. 3 of 3 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE					
FROM	TO											
			but bedding is 45° to A of C.									
			39-6-41.5 Same as above but contains approx. 5% qtz. (1 mm-2 cm) fragments.									
			41.5 EOH									
			% Recovery 98.6									

DIAMOND DRILL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-3

DIP TEST		
Footage	Angle	
	Reading	Corrected
0	-35°	

Hole No. 81-3 Sheet No. 1 of 3 Lat. _____ Total Depth 37.8
 Section _____ Dep. _____ Logged By R. Hogarth
 Date Begun Nov. 3/81 Bearing 128° Claim _____
 Date Finished Nov. 3/81 Elev. Collar 420 Core Size NQ
 Date Logged Nov. 5/81

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	AU	AG		
FROM	TO										
0.0	1.2		Casing								
1.2	3.4	2.2	Dyke Dark green feldspar porphyritic. Minor diss. chlorite, epidote and biotite fragments. Minor diss. pyrite & pyrr.								
3.4	13.3	9.5	Rhyolite Tuff Breccia. Core is very broken & fracture surfaces are limonite stained. Light tan-green w/ 7-10% quartz fragments. Bedding at 45° to A of C. Strong X-fracturing at 90° to bedding. 4.1-4.4 Fault zone. 6.7 & 7.8 30 cm sections of silicified argillite. Contains minor diss. pyrite & pyrr.								
13.3	15.2	1.9	Rhyolite Tuff Breccia. Dark green fine grained with 10% qtz.-carb. stringers. 13.6-13.9 Brecciated w/ qtz.-carb. forming 50% of matrix. Alignment of qtz.-carb. at 20° to A of C. X-cutting bedding at approx. 65°. Contact 45° to A of C.	24755	13.3	15.2	1.9	0.046	0.07		

DIAMOND α LL RECORD

PROPERTY CARMAC BEAVERDELL

HOLE No. 81-3

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-3 Sheet No. 2 of 3 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	AU	AG			
FROM	TO											
15.2	17.8	2.6	Rhyolite Tuff. Light green, fine-grained. A few minor qtz.-carb. stringers. Last 30 cm is well mineralized w/ pyrr. & minor pyrite. Contact at 90° to A of C.									
17.8	18.9	1.0	Rhyolite Tuff breccia. Light green w/ 25% qtz. fragments. Contains 1% mainly pyrrhotite w/ minor pyrite.									
18.9	19.5	0.6	Rhyolite-Dark green, chloritic. Indistinct brecciated contacts. 19.0-19.3 Vein zone. Strong arsenopyrite, pyrite & pyrr. min. (15% combined). Cutting core at 15-70°. Main angle 70°. Overall vein is very weak.	24756	19.0	19.3	0.3	0.212	0.16			
19.5	21.1	1.6	Rhyolite Tuff. Medium green chloritic. Contact at 45° to A of C. Contains minor web-like qtz.-carb. stringers. Minor pyrite & pyrr. mineralization.									

DIAMOND DRILL RECORD

PROPERTY CARMAC-BEAVERDELL

HOLE No. 81-3

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-3 Sheet No. 3 of 3 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	AU	AG		
FROM	TO										
21.1	25.6	4.3	Rhyolite Tuff Breccia. Light tan green. Contact 45° to A of C. Brecciated w/ 20% qtz. & 20% tan rhyolite fragments which vary from 1 mm to 4 cm. Strong randomly oriented flow structures can be seen in the bed. Contains minor pyrite & pyrr. min.	24761	21.6	22.1	0.5	-	0.02		
				62	24.3	24.9	0.6	-	0.01		
25.6	26.1	0.5	Rhyolite Tuff Breccia. Light green. Gradational brecciated contact.								
26.1	36.9	10.5	Sediments - Light green. Sharp contact at 80° to A of C. Contains a few minor qtz.-carb. stringers. Fracture surfaces are limonite stained. Some sections show intense fracturing. Contains a few 1-5 cm sections of garnet skarn.	24763	32.3	33.6	1.3	0.022	0.08		
				64	33.6	34.9	1.3	0.065	0.03		
36.9	37.8	0.9	Rhyolite Tuff Breccia. Light green, 20% quartz fragments. Sharp contact at 45° to A of C. Contains 15% fragments of tan rhyolite. % Recovery 97.0								
			37.8 EOH								

DIAMOND DRILL RECORD

PROPERTY CARMAC - BEAVERDELL

HOLE No. 81-4

DIP TEST		
Footage	Angle	
	Reading	Corrected
0	-63°	

Hole No. _____ Sheet No. 1 of 4 Lat. _____ Total Depth 47.6
 Section _____ Dep. _____ Logged By R. Hogarth
 Date Begun Nov 4/81 Bearing Az 128° Claim _____
 Date Finished Nov 4/81 Elev. Collar 1420 Core Size NQ
 Date Logged Nov 6/81

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
0.0	1.3		Casing								
1.3	4.4		Dyke - Dark green, feldspar, porphyritic. Contains minor diss. pyrite & pyrrhotite min.								
4.4	5.8	1.4	Rhyolite Tuff Breccia. Light tan green. 15% angular (1 mm - 3 cm) fragments of quartz. X-fracturing approx 80° to bedding. Contains minor pyrite & pyrr. mineralization.								
5.8	6.4	0.6	Rhyolite Tuff Breccia. Brecciated and mixed up bed containing 40% argillite								
6.4	7.1	0.7	Argillite - with 15% rhyolite. Flow banding at 45° to A of C. Minor diss. pyrite & pyrr.								
7.1	10.5	3.4	Rhyolite Tuff Breccia. Contact 60° varies from light to medium green. Bed has been broken in place and recemented with chlorite along new fracture surfaces. Contains 5% qtz fragments								

DIAMOND D. .LL RECORD

PROPERTY CARMAC

HOLE No. _____

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-4 Sheet No. 2 of 4 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE						
FROM	TO												
10.5	11.1	0.6	Rhyolite Tuff Breccia. Medium green chloritic. Contact 60° to A of C. Strong banding at 50-60° to A of C. Web-like randomly oriented qtz - carb stringers. Contains 10% angular quartz fragments.										
11.1	13.0	1.7	Rhyolite Tuff. Light green to grey. Strong banding along contacts at 60° to A of C. Slight brecciation in central 2.0'. Increase in pyrite & pyrr mineralization.										
13.0	16.7	3.6	Rhyolite Agglomerate - Contact 50° to A of C. Medium green, fine grained matrix. Angular fragments vary from 1 mm - 4 cm minor pyrite & pyrr min.										
16.7	18.6	1.9	Rhyolite Tuff Breccia. 5 cm of strong pyrite & pyrr min at 60° contact. Light tan green with 10% quartz fragments. Shows flow banding at 30-40° to A of C.										

DIAMOND DRILL RECORD

PROPERTY CARMAC

HOLE No. _____

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-4 Sheet No. 3 of 4 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
18.6	20.6	2.0	Sediment. Appears almost andesetic medium green colour. Medium grained. Fractured and recemented in place. Chlorite along fracture surfaces minor pyrite & pyrr minerlization. Contact at 45° to A of C.								
20.6	25.3	4.0	Rhyolite Tuff Breccia. Light green & tan matrix indicate two rock types settling under turbulent conditions. 5% quartz fragments. In places strong fracturing at 90° to A of C.								
25.3	47.6	21.0	Cherty Sediments. Colour varies from light tan green to grey. Composed of rhyolite to silicified argillite. Sharp contact at 45° to A of C. Minor randomly oriented qtz-carb stringers. Slight brecciation in places. Minor diss pyrite & pyrr.								
			47.6 EOH								
			%Recovery = 88.7								

DIAMOND DRILL RECORD

PROPERTY CARMAC - BEAVERDELL

HOLE No. 81-5

DIP TEST		
Footage	Angle	
	Reading	Corrected
0.0	-50°	

Hole No. _____ Sheet No. 1 of 5 Lat. _____ Total Depth 122.6
 Section _____ Dep. _____ Logged By R. Hogarth
 Date Begun Nov 5/81 Bearing _____ Claim _____
 Date Finished Nov 7/81 Elev. Collar _____ Core Size NO
 Date Logged Nov 8/81

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	Au	Ag		
FROM	TO										
0.0	6.7		Casing								
6.7	29.4	20.5	Quartz Diorite. Contains minor diss pyrite minor randomly oriented qtz-carb stringers 6.7-7.3 core is slightly leached indicating the possibility of a vein in the casing.	24765	15.5	17.0	1.5	--	0.06		
			17.0-19.1 Diorite shows alteration by leaching.	66	17.0	19.1	2.1	0.005	0.01		
			Contains 0.5 - 1% pyrite 19.1-19.7 vein zone - Leached & altered diorite with minor qtz-carb. stringers and 1% FeS ₂ min.	67	19.1	19.7	0.6	--	0.06		
			23.8-24.3 Leaching due to vein 24.3-24.6 vein zone. Sharp contact 70° to A of C. Qtz-carb with 15% lacy pyrite.	24768	24.3	24.6	0.3	0.182	0.02		
			26.8 - 29.4 slight leaching alteration								
29.4	31.2	1.8	Dyke - Dark green porphyritic. Minor randomly oriented qtz-carb stringers fine grained								
31.2	41.8	9.5	Quartz Diorite. Light green due to chlorite Leached and altered to a minor degree contains minor diss pyrite.								

DIAMOND DRILL RECORD

PROPERTY CARMAC

HOLE No. _____

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-5 Sheet No. 2 of 5 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	Au	Ag		
FROM	TO										
41.8	45.7	3.7	Cherty Sediments (Rhyolite) Indistinct contact between rhyolite & sediments & diorite are 50-50								
			41.5-43.6. Strong 1-2% pyrite min.	24769	41.5	43.6	2.1	--	0.02		
45.7	52.1	5.5	Rhyolite Tuff. Light green, fine grained very siliceous contains minor web-like qtz-carb stringers. Contains a few minor diorite boulders (10-30 cm). Minor diss & stringers of pyrite. Core is very broken. Strong fracturing through core.								
			50.4-52.1 Sediments become fairly well mineralized with pyrite.	24770	51.3	52.1	0.8	--	0.02		
52.1	61.7	9.0	Dyke. Light green, porphyritic with 1-5 min feldspar crystals (10-15%) Diss blebs of dark green to black mineral. Minor diss pyrite. Sharp contacts at 90 & 70° to A of C.								

DIAMOND DRILL RECORD

PROPERTY CARMAC

HOLE No. _____

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-5 Sheet No. 3 of 5 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
61.7	69.2	6.1	Sediments-Diorite. Very siliceous cherty sediments with diorite boulders up to 1 m. Diorite is leached and altered. Sediments have been highly fractured and reformed. Minor randomly oriented qtz-carb stringers. Minor diss pyrite. Core is very fractured.								
69.2	77.4	8.0	Dyke - Sharp contact 45° to A of C. 69.2 - 71.2 Dark green fine grained porphyritic.								
69.2	77.4	8.0	71.2-72.3 - Medium green coarser grained, porphyritic. 10% 1-4 mm feldspar crystals. Minor epidote alteration. 72.3 - 75.2 over 30 cm gradual change back to dark green fine grained porphyritic dyke. 75.2 - 75.5 Fault zone gauge & fragments of dyke. 75.5 - 77.1 medium green porphyritic dyke 77.1 - 77.4 fault zone - dyke fragments.								

DIAMOND DRILL RECORD

PROPERTY CARMAC

HOLE No. _____

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 81-5 Sheet No. 4 of 5 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE	Au	Ag		
FROM	TO										
77.4	79.6	2.0	Sediments - very altered, slightly siliceous, vuggy, highly fractured containing boulders of diorite. Minor epidote alteration.								
			77.7 - 78.0 Fault Zone - gauge & fragments								
79.6	80.2	0.6	Vein Zone - medium green, slightly siliceous sediments with 20% lacy pyrite and 10% qtz - carb.	24771	79.6	80.2	0.6	0.016	0.14		
80.2	94.8	12.2	Rhyolite Tuff (Sediments) Light green siliceous. Minor brecciation minor epidote alteration. Core is broken and surface is vuggy. Minor randomly oriented qtz-carb stringers core has been intensely fractured and recemented. Minor diss pyrite min.								

DIAMOND DRILL RECORD

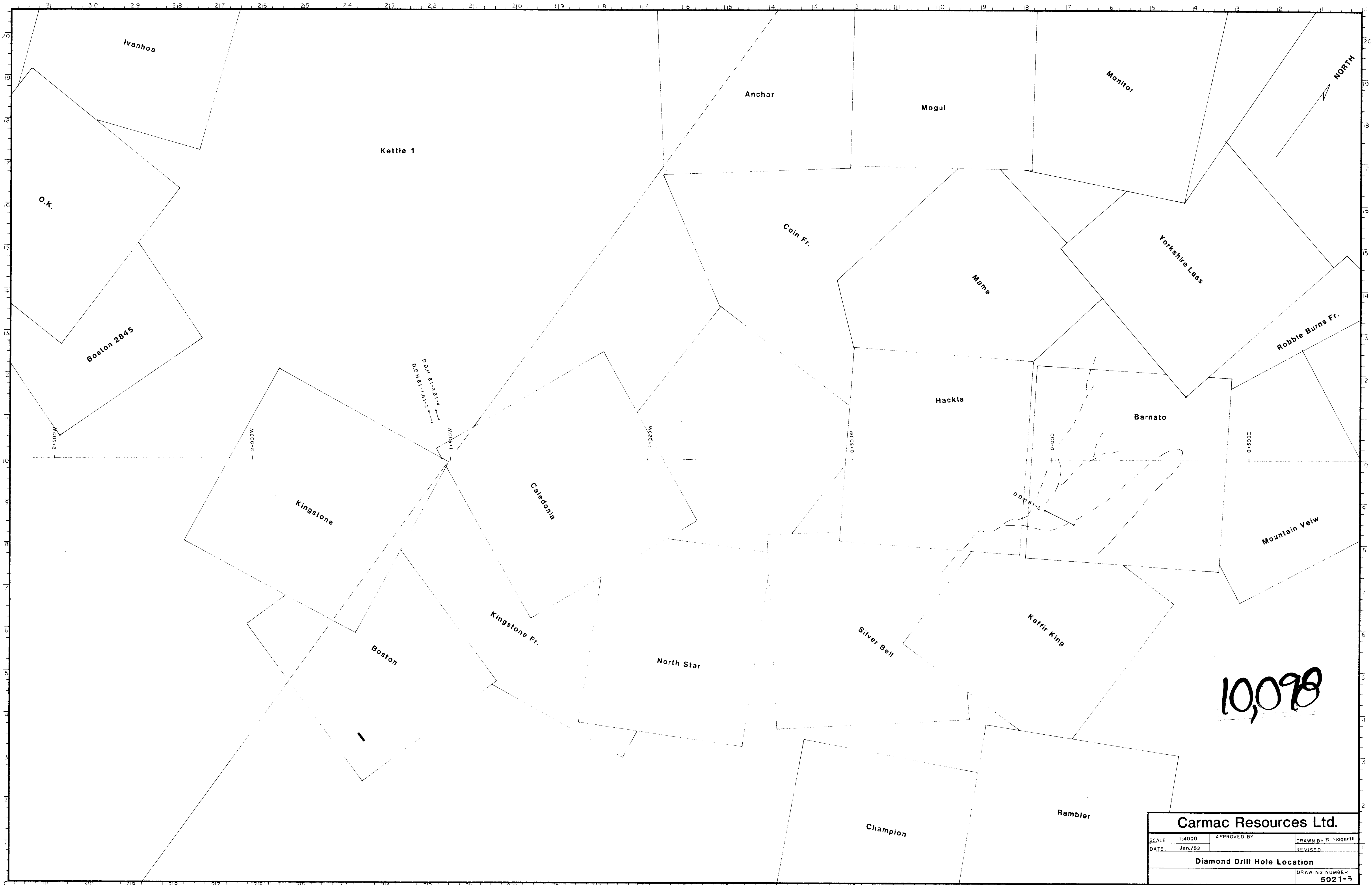
PROPERTY CARMAC

HOLE No. _____

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 81-5 Sheet No. 5 of 5 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
94.8	108.6	12.5	Dyke - medium green porphyritic with 10% 1.4 mm feldspar crystals 98.8 Dyke becomes finer grained dark green and feldspar fragments are smaller. Sharp contact 80° to A of C.								
108.6	122.6	11.3	Rhyolite Tuff & Breccia - Light green slightly siliceous minor brecciation with tan rhyolite minor epidote alteration. Core is very fractured and surface is vuggy. Minor randomly oriented qtz- carb stringers. Minor diss pyrtie. Same as before dyke. 122.6E0H								
			% Recovery = 95.8								



10,098

Carmac Resources Ltd.		
SCALE 1:4000	APPROVED BY	DRAWN BY R. Hogarth
DATE Jan./82		REVISED
Diamond Drill Hole Location		
		DRAWING NUMBER 5021-5