

FINANCIAL ASSISTANCE FOR MINERAL EXPLORATION
GRANT IDENTIFICATION NO. 10962 E-169

HELLROARING GROUP
INDUSTRIAL MINERALS PROJECT
BRITISH COLUMBIA
FORT STEELE MINING DIVISION

FILMED

NTS 82 F/9
Lat. 49°35'N
Long. 116°10'W

Owners: Barnwell of Canada, Limited
Colt Exploration (Western) Ltd.
Fairholme Development Limited
Lumberton Mines Limited

Operator: Lumberton Mines Limited

Submitted by: S.M. Pudifin
Date: November 24, 1986

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,760

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1.0 SUMMARY

The Hellroaring Creek industrial minerals prospect is situated in the St. Mary's Lake area of the Purcell Range, southwest of Kimberley, British Columbia. Known for decades, the Hellroaring Creek stock was only recently recognized as an immense potential deposit of industrial feldspar, quartz and muscovite. All principal constituents of the pegmatite ore are environmentally benign and, preliminary studies indicate, readily marketable.

Exploration work in 1986 included grid establishment, roadbuilding, trenching, mapping and drilling 21 BQ diamond drill holes totalling 2010.4 m of core. Field work this year commenced July 17, 1986 and continued through until November 10, 1986.

The exploration program conducted on the property this field season has increased and established new areas of mineable reserves. Flotation and analytical work on the core is being conducted to test the grade of the rock drilled.

2.0 INTRODUCTION

2.1 Geographic and Physiographic Location

The Hellroaring group of 79 claim units is situated 25 km southwest of Kimberley, British Columbia in the Purcell Mountains. Access to the area is by 20 km along the paved Kimberley - St. Mary's Lake highway, followed by five km of Crestbrook Forest Products gravelled road.

The property is situated in a well-treed area which is currently being logged. Elevations on the property range between 1170 m at Hellroaring Creek and approximately 1735 m at the highest pegmatite occurrence.

2.2 Property Definition

The Hellroaring Group property consists of 79 contiguous units comprising 1841 hectares. Initially, four claims, the Moneca, Scout, Cub and Sara were purchased by Bearcat Explorations Ltd. In January, 1984 the Kelly claim was staked by a representative of Lumberton Mines Limited, a 100% owned subsidiary of Bearcat Explorations Ltd. All five claims were grouped on November 5, 1984 into the Hellroaring Group.

The current owners include:

Lumberton Mines Limited	65% interest
Barnwell of Canada, Limited	25% interest
Colt Exploration (Western) Ltd.	5% interest
Fairholme Development Limited	5% interest

Lumberton Mines Limited is the recorded holder of the claims and also the appointed operator.

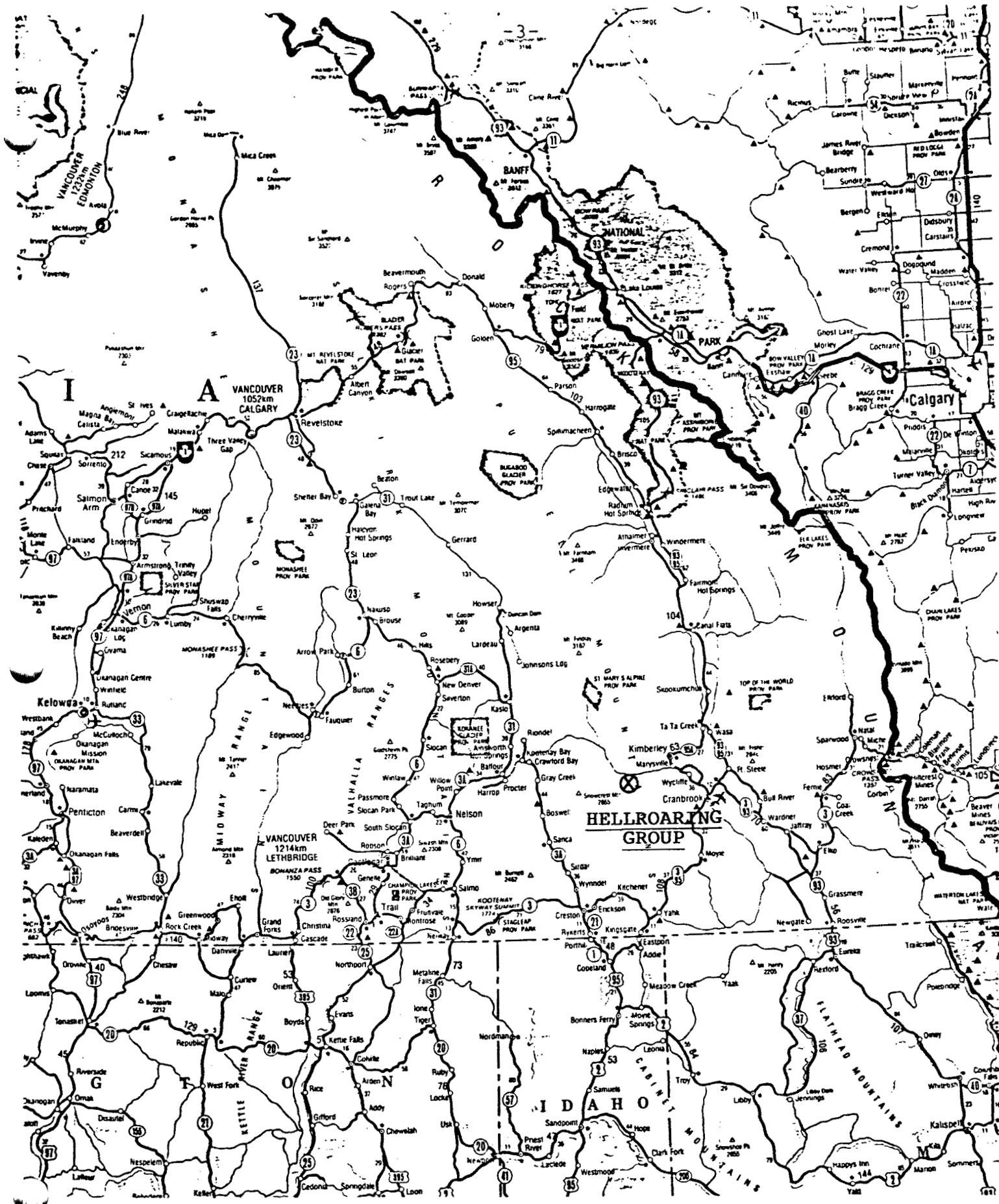


Figure 2.1 Regional Location Map of Hellroaring Group

0 50 Km 100 Km



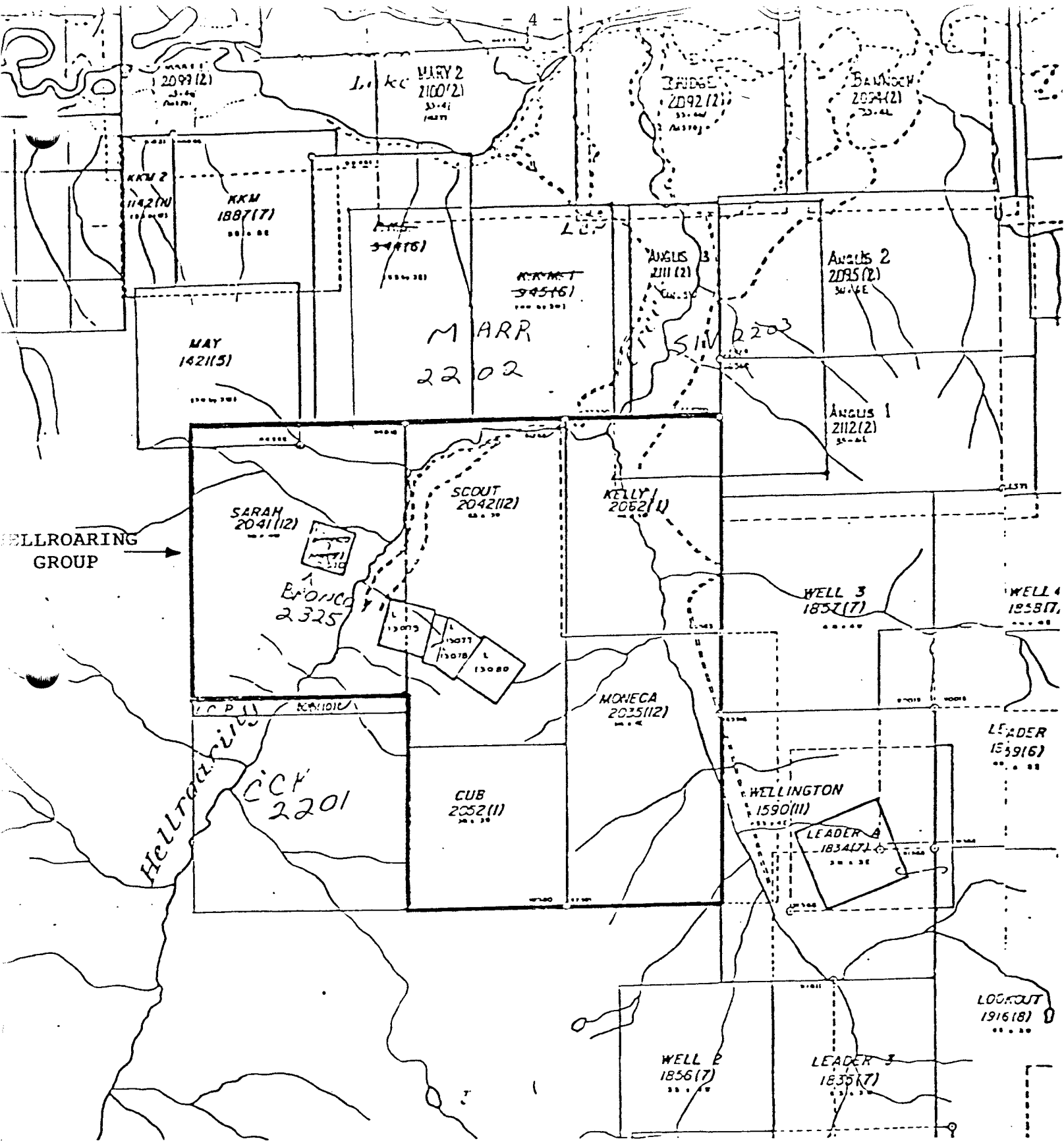
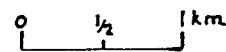


Figure 2.2 Claim Location Map of Hellroaring Group. Sarah, Scout, Kelly, Cub and Moneca claims in heavy outline. Taken from Ministry of Mines and Petroleum Resources Claim Map, 82F/9E.

Scale 1:5000



3.0 EXPLORATION

3.1 Previous Work

The area has been mapped by the Geological Survey of Canada, Rice, 1941, and again in more detail by Leech in 1957. It was over this period that a Vancouver based group promoted a base metal development on the west flank of the anticline. An underground operation on four Crown-granted claims known as the Boy Scout Group produced very limited amounts of lead, zinc, minimal traces of silver and gold in quartz veins within Aldridge quartzites.

The Hellroaring Creek stock was staked and assessed by the Richfield Oil Corporation in the mid 1960's as a potential beryllium prospect. Most of their work was concentrated on the northernmost extremities of the pegmatite and they concluded the prospect to be too low grade at the time.

It was as a potential beryllium deposit that the Hellroaring Creek prospect first came to the attention of Lumberton Mines Limited. In 1984, a 32.4 km grid was established from Angus Creek in the southeast to Hellroaring Creek in the northwest. After prospecting, mapping and construction of roads, a total of 500 m of HQ core was drilled. Economic amounts of beryllium were disproved, though the presence of an immense amount of industrial minerals in the pegmatite was indicated.

In the following 1985 field season, the construction of roads continued and mapping identified three main outcrop areas of interest; A, B and C. Eight holes totalling 574.15 m of core were completed in Zone A. This pegmatite was extensively sampled and samples were submitted to competing laboratories for analysis.

3.2 Objectives of the 1986 Program

Objectives of the 1986 program were to explore and develop the industrial mineral potential of the Hellroaring Group pegmatite. Industrial minerals of economic interest are feldspar, quartz and muscovite. Extensive drilling and additional mapping were necessary to expand the indicated industrial mineral reserves of Zone A and delineate additional ore reserves in Zones B and C. Close liaison on this project has been maintained with Vancouver based engineering consultants, Dolmage Campbell.

3.3 Field Method

The 1986 field program commenced July 17, 1986 and continued through until November 10, 1986. 6.05 kms of additional grid were established on the property using chain, compass and clinometer.

Utilizing UH-07 Hitachi and 490-B John Deere backhoes, roads were up-graded and approximately 1.0 km of additional roads were constructed to selected drill locations. 819 m² of subcrop were exposed by trenching. All trenches were done by hand, except for #11 which was done using a backhoe.

2010.4 m of BQ core was drilled using a Longyear Hydrocore - 28 diamond drill. All recovered core has been logged lithologically, split and stored in core racks.

4.0 GEOLOGY

The Hellroaring Group of claims occur within the middle Proterozoic Purcell Supergroup of clastic and carbonate rocks. The lower part of the Purcell Supergroup is exposed on the property. At the base of the Supergroup, the Aldridge Formation

is comprised of argillites, siltstones and fine grained quartzites, and is conformably overlain by shallow water Creston Formation sediments and the clastic Kitchener Formation (Hoy, 1982).

The Moyie diorite, considered to be at least 1225 m.a. (Ryan and Blenkinsop, 1971) intrudes the Purcell Supergroup.

The East Kootenay orogeny produced uplift, folding, tilting, faulting and granitic intrusion. Ryan and Blenkinsop (1971) dated the Hellroaring stock as slightly younger than 1225 m.a. The stock consists of a coarse grained granodioritic pegmatite.

The pegmatite is exposed over approximately 4 km in extent and approximately 1.5 km in width. The configuration of the pegmatite appears to be irregular in thickness and evidence is inconclusive, at this time, as to its shape.

5.0 DRILLING

A Longyear 28 Hydro-core diamond drill was mobilized to the property July 30, 1986. Drilling commenced August 4th and continued until November 7th. The core was logged and split.

The drilling was conducted under contract by:

Mancore Drilling (1984) Ltd.
P.O. Box 68
Kimberley, British Columbia

A core storage facility is located on the Palmer Bar Ranch, Lumberton, British Columbia. The core can be viewed by contacting Mr. E.J. Phillips at the following address:

Box 17
Site 8, R.R. 2
Cranbrook, British Columbia

5.1 Targets

Twenty-one holes of BQ core totalling 2010.4 m (6627 ft.) were drilled to further delineate the extent of the pegmatite at depth and to establish mineable reserves of feldspar-rich zones. A summary of drill locations, depths and azimuths can be found in Table 5.1 on page 9. Map 1 shows the locations of all holes. Drill logs are in Appendix 1.

5.2 Results

Drilling revealed extensive areas of relatively "clean" pegmatite void of significant contamination (concentrations of tourmaline, iron and manganese staining and occasional traces of sulphides).

Feldspar is the most abundant mineral averaging between 65% and 70% of the pegmatite. Analyses to date indicate the feldspar to be a mixture of both potassium rich microcline and sodic-plagioclase.

Quartz occurs as large blocks up to two metres in length as well as in aplitic and graphic phases. It comprises, on average, approximately 25% of the pegmatite.

Muscovite comprising approximately 5% of the intrusive, occurs as fine grained fracture coatings and as large books up to 10 cm in diameter. Schorl is the most common accessory mineral found and is present as very fine grained, feathery crystals, to coarse crystals exceeding 3 cm in diameter and

TABLE 5.1: DIAMOND DRILL HOLE SUMMARY

<u>D.D.H.</u>	<u>LOCATION</u>	<u>DEPTH</u>	<u>AZIMUTH/ANGLE</u>	<u>ELEVATION</u>
84-1	C BL 0/0+00	110.64 m	Vertical	1725.5 m
85-1	L 0+70N/2+00W	84.70 m	325°/-70°	
85-2	L 0+70N/2+00W	63.10 m	145°/-70°	
85-3	L 0+88N/1+50W	104.80 m	325°/-70°	
85-4	L 0+88N/1+50W	66.45 m	145°/-70°	
85-5	L 0+78N/1+75W	95.40 m	325°/-70°	
85-6	L 0+78N/1+75W	57.30 m	145°/-60°	
85-7	1+40N/1+25W	68.00 m	334°/-70°	
85-8	1+40N/1+25W	34.40 m	154°/-65°	
86-1	B BL 0+10S/0+25W	93.60 m	295°/-70°	1629.5 m
86-2	B BL 0+10S/0+25W	34.40 m	115°/-60°	1629.5 m
86-3	B 0+25N/0+25W	113.73 m	295°/80°	1621.5 m
86-4	B 0+25N/0+25W	92.35 m	115°/50°	1621.5 m
86-5	B 0+50N/0+07W	119.78 m	295°/-70°	1612.0 m
86-6	B 0+50N/0+07W	95.40 m	115°/-60°	1612.0 m
86-7	B 1+00N/0+06E	125.88 m	295°/-75°	1598.5 m
86-8	B 1+00N/0+06E	89.30 m	115°/-55°	1598.5 m
86-9	B 1+25N/0+10E	124.30 m	295°/-75°	1577.5 m
86-10	B 1+25N/0+10E	114.90 m	115°/-60°	1577.5 m
86-11	1+51N/0+01W '85 grid	58.84 m	270°/-70°	1649.0 m
86-12	1+51N/0+01W '85 grid	46.60 m	090°/-65°	1649.0 m
86-13	B 0+50S/0+10W '86 grid	180.60 m	Vertical	1623.0 m
86-14	0+25N/1+75W '85 grid	39.00 m	Vertical	1658.0 m
86-15	C BL 0/0+25N	84.50 m	090°/-70°	1719.0 m
86-16	C BL 0/0+25N	84.70 m	270°/-60°	1719.0 m
86-17	C BL 0/0+25S	80.50 m	090°/-60°	1725.0 m
86-18	C BL 0/0+25S	86.30 m	270°/-70°	1725.0 m
86-19	C BL 0/0+75S	81.70 m	Vertical	1726.5 m
86-20	0+25N/2+00W '85 grid	104.60 m	Vertical	1643.0 m
86-21	B 1+54.5N/0+19.5E	159.40 m	000°/-65°	1527.0 m

The shallow depth and competence of the rock obviated any need for dip testing.

10 cm in length. Percentages of this tourmaline vary irregularly with few zones being completely void of the mineral. Other accessory minerals include pink garnets. Occasional traces of pyrrhotite, pyrite and galena were also observed. Manganese and iron staining is common.

To date, thicknesses of up to 150 m have been drilled into the pegmatite, and several holes were terminated in quartzite or diorite. Contacts between the pegmatite and quartzite are usually very sharp. The sediments are metamorphosed with abundant fine grained tourmaline commonly present, and it is considered that the sediments may be xenoliths within the pegmatite, but evidence is inconclusive.

Four representative samples of core based on visual amounts of contamination were selected and sent for metallurgical bench testing to North Carolina State University, Mineral Research Laboratory. Preliminary evaluations are complete. The following table identifies the sample intervals:

MRL #1	Sample: Pegmatite
	Composition: Blocky very clean-clean crystalline quartz, feldspar, muscovite with less than traces of tourmaline, garnet, negligible staining
	DDH 86-1: @ 62.3 m
	DDH 86-1: 61.3 - 61.5 m
	DDH 86-5: 105.3 - 105.8 m
	DDH 86-7: 125.0 - 125.2 m
	DDH 86-9: 101.0 - 101.1 m
	DDH 86-9: 111.1 - 111.5 m
	DDH 86-9: 123.9 - 124.3 m
	Total weight: 2.40 kg

MRL #2 Sample: Pegmatite
Composition: Clean crystalline quartz, feldspar,
muscovite, negligible tourmaline with abundant Fe
and Mn stain

DDH 86-1: 63.1 - 63.4 m
DDH 86-9: 70.9 - 71.0 m
DDH 86-13: 13.5 - 14.2 m
DDH 86-15: 3.4 - 3.7 m
DDH 86-15: 34.83 - 34.90 m
DDH 86-16: @ 38.5 m

Total weight: 2.42 kg

MRL #3 Sample: Pegmatite
Composition: Coarse - med. crystalline, feldspar,
quartz, muscovite with 2-3% med.-coarse crystalline
tourmaline, negligible staining

DDH 86-1: 21.2 - 21.6 m
DDH 86-1: 59.08 - 59.15 m
DDH 86-5: 119.45 - 119.78 m
DDH 86-9: 2.9 - 3.3 m
DDH 86-9: 7.2 - 7.4 m
DDH 86-9: @ 101.8 m
DDH 86-14: 38.15 - 38.25 m

Total weight: 2.10 kg

MRL #4 Sample: Pegmatite
Composition: Aplitic, very fine-fine crystalline,
feldspar, quartz, muscovite, 3-8% tourmaline, 1-2%
garnet and minor Fe stain

DDH 86-9: 103.8 - 103.9 m
DDH 86-9: 105.0 - 105.1 m
DDH 86-9: 107.3 - 107.6 m
DDH 86-9: 121.6 - 122.2 m
DDH 86-14: 28.24 - 28.34 m
DDH 86-14: 38.25 - 38.45 m

Total weight: 1.74 kg

6.0 PHYSICAL WORK - 1986

6.1 Grid Establishment

1.85 km of grid were established in Zone C and 4.20 km in Zone B using chain, compass and clinometer. The baselines trend north-south with crosslines running east-west. All lines are flagged and picketed.

6.2 Trenching

In order to expose geological contacts as well as extensions of the pegmatite several areas were hand-trenched and a backhoe was utilized for areas with excessive overburden. Twelve trenches totalling 819 m² of exposure were established. Table 6.2 provides a list of locations and dimensions of each trench.

6.3 Roadbuilding

Approximately 1.0 km of new roads were emplaced for access to Zone B. The roads are approximately four metres wide and suitable for four-wheel drive vehicles. All new roads are adequately ditched for necessary drainage.

7.0 CONCLUSIONS

Trenching, mapping and drilling has identified vast areas of mineable reserves rich in feldspar, quartz and muscovite with little contamination of iron rich minerals. Zones of tourmaline content in excess of 1% have been delineated also.

TABLE 6.2: TRENCH SUMMARY

<u>Trench</u>	<u>Location</u>	<u>Length X Width X Depth (metres)</u>
1	BL: 1+50N	100 x 1 x 1
2	1+50N:0+25E	95 x 1 x 1
3	1+50N:0+50E	75 x 1 x 1
4	1+50N:0+75E	65 x 1 x 1
5	1+50N:1+00E	60 x 1 x 1
6	1+50N:1+25E	65 x 1 x 1
7	0+75N:0+75E	10 x 1 x 1
8	0+75N:1+25E	10 x 1 x 1
9	DDH 86-1 to DDH 85-7	185 x 1 x 1
10	BL to 2+30N (plan view)	125 x 1 x 1
11	2+65N:0+25E	12 x 2 x 3
12	1+25N:1+75E	5 x 1 x 1

The configuration of the pegmatite is irregular in thickness and could represent a stock with xenoliths of quartzite and diorite. Further evidence is necessary to draw any firm conclusions, though.

8.0 RECOMMENDATIONS

The future of this project depends, to a great extent, on analytical and flotation results. Further samples from the different drill holes should be analyzed for their alkali content to establish uniformity of grade in the feldspar.

It is assumed, from the results of the preliminary flotation tests conducted at the Mineral Research Laboratory at North Carolina State University, that the results of the bench flotation testing will be favourable. Subsequent to this it is recommended that Lumberton Mines Limited proceed with a pilot plant metallurgical test on approximately 15-20 tonnes of pegmatite ore. In-depth market studies should follow.

Appropriate engineering studies should be conducted in the proposed mining areas.

9.0 COST STATEMENT

(A) Employment

	<u>Man</u> <u>Days</u>	<u>\$</u>
General labourers	175.5	20,696.00
Drillers/helpers	160.5	20,500.00
Geologists	139.5	28,450.00
Supervisory	<u>95.5</u>	<u>22,325.00</u>
	<u>571.0</u>	<u>91,971.00</u>

(B) Goods & Services

Contract drilling		116,141.00
Consulting		3,880.00
Assays, analysis		2,178.00
Communications		538.00
Equipment rentals		941.00
Transportation		15,644.00
Accommodation		1,547.00
Meals, groceries		3,120.00
Grid establishment, 6.05 km		6,000.00
Services, excavating, etc.		<u>9,889.00</u>
	<u>327.0</u>	<u>159,878.00</u>
TOTAL	<u>898.0</u>	<u>\$251,849.00</u>

10.0 STATEMENTS OF QUALIFICATION

I, STEPHANIE MAIA PUDIFIN OF CALGARY, ALBERTA

- 1) am a staff geologist with Bearcat Explorations Ltd.
- 2) have a B.Sc. degree in Geology from McGill University (1983)
- 3) have been working and studying in the field of mineral exploration since 1981, and
- 4) have no financial interest in the property described herein.

I, DOUGLAS L. HERRON OF CALGARY, ALBERTA

- 1) am a Consulting Geologist in Calgary, Alberta
- 2) have twenty-three years prospect and project experience
- 3) have been engaged in coring program and surface mapping, and
- 4) have no financial interest in the property described herein.

11.0 STAFF

The 1986 exploration program was accomplished with the following personnel during July 17th through November 24, 1986 inclusive:

Ed Phillips Cranbrook, British Columbia	Operations Supervisor
Maia Pudifin Calgary, Alberta	Project Geologist
Douglas L. Herron Calgary, Alberta	Consultant
John W. McLeod Calgary, Alberta	President
Robert S. Wasylshyn Calgary, Alberta	Consultant
Dave Schmidder Cranbrook, British Columbia	Field Assistant
Leith Hampton Cranbrook, British Columbia	Field Assistant
Walter Priller Cranbrook, British Columbia	Field Assistant
Ron Arnett Cranbrook, British Columbia	Field Assistant
Rory McLeod Victoria, British Columbia	Field Assistant
Carl Flaata Cranbrook, British Columbia	Field Assistant
Mancore Drilling (1984) Ltd. Kimberley, British Columbia	

12.0 REFERENCES

- Hoy, T., 1982 Stratigraphic and Structural Setting of Stratabound Lead-Zinc deposits in Southeastern British Columbia, C/M Vol. No. 75, No. 840 pp. 31-84.
- Leech, G.B., 1952, Preliminary Map, St. Mary Lake, British Columbia, G.S.C. Paper 52-15.
- Ryan, B.D. and Blenkinsop, J., Geology and Geochronology of the Hellroaring Stock, British Columbia, Cdn. Journal Earth Sciences, Vol. 8, 1971, pp. 85-95.

13.0 APPENDIX

Diamond drill logs

14.0 MAP POCKET

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-1

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-1 Sheet No. 1 Lat. _____
 Section B BLO+10S/0+25W Dep. _____
 Date Begun _____ Bearing -70° @ 295°
 Date Finished _____ Elev. Collar 1629.5 m
 Date Logged _____

Total Depth 93.6 m
 Logged By B.W.
 Claim _____
 Core Size 3.5 cm B.Q.

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE			
FROM	TO									
0.0	19.0	17.9	Predominantly med. gr. equigranular with abundant	TOURM v.f.-f. % m-c						
		94.2%	short intervals of graphic granite							
			-minor v. coarse to small block intervals							
			-top 4 m with intervals of v. fine gr. tourm.							
			-unit mostly greyish-white with common short Fe stained intervals							
			-from 14 m to 17 m interval stained Fe red brown with yellow altered feldspar	#1 Fe ₂ O ₃	17.11	17.22				
			Feldspar 65% Tourm. 0.1-0.2% (local concentrations in top 4 m)	.1-.2	0					
			Quartz 25%							
			Muscovite 5-7%							
			Pyrite Tr.							
19.0	22.50	3.5	Graphic granite - med. gr., moderately developed	#3	21.2	21.6	med.-coarse crystalline	tourmaline		
		100%	-top half greyish white with minor Fe stain							
			-bottom half reddish brown with Fe stain							
			Feldspar 75% Tourm. Tr.	tr.						
			Quartz 20% Pyrite Tr.							
			Mica 3-5%							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK 3' of stand pipe.

HOLE No. DDH 86-2

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-2 Sheet No. 1 Lat. _____
 Section B0+10S/0+25W Dep. _____
 Date Begun _____ Bearing -600@.115°
 Date Finished _____ Elev. Collar 1629.5
 Date Logged _____

Total Depth 34.4 m
 Logged By B.W.
 Claim _____
 Core Size 3.5 cm. BQ

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
0.0	8.0	6.8	Equigranular unit - med. grained with common poorly developed graphic granite. - qtz. musc. rock common. - unit mostly greyish white with common light brown Fe stain.	TOURM % v.f.-f. m-c							
		85%									
			Feldspar 60% Qtz. 30% Musc. 10%	Tourm. - trace Py - trace	tr. 0						
8.0	12.4	4.3	Graphic granite - med. grained, moderately to well developed. - common short intervals equigranular - unit greyish white with minor light brown Fe stains.								
		97.7%									
			Feldspar 70% Qtz. 25% Musc. 2-4%	Tourm. - trace Pyrite - trace	tr. 0						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-3

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-3 Sheet No. 6 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH	FROM	TO	RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE						
61.4	66.8		5.4	Equigranular unit - fine - med. grained										
			100%	- minor graphic intervals										
				- tourm present both as v. fine gr. needles and med. gr. crystals										
				- garnet dissemination throughout and mostly altered and pitted										
				- units grey to dark grey with common dark Fe staining.										
				Feldspar 65% Tourm 0.5 - 1%	.5	.5								
				Qtz. 25-30% Garnet 0.25%										
				Musc. 7-8%										
66.8	67.8		1.0	Block zone - v. coarse grained										
			100%	- qtz. blocks to 35 cm										
				- unit dark grey due to qtz content with v. minor Fe stain										
				Feldspar 18%										
				Qtz. 80%										
				Musc. 2%										

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-3

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-3 Sheet No. 12 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									
94.2	107.4	13.2	Equigranular unit - fine to med. grained							
		100%	short intervals of graphic or aplitic -							
			abundant v. fine grained tourm and garnet							
			- unit greyish white with minor Fe stain							
			Feldspar 65% Tourm 1-3%	1-3	0					
			Qtz. 30% Garnet 0.25%							
			Musc. 5% Sulfides (py,asp,gt) trace							
107.4	110.6	3.2	Aplite - v. fine to fine grained - med. grained							
		100%	intervals at 0.3 and 0.5 m long							
			- abundant tourm and garnet							
			- dark grey due to tourm content							
			Feldspar 65% Tourm 2-3%	2-3	0					
			Qtz. 25% Garnet 2-3%							
			Musc. 5% Pyrite trace							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-6

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-6 Sheet No. 7
 Section _____
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lat. _____ Total Depth _____
 Dep. _____ Logged By _____
 Bearing _____ Claim _____
 Elev. Collar _____ Core Size _____

DEPTH	FROM	TO	RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
34.1	35.8			Graphic light grey fine-med. crystalline								
				Feldspar 50% Mica 5-10%								
				Qtz. 40%								
35.8	46.8			Block grading to graphic to coarse - v. coarse crystalline fractured throughout with Fe staining on frac. surfaces								
				Feldspar 45% Mica 15%								
				Qtz. 35% Tourm. tr.	tr.							
46.8	49.8			Graphic grey, grey-brown. (Fe staining) fine-med crystalline with scattered crystalline tourm; hematite crust on fracture faces.								
				Feldspar 40% Mica 15%								
				Qtz. 35% Tourm. 10%	8	2						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-5

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-5 Sheet No. 11 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										
80.9	96.5	5 m	Graphic light grey med-coarse crystalline scattered high angle fractures generally clean with only scattered traces of tourm and garnet, aplite intervals at 92.4 - 92.6, 94.1, 95.5 - 95.7								
		%	Feldspar 65% Mica 15% Qtz. 20%								
96.5	97.65	1.15 m	Block v light grey - light grey v coarse-coarse crystalline, occasional large tourm crystals								
		%	Feldspar 27% Mica 25% Qtz. 45% Tourm 3%	3							
97.65	103.0	5.35 m	Graphic v. light grey - light grey coarse crystalline tourm at 100 ⁰ -100.3, 101.5 - 101.7, 102.5 - 102.8 fracture free no Fe staining								
		%	Feldspar 55% Mica 15% Qtz. 30% Tourm trace	tr	tr						

DIAMOND DF L RECORD

PROPERTY _____

HELLROARING CREEK

HOLE No. DDH 86-5

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-5 Sheet No. 3
 Section _____
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing _____
 Elev. Collar _____

Total Depth _____
 Logged By _____
 Claim _____
 Core Size _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
9.95	13.1	3.15 m	Equigranular light grey - grey fine-med. crystalline disseminated fine crystalline tourm								
		%	Feldspar 51% Mica 15-20% Qtz. 25% Tourm 6% Garnet trace - 3%	6	0						
13.1	15.75	2.65 m	Graphic grey - light grey med - v.coarse crystalline large tourm. crystals at 15.5 m scattered fine crystalline tourm								
		%	Feldspar 55% Mica 15-20% Qtz. 25% Tourm 4%	3	1						
15.75	17.2	1.45 m	Equigranular v. light grey - light grey fine-med. crystalline, scattered disseminated tourm								
		100%	Feldspar 56% Mica 7% Qtz. 35% Tourm 2%	1	1						

DIAMOND DF L RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-5

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-5 Sheet No. 1
 Section _____
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing -70° @ 295°
 Elev. Collar 1612 M

Total Depth 119.78 m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm BQ

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
2.0	4.0	2 m	Graphic light grey, grey brown (some Fe staining) f. - med. crystalline, abundant tourm with scattered garnet	TOURM % v. f. - f. m - c							
			Feldspar 45% Mica 8%								
			Qtz. 35% Tourm 10%	6	4						
4.0	4.3	.3 m 100%	Equigranular grey, grey brown f.-med. crystalline finely disseminated tourm								
			Feldspar 58% Mica trace								
			Qtz. 35% Tourm 7%	7	0						
4.3	5.2	.9 m	Graphic light grey coarse crystalline with traces of finely disseminated tourm								
			Feldspar 60% Mica 12%								
			Qtz. 27% Tourm. trace - 1%	tr-1							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-6

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-6 Sheet No. 9 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										
50.6	52.1		Block light grey - grey brown (Fe stained) coarse crystalline, Fe staining on fracture faces								
			Feldspar 58% Mica tr-2%								
			Qtz. 40% Tourm. tr.	tr							
52.1	56.9		Graphic light grey - grey fine-coarse crystalline scattered fracture zones with Fe staining crystalline tourm. at 55.8								
			Feldspar 55% Mica 10%								
			Qtz. 35%								
56.9	58.1		Equigranular grey light - grey fine crystalline scattered tourm. disseminated with Fe staining on fracture faces								
			Feldspar 55% Mica 5%								
			Qtz. 35% Tourm. 5%	4	1						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-6

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-6 Sheet No. 11 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										
59.7	61.3		Equigranular v. light grey fine-med. crystalline with scattered disseminated tourm. fracture zones and Fe staining throughout								
			Feldspar 5% Mica 5-10% Qtz. 30% Tourm. 6%	5	1						
61.3	67.6		Block grey - light grey coarse-v. coarse crystalline scattered tourm. crystals Fe staining								
			Feldspar 50% Mica 25% Qtz. 28% Tourm. tr- 2%	1	tr						
67.6	72.0		Graphic grey - light grey Fe stained on fracture surfaces coarse-v. coarse crystalline grading to block crystallinity, disseminated tourm.								
			Feldspar 51% Mica 10-15% Qtz. 35% Tourm. 4%	4	0						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-7

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-7 Sheet No. 1
 Section 1+00N/0+06E
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing -75° @ 295°
 Elev. Collar 1598.5 m

Total Depth 125.88 m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm BQ

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
2.1	2.5	.4 m	Block grey, light grey v. coarse crystalline scattered large tourm crystals	TOURM % v.f-f.m-c							
			Feldspar 46% Mica 2%								
			Qtz. 30% Tourm 4%	2	2						
2.5	7.4	4.9 m	Graphic grey, light grey Fe stained throughout coarse crystalline, tourm concentrate								
			Feldspar 60% Mica 5%								
			Qtz. 30% Tourm 5%	4	1						
7.4	8.9	1.5 m	Block light grey (Fe stained throughout) coarse crystalline								
			Feldspar 60% Mica 5%								
			Qtz. 35%								
8.9	9.8	.9 m	Graphic light grey (Fe stained throughout) med-coarse crystalline, scattered tourm								
			Feldspar 62% Mica 3%								
			Qtz. 32% Tourm 3%	2	1						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-7

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-7 Sheet No. 2 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										
9.8	11.8	2 m	Block light grey (Fe stained throughout) v. coarse crystalline scattered garnet, large tourm. crystals @ 12 m								
			Feldspar 53% Mica 10%								
			Qtz. 35% Tourm trace								
			Garnet 2%								
11.8	15.7	3.9 m	Graphic grey some Fe staining, abundant disseminated tourm, med-coarse crystalline traces of garnet, mica books @ 13.90 - 14.20								
			Feldspar 52% Mica 12%								
			Qtz 30% Tourm 6%	1	5						
15.7	16.7	1 m	Block light grey, clean								
			Feldspar 70% Mica 5%								
			Qtz. 25%	0	0						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-7

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-7 Sheet No. 10 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										
70.9	71.7	.8 m	Graphic to Block grey med - v. coarse crystalline abundant mica books								
			Feldspar 50% Mica 35%								
			Qtz. 15%								
71.7	75.9	4.2 m	Graphic light grey - grey med-coarse crystalline fractured throughout, traces of scattered tourm crystals								
			Feldspar 64% Mica 5%								
			Qtz. 30% Tourm tr. - 1%	tr	tr						
75.9	76.7	.8 m	Equigranular light grey - grey med. - f. crystalline								
			Feldspar 50% Mica 10%								
			Qtz. 40%								
76.7	82.6	5.9 m	Graphic light grey med-coarse crystalline occasional traces of crystalline tourm								
			Feldspar 65% Mica 20%								
			Qtz. 15%	tr	tr						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-7

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-7 Sheet No. 13 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										
96.7	98.0	1.3 m	Graphic white med. crystalline, traces of disseminated tourm								
			Feldspar 41% Mica 20%								
			Qtz. 35% Tourm 4%	4		0					
98.0	98.5	.5 m	Aplitic dark grey - grey v. fine - f. crystalline disseminated tourm. traces of garnet								
			Feldspar 45% Mica 10%								
			Qtz. 35% Tourm 10%	10							
98.5	102.0	3.5 m	Graphic light grey - v. light grey, fine-coarse crystalline disseminated tourm								
			Feldspar 45-50% Mica 15-20%								
			Qtz. 35% Tourm 4%	4							
102.0	102.3	.3 m	Aplite grey, f - med crystalline disseminated tourmaline								
			Feldspar 57% Mica 5%								
			Qtz. 30% Tourm 8%	8							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-7

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-7 Sheet No. 16 Lot. _____ 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										
111.2	118.1		Graphic grey, scattered Fe staining f.-med crystalline, mica has green cast, fractured throughout								
			Feldspar 70% Mica 15-20% Qtz. 10-15%								
118.1	119.0		Graphic white - light grey f.-med. crystalline scattered fracture zones			1					
			Feldspar 75% Mica 10% Qtz. 15%								
119.0	120.3		Equigranular grey (Fe stained) f.-med. crystalline vertical fractures, scattered disseminated tourm								
			Feldspar 48% Mica 10% Qtz. 40% Tourm 1-2%	1-2							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-8

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-8 Sheet No. 1
 Section 1+00N/0+06E
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lot. _____
 Dep. _____
 Bearing -55° @ 115°
 Elev. Collar 1598.5 m

Total Depth 89.30m/293'
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm BQ

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
2.0	3.0	1 m	Graphic grey - grey brown (Fe stained) occasional tourm. crystals (f.-coarse crystalline)	TOURM v.f.-f. II-C							
			Feldspar 55% Mica 10%								
			Qtz. 35% Tourm trace	tr							
3.0	4.4	1.4 m	Equigranular light grey med. crystalline Fe stained, disseminated tourm								
			Feldspar 53% Mica 5%								
			Qtz. 37% Tourm 5%	4	1						
4.4	6.7	2.3 m	Block white - v. light grey, v. coarse crystalline scattered tourmaline crystals								
			Feldspar 55% Mica 10%								
			Qtz. 30% Tourm 5%	0	5						
6.7	9.5	2.05 m	Equigranular grey brown, med-coarse crystalline disseminated tourm.								
			Feldspar 57% Mica 5%								
			Qtz. 35% Tourm 3%	1	2						

DIAMOND D.L. RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-8

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-8 Sheet No. 2 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										
9.5	10.5	1 m	Aplite grey light grey f.-med crystalline disseminated tourm								
			Feldspar 65% Mica 5%								
			Qtz. 25% Tourm 5%	5							
10.5	11.2	.7 m	Block grey-brown Fe stained coarse crystalline micaceous rubble								
			Feldspar 40% Mica 30%								
			Qtz. 30%								
11.2	14.5	3.3 m	Equigranular light grey med. crystalline scattered disseminated tourmaline (.8 m vug)								
		80%	Feldspar 52% Mica 10%								
			Qtz. 35% Tourm 3%	3							
14.5	16.9	2.4 m	Graphic light grey med-coarse crystalline occasional tourmaline crystals								
			Feldspar 55% Mica 13%								
			Qtz. 30% Tourm trace								tr

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-8

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-8 Sheet No. 7 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										
42.7	46.1		Aplite grey light grey v.f.-coarse crystalline banded with intervals of contaminated graphic granite								
			Feldspar 61% Mica trace Qtz. 35% Tourm 4%	3		1					
46.1	48.1		Block grey - light grey v. coarse-coarse crystalline fractured with Fe staining on fracture faces.								
			Feldspar 60% Mica 10-15% Qtz. 25-30%								
48.1	49.1		Graphic grey - light grey med. crystalline								
			Feldspar 60% Mica 5% Qtz. 35%								
49.1	50.0		Aplite grey - light grey v.f. - med. crystalline with some banded graphic								
			Feldspar 56% Mica 5% Qtz. 35% Tourm 4%	4							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-8

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-8 Sheet No. 8
 Section _____
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing _____
 Elev. Collar _____

Total Depth 293' / 89.30 m
 Logged By _____
 Claim _____
 Core Size 3.5 cm

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
50.0	53.7		Graphic v. light grey, f.-coarse crystalline with minor bands of aplite at 51.3 m & 53.2 m								
			Feldspar 60-65% Mica 5-10% Qtz. 30%								
53.7	56.0		Block grey - light grey coarse - v. coarse crystalline								
			Feldspar 75% Mica trace Qtz. 25%								
56.0	58.9		Graphic grey med-coarse crystalline disseminated tourm								
			Feldspar 66% Mica 8% Qtz. 25% Tourm trace - 1%	1							
58.9	59.2		Aplite dark grey v.f. crystalline heavily contaminated with disseminated tourm								
			Feldspar 50% Mica 5% Qtz. 30% Tourm 15%	15							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-8

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-8 Sheet No. 12 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										
78.0	79.5		Graphic grey - light grey med. - coarse crystalline fractured throughout, scattered Fe staining Feldspar 60% Mica 10% Qtz. 30%								
79.5	81.6		Block white - light grey coarse crystalline fractured throughout, scattered Fe staining Feldspar 52% Mica 8 Qtz. 40%								
81.6	82.4		Graphic v. light grey - grey brown Fe stained in part, coarse-med. crystalline fractured Feldspar 60% Mica 5% Qtz. 35% Tourm trace - 1% v.f.g.								
82.4	83.8		Block light grey - grey brown fractured Fe stained in part Feldspar 65% Mica 10% Qtz. 25% Tourm. trace	tr							

DIAMOND DRILL RECORD

PROPERTY _____ HELLROARING CREEK _____

HOLE No. DDH 86-8

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-8 Sheet No. 15 Lat. _____ Total Depth 89.3 m
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size 3.5 cm
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
86.9	87.3		Aplite grey brown Fe stained in part f.-med. crystalline disseminated tourm crystals and scattered garnets								
			Feldspar 42% Mica 5%								
			Qtz. 40% Tourm 10%	10							
			Garnet 3%								
87.3	88.8	1.5 m	Block grey brown - grey coarse - v. coarse crystalline fractured throughout, disseminated tourmaline								
			Feldspar 46% Mica 17%								
			Qtz. 35% Tourm 2%	2							
88.8	89.3		Aplite grey green v.f. crystalline foliated, disseminated tourm crystals, scattered garnets								
			Feldspar 46% Mica trace								
			Qtz. 37% Tourm 12%	12							
			Garnet 5%								E.O.H.

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-9

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-9 Sheet No. 1
 Section B 1+25N/0+10E
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing -75° @ 295°
 Elev. Collar 1577.5 m

Total Depth 124.3 m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm B0

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No. TOURM %	FROM	TO	WIDTH OF SAMPLE			
FROM	TO									
2.0	8.9	6.9	Block grey - light grey coarse crystalline	v.f.-f.m-c						
			scattered crystalline tourm. fractured	#3	2.9	3.3	c- med.	crystalline tourm	2-3%	
			with some Fe staining, bands of graphic granite		7.2	7.4	c- med.	crystalline tourm		
			at 4.2 - 4.5 and 6.3 - 6.9 m							
			Feldspar 61% Mica 7%							
			Qtz. 30% Tourm 2%	2						
8.9	9.2	0.3 m	Equigranular light grey med. crystalline							
			Feldspar 60% Mica 5%							
			Qtz. 30%							
9.2	10.9	1.7 m	Block grey - light grey coarse crystalline							
			fractured with some Fe staining							
			Feldspar 45% Mica 15%							
			Qtz. 40% Tourm trace	tr						
10.9	11.4	0.5 m	Graphic light grey med-coarse crystalline							
			Feldspar 55% Qtz. 45%							

DIAMOND D LL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-9

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-9 Sheet No. 12 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										
80.5	82.0		Block grey coarse-v. coarse crystalline vertical fractures, graphic, tension marks at 81.4 to 81.8 m								
			Feldspar 70% Qtz. 30%								
82.0	84.6		Block grey green v. coarse-coarse crystalline disseminated pyrrhotite at 83.6 - 83.9 m								
			Feldspar 85% Muscovite 5%								
			Qtz. 10%								
84.6	91.8		Block v. light grey - grey brown (some Fe staining) coarse-med. crystalline bertical fractures scattered traces of manganese staining								
			Feldspar 55% Muscovite 10%								
			Qtz. 35%								
91.8	96.0		Graphic v. light grey, grey brown med. crystalline traces of disseminated tourm	tr							

DIAMOND WELL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-9

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-9 Sheet No. 14 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									
96.0	98.2	2.2 m	Block light grey - v. light grey coarse - f. crystalline traces of disseminated tourm							
			Feldspar 60% Muscovite 10%							
			Qtz. 30% Tourm trace	tr						
98.2	98.6	.4 m	Graphic light grey med. - f. crystalline							
			Feldspar 70% Muscovite trace							
			Qtz. 30%	0	0					
98.6	101.6		Block v. light grey - light grey coarse - v. coarse crystalline, grading to graphic	#1	101.0	101.1	clean uncontaminated pegmatite			
			Feldspar 75% Muscovite 12%							
			Qtz. 13%							
101.6	103.5		Block grey green - grey coarse crystalline microcline with some disseminated pyrrhotite some vertical fracturing with Fe staining	#3	101.8		aplitic, v.f. crystalline, with scattered occurrences of pyrrhotite.			
			Feldspar 65% Muscovite 5%							
			Qtz. 30% Pyrrhotite trace - 1%	0	0					

DIAMOND D LL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-9

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-9 Sheet No. 17
 Section _____
 Date Begun _____
 Date Finished _____
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing _____
 Elev. Collar _____

Total Depth 124.35 m / 408'
 Logged By _____
 Claim _____
 Core Size 3.5 cm

DEPTH FROM	TO	RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE			
106.8	108.5		Aplite dark grey - grey v.f.-f. crystalline abundant disseminated tourm, scattered garnet	#4	107.3	107.6	- v.f. crystalline disseminated	tourm		
			Feldspar 55% Muscovite 12%							
			Qtz. 23% Tourm 8%	8						
			Garnet 2%							
108.5	121.1		Block white - grey, coarse - med. crystalline occasional Fe staining, equigranular from 112 - 112.5 m traces of disseminated tourm with aplitic zones at 116.4 - 116.8 & 117.5 m	#1	111.1	111.5	- clean uncontaminated pegmatite			
			Feldspar 56% Muscovite 8%							
			Qtz. 33% Tourm 1%	1						
			Garnet 2%							
121.1	122.6		Aplite grey v.f.-f. crystalline with bands of coarse crystalline block type granite disseminated tourm throughout and scattered garnet	#4	121.6	122.2	- v.f. crystalline disseminated	tourm		
			Feldspar 54% Muscovite 9%							
			Qtz. 25% Tourm 7%	7						
			Garnet 2%							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-10 Sheet No. 1
 Section _____
 Date Begun Sept. 14, 1986
 Date Finished _____
 Date Logged Sept. 15, 1986

Lat. _____
 Dep. _____
 Bearing -60@ 115°
 Elev. Collar 1577.5m

Total Depth 114.9m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm BQ

DEPTH FROM	TO	RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE			
2.2	2.6		Graphic grey, grey brown (Fe staining) coarse crystalline, traces of med. crystalline tourm.	TOURM% v.f.f.m-c						
			Feldspar 70% Tourm. tr-1%	1						
			Qtz. 30%							
2.6	3.4		Block grey med.-coarse crystalline scattered tourm. crystals							
			Feldspar 57% Muscovite 5%							
			Qtz. 33% Tourm. 5%	4	1					
3.4	4.3		Graphic grey med.-coarse crystalline, scattered tourm. crystals, manganese staining							
			Feldspar 65% Tourm. tr-1%	1						
			Qtz. 35%							
4.3	9.3		Block light grey coarse-med. crystalline, scattered tourm. clusters, manganese staining							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-10 Sheet No. 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										
9.3	12.5		Block grey - light grey coarse-med. crystalline, scattered tourm. crystals vertical fractures, Fe staining.								
			Feldspar 65% Muscovite 5% Qtz. 30% Tourm. tr.	tr							
12.5	16.0		Graphic light grey med.-coarse crystalline fractured in part manganese staining								
			Feldspar 65% Muscovite 5% Qtz. 30%	0	0						
16.0	20.0		Block grey coarse-med. crystalline, occasional bands of graphic granite and disseminated tourm.								
			Feldspar 52% Muscovite 12% Qtz. 30% Tourm. 6%	6							
20.0	21.0		Graphic grey - light grey Fe stained								
			Feldspar 60% Muscovite 8% Qtz. 32%	0	0						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-10 Sheet No. 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										
21.0	22.9		Block grey - light grey v.coarse-coarse crystalline, fractured in part								
			Feldspar 58% Muscovite 7%								
			Qtz. 35%	0	0						
22.9	24.5		Block dark grey, coarse-med. crystalline Fe staining, manganese staining								
			Feldspar 68% Muscovite 2%								
			Qtz. 30%	0	0						
24.5	25.8		Graphic grey, coarse-med. crystalline, clean								
			Feldspar 68% Muscovite 2%								
			Qtz. 30%	0	0						
25.8	28.2		Block light grey - light grey green coarse v. coarse crystalline grading to graphic								
			Feldspar 65% Muscovite 5%								
			Qtz. 30%	0	0						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-10 Sheet No. 6 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun Sept. 14, 1986 Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.		FROM	TO	WIDTH OF SAMPLE				
FROM	TO											
36.0	36.7		Equigranular dark grey, med. crystalline, some Fe and manganese staining									
			Feldspar 45% Muscovite 18%									
			Qtz. 37%	0	0							
36.7	37.5		Block grey - light grey coarse-v. coarse crystalline, some Fe staining									
37.5	39.0		Feldspar 45% Muscovite 10%									
			Qtz. 30%	0	0							
37.5	39.0		Graphic grey - light grey med.-coarse crystalline.									
			Feldspar 60% Muscovite 10%									
			Qtz. 30%	0	0							
39.0	42.5		Block grey - light grey med.-coarse crystalline traces of Fe staining									
			Feldspar 62% Muscovite 8%									
			Qtz. 30%	0	0							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-10 Sheet No. 8 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH	FROM	TO	RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
54.25	55.4			Graphic light grey, med.-coarse crystalline tension bands								
				Feldspar 65% Muscovite 3%								
				Qtz. 32%	0	0						
55.4	57.8			Block light grey, coarse-med. crystalline scattered clusters of tourm.								
				Feldspar 60% Muscovite tr.								
				Qtz. 38% Tourm. 2%(f-mg)	1	1						
57.8	63.5			Block grey v. coarse-coarse crystalline fractured in part, traces of tourm.								
				Feldspar 57% Muscovite 18%								
				Qtz 25% Tourm. tr.								
63.5	70.6			Block grey, med.-coarse crystalline, scattered Fe staining, some manganese staining.								
				Feldspar 60% Muscovite 12%								
				Qtz. 28%	0	0						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-10 Sheet No. 9 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									
70.6	71.0		Block grey, grey brown, some Fe staining scattered clusters of tourm. crystals							
			Feldspar 53% Muscovite 3%							
			Qtz. 42% Tourm. 2%	1	1					
71.0	72.7		Block grey - dark grey v. coarse-coarse crystalline							
			Feldspar 55% Muscovite 10%							
			Qtz. 35%	0	0					
72.7	75.3		Block grey med.-coarse crystalline disseminated tourm. throughout							
			Feldspar 60% Muscovite 3%							
			Qtz. 30% Tourm. 2%	2						
75.3	78.6		Block grey - grey brown, some Fe staining micaceous, occasional traces of garnet.							
			Feldspar 50% Muscovite 20%							
			Qtz. 30% Tourm. tr.							

DIAMOND DEEP WELL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-10 Sheet No. 10
 Section _____
 Date Begun _____
 Date Finished Sept. 16, 1986
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing _____
 Elev. Collar _____

Total Depth current 84.7m
 Logged By _____
 Claim _____
 Core Size 3.5 cm

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE			
FROM	TO									
78.6	87.4		Block grey - light grey coarse-v. coarse crystalline micaceous in part, traces of crystalline tourm.							
			Feldspar 55% Muscovite 12%							
			Qtz. 32% Tourm. tr.-1%	tr.	tr.					
87.4	89.5		Block white - v. light grey med.-coarse crystalline bands of v.f. crystalline aplite, tourm. contaminated, scattered garnet crystals							
			Feldspar 55% Muscovite 5%							
			Qtz. 37% Tourm. 3%	3	tr.					
89.5	90.8		Block white.-v light grey coarse-med. crystalline							
			Feldspar 50% Muscovite 20%							
			Qtz. 30%	0	0					

DIAMOND DEEP WELL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-10 Sheet No. 12 Lat. _____
 Section _____ Dep. _____
 Date Begun _____ Bearing _____
 Date Finished _____ Elev. Collar _____
 Date Logged _____

Total Depth 114.9m
 Logged By D.H., S.M.P.
 Claim _____
 Core Size 2.5 CM BQ

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
95.0	95.9		Aplite v. light grey f.-med. crystalline disseminated tourm. throughout	5							
95.9	96.2		Block v. light grey some brown Fe staining med.-coarse crystalline, some manganese staining								
			Feldspar 62% Muscovite 8%								
			Qtz. 30%	0	0						
96.2	96.6	?	Fault zone Fe stained pegmatite rubble								
96.6	98.4		Block grey-green coarse-med. crystalline microcline feldspar occasional clusters of tourm. crystals, some disseminated tourm.								
			Feldspar 68% Muscovite 4%								
			Qtz. 25% Tourm. 3%	2	1						
98.4	98.5		Block light grey v. coarse crystalline, micaceous quartz-muscovite								
			Feldspar 5% Muscovite 35%								
			Qtz. 60%	0	0						

DIAMOND WELL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-10

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-10 Sheet No. 14 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size 3.5 cm
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE			
FROM	TO									
101.2	105.3	cont	Coarse crystalline zones comprised of feldspar 50-55%, quartz 30-35%, muscovite 10%, Tourm. tr. pyrite -tr., garnet pink f. gr. 1%, minor Fe staining	tr.						
105.3	107.25		Equigranular grey - buff v. coarse crystalline Feldspar 55-60% Muscovite 3% Qtz. 30% Tourm. 7% (F. med. crystals)	4	3					
107.25	112.9		Aplite and equigranular interbanded greenish grey f.-coarse crystalline; aplite feldspar 55-60%, quartz 30%, garnet pink f. gr. up to 5%; tourm f. med. crystalline 4-5%, equigranular 65-70% muscovite 5%, quartz 25%, traces of garnet and pyrite, .35m muscovite rich med. gr. quartz 60%, muscovite 30-35%; feldspar 10%, traces of garnet (Interval: 109.10m-109.45m)	3	1					

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-11

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-11 Sheet No. 4
 Section _____
 Date Begun Sept. 23, 1986
 Date Finished _____
 Date Logged Sept. 24, 1986

Lat. _____ Total Depth _____
 Dep. _____ Logged By _____
 Bearing 70°/270° Claim _____
 Elev. Collar _____ Core Size _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
8.95	10.89	1.94m	Aplite interbanded with thin units of m. gr. p.d. equigranular rock = rusty to grey - tourm. is ubiquitous - Fe and minor mn stain common								
			Feld. 65% Musc. (f.gr.) 2%								
			Qtz. 25% Tourm. (f-m gr.) 8%	5	3						
			Tr. f./gr. diss. py								
10.89	12.55	1.66m	Poor dev. equigranular: m.gr.; med. grey w. rusty and buff col. zones - Fe staining common								
			Feld. (grey & buff) 85% Musc. (f.gr. green) 5%								
			Qtz. 8-10% Tourm. up to 1%	1							
			Garnet (loc.) less than 0.5%								
			0.5% f.gr. diss. py								
12.55	15.25	2.7m	Aplite: f.gr.; dk. grey due to tourm. content								
		100%	Feld. 65% Musc. (f.gr.) 32%								
			Qtz. 20-25% Tourm. (f.gr.) up to 10%	10							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-11

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-11 Sheet No. 8
 Section _____
 Date Begun Sept. 23, 1986
 Date Finished Sept. 24, 1986
 Date Logged Sept. 25, 1986

Lat. _____ Total Depth 58.84 m
 Dep. _____ Logged By D.H.
 Bearing _____ Claim _____
 Elev. Collar _____ Core Size BQ

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
21.63	23.2		Equigranular, lt. gry. some Fe staining throughout with medium-fine crystalline tourm., crystalline throughout								
			Feldspar 60% Musc. tr. Qtz. 32% Tourm. 3%	1	2						
23.2	26.8		Aplite grading up to block f.-coarse crystalline heavily contaminated with disseminated and med. crystalline tourm. Fe staining on fracture faces 25.4-26								
			Feldspar 55% Musc. 7% Qtz. 30% Tourm. 8%	f. med							
				3	5						
26.8	30.5		Equigranular to block coarse-med. crystalline lt. gy.-gy. with med. crystalline tourm. throughout some disseminated f. crystalline tourm.								
			Feldspar 65% Musc. 4% Qtz. 25% Tourm. 6%	f. med							
				2	4						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-11

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-11 Sheet No. 9 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										
30.5	33.2		Equigranular lt. gy.-gy. coarse-med. crystalline, med. crystalline tourm. throughout light Fe staining throughout								
			Feldspar 60% Musc. 2%	f. med							
			Qtz. 31% Tourm. 7%	2 5							
33.2	36.2		Block lt. gy., gy. brn. some strong Fe staining scattered med. crystalline tourm., band of garnet								
			Feldspar 65% Musc. 3%								
			Qtz. 27% Tourm. 5%								
			Garnet tr.								
36.2	40.2		Equigranular gy.-lt. gy. med.-f. crystalline med.-f. crystalline tourm. throughout								
			Feldspar 60% Musc. 4%								
			Qtz. 30% Tourm. 6%	1 5							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-11

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-11 Sheet No. 11 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									
42	44.5		Equigranular lt. gy. heavily Fe stained in part, med.-f. crystalline med. crystalline tourm. throughout							
			Feldspar 54% Musc. 4% Qtz. 35% Tourm. 7%	1	6					
44.5	48.1		Block lt. gy., gy. brn. scattered Fe staining throughout high angle fractures @ 45° to core axis, med.-f. crystalline tourm. throughout., tr. of manganese							
			Feldspar 60% Musc. 8% Qtz. 25% Tourm. 7%	2	5					
48.1	53.7		Equigranular to block med.-coarse crystalline light brown Fe staining throughout scattered med. crystalline tourm. with bands of f. crystalline disseminated tourm. scattered areas of manganese staining.							
			Feldspar 62% Musc. 3% Qtz. 25% Tourm. 10%	2	8					

DIAMOND DRILL RECORD

HELLROARING CREEK

PROPERTY _____

HOLE No. 86-12

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-12 Sheet No. 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										
28.1	30.1		Equigranular lt. gy.-gy. brn. heavily Fe stained fractured vertically and at 45-50° to core axis. Scattered med. crystalline tourm. with bands of f. crystalline disseminated f. gn. feathery tourm.	f. m-c							
			Feldspar 55% Musc. 3%								
			Qtz. 30% Tourm. 12%	7 5							
30.1	34.6		Block gy.-gy. brn. heavily Fe stained in part, med.-coarse crystalline coarse-med. tourm. crystals with bands of f. crystalline disseminated aplitic tourm. Traces of pyrite and garnet								
			Feldspar 65% Musc. 2%								
			Qtz. 25% Tourm. 8%	3 5							
34.6	36		Aplite gy.-dk. gy. f.-med. crystalline disseminated tourm.								
			Feldspar 53% Musc. 5%								
			Qtz. 30% Tourm. 12%	12							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-13

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-13 Sheet No. 2 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size 3.5cm
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
19.3	21.0		Equigranular gy.-gy. brn. lt. Fe staining grading to block., med.-coarse crystalline, scattered disseminated tourm. crystals, increasing Fe and manganese staining.								
			Feldspar 51% Musc. 2%	f med							
			Qtz. 45% Tourm. 2%	2 0							
21.0	28.2		Block lt. gy.-gy. coarse crystalline qtz. musc., scattered light Fe staining, traces of manganese staining								
			Feldspar 50% Musc. 5%								
			Qtz. 45%								
28.2	42.3		Block to equigranular v. lt. gy.-wht. coarse-med. crystalline f. crystalline tourm. disseminated throughout, occasional light Fe staining some manganese staining								
			Feldspar 50% Musc. 4%	f med							
			Qtz. 38% Tourm. 8%	7 1							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-13

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-13 Sheet No. 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										
57.0	63.8		Block to equigranular light gy.-gy. coarse-med. crystalline with med. crystalline and disseminated tourm. throughout, minor amounts of light Fe staining and manganese staining								
			Feldspar 60% Musc. 10%								
			Qtz. 26% Tourm. 4%	2	2						
63.8	66.4		Block gy. coarse-med. crystalline fractured with light to med. Fe staining, scattered traces of tourm.								
			Feldspar 68% Musc. 4%								
			Qtz. 28%	tr.							
66.4	68.6		Equigranular gy.-gy. grn. some aplitic material with f. crystalline disseminated tourm., traces of garnet and sulphide minerals								
			Feldspar 55% Musc. 5%								
			Qtz. 31% Tourm. 9%	9	0						

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-13

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-13 Sheet No. 6 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										
68.6	84.8		Block wht.-v. light gy., coarse crystalline bands of f. crystalline disseminated tourm. and med. crystalline tourm., traces of garnet. Thin zones (.1m) of aplitic rock								
			Feldspar 60% Musc. 8% Qtz. 29% Tourm. 3%	2	1						
84.8	86.8		Equigranular gy. f.-med. crystalline with disseminated f. crystalline tourm. throughout								
			Feldspar 60% Musc. 4% Qtz. 30% Tourm. 6%	7	0						
86.8	91.8		Block light gy. coarse crystalline grading to graphic in part. Traces of med. to fine crystalline tourm.								
			Feldspar 65% Musc. 4% Qtz. 30% Tourm. tr.-1%	1	tr						

DIAMOND HELL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-13

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-13 Sheet No. 12 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											
140.9	160.4	19.5 m	Block to equigranular, light grey-white coarse to medium crystalline, intervals of f. crystalline disseminated tourm. throughout, traces of pyrite									
			Feldspar 70% Musc. 9%									
			Qtz. 21% Tourm. tr.-1%	tr-1								
160.4	168.7	8.3 m	Block light grey grey coarse-v. coarse crystalline quartz muscovite intervals of garnet traces									
			Feldspar 45% Musc. 10%									
			Qtz. 45% Tourm. 0%									
			Garnet tr.									
168.7	170.0	1.3 m	Equigranular to aplitic f.-med. crystalline scattered tourm. throughout, f. crystalline disseminated and med. crystalline bands.									
			Feldspar 60% Musc. 7%									
			Qtz. 25% Tourm. 8%	2	6							

DIAMOND D.L RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-14

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-14 Sheet No. 1
 Section 0+25N/1+75W '85 grid
 Date Begun Oct. 1, 1986
 Date Finished Oct. 2, 1986
 Date Logged _____

Lat. _____
 Dep. _____
 Bearing Vertical
 Elev. Collar 1670 m

Total Depth 39.0 m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm (B.Q.)

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO			TOURM %							
2.0	9.8		Block grey-light grey coarse crystalline, clean micaceous, fractured throughout, traces of med. crystalline tourm., traces of light Fe staining.	v.f.f. m-c							
			Feldspar 52% Musc. 8%								
			Qtz. 40% Tourm. tr.	tr.							
9.8	14.7		Block equigranular grey-light grey light to moderate Fe staining with f. crystalline disseminated tourm. throughout and occasional med. crystalline tourm.								
			Feldspar 60% Musc. 10%								
			Qtz. 25% Tourm. 5%	5 tr.							
14.7	19.4		Block grey, grey brown, light manganese staining coarse crystalline fractured throughout v. coarse crystalline tourm. from 16.6-16.9 m traces of disseminated tourm.								
			Feldspar 50% Musc. 12%								
			Qtz. 37% Tourm. tr-1%	tr. tr.							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-14

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-14 Sheet No. 4 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished Oct. 2, 1986 Elev. Collar _____ Core Size 3.5 cm (B.Q.)
 Date Logged _____

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
30.5	32.9		Equigranular v. light grey med. crystalline with minor amounts of med. crystalline tourm. with v.f. disseminated tourm. throughout, scattered Fe staining.								
			Feldspar 63% Musc. 2%								
			Qtz. 25% Tourm. 9%	6 3							
32.9	37.0		Block light grey-grey coarse-med. crystalline highly fractured throughout, several small shear zones, intervals of v.f. crystalline disseminated tourm. scattered Fe staining.								
			Feldspar 55% Musc. 7%								
			Qtz. 33% Tourm. 5%	5							
				#3	38.15	38.25					
37.0	39.0		Aplite white, f.-med. crystalline light Fe staining, f. crystalline disseminated tourm. throughout.	#4	38.25	38.35	f. crystalline	disseminated	tourm.		
				#4	38.45		f. crystalline	disseminated	tourm.		
			Feldspar 70% Musc. 5%								
			Qtz. 20% Tourm. 5%	5 0							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-15

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-15 Sheet No. 1 Lat. _____
 Section BL/O+25N Dep. _____
 Date Begun Oct. 8, 1986 Bearing -70° @ 090°
 Date Finished Oct. 11, 1986 Elev. Collar 1719 m
 Date Logged _____

Total Depth 84.5 m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm (B.Q.)

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
2.2	23.7		Block grey-red brown heavy-med. Fe staining coarse crystalline with massive quartz zones, fractured throughout, traces of manganese staining. Shear zone 3.5-4 m.	TOURM % v. f. - f. m-c #2							
			Feldspar 60% Musc. 7% Qtz. 33%	0 0							
23.7	28.7		Equigranular v. light grey-white med.-f. crystalline fractured in part with scattered heavy to moderate Fe staining, manganese staining on fracture faces. Shear zone 23.4-23.7 m, graphic granite 28.2-28.5 m.								
			Feldspar 52% Musc. 7% Qtz. 41% Manganese tr.	0 0							
28.7	37.9		Equigranular to graphic white-v. light grey f.-med. crystalline, intervals of v.f. crystalline, disseminated tourm. light Fe staining with areas of manganese staining	#2	34.83	34.9					

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-18

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. 86-18 Sheet No. 1
 Section BL/O+25S
 Date Begun Oct. 18, 1986
 Date Finished Oct. 20, 1986
 Date Logged _____

Lat. _____
 Dep. -70°
 Bearing 270°
 Elev. Collar 5660'/1725 m

Total Depth 86.3 m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm B.Q.

DEPTH		RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
FROM	TO										
2.4	10.1		Block to equigranular grey coarse crystalline, scattered Fe staining; grading to graphic over minor intervals, traces of v.f. disseminated tourm. @ 7.1-7.3, 8.1, 9.0 m	TOURM % v.f.-f.m-c							
			Feldspar 75% Musc. 3%								
			Qtz. 22% Tourm. tr	tr.							
10.1	12.8		Equigranular to block poorly developed grey red brown with scattered light to moderate Fe staining, minor amounts of manganese staining, fractured in part								
			Feldspar 64% Musc. 8%								
			Qtz. 28%	0 0							
12.8	21.0		Equigranular grey, red brown with moderate to heavy Fe staining, minor manganese staining v.f. tourm. disseminated throughout								
			Feldspar 57% Musc. 10%								
			Qtz. 28% Tourm. 5%	5 0							

DIAMOND DRILL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-20

DIP TEST		
Angle		
Footage	Reading	Corrected

Hole No. 86-20 Sheet No. 1
 Section 0+25N/2+00W
 Date Begun Oct. 24, 1986
 Date Finished Oct. 29, 1986
 Date Logged _____

Lat. _____
 Dep. Vertical
 Bearing _____
 Elev. Collar 1643 m.

Total Depth 104.6 m
 Logged By D.H.
 Claim _____
 Core Size 3.5 cm (B.Q.)

DEPTH FROM	TO	RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE				
1.1	11.9		Block, poorly developed, to equigranular Light gy., f.-coarse crystalline with med. coarse tourm. crystals and f. crystalline disseminated tourm. throughout, scattered light Fe staining, traces of manganese staining minor intervals of aplitic material	TOURM % v.f.-f. m+c							
			Feldspar 60% Musc. 9% Qtz. 27% Tourm. 4%	2 2							
11.9	14.7		Block, quartz massive, light gy., coarse-v. coarse crystalline scattered light Fe staining. Quartz 100%								
14.7	15.5		Block v. light gy.-lt. gy., coarse crystalline, fractured throughout								
			Feldspar 75% Musc. 3% Qtz. 22%	0 0							

DIAMOND D LL RECORD

PROPERTY HELLROARING CREEK

HOLE No. DDH 86-20

DIP TEST		
		Angle
Footage	Reading	Corrected

Hole No. 86-20 Sheet No. 8 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										
52.1	55.5		Equigranular to block, poorly developed grey - red brown moderate to heavy Fe staining throughout, med-coarse crystalline v.f. crystalline disseminated tourm, fractured								
			Feldspar 60% Musc. 9%								
			Qtz. 25% Tourm 7%	7	0						
55.5	58.8		Block gy. - light gy. Fe stained throughout scattered manganese staining								
			Feldspar 62% Musc. 8%								
			Qtz. 30%	0	0						
58.8	60.8		Equigranular light gy. brn., light - moderate Fe staining throughout, med. crystalline with intervals of v.f. crystalline disseminated tourm								
			Feldspar 65% Musc. 7%								
			Qtz. 25% Tourm 3%	3	0						

DIAMOND DRILL RECORD

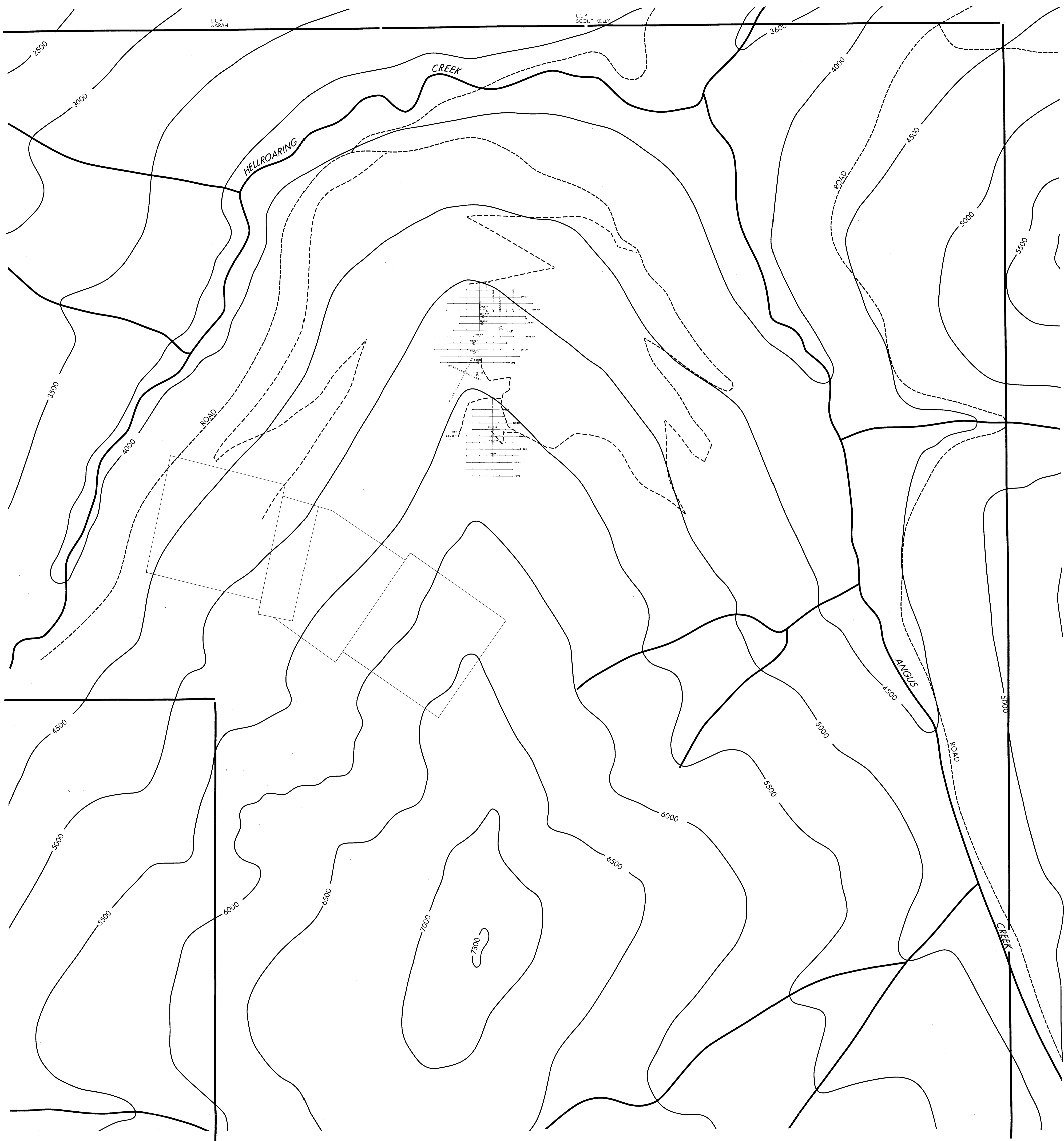
PROPERTY HELLROARING CREEK

HOLE No. DDH 86-21

DIP TEST		
Footage	Angle	
	Reading	Corrected

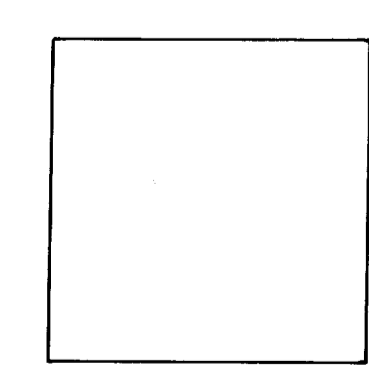
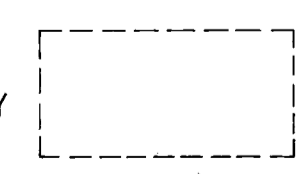
Hole No. 86-21 Sheet No. 3 Lat. _____ Total Depth _____
 Section _____ Dep. _____ Logged By _____
 Date Begun _____ Bearing _____ Claim _____
 Date Finished _____ Elev. Collar _____ Core Size _____
 Date Logged _____

DEPTH	FROM	TO	RECOVERY	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH OF SAMPLE					
25.6	51.6			Equigranular to block, poorly developed light grey, coarse-med. crystalline with intervals of f. crystalline tourm. clusters, scattered light Fe stain, occasional intervals of med. crystalline tourm.									
				Feldspar 60% Musc. 11%									
				Qtz. 27% Tourm. 2%	2	tr.							
51.6	61.4			Equigranular, light grey, med.-coarse crystalline occasional intervals of v.f. crystalline aplitic, tourm. (T.E. 55.4-56.7) traces of coarse crystalline tourm., manganese staining.									
				Feldspar 60% Musc. 7%									
				Qtz. 32% Tourm. tr.-1%	1	tr.							
61.4	66.3			Block, v. light grey, coarse crystalline, traces of Fe and manganese staining.									
				Feldspar 71% Musc. 9%									
				Qtz. 20%	0	0							

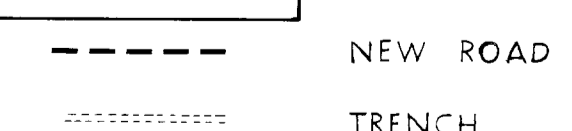


APPROXIMATE AREA OF PRIOR PRELIMINARY EXPLORATION WORK

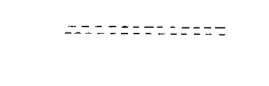
KNOWN BERYLLIUM OCCURRENCES



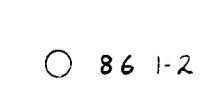
APPROXIMATE BOUNDARY OF JOINT VENTURE CLAIM BLOCKS
 BEARCAT EXPLORATIONS, LTD. - 80%
 COLT EXPLORATION (WESTERN) LTD. - 20%



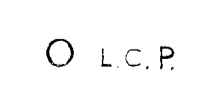
NEW ROAD



TRENCH



DIAMOND DRILL HOLE

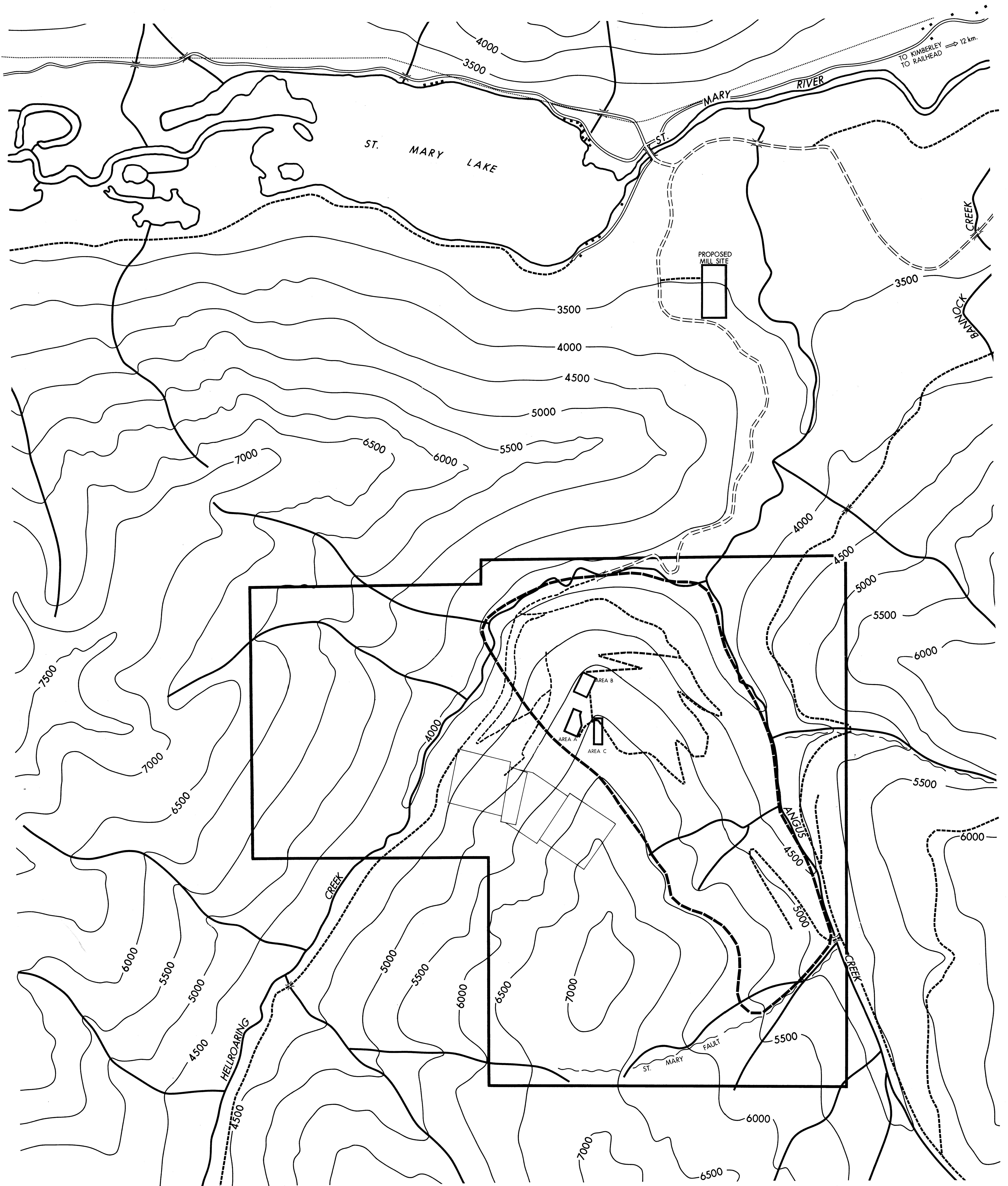


LEGAL CORNER POST

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

15,760

BEARCAT EXPLORATIONS, LTD.	
<u>HELROARING CREEK AREA</u> <u>S.E. BRITISH COLUMBIA</u> 1988	
CURRENT EXPLORATION PROGRAM SHOWING CLAIM DISTRIBUTION	
CONTOUR INTERVAL = 500 FEET 1:5000 SCALE DATE: DEC., 1986	



GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,760



LEGEND

APPROXIMATE BOUNDARY OF JOINT VENTURE CLAIM BLOCKS
BEARCAT EXPLORATIONS, LTD. - 80%
COLT EXPLORATION, (WESTERN) LTD. - 20%



APPROXIMATE PEGMATITE BOUNDARY



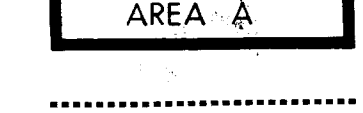
MAJOR ROADS



GRAVEL ROADS



FAULT



PROPOSED MINING AREAS



POWER LINES



BUILDINGS

BEARCAT EXPLORATIONS, LTD.

HELLROARING CREEK AREA
S.E. BRITISH COLUMBIA

82-F-9

HELLROARING CREEK PROSPECT

SHOWING

CLAIM DISTRIBUTION

AND

PROPOSED MINE AND MILLSITE

CONTOUR INTERVAL = 500 FEET

SCALE: 1:10,000

MILES 1 0 1 2 3 4 5 6 7

KILOMETERS 1 0 1 2 3 4 5 6 7 8 9 10 11

DATE: NOV. 1986