



**BEATY GEOLOGICAL LTD.**  
Contract Geological Services

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12-84

REPORT ON A GEOCHEMICAL SURVEY  
OF THE PEAK-REKA-HOLD CLAIM GROUP.

MONASHEE PASS REGION  
VERNON AND SLOCAN MINING DIVISIONS  
BRITISH COLUMBIA.

NTS. 82 L/1  
LATITUDE 50° 07'N  
LONGITUDE 118° 17'W

<u>OWNER :</u>	LAWRENCE HASCARL
<u>OPERATORS:</u>	LAWRENCE HASCARL AND JOHN McLOUGHLIN
<u>CONSULTANT:</u>	BEATY GEOLOGICAL LTD.
<u>AUTHORS:</u>	ROSS J. BEATY, M.Sc., LL.B., F.G.A.C. AND J. SCOTT BENDING, B.Sc.
<u>SUBMITTED:</u>	DECEMBER 8th, 1983.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

11,752

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SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

1. The Peak-Reka-Hold claim group consists of 4 contiguous mineral claims (74 units) staked by Lawrence Hascarl and Arthur Pigott between November 1982 and March 1983. It is located in the Monashee Mountains 66 km east of Vernon, B. C.
2. Numerous gold occurrences have been located since the turn of the century in the vicinity of the claims. Placer gold occurs in many of the creeks draining the property.
3. The property occurs in a belt of sedimentary and volcanic rocks bracketed on the north, south and east by granitic and high grade metamorphic rocks. The geological setting, lithologies and structures are inferred to be analogous to those which host gold mineralization at Tillicum Mountain 70 km to the east.
4. Reconnaissance geochemical sampling has shown that the portion of the claim area sampled contains abundant gold and arsenic anomalies. Gold anomalies group particularly well on the Peak 4 claim.
5. The geochemical results demonstrate the potential of these claims for gold mineralization. Unfortunately, the sampling program was prematurely interrupted due to snow conditions. It is recommended that the reconnaissance geochemical sampling program be reinitiated and that a program of more detailed geochemical sampling and geological mapping over the areas that present anomalous gold values be carried out.

## INTRODUCTION

At the request of J. McLoughlin and L. Hascarl, Beaty Geological Ltd. was contracted in October 1983 to carry out a geochemical survey on a group of claims in the vicinity of Barnes and Holding Creeks, Monashee Pass region, Vernon and Slocan Mining Divisions, B. C.

Field work was performed during the month of November 1983 by a 2-3 man crew. The work was hampered to some extent by intermittent snowfalls before being totally stopped due to a heavy snowfall in mid-November.

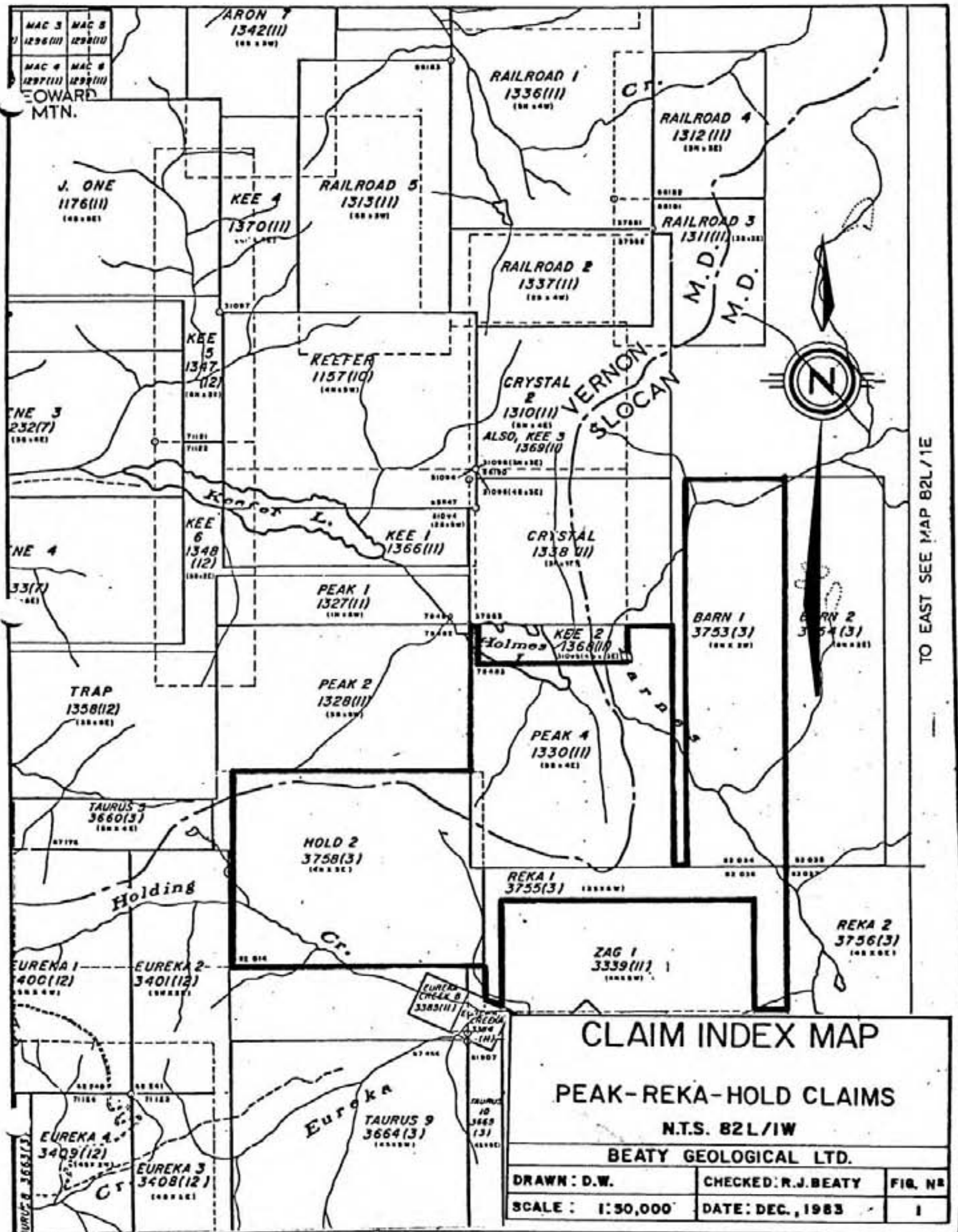
The purpose of the investigation was to assess the potential of the property for gold-silver mineralization.

## WORK CARRIED OUT

Work carried out consisted of geochemical sampling and prospecting. This involved the collection of 34 samples consisting of 30 silt and 4 rock samples. These samples were collected at selective locations during three separate traverses on the property. Additional time was spent on two separate occasions in attempts to reach the property via Barnes Creek logging road. Both of these attempts were not successful due to snow conditions.

## LOCATION, ACCESS AND PHYSICAL FEATURES

The PEAK-REKA-HOLD claims are located 66 km east of Vernon, B. C. and 54 km west of Nakusp, B. C., in the heart of the Monashee Mountains. The claims straddle the Vernon and Slocan Mining Divisions and are centered at approximately 50° 07'N Latitude and 118° 17'W Longitude.



# CLAIM INDEX MAP

## PEAK-REKA-HOLD CLAIMS

N.T.S. 82L/IW

BEATY GEOLOGICAL LTD.

DRAWN: D.W.	CHECKED: R.J.BEATY	FIG. NO
SCALE: 1:50,000	DATE: DEC., 1983	1

Access to the property is relatively good. Highway 6, paved from Vernon, passes within 5.5 km of the claim group. There are two access roads that can then be taken to the property. Access to Peak 4 is via Keefer Lake road, up the Kettle river valley. Access to all other claims in the group is via Barnes Creek logging road, which is entered 4 km northwest of Needles, on highway 6.

Terrain is mountainous with elevations ranging from about 1300 m to 1800 m asl. The area is forested with cedar, pine and fir and is snowbound except for highway 6 from about December until April in an average year. Water flows year-round in the numerous creeks on the property.

#### PROPERTY DATA

The PEAK-REKA-HOLD claim group consists of 4 mineral claims totalling 74 units (Fig. 2). The claims, all of which are registered in the names of Lawrence Hascarl or Arthur Pigott, are comprised as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record Nos.</u>	<u>Date Recorded</u>
Peak 4	20	1330 (11)	November 9, 1982
Barn 1	16	3753 (3)	March 23, 1983
Reka 1	18	3755 (3)	March 23, 1983
Hold 2	20	3758 (3)	March 23, 1983

#### HISTORY OF PREVIOUS WORK

In common with much of southeastern B. C., the region has seen considerable prospecting and mining activity since the late 1800's. In the vicinity of the property, known mineralization exists at the following localities:



Paladora-Ballararat: Recorded production from 1935 and 1938 of 110 tons containing 66 oz. Au and 411 oz. Ag with values in copper, lead and zinc; quartz veins in granitic rocks (BCMM, 1935, 1938).

Paradise-Renown: Pyrite-bearing quartz veins in granite; reports in 1930 of assays up to 0.30 oz/T Au and 1.4 oz/T Ag (BCMM, 1930).

St. Paul: Minor recorded production of gold, silver, lead, zinc; auriferous quartz veins and disseminated sulphides in volcanic and sedimentary rocks with patches of gold, pyrite, arsenopyrite, galena, sphalerite and tetrahedrite reported (BCMM, 1974).

Monashee-McPhail: Recorded production of 503 oz. Au from 2729 tons at Monashee; quartz veins in meta-volcanics and sediments near granite contact; vein reportedly carries pyrite, galena, chalcopryrite, sphalerite, and native gold (Jones, 1959).

Silver Bell: Quartz vein reported to carry galena, native silver and gold; no assay data (BCMM, 1904, 1914).

Dona: Veinlets in sedimentary rocks contain galena, stibnite, arsenopyrite and gold values; percussion drilled 1973-74 (BCMM, 1973, 1974).

Fox: Disseminated sulphides and pyrite, pyrrhotite, arsenopyrite, galena and chalcopryrite-bearing veins containing gold and silver values occur in sedimentary and volcanic rocks (BCMM, 1974).

KL: Quartz veins containing pyrite and gold values in argillite; (BCMM, 1973, 1974).

Rose: Arsenic and silver soil anomalies reported; pyrite and pyrrhotite mineralized sedimentary rocks (BCMM, 1974).

Top: Shear zone in granodiorite containing pyrite, arsenopyrite and sulphosalts with gold and silver values (BCMM, 1974).

In addition to these lode occurrences, widespread evidence exists of past placer gold mining activities in the vicinity of the property, particularly in Kettle River, Cherry Creek, Monashee Creek and Monashee Pass Creek. Holland (1980) reports past production of 217 oz. from Monashee Creek and 4,989 oz. from Cherry Creek. The area is a designated placer mining area under the B. C. Placer Mining Act. At least two small scale placer operations are currently active in Monashee Creek.

#### REGIONAL GEOLOGY

The property lies within the Omineca Crystalline Belt geological province. Through this belt, a prominent northwest trending slice of Late Paleozoic to Triassic volcanic and sedimentary rocks known as the Thompson Fold Belt extends between high grade metamorphic rocks of the Shuswap Metamorphic Complex to the northeast and Mesozoic plutonic rocks of the Okanagan Plutonic and Metamorphic Complex to the southwest.

The property occurs within these volcanic and sedimentary rocks and it is regionally significant that rocks of approximately the same age and composition also appear to host the Tillicum Mountain gold property of Esperanza Explorations Ltd. and the Kettle River (Greenwood M.D.) gold property of Kettle River Resources Ltd. On the Tillicum property, gold values reportedly occur within Milford Group (Thompson Assemblage-equivalent) tuffaceous siliceous argillite and calc-silicate zones. Drill results indicate potential for two small to medium tonnage high grade gold zones and one large tonnage low grade gold



zone. At Kettle River, gold reportedly occurs within sulphide lenses and disseminations in Thompson-equivalent tuffaceous argillite.

#### PROPERTY GEOLOGY

Property geology is only superficially known at this time. Figure 2 shows the main lithologies which are now mapped as underlying the area (G.S.C. O.F. 637 modified by our field mapping). From oldest to youngest, these include high grade metamorphic rocks of the Shuswap Metamorphic Complex on the northeast, a central northwest-trending sedimentary and volcanic sequence consisting of limestone, greenstone and siliceous argillite of the Upper Paleozoic Thompson Assemblage and argillaceous, calcareous sediments and andesite flows of the Upper Triassic Slocan Group and Lower Jurassic Nicola Group, and coarse-grained granodioritic rocks of the Jurassic Nelson and Valhalla Plutonic Complexes to the south and east.

During field work, the major lithologies encountered were coarse grained porphyritic diorite and thinly bedded argillite containing up to 8% pyrite and many thin quartz segregations.

The structural controls in the vicinity of the property are not well understood, though most lithologies strike and are foliated along a northwesterly direction. The area has undergone multiple phases of metamorphism and deformation. Gentle to isoclinal folding has been reported in Thompson Assemblage and Slocan Group rocks, and numerous block faults paralleling regional strikes are inferred to exist. Metamorphism is generally low grade and is due to the major Columbian orogeny of Jurassic-Cretaceous time. Across the volcanic-sedimentary sequence, rocks generally become younger from southwest to northeast.

### GEOCHEMICAL SAMPLING PROGRAM

A total of 30 stream silt and 3 rock samples were collected from the property. Figure 2 shows sample locations. Sampling was completed by single man teams using a compass and altimeter. All sample locations were conspicuously flagged. B horizon soil was collected.

Sample analysis was carried out by ACME Analytical Laboratories Ltd., of Vancouver, British Columbia. All samples were analyzed by the ICP method for 5 elements and separately analyzed for gold by fire assay and atomic absorption. Analytical procedure and detection limits are stated in Appendix I.


Sample preparation involved sieving the sample to -20 mesh, then pulverizing the -20 mesh fraction to -100 mesh before analysis. This was done to counteract any nugget effect due to the presence of coarse gold in the analyzed sample.

Analytical results show the presence of anomalous gold and arsenic on the property. Gold shows a particularly high background and a number of moderate anomalies which group well on the Peak 4 claim on the south side of Holmes Lake. The magnitude of the gold anomalies may have been reduced by pulverizing the -20 mesh fraction, though an improvement in precision (reproducibility) likely resulted.


The frequency, magnitude and grouping of gold anomalies in stream sediment samples from the property indicates gold is being liberated from rocks over a significant part

of the area sampled. This area should be soil sampled in detail and the reconnaissance sampling program should be completed over the entire property.

Respectfully submitted,

  
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R. J. BEATY, M.Sc., LL.B., F.G.A.C.



  
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J. SCOTT BENDING, B.Sc.

REFERENCES

- |                                       |                 |
|---------------------------------------|-----------------|
| B. C. Minister of Mines Annual Report | 1904, p. 228    |
| B. C. Minister of Mines Annual Report | 1914, p. 360    |
| B. C. Minister of Mines Annual Report | 1930, p. 263    |
| B. C. Minister of Mines Annual Report | 1935, p. E 31   |
| B. C. Minister of Mines Annual Report | 1938, p. E 40   |
| B. C. Minister of Mines Annual Report | 1973, pp. 97-98 |
| B. C. Minister of Mines Annual Report | 1974, pp. 81-86 |

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George Cross News Letter No. 242 (1982); Dec. 17, 1982, page 1.

Holland, S. S. (1980): Placer gold production of British Columbia. B. C. Min. Energy, Mines & Pet. Res. Bull. 28.


Jones, A. G. (1959): Vernon Map Area, British Columbia. Geol. Surv. Can. Mem. 296, page 147.

STATEMENT OF QUALIFICATIONS

I, ROSS J. BEATY, hereby certify:

1. That I am a Consulting Mining Geologist employed by Beaty Geological Ltd., with offices at 208 - 2786 West 16th Avenue, Vancouver, British Columbia, V6K 3C4.
2. That I am a graduate in geology of the University of British Columbia (B.Sc., 1974) and the Royal School of Mines, Imperial College of Science and Technology, University of London (M.Sc., with Distinction and Diploma of Imperial College, 1975), and in law of the University of British Columbia (LL.B., 1979).
3. That I have practised within the geological profession in Canada, United States, South Africa, New Zealand and Bolivia since 1970 while employed by Kennco Explorations (Western) Ltd., Duval Corporation, Cominco Ltd., Placer Development Ltd., Texasgulf Inc., Golder Associates, D. G. Leighton & Associates Ltd., P. M. Hancock and Associates and Beaty Geological Ltd.
4. That I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy and the Law Society of British Columbia.
5. That I carried out some of the sampling and supervised the exploration program referred to in this report.
6. That I have no interest directly or indirectly, past or present, in the property or in any other property within 10 km of the property, nor do I expect to receive any.

DATED at Vancouver, British Columbia, this 7th day of December, 1983.

  
ROSS J. BEATY, M.Sc., LL.B., F.G.A.C.



STATEMENT OF QUALIFICATIONS

I, J. SCOTT BENDING, hereby certify:

1. That I am a Geologist employed by Beaty Geological Ltd., with offices at 208 - 2786 West 16th Avenue, Vancouver, British Columbia, V6K 3C4.
2. That I am an honours graduate in Geology of Oregon State University (B.Sc., 1982) and possess a degree in Physical Geography (B.Sc., Geomorphology, 1982).
3. That I have been engaged in mineral exploration in Canada and the United States for more than four field seasons while employed by Beaty Geological Ltd., Active Mineral Explorations Ltd., Kidd Creek Mines Ltd., Texasgulf Inc., and Cascade Exploration Inc.
4. That I was directly involved in the field exploration program referred to in this report.
5. That I have no interest directly or indirectly, past or present, in the property or in any other property within 10 km of the property, nor do I expect to receive any.

DATED at Vancouver, British Columbia this 9th day of December, 1983.

  
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J. Scott Bending, B. Sc.



## APPENDIX I - ANALYTICAL RESULTS (Peak-Reka-Hold)

Analytical method: ICP Geochemical Analysis (Acme Anal.Labs.Ltd.)

A .500 gram sample is digested with 3 ml of 3:1:3 HCl to HNO<sub>3</sub> to H<sub>2</sub>O at 90 deg. C. for 1 hour. The sample is diluted to 10 mls with water.

This leach is partial for: Ca, P, Mg, Al, Ti, La, Na, K, W, Ba, Si, Sr, Cr and B. Au Detection 1 ppb. Au analysis from 10 gram FA + AA.

Sample Type - soil silt and rock.

Sample	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Au ppb	Sample Type
MON-SC-1	94	20	148	.7	98	50	silt
MON-SC-2	47	11	153	.6	23	24	silt
MON-SC-3	41	10	140	.5	16	42	silt
MON-SC-4	38	10	141	.4	19	11	silt
MON-SC-5	40	9	144	.4	16	10	silt
MON-SC-6	37	11	173	.5	20	7	silt
MON-SC-7	40	10	135	.4	21	90	silt
MON-SC-8	30	15	105	.5	10	8	silt
MON-SC-9	57	14	233	.5	70	22	silt
MON-SC-10	101	13	183	1.0	131	15	silt
MON-SC-11	124	11	127	.3	143	8	silt
MON-BC-1	62	10	106	.4	21	13	silt
MON-BC-2	82	10	104	.5	16	8	silt
MON-BC-3	34	12	91	.2	62	9	silt
MON-BC-4	47	11	90	.2	13	3	silt
MON-BC-5	24	6	62	.3	8	95	silt
MON-BC-6	79	4	102	.4	18	4	silt
MON-BC-7	53	18	126	.7	38	8	silt
MON-BC-8	38	10	69	.7	11	4	silt
MON-BC-9	25	7	86	.3	7	2	silt
MON-JC-1	33	13	115	.4	11	5	silt
MON-JC-2	27	10	123	.3	15	4	silt
MON-JC-3	19	8	87	.3	14	12	silt
MON-JC-4	35	14	136	.4	21	9	silt
MON-JC-5	38	10	251	.3	9	2	silt
MON-JC-6	72	9	121	.4	22	3	silt
MON-JC-7	54	14	148	.8	22	6	silt
MON-JC-8	17	8	92	.3	9	4	silt
MON-JC-9	22	8	115	.4	10	2	silt
MON-JC-10	25	9	124	.3	6	3	silt
MON-SR-1	116	9	68	2.1	2	4	rock
MON-SR-2	55	8	68	.3	5	2	rock
MON-JR-800	27	6	47	.4	2	2	rock

APPENDIX IIITEMIZED COST STATEMENT: PEAK-REKA-HOLD CLAIMSPersonnel:

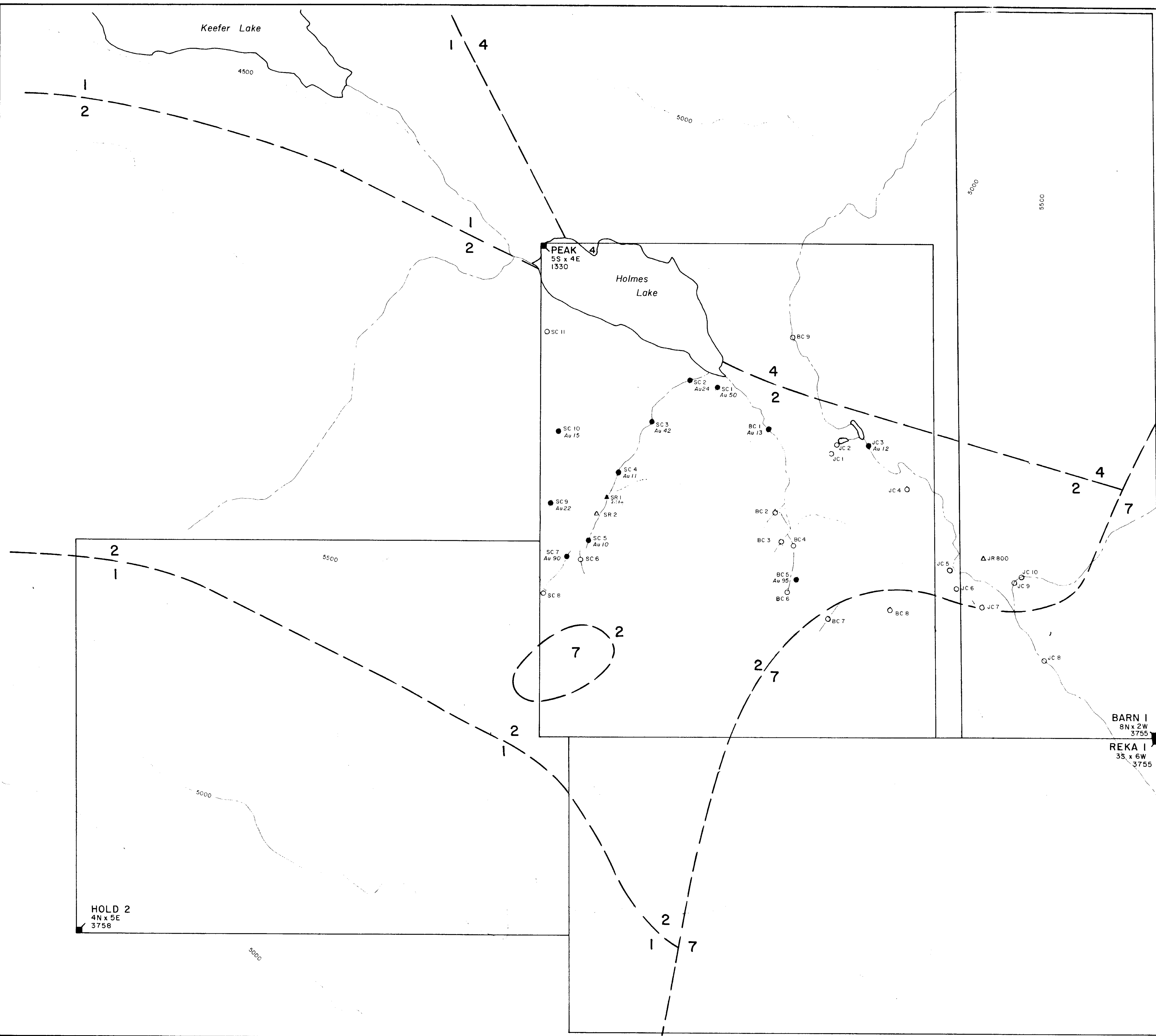
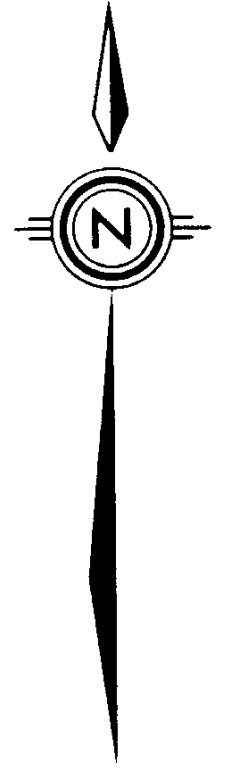
R. J. Beaty	Nov. 1, 3, 29; Dec. 5 4 days @ \$240	960.00	
S. Bending	Nov. 1, 3-5, 28-29 6 days @ \$125	750.00	
B. Johnston	Nov. 1, 3-5 4 days @ \$100	400.00	
Contract expenses (UIC, CPP, WC, etc.)		<u>633.00</u>	2,743.00

Disbursements:

Analytical costs (Acme Anal.Labs.Ltd.):			
34 Cu, Pb, Zn, Ag, As ICP analyses @ \$4.00; 34 Au fire assays @ \$5.25; 30 silt preps @ \$1.75; 4 rock preps @ \$2.50		377.00	
4 WD truck rental (Redhawk Rentals)		267.76	
Expendable field supplies (flagging, etc)		37.07	
Food, accommodation		255.61	
Gas, oil		107.55	
Field and camp equipment - 10 man days @ \$12		120.00	
Airfare (attributed to property)		64.80	
Maps, reports		30.98	
Long distance telephone		14.00	
Secretarial, accounting - 5 hrs @ \$16		80.00	
Drafting - 3 hrs @ \$18		54.00	
Map reproductions		42.41	
Photocopies, report binding		<u>27.75</u>	<u>1,478.93</u>

TOTAL COSTS EXPENDED ON PROPERTY WORK

\$4,221.93



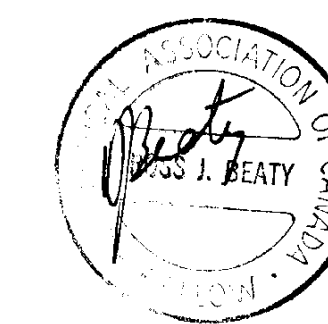
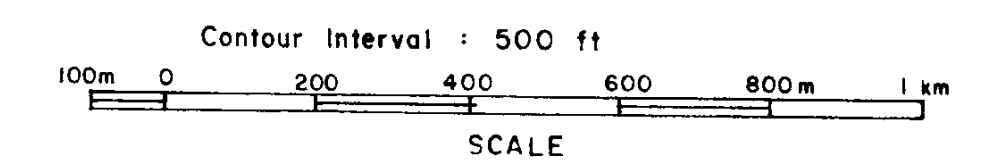
**LEGEND**

**GEOLOGY**

- JURASSIC**  
7 Granodiorite
- TRIASSIC AND JURASSIC**  
6 Nicola Volcanic
- 5 Carbonates } Slocan Group  
4 Argillites }
- CARBONIFEROUS AND PERMIAN**  
3 Greenstones, Tuffs } Thompson Assemblage  
2 Argillites }  
1 Limestone }

**SYMBOLS**

- Inferred Geological Contact  
—— Observed Geological Contact  
~~~~ Faults (approximate, inferred)  
—— Claim Boundary
- Soil Sample Site  
○ Stream Silt Sample Site  
△ Rock Sample Site  
●▲ Anomalous Sample (Au ≥ 10 ppb, Ag ≥ 2.0 ppm)



PROPERTY MAP  
PEAK - REKA - HOLD - BARN CLAIMS  
Showing  
GEOLOGY, CLAIMS, SAMPLE LOCATIONS  
AND GEOCHEMICAL ANOMALIES

|       |           |            |                 |
|-------|-----------|------------|-----------------|
| SCALE | 1 : 10000 | DATE       | DECEMBER, 1983. |
| DRAWN | JSB, PW   | DRAWING No | FIGURE 2        |

BEATY GEOLOGICAL LTD.

HOLD 2  
4N x 5E  
3758

BARN I  
8N x 2W  
3755

REKA I  
3S x 6W  
3755

PEAK  
5S x 4E  
1330