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Gold Commissioner's Office  
VANCOUVER, B.C.

# DAISY CLAIM GROUP

## Rock Geochemical Report

**Nicola M.D.**  
**NTS 92H 15E**  
**49° 50' 48" N; 120° 32' 55" W**

For / By

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Burnaby, B.C.  
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(604) 433-1230

October 15, 1997.

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

25,255

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## Summary

The **Daisy** Claim Group is located southeast of Merritt, British Columbia, within the Intermontane Belt of the Canadian Cordillera.

The **Daisy** Claim Group is situated in a geological setting suitable for the formation of Cu-Au-Mo porphyry, skarn, vein, shear and breccia deposits.

The claims are underlain predominantly by marine volcanics of the Central Belt within the Upper Triassic Nicola Group. A fault bounded, elongate dioritic unit has also been mapped in the northeastern portion of the **Daisy** claims.

Mineralization on the property consists of pyrite, chalcocite, magnetite, chalcocite, malachite and azurite. It was associated with shear zones, breccias, quartz veinlets and stringers, and fracture sets.

Assay results were anomalous in Cu and Zn. Previous samples from the claims have returned 1.07% Cu over 4 metres and 0.8% Cu over 9.1 metres.

Further work, including detailed geological mapping and geochemical sampling, is recommended for the new showing (Sample #111871) found by prospecting. The showing was partially covered by debris and should be cleared off by mechanical means.

## Introduction

The **Daisy Claim Group** is located 38 kilometers southeast of Merritt, British Columbia, within the Intermontane Belt of the Canadian Cordillera.

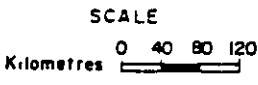
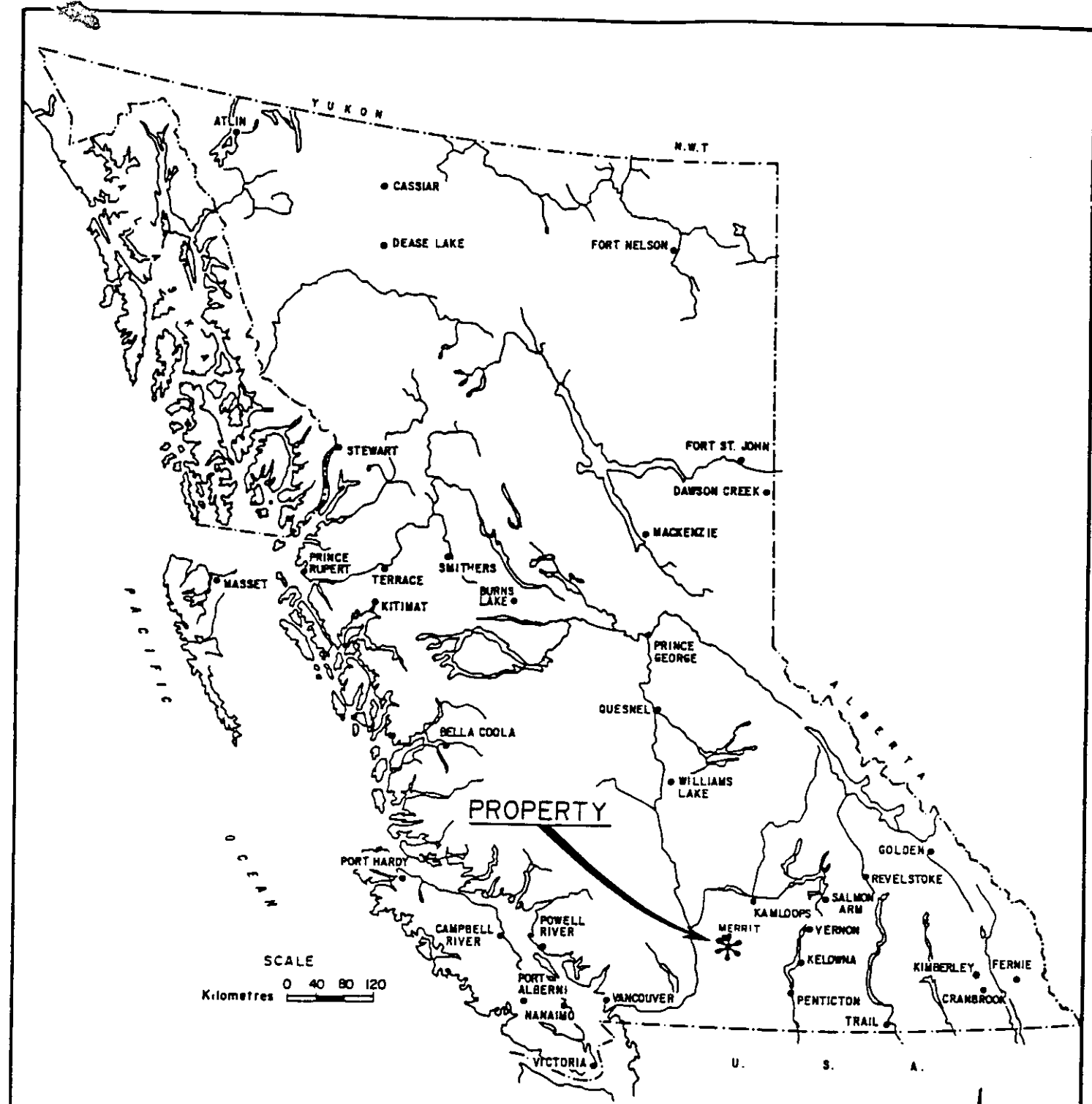
It is situated in a geological setting favourable for the formation of Ca-Au-Mo porphyry deposits, skarn or replacement deposits; or auriferous quartz-carbonate vein, shear or breccia deposits.

The Highland Valley Copper Mine, a porphyry copper deposit located north of Merritt, contains published reserves of 539.7 million tonnes grading 0.42% Cu (January 1, 1995). The mine is owned by Cominco Ltd. (50%), Rio Algom Ltd. (33.6%), Teck Corp. (13.9%) and the Highmont Mining Company (2.5%).

The Similco (Copper Mountain) Mine owned by the Princeton Mining Corporation and located south of Princeton, British Columbia; contains published reserves of over 135 million tonnes grading 0.36% Cu plus additional gold and silver credits (January 1, 1995).

The Elk-Siwash North Mine; a vein deposit owned by Fairfield Minerals Ltd., and located southeast of Merritt; contains stockpiled, probable and possible reserves of over 123,000 tonnes grading 27.43 gpt Au (January 1, 1996). Between 1992 and 1994 Fairfield produced 1,586 kg (52,000 oz.) of gold from ore averaging 97.7 gpt (2.8 opt) Au over 0.4 meters.

This report covers assessment work carried out on the **Daisy Claims** During August 9th and 10th, 1997.



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DAVE HEYMAN	
DAISY CLAIMS	
LOCATION MAP	
N.T.S. 92 H 15E	NICOLA M.D., B.C.
Scale 1:800,000	Date: OCT 11 97
Drawn by: D H	Figure No: 1

## Location and Access

The **Daisy** Claim Group is located 38 km southeast of Merritt in the Nicola Mining Division of British Columbia figure 1.

The property is road accessible via highways 97C and 5A which passes through the settlement of Aspen Grove.

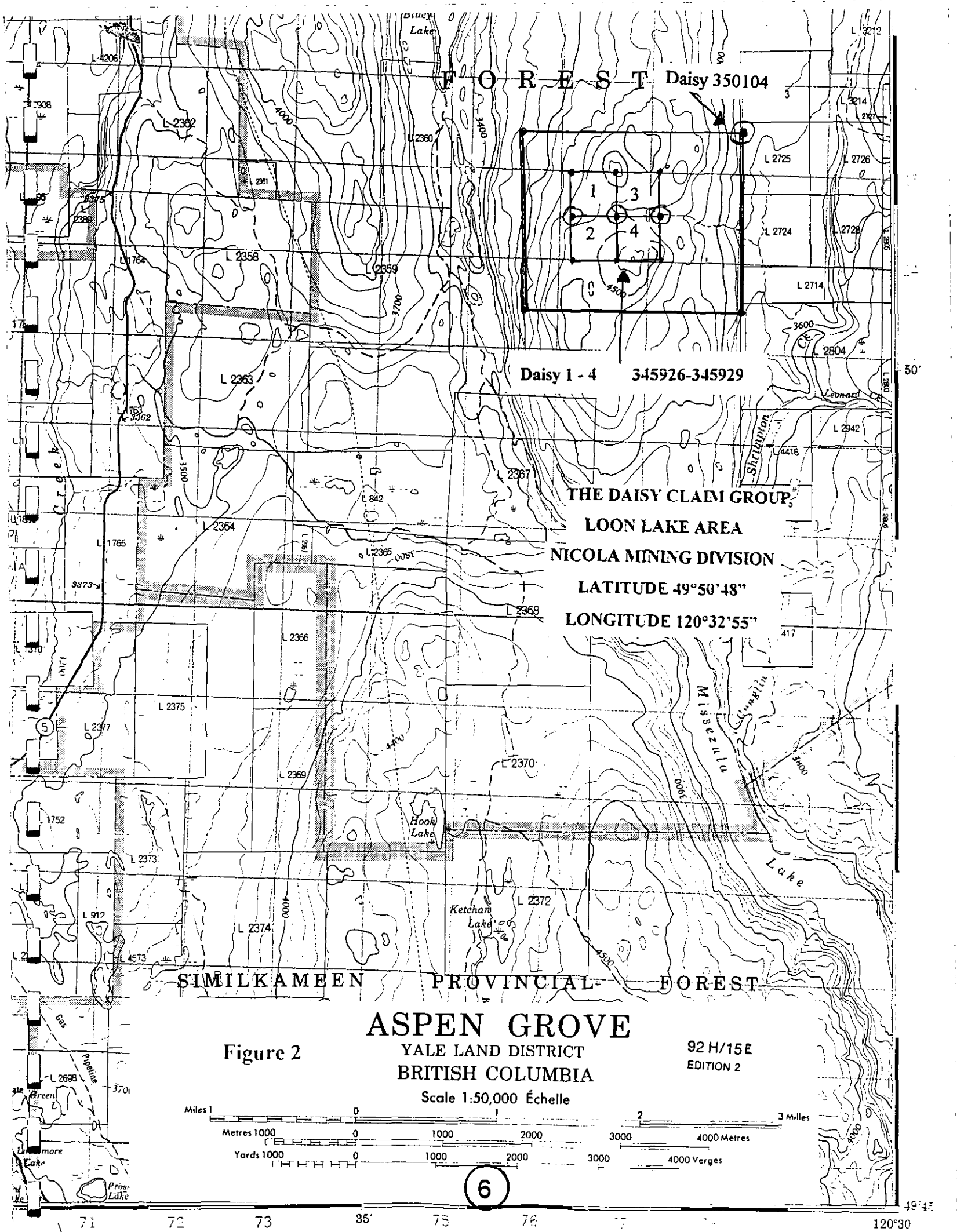
From Aspen Grove, highway 5A is followed south to the Kentucky Alleyne Provincial Park turn off, then east for 8 kilometers to the Loon Lake Access Road then south for 5 kilometers to the claim boundary.

## Claim Data

Claim Name	Tenure	# of Units	Expiry Date	New Expiry Date
<b>Daisy</b>	350104	20	Aug.11,1997	Aug.11,1998

These claims are owned 100% by Dave Heyman (Figure 2, Page 6).





## Topography, Vegetation and Climate

The relief within the **Daisy Claim Group** is moderate with subcropping and outcropping ridges tending northerly throughout the property. Small ponds and swampy areas are located within topographically low areas around and between the ridges.

Elevations on the property range between 3,800 and 4,500 feet above sea level.

Vegetation and climate is typical for the Merritt Forest Service Area. Density was moderate and not a hindrance for field work.

## History and Previous Work

The **Daisy** (or Josee) minfile prospect occurs within the **Daisy** claims on the B.C. Geological Survey Tulameen Minfile Map (NTS092HNE). It is described as a shear zone containing both copper and silver mineralization.

Previous work within the claims includes:

- 1915: several trenches and a short adit were excavated.
- 1970s: trenching and diamond drilling programmes were carried out by Noranda.
- 1983-84: J.M. Murphy completed soil and geological surveys.

Historic sampling results on the property have returned:

	<b>Cu (%)</b>	<b>Ag (gpt)</b>	<b>Au (gpt)</b>	<b>Length (metres)</b>	<b>Source</b>
1)	1.03	11.0	trace	4	Assessment Report 12351 Minister of Mines
2)	0.8	3.4	trace	9.1	Annual Report 1928 Minister of Mines
3)	7.8	61.7	trace	hand sorted ore	Annual Report 1915

1996: Report by Ed McCrossan (field work).

## Regional Geology

**Daisy Claim Group** lies within the Intermontane Belt of the Canadian Cordillera in an area underlain by the Upper Triassic Nicola Group.

The Nicola Group consists of marine volcanics and sediments that were probably deposited in an island arc setting.

Around the study area, Preto (1979) divided the Nicola Group into three separate assemblages (or belts) based upon different lithologies and depositional facies.

1. The Central Belt contains well-bedded marine sediments, reefal limestones, and volcanic flows, breccias, tuffs and lahar deposits of andesitic to basaltic composition.
2. The Eastern Belt includes trachyandesitic to trachybasaltic porphyry flows, flow breccias, lapilli tuffs, lahars, sandstones and siltstone.
3. The Western belt is composed of calcareous volcanic sediments; cherty limestones; and andesitic to dacitic flows, breccias and tuffs.

Comagmatic intrusive rocks composed of diorite, with lesser monzonite and syenite, tend to be associated with the Central Belt of the Nicola Group.

Regional structures in the area trend north-south, northeasterly, and northwesterly.

Several mines and advanced mineral exploration or development projects are located within the Nicola Group in the south-central interior of British Columbia.

Besides the Highland Valley, Similco, and Elk mines described above, other mines in the area include the Craigmont Cu-Fe skarn deposit near Merritt, the Afton-Ajax Cu-Au porphyry near Kamloops, and the Hedley Tailings and Nickel Plate gold mines near Princeton.

## Local Geology

The **Daisy Claim Group** is underlain predominantly by marine volcanics of the Central Belt within the Upper Triassic Nicola Group. A fault bounded monzonite to diorite unit of Upper Triassic to Lower Jurassic age has also been mapped in the northeastern portion of the property by Preto (1979).

A variety of volcanic facies of andesitic to basaltic composition were noted on the property. These included plagioclase and/or pyroxene porphyries, crystal and lithic fragmental tuffs, agglomerates, and breccias.

Mineralization on the claims included trace amounts of minor concentrations of pyrite, chalcopyrite, bornite, magnetite, chalcocite, malachite and azurite. It was associated with shear zones and breccias, quartz veinlets and stringers, and fracture sets.

Alteration products, generally associated with mineralized areas, consisted of hematite, chlorite, epidote and silica. Some of the lower grade alteration may have been due to weak regional metamorphism.

Limonite and pyrolusite, as well as lesser malachite were common oxidation products.

The claim group is located within the Kentucky Alleyne-Summers Creek fault system which has been interpreted by Preto (1979) to be a major regional fault which represents the eastern portion of a rift system that controlled the emplacement of Nicola volcanic rocks, as well as the distribution of later Tertiary sediments.

Within the property, local structures and volcanic units trend north-south to north-northwesterly subparallel to the Kentucky Alleyne fault system. Mineralization is also associated with shear zones within the fault system and is probably related to the elongate dioritic intrusion that may be comagmatic with the Nicola Group volcanic rocks in the claim area.

The mineralization on the **Daisy** claims appears to be structurally controlled, epigenetic and may be related to a porphyry-like system.

There is also a potential for the discovery of vein, stockwork, or replacement deposits within the claim group area.

## Geochemical Sampling

A total of five rock samples were taken from outcrops and one sample of float consisting of quartz chips from an old logging landing. Sample #11870 was taken from a new logging landing (made within the last two years). Because malachite staining was observed, a petrology report and thin section was prepared (Appendix II, page 18), by Vancouver Petrographics.

The samples were sent to Acme Analytical Laboratories and analyzed for 30 elements using I.C.P. (results Appendix II).

Sample results were anomalous in Cu and Zn. One outcrop, sample #111870 (description of samples, Appendix I, page 17) returned 1382 ppm.

Bluey  
Lake

DAVE HEYMAN

DAISY CLAIMS  
NICOLA MINING DIVISION, B.C.  
NTS 92H 15 E

ROCK GEOCHEMICAL SAMPLE LOCATION  
MAP WITH  ASSAY RESULTS

 METRES 500m

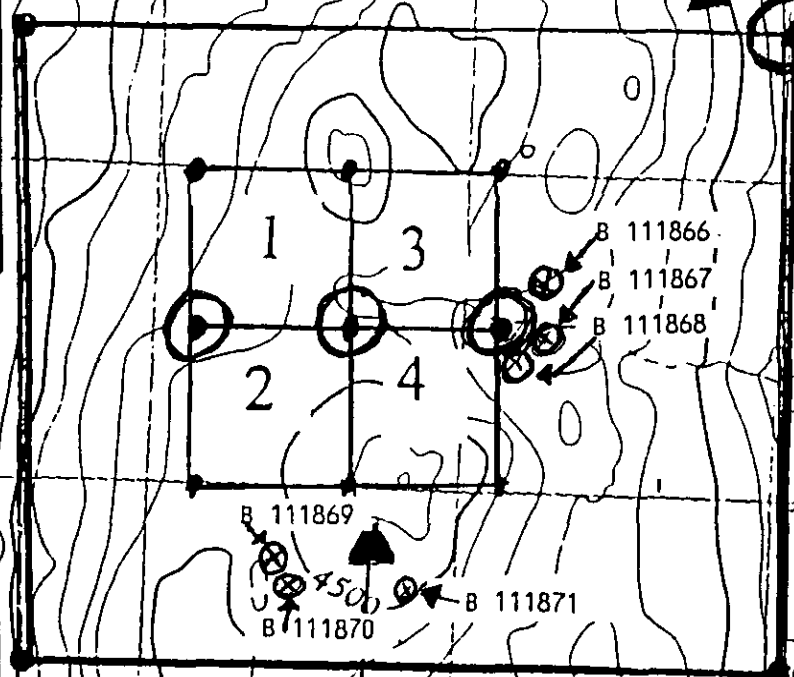
Data by: D Heyman Date: OCT 11 1997 Scale: 1: 12:500  
Drawn: D Heyman Figure: 3

LEGEND  
 12

B 111870  Rock Sample Location

THE DAISY CLAIM GROUP  
LOON LAKE AREA  
NICOLA MINING DIVISION  
LATITUDE 49°50'48"  
LONGITUDE 120°32'55"

R E S T Daisy 350104



Daisy 1 - 4 345926-345929

## Conclusions and Recommendations

Assay results were anomalous in Cu and Zn.

Since the **Daisy** claims lie within the Central Belt of the Nicola Group in a geological setting favourable for the formation of Cu-Au-Mo porphyry, skarn, vein, breccia and shear deposits, further work is warranted for the property.

Malachite bloom was discovered in a new logging landing (Sample 111870). Trenching and further soil sampling is warranted followed by a geophysical survey and drilling if results are successful. Faulting was observed within 100 meters, typical of mapping noted by Preto.



## References

1. Preto, V.A. 1979: Geology of the Nicola Group between Merritt and Princeton, British Columbia. B.C. Ministry of Energy, Mines, and Petroleum Resources Bulletin 69.
2. Ministry of Energy, Mines, and Petroleum Resources 1992: Geological Survey Branch Minfile Map NTS 092HNE Tulameen.
3. Geological Survey Branch — Mineral Resources Division: Minfile No. 092HNE091.
4. Report by E. McCrossan, P.Geo, F.G.A.C. — **Daisy Claim** Group, July 22, 1996.

## Cost Statement

Work performed during August 9, 1997 — August 10, 1997.

Wages	2 days @ \$175.00	350.00	
Truck Rental	2 days @ \$100.00	200.00	
Fuel		285.75	
Food and Hotel		296.00	
Assays & petrographics		238.82	
Report		400.00	
Secretarial, copies, etc.		325.00	
Filing Fee		200.00	
			2,295.57
Miscellaneous	10% of \$2,295.57		229.55
			<b><u>\$2,525.12</u></b>

## Author's Qualifications and Certificate

I, **David A. Heyman** of 6488 Telford Street, Burnaby, British Columbia, hereby declare that:

1. I am a graduate of the Merritt Secondary School, Merritt, B.C., 1973.
2. Since 1973 I have been continuously employed in the mineral industry as a diamond driller, prospector and equipment operator.
3. I hold a Workers' Compensation Board Blaster's Certificate and have worked as a soil sampler, blaster, line cutter, and geologist, geophysicists assistant.
4. The information and recommendations contained in this report are based on a two-day work program.

DATED at Burnaby, British Columbia, this 15th day of October, 1997.

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David A. Heyman

**Appendix I**

**Daisy Claims**

**Rock Sample Descriptions**

**Appendix II**

**Assay Results**

**Petrology Results**

## Appendix I

### Daisy Claims Rock Sample Descriptions

B111866	Epiclastic siltstone or mudstone, strongly weathered at surface; contains about 1% disseminated pyrite.
B111867	Epiclastic siltstone or mudstone, strongly weathered at surface; contains about 1% disseminated pyrite.
B111868	Sample taken from old logging landing. Chips of banded white quartz float.
B111869	Epiclastic sandstone or siltstone with strong disseminated pyrite.
B111870 and Petrology Report	Greenstone or andesite with malachite staining. Petrology described by Vancouver Petrographics.
B111871	6 meter chip sample; Nicola greenstone or andesite with mixed disseminated pyrite, euhedral quartz — filled vugs and epidote in fracture fillings.



GEOCHEMICAL ANALYSIS CERTIFICATE



Heyman, David PROJECT DAISY File # 97-5680  
 6488 Telford St., Burnaby BC V5H 2Z2 Submitted by: David Heyman

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	
B 111866	<1	109	<3	69	<.3	5	18	1404	4.34	12	<8	<2	2	169	.6	3	<3	43	6.12	.158	9	3	.99	117	<.01	17	.52	.02	.37	<2
B 111867	2	130	9	146	<.3	12	10	1143	4.96	7	<8	<2	<2	34	2.6	<3	<3	244	1.95	.130	8	13	1.51	45	.24	8	2.27	.06	.06	2
B 111868	1	45	3	77	<.3	3	11	1107	3.62	17	<8	<2	<2	230	1.1	<3	<3	44	5.27	.120	4	3	1.08	48	<.01	12	.35	.04	.19	<2
B 111869	<1	173	5	64	<.3	8	30	1434	6.12	3	<8	<2	<2	101	.6	<3	<3	111	3.92	.156	5	7	1.96	794	.01	7	1.28	.04	.38	<2
B 111870	1	1382	<3	23	.9	5	7	694	3.07	4	<8	<2	3	205	<.2	<3	3	133	4.97	.148	6	8	.88	19	.19	4	1.65	.06	.03	<2
B 111871	1	62	3	68	<.3	9	20	1090	4.54	4	<8	<2	<2	104	<.2	<3	<3	182	3.50	.114	5	11	1.36	66	.23	16	3.20	.04	.11	<2
RE B 111871	<1	57	3	63	<.3	8	18	1002	4.08	4	<8	<2	<2	95	<.2	<3	<3	167	3.24	.108	4	9	1.22	60	.21	15	2.92	.04	.09	2
STANDARD C3	25	65	36	161	5.6	36	12	711	3.28	53	20	<2	15	29	22.3	12	21	82	.55	.085	17	160	.56	144	.10	19	1.83	.04	.16	22

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.  
 ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB  
 - SAMPLE TYPE: ROCK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 29 1997 DATE REPORT MAILED: *Oct 3/97* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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# Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V1M 3S3  
PHONE (604) 888-1323 • FAX (604) 888-3642  
email: vanpetro@vancouver.net

Report for: Dave Heyman,  
6488 Telford St.,  
BURNABY, B.C.  
V5H 2Z7

Job 970635

September 9, 1997

## SAMPLE:

A rock sample, stated to be of Nicola Volcanics, was submitted for examination. A typical portion was prepared as a polished thin section.

## DESCRIPTION:

### EPIDOTE-OLIGOCLASE ROCK

#### Estimated mode

Plagioclase	50
Epidote	34
Carbonate	14
Sphene)	2
Rutile)	
Limonite	trace
Malachite	trace

The sectioned portion of this sample shows crudely banded compositional variations (see off-cut). Most of the area shows a strong white etch reaction indicating the dominance of plagioclase, but this grades, towards one end, to a brown unetched variant.

Thin section examination shows that the rock is of simple composition, consisting essentially of plagioclase and epidote.

The dominant constituent is a randomly oriented, meshwork aggregate of subhedral prismatic plagioclase, of grain size 0.05 - 0.5 mm. This is fresh and shows well-developed twinning, the extinction angles of which are indicative of a composition of oligoclase.

The principal accessory is epidote, as more or less abundant small clumps, consisting of aggregates of tiny grains 10 - 50 microns in size, interstitial to the plagioclase aggregate. A little carbonate occurs in similar manner.

The bulk of the carbonate in the rock is present in segregated form as a few irregular veinlets, 0.05 - 0.2 mm in thickness, concordant to the compositional banding.




The latter takes the form of a progressive increase in the ratio of epidote to plagioclase, such that a 5 - 7 mm zone at one end of the sectioned portion consists of an essentially monomineralic, mosaic aggregate of subhedral epidote grains, 30 - 300 microns in size.

Fine-grained rutile and traces of sphene are a minor but consistent accessory, as disseminated specks within the epidote component.

The origin of this rock is uncertain. Its general texture is suggestive of an albitite-type dyke, but the prevalence of epidote is unusual. The latter does not appear to be an alteration of the plagioclase - at least, not in a pervasive hydrothermal sense - and its well-crystallized character (and the relative abundance of carbonate) suggests possible skarnic affinities.

The thin section includes rare small pockets of limonite with associated malachite.



J.F. Harris Ph.D.

(929-5867)