

Prospecting Report  
on the  
Burr #1 Mineral Claim  
Ashcroft Area  
KAMLOOPS MINING DIVISION  
by  
Murray Morrison, B.Sc.

Claim: Burr #1 (9 units)  
Location: The Burr #1 claim lies 9 km  
northeast of Ashcroft, B.C.  
Lat. 50°45'; Long. 121°10'.  
N.T.S. 92-I-14  
Owner: Murray Morrison  
Operator: Murray Morrison  
Date Started: October 7, 1982.  
Date Completed: October 9, 1982.

Kelowna, B.C.

April 15, 1983

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

11,145

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## SUMMARY

The Burr #1 mineral claim of 9 units located on the south side of the Thompson River 11 km upstream from Ashcroft, B.C. was staked by the writer April 15, 1982 to cover a spectacular gossan coincident with the fault contact of Nicola volcanics and a quartz diorite phase of the Guichon Creek Batholith.

During October 1982 the writer prospected the claim and collected 9 rock samples from the main gossan and a secondary gossan located 600 metres southwest of the main gossan.

The analyses of the samples for 31 elements showed that, of the economic elements, only zinc and copper were weakly anomalous in a few samples. Gold (at the parts per million level), and silver were not anomalous.

More diligent prospecting is recommended on the property in an effort to locate an 80 foot adit that is mentioned in the 1898 B.C. Minister of Mines Report. Gold, silver and copper mineralization are reported to have been found in the adit.

## INTRODUCTION

The Burr #1 mineral claim of 9 units is located on the south side of the Thompson River, 9 km northeast of Ashcroft, B.C. The claim was staked on April 15, 1982 by the writer to cover a spectacular gossan lying over an intensely fractured, altered, and pyritized contact between Nicola volcanic rocks and a quartz diorite phase of the Guichon Creek Batholith. The gossan zone had been called a copper, gold and silver occurrence by prospectors of the 1890's, and it had been explored as a potential porphyry copper deposit in the 1960's and 70's. The writer staked the property believing that the gold-silver potential of the property should be reappraised.

.....cont.

INTRODUCTION - Cont.

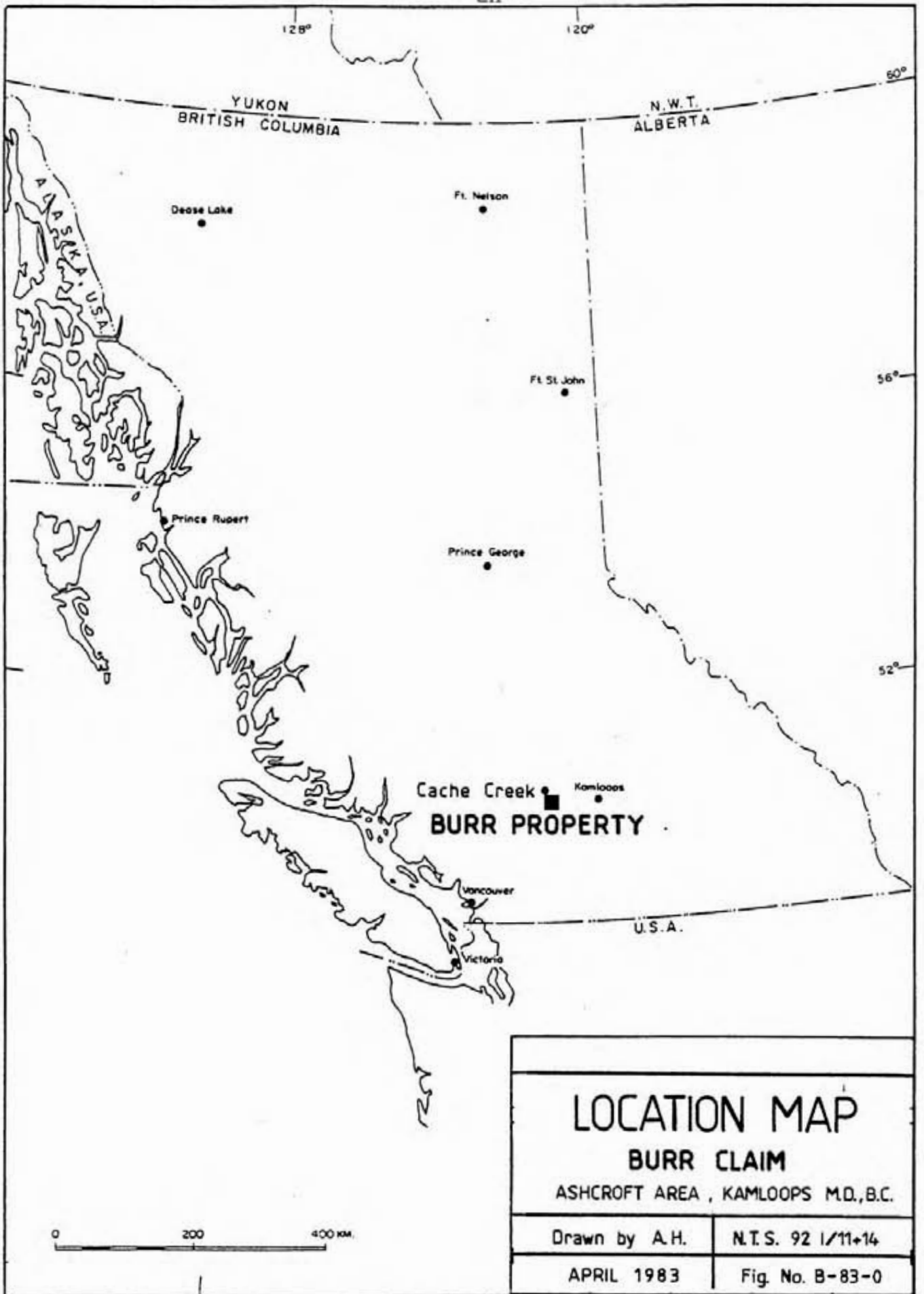
On October 7 - 9, 1982 prospecting traverses were made down a creek cutting the main gossan area located in the centre of the property, and along a second creek cutting a small gossan zone near the western side of the claim. A total of 9 rock samples were selected for rock geochem analyses, and these samples were analyzed for 31 elements including the economic elements gold, silver, and copper, and the typical epithermal indicator elements such as antimony, arsenic and mercury.

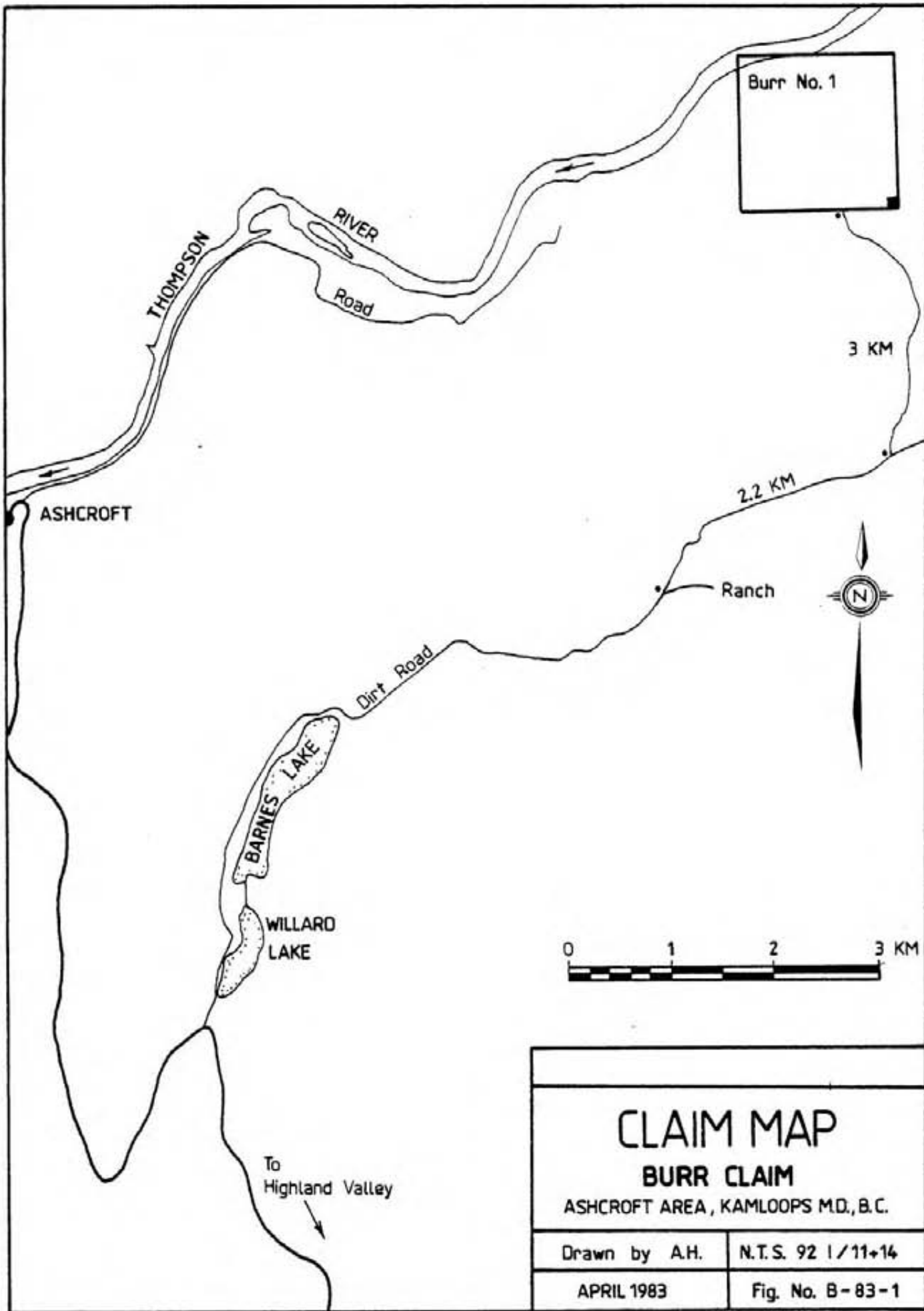
The results of the prospecting and sampling program are discussed within the text of this report, while sample sites and the values of selected elements are shown on Map B-83-2.

LOCATION, ACCESS, TOPOGRAPHY AND VEGETATION

The Burr #1 mineral claim is located immediately south of the Thompson River at a point 11 km upstream from Ashcroft, B.C. (Lat. 50° 45'; Long. 121° 10'; N.T.S. 92-I-14). The C.P. Railway Mainline crosses the northern edge of the claim. A road also follows the Thompson River from Ashcroft, but it stops 3 km short of the claim. This road has a padlocked gate 4 km northeast of Ashcroft, and the key for this gate must be borrowed from C.I.L. Explosives in Ashcroft. The property may alternately be reached via the Highland Valley Highway and the Barnes Lake road along a 22 km route as shown on figure B-83-1.

Vegetation on the Burr claim is typical of that of the Dry Belt of B.C. Sagebrush covers half of the property, while Douglas fir grows in the ravines, and on the steep shaded slopes. Much of the property slopes very steeply (30 degrees) from the 750 metre elevation down to the Thompson River at the 300 metre elevation.





### CLAIM STATUS

The Burr #1 claim of 9 units was staked by the writer April 15, 1982, and was recorded in the Kamloops Mining Division April 19, 1982 with the record number 4013. The claim is 100% owned by M. Morrison of Kelowna, B.C.

### HISTORY OF PREVIOUS WORK

The first mention of work done on the Burr #1 claim is quoted from the B.C. Minister of Mines Annual Report for 1898, p. 1107:

"The Burr group of eight claims is situated about 5½ miles east of Ashcroft, on the C.P. Railway, which runs through the property. It has a large body of ore, carrying gold and silver, but principally copper, and lies between diorite and granite. The country rock is diorite.

"About 80 feet of tunnelling has been run in on the claims, which are most favourably situated for working, as the ore can be dumped into the cars without extra handling."

(The present Burr #1 claim covers ground formerly covered by the Burr group of claims mentioned above).

Further references are made to work done on the Pyrite property (now the Burr #1 claim) in the B.C. Minister of Mines Annual Reports for 1969 p. 263; 1970 p. 348; and 1971 p. 362. The work, consisting of soil geochem surveying, I.P. surveying, and diamond drilling was designed to find copper in economic concentrations. A total of 3 diamond drill holes were drilled in 1970.

It appears that at least 2 of the 3 diamond drill holes of 1970 were drilled near the southwest corner of the present Burr claim as shown on Map B-83-2. A couple of dozen boxes of drill core still lie near the southern edge of the claim. The drill core has not been split for assaying. Near the railway tracks at the northern end of the main gossan there is evidence that 2 to 3 percussion drill holes may have been drilled in recent years.

REGIONAL GEOLOGY

Reference

Mc Millan. W.J. Geology and Genesis of the Highland Valley Ore Deposits and the Guichon Creek Batholith. Porphyry Deposits of the Canadian Cordillera, C.I.M. Special Volume 15, pp. 85-103, 1976.

The Burr #1 claim lies at the northwest extremity of the Guichon Creek Batholith. The geology of the Guichon Creek Batholith with its massive porphyry copper deposits is well documented in several studies on file in geological libraries, and I feel that the reference cited above properly summarizes the main features of the batholith and its ore bodies. The material in the reference is based on the geological work of Northcote and Mc Millan. Northcote has indicated that an oblique fault crosses the northern portion of the Guichon Creek Batholith from a point near Tunkwa Lake to the Thompson River northeast of Ashcroft. The fault, called the Barnes Creek fault, is shown to cut across the Burr #1 claim, and does, in fact, coincide with the highly fractured gossan zone crossing the centre of the Burr #1 claim. The geology to the northeast of the fault is a quartz diorite hybrid phase of the Guichon Creek Batholith which is believed to have been emplaced 198±8 million years ago. The Guichon Creek Batholith is in fault contact with, and also intrudes, Triassic Nicola Group volcanic rocks which lie on the southwest side of the fault. Movement on the Barnes Creek fault is believed to be left-lateral (Mc Millan).

It would seem that the high degree of alteration and pyritization observed on the Burr #1 claim is genetically related to the emplacement of the quartz diorite intrusive and/or to late solutions ascending the Barnes Creek fault structure.



1982 PROSPECTING AND SAMPLING PROGRAM

The legal corner post of the Burr #1 mineral claim was "tied-in" to the main creek on the property using a Silva Ranger compass and a belt chain, while rock sample sites shown on Map B-83-2 were positioned by using an altimeter to establish elevations in conjunction with government topographic maps of 1:50,000 scale. The steep slopes on the property were advantageous to using the altimeter and contour lines for mapping control. Prospecting and sampling was concentrated in the areas on the claim cut by northwest flowing creeks. The creek areas were well faulted and mineralized with pyrite, while the intervening ridges were blocky to massive in structure and much less mineralized.

A total of 9 rock samples were collected for geochemical analyses. At each sample site 3 kg of rock chips were chipped from outcrop over a 3 square metre area. All samples were shipped to Acme Analytical Laboratories Ltd. in Vancouver for analyses. The samples were crushed to -80 mesh, and in each case a 0.500 gram sample was digested with Aqua Regia at 90°C for 1 hour. The samples were diluted to 10 ml with water and analyzed by the inductively coupled argon plasma (ICP) method. In total, 30 elements were quantitatively determined and these are listed in Appendix "B". In the case of mercury, analysis was by flameless atomic absorption of a 0.500 gram sample, and the results are given in parts per billion (ppb).

A description of each sample collected is given in Appendix "A" and the contents of the selected elements, gold, silver, arsenic, copper, and zinc are listed at the sample sites on Map B-83-2 in parts per million.

DISCUSSION OF PROSPECTING AND SAMPLING RESULTS

The creek running diagonally through the centre of the Burr property marks the trace of the Barnes Creek lateral fault. A quartz diorite hybrid phase of the Guichon Creek Batholith lies to the northeast of the fault while Nicola Group andesitic volcanic rocks lie to the southwest. The quartz diorite intrudes the volcanic rocks, and the contact zone is marked by high fracturing, and intense argillic alteration. (The gossan formed is as strong and colourful as that at the well-known Maggie property near highway 97, 15 km northwest of Cache Creek, B.C.). The main gossan, or zone of intense alteration, is 900 metres in length by 200 metres in width. Much of the rock is altered beyond recognition, but less altered rock found along the creek was noted to be a hybrid of diorite and andesite commonly containing 2 to 5% pyrite. In places, the rock has been moderately silicified, or has quartz veins cutting it equalling up to 2% of the rock. At sample site B8208 a stockwork of quartz veins up to 15 cm in width cut the diorite-andesite hybrid rock over a 5 metre area. In general, quartz veins on the property equalled less than 1% and were badly broken by late faulting.

A quartz diorite plug observed to intrude well fractured volcanic rock in the centre area of the main gossan was enveloped by 3 to 5% pyrite for a distance of 10 metres.

A 4 metre wide Tertiary feldspar porphyry dyke which cuts through the centre of the main gossan zone near the north end shows very little fracturing or alteration.

Rock exposures along the southern portion of the main creek on the claim were made up of well fractured, rusty, andesitic rock containing 1 to 3% pyrite. If it were not for overburden the main gossan on the property would have greater dimensions.

Northeast of the main fault the quartz diorite is blocky to massive in structure and rises to form steep bluffs. Southwest of the main fault the Nicola volcanic rocks, which are predominantly andesite tuffs, are also less fractured and form steep bluffs.

Continued...

DISCUSSION OF PROSPECTING AND SAMPLING RESULTS, Cont.

A second creek with a smaller gossan, 600 metres southwest of the main gossan, originates near the southwest corner of the Burr claim. The creek appears to separate the andesitic volcanic rocks on the northeast from interbedded rhyolitic and limy rhyolitic tuffs on the southwest. An old 7 metre long adit was driven in on a pyritic shear zone on the andesitic side of the creek. Malachite was observed in limy-silicate rocks on the southwest side of the creek. Pyrite in amounts up to 1% is disseminated throughout the limy-silicate rocks (tuffs), and a diamond drill hole in the 1960's (?) apparently tested this rock at depth (see Map B-83-2).

The three samples selected from the main gossan zone on the property and the one sample selected from the shear zone at the old 7 metre adit showed no anomalous concentrations of economic minerals. Samples B8202, 03 and 05 contained 413, 970 and 792 ppm zinc respectively, and samples B8204 and 05 contained 418 and 816 ppm copper respectively. These concentrations of zinc and copper are not considered economic. Malachite staining was observed on the two samples assaying copper. Gold was not identified at the parts per million level in any of the 9 samples, and silver concentrations only ranged from 0.1 to 0.4 ppm.

CONCLUSIONS AND RECOMMENDATIONS


None of the previous explorers, nor ourselves have met with much success at identifying economic mineral concentrations on the Burr property, although the gossan is spectacular, and the faulting and pyritization are pronounced. It could be that more diligent prospecting and sampling could lead to success. Our sampling density was sparse, and our testing of gold at the parts per million level was not suffice. More prospecting should be done in an effort to locate the 80 foot adit mentioned in the 1898 Minister of Mines Report.

Continued....

CONCLUSIONS AND RECOMMENDATIONS, Cont.

The rock geochem samples for gold analyses should be subjected to fire assay and atomic absorption so that the gold content at the parts per billion level can be ascertained.

April 15, 1983  
Kelowna, B.C.

  
Murray Morrison, B.Sc.

REFERENCES

Duffell, S. and McTaggart, K. C. Ashcroft Map-Area, British Columbia, G.S.C. Memoir 262, 1952.

Mc Millan, W. J. Geology and Genesis of the Highland Valley Ore Deposits and the Guichon Creek Batholith. Porphyry Deposits of the Canadian Cordillera, C.I.M. Special Volume 15, pp. 85-103, 1976.

Northcote, K. E. Geology and Geochronology of the Guichon Creek Batholith, B.C. Dept. of Mines and Petroleum Resources, Bulletin No. 56, 1969.

APPENDIX A

Description of Burr #1 Mineral Claim Rock Samples

(Please see map B-83-2 for the location of sample sites).

- B8201 sample was selected from highly altered, fractured and rusty andesitic rock containing 3% pyrite found near the portal of a 7 metre adit.
- B8202 sample was collected from a quartz-monzonite porphyry dyke containing 3% disseminated pyrite.
- B8203 sample was collected from a 1 metre wide fault zone cutting volcanic rocks. 5% pyrite was disseminated through rock.
- B8204 sample was collected from a 1/2 metre wide shear zone cutting andesite breccia. 5% pyrite.
- B8205 sample was collected from a malachite stained limy-silicate rock, possibly a waterlain tuff.
- B8206 sample was collected from a limy-silicate rock, possibly a waterlain tuff. 2% pyrite disseminated.
- B8207 sample was composed of a well fractured and faulted diorite-andesite hybrid containing 3 to 5% pyrite and 2% quartz veinlets up to 1 cm.
- B8208 sample was selected from a 5 metre zone of diorite-andesite hybrid with 20% quartz veins and 5% pyrite. The sample was selected from the quartz, and rock immediately adjacent the quartz.
- B8209 sample contains 5% pyrite, and was selected from a moderately silicified, well fractured andesite, cut by 1% quartz veinlets up to 1 cm.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS, VANCOUVER B.C. PH:253-3158 TELEX:04-53124

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O 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 3 ppm.  
 HG# ANALYSIS BY FLAMELESS AA FROM .500 GRAM SAMPLE. SAMPLE TYPE - ROCK CHIPS

DATE RECEIVED APRIL 7 1983 DATE REPORTS MAILED Apr 15/83 ASSAYER Al Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

MR. M. MORRISON FILE # B3-0359

PAGE # 1

SAMPLE #	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	W	Hg#
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	I	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	I	I	ppm	ppm	I	ppm	I	ppm	I	I	I	ppm	ppm
88201	5	12	22	50	.1	2	3	559	3.84	2	2	ND	2	5	1	2	2	23	.06	.03	2	1	.93	71	.01	9	1.32	.02	.24	2	20
88202	1	19	34	413	.2	2	4	1170	3.13	2	2	ND	2	12	2	4	2	32	.17	.04	2	2	2.41	122	.09	13	2.68	.04	.57	3	20
88203	3	17	14	970	.2	2	4	1415	5.25	4	2	ND	2	5	4	2	2	26	.15	.04	2	3	1.81	44	.07	12	1.86	.05	.42	7	10
88204	2	418	11	186	.4	3	9	1121	4.63	6	2	ND	2	7	1	2	2	70	.15	.06	2	4	1.87	52	.02	13	2.54	.03	.16	2	5
88205	4	816	17	792	.1	1	1	379	.70	2	2	ND	2	4	4	2	2	2	.17	.01	4	1	.30	41	.01	5	.59	.03	.18	5	10
88206	1	13	32	89	.1	1	1	472	.92	3	2	ND	2	4	1	2	2	2	.42	.01	4	1	.40	32	.01	3	.62	.02	.16	2	10
88207	1	37	11	39	.1	1	14	526	7.36	19	2	ND	2	27	1	2	2	94	1.06	.04	2	1	.87	13	.07	10	2.18	.12	.05	2	30
88208	1	30	13	35	.1	1	11	531	4.96	24	2	ND	2	24	1	2	2	73	1.00	.07	2	1	.78	21	.06	10	1.80	.10	.68	2	5
88209	18	26	7	36	.1	2	15	414	4.91	53	2	ND	2	34	1	2	2	41	.28	.04	2	2	.44	29	.01	9	1.83	.08	.69	2	10
STD A-1	1	30	37	174	.3	33	12	1003	2.88	4	2	ND	3	16	1	2	2	58	.56	.10	8	71	.72	285	.08	8	1.90	.02	.20	2	50

APPENDIX "B"

APPENDIX C

STATEMENT OF QUALIFICATIONS

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:

1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.
2. I have been working in all phases of mining exploration in Canada for the past fourteen years.
3. During the past fourteen years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
4. Over the past twelve years, I have examined many mineral properties within the Kamloops Mining Division.
5. I personally carried out the prospecting and sampling program outlined in this report.
6. I own full title to the Burr #1 mineral claim described in this report.

April 15, 1983  
Kelowna, B.C.

  
\_\_\_\_\_  
Murray Morrison, B.Sc.



APPENDIX D

STATEMENT OF EXPENDITURES ON THE BURR #1 MINERAL CLAIM

Statement of Expenditures in connection with the Prospecting Program carried out on the Burr #1 mineral claim, N.T.S. 92-I-14, Ashcroft Area, B.C. for the year 1982.

FIELDWORK COSTS

Prospector (geologist)	2½ days @ \$150/day	\$ 375.
Meals and Lodging	2½ days @ 50/day	125.
Truck (4x4, incl. gasoline)	2½ days @ 55/day	137.

LABORATORY COSTS

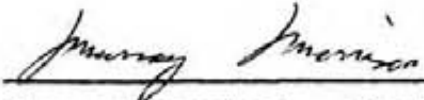
9 rock geochem samples @ \$11/sample	\$ 99.
ICP Analysis for 30 elements, plus Hg by AA	

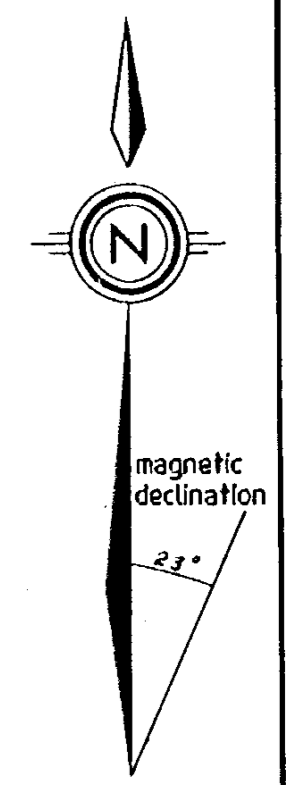
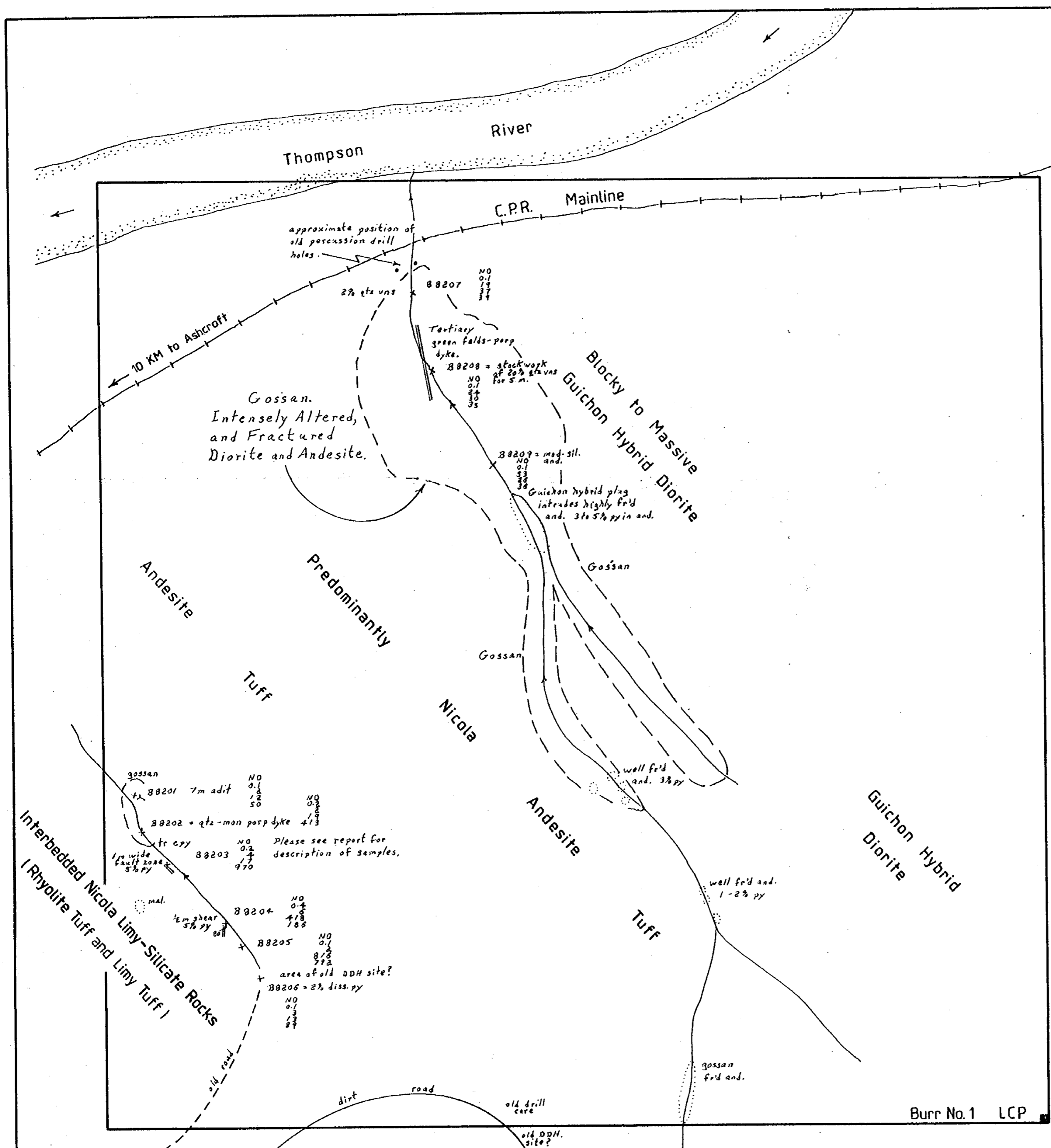
REPORT PREPARATION COSTS

Prospector (geologist)	1 day @ \$150/day	\$ 150.
Drafting	½ day @ 100/day	50.
Typing	14 pages @ 3/page	42.
Copying maps and reports for filing (two copies)		20.
	<u>TOTAL</u>	<u>\$ 998.</u>

I hereby certify that the above statement is a true statement of monies expended in connection with the prospecting program carried out October 7 - 9, 1982.

April 15, 1983

  
Murray Morrison - Geologist



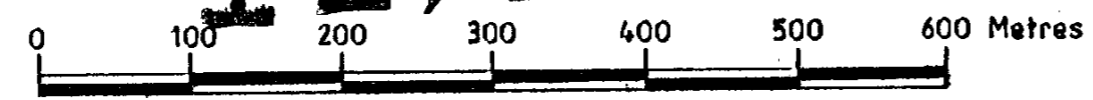
- GEOLOGICAL LEGEND -

- UPPER TRIASSIC
- GUICHION CREEK BATHOLITH
- medium grained, white quartz diorite
- NICOLA GROUP
- Andesitic and dacitic rocks predominantly medium grained andesite tuffs
  - Rhyolitic rocks, fine grained interbedded white rhyolite tuffs and limy tuffs
- mapped outcrop and - andesite  
 cpy - chalcopyrite  
 ○ gossan outline diss - disseminated  
 mal - malachite  
 ↘ creeks py - pyrite  
 ↘ adit qtz - quartz  
 sil - silicified  
 vns - veins
- × 88201 - rock geochem sample site  
 ND - gold in ppm not determineable  
 0.1 - ppm Ag  
 2 - ppm As  
 12 - ppm Cu  
 50 - ppm Zn

Legal Corner Post tied in by compass and belt chain.  
 To accompany a prospecting report by M. Morrison.

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

11,145



<b>BURR CLAIM</b>		
ASHCROFT AREA, KAMLOOPS M.D., B.C.		
<b>PROSPECTING AND SAMPLING MAP</b>		
<b>BURR 1 MINERAL CLAIM</b>		
Drawn by M.M.	April 1983	N.T.S. 92 1/14
Drafted by A.H.	Scale 1:5000	Map. B-83-2