

BALFOUR MINING LTD. (N.P.L.)  
BLUEY GROUP OF CLAIMS  
92-H-16-W/2 Nicola ND, B.C.  
GEOCHEMICAL REPORT  
V. CUKOR P. ENG  
September 1972 *10/16W*

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BALFOUR MINING LTD. (N.P.L.)

BLUEY GROUP OF CLAIMS

92-H-16-W/2 Nicola M.D., B.C.

GEOCHEMICAL REPORT

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

by

NO. 4081 MAP

V. CUKOR, P. Eng.

September 1972

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1. INTRODUCTION

This report is being prepared on behalf of BALFOUR MINING LTD. (N.P.L.) It is a review of the exploratory work conducted on the Bluey Claims and results obtained since the Engineering Report by P.H. Sevensma, P. Eng., of June 26, 1972.

Field work, consisting of geological prospecting and geochemical soil reconnaissance was carried out by the author accompanied by H. Vannerus, during June and July 1972. Geological work also included a photogeological study of the existing airphotographs, also done by the author which results are included in this report.

Airborne magnetic survey was carried out by Seigel & Associates Ltd. of Vancouver, B.C. A separate report summarizing these results has been prepared by Michael J. Lewis, M.Sc.

During the field work the author examined most of the claim posts. Although the location of some of the posts differ somewhat from the position shown on the staking sketch, staking appears to be done in accordance with the Mineral Act. of B.C. The approximate position of the claim posts as found in the field is shown in fig. 1

## 2. PROPERTY, LOCATION, ACCESS

The property consists of the following 54 contiguous full size mineral claims

<u>Claim Number</u>	<u>Record Number</u>	<u>Expiry Date</u>
SS 1 - 7	54799 - 54805	June 21, 1973
BLUEY 1 - 3	54506 - 54508	June 12, 1973
BLUEY 21 - 32	54524 - 54535	June 12, 1973
BLUEY 41 - 60	54544 - 54563	June 12, 1973
BLUEY 61 - 70	54564 - 54573	June 12, 1973
BLUEY 83, 84	54574 - 54575	June 14, 1973

The claims are situated about five miles north of Missezula Lake and about six miles east of Aspen Grove, on the 92 - H - 16 - W/2 NTS sheet in the Nicola Mining Division, B.C.

The area is easily accessible by a good forest road, joining the Princeton Merrit highway about two miles south of Aspen Grove. A network of logging trails makes an easy access to any part of the property.

The country is gently rolling, covered mostly with second growth jackpine. The several streams and small lakes provide enough water for camping and exploration purposes.

Generally mild winter temperatures and moderate snow falls make possible a year round exploration activity.

### 3. GEOLOGY

A regional geology is presented on the G.S.C. Map 888A Princeton, 1" = 4 Miles. According to that map, the area is underlain by sediments and volcanics of the Triassic Nicola Group. A number of irregular intrusive bodies, mainly of granitic or dioritic composition, penetrated volcanics through major fault zones, trending generally N - S. One of such bodies is situated at the S.W. corner of the property.

Field work revealed that on the Bluey claims an extensive blanket of overburden, mostly consisting of glacial debris, hampered detailed geological mapping, but scattered outcrops confirm the general geological picture shown on the G.S.C. map.

The most prominent geological feature is breccia occurrence mentioned in P.H. Sevensma's Engineering Report. The only geochemical copper anomaly found on the property so far is connected with this breccia area. A broad area of low magnetic response is situated immediately north of it.

Photogeological study of airphotographs revealed a number of lineaments, probably representing major faults and fractures. The interpretation is shown on topo map 1" = 1,000' (Fig.5)

#### 4. GEOCHEMICAL EXPLORATION

A total of 191 soil samples were taken on the property along claim location lines and along some of the trails. Spacing between samples was 200 - 300 feet measured by pacing. Sample locations were clearly marked by red fluorescent tape.

Samples were taken from shallow holes, 5 - 10" deep, in brown mineralized soil where possible. They were packed in standard soil sample paper bags, marked and partly dried up in camp. Topographic, vegetation and soil characteristics were recorded during sampling.

All samples were shipped to Vancouver Geochemical Laboratory, where they were assayed for copper and zinc. The laboratory reported to have samples processed as follows:

1. Samples sifted to -80 mesh
2. Weight used 0.5 g
3. Volume of dilution used 10 ml
4. Extraction by hot  $\text{HClO}_4$  and  $\text{HNO}_3$
5. Method of analysis: Atomic Absorption Spectrophotometry
6. Treatment: Techtron AA4 and AA5

Sample locations and all values were plotted on the topographic map 1" - 1,000' (fig. 2 and 3)

The property area is generally covered by at least 20 feet thick overburden cover, mainly consisting of glacial material with top part of the soil strongly leached.

STATISTICAL EVALUATION OF Cu ASSAY RESULTS

Frequency $f_i$	$x_i$	$f_i \times x_i$	$x_i - \bar{x}$	$(x_i - \bar{x})^2$	$f_i (x_i - \bar{x})^2$
38	5	190	22	484	18.392
67	15	1005	12	144	9.648
42	25	1050	2	4	168
11	35	385	8	64	704
7	45	315	18	324	2.268
5	55	275	28	784	3.920
4	65	260	38	1444	5.776
5	85	425	48	2304	11.520
1	95	95	58	3364	3.364
1	105	105	68	4624	4.624
3	115	345	78	5884	17.652
2	125	250	88	7744	15.488
1	145	145	98	9604	9.604
2	175	340	108	11664	23.328
		$\Sigma$ 5195		$\Sigma$ 132,456	

1  
5  
1

$$\bar{x} = \frac{1}{n} \sum_{i=1}^k f_i x_i = \frac{5195}{191} = 27$$

$$G^2 = \frac{1}{n-1} \sum_{i=1}^k f_i (x_i - \bar{x})^2 = \frac{132,456}{190} = 697$$

$$G = \sqrt{697} = 26 \text{ ppm}$$

Background =  $\bar{x}$  = 30 ppm  
 Threshold =  $\bar{x} + G$  = 30 + 26 = 56 ppm  
 Anomalous =  $\bar{x} + 2G$  = 30 + 52 = 82 ppm  
 Significantly Anomalous =  $>$  80 ppm



Statistical evaluation of the assay results for Cu (see table) indicated local background of 30 ppm, while values exceeding 80 ppm should be considered anomalous. As shown on fig. 2 only several scattered small areas returned results above 80 ppm and the only zone with encouraging results is connected with altered limonitised breccia outcrops. What the true dimensions and trends of that zone are, is impossible to say at this stage of exploration because the zone is cut off by swamp to the north and buried by glacial overburden on the other sides. The magnetic low anomaly located immediately north of that area could possibly be connected with it.

Further exploration work should employ geophysical techniques preferably I.P. Any anomaly obtained by such work should be tested by drilling

Respectfully submitted



V. CUKOR, P. Eng.

APPENDIX "A"

List of personnel employed and costs of the Bluey Group Project

July 7 - August 15, 1972

GEOCHEMICAL EXPLORATION:

Field Expenses:

V. Cukor	Geologist	8 days @ 100.00	800.00	
H. Vannerus	Prospector	8 days @ 50.00	400.00	
Field Expenses			250.00	
Truck Rental			<u>300.00</u>	1,750.00

Report:

V. Cukor	Geologist	3 days @ 100.00	300.00	
Enlarging topo map to 1" = 1,000 ft.			200.00	
Assays			282.00	
Draughting		5 days @ 50.00	250.00	
Printing, Typing, and Assembling Report			<u>125.00</u>	<u>1,157.00</u>

Total Geochemical exploration 2,907.00

PHOTOGEOLOGICAL STUDY:

V. Cukor	Geologist	2 days @ 100.00		200.00
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AERO MAGNETIC SURVEY:

Invoice Seigel Associates	2,300.00	
Helicopter Rental	<u>1,100.00</u>	

Total Aeromagnetic 3,400.00

Total Work \$6,507.00

Declared before me at the *City*  
of *Vancouver*, in the  
Province of British Columbia, this *28*  
day of *November* 1972.

*W. Kerne*

*Julie Turner*  
A Commissioner for taking Affidavits within British Columbia  
A Notary Public in and for the Province of British Columbia

AFFIDAVIT

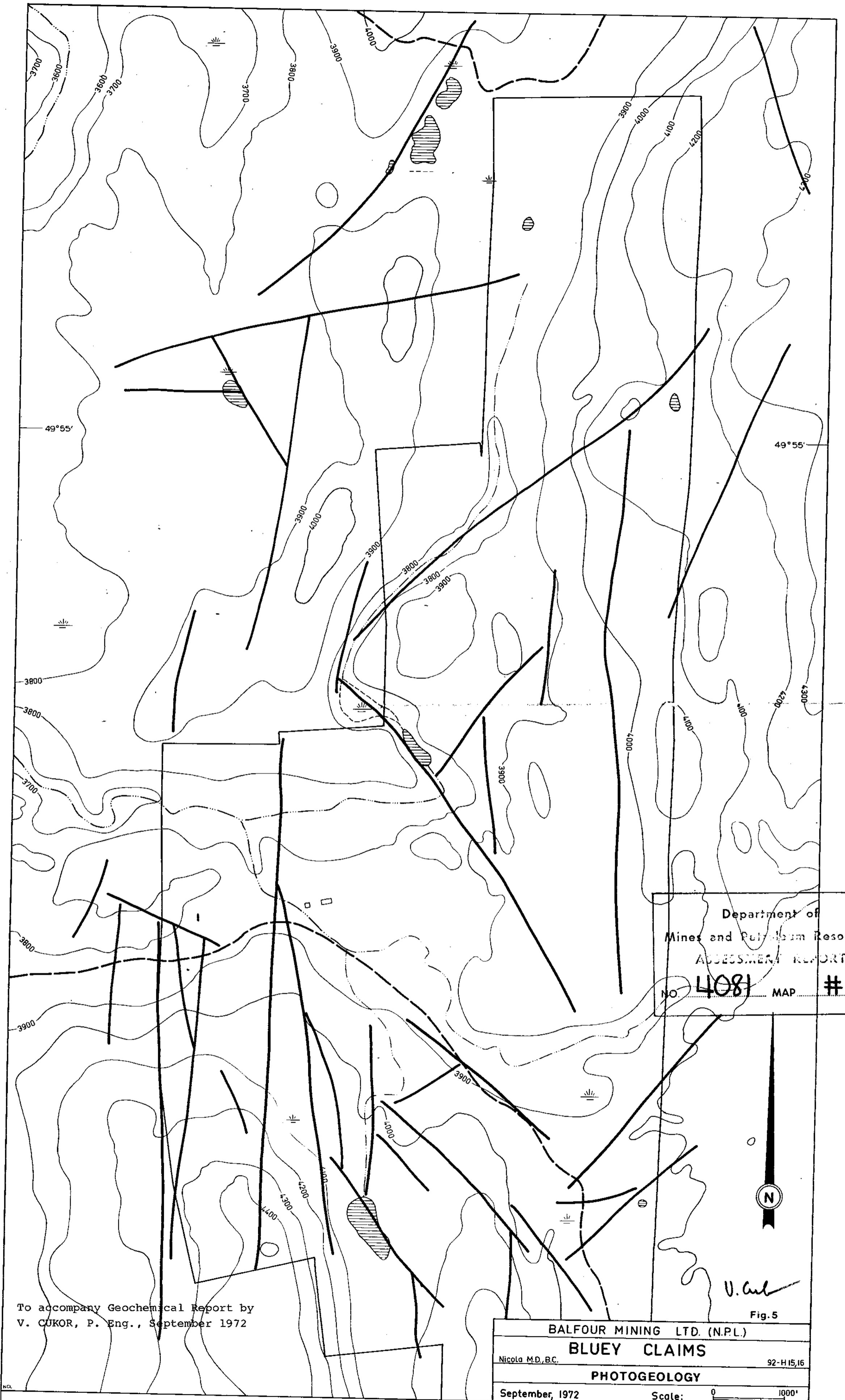
I, Vladimir Cukor, with address at 3169 West 20th Avenue,  
Vancouver, B.C. hereby declare:

In the matter of the BLUEY GROUP REPORT and the list of  
personnel employed and costs incurred as listed in Appendix "A"  
of this report, that I have inspected and/or carried out personally  
the work and that the information contained in Appendix "A" is true  
and accurate and to the best of my knowledge and belief.

Signed

A handwritten signature in black ink, appearing to read "V. Cukor", with a stylized flourish at the end.

V. Cukor, P. Eng.



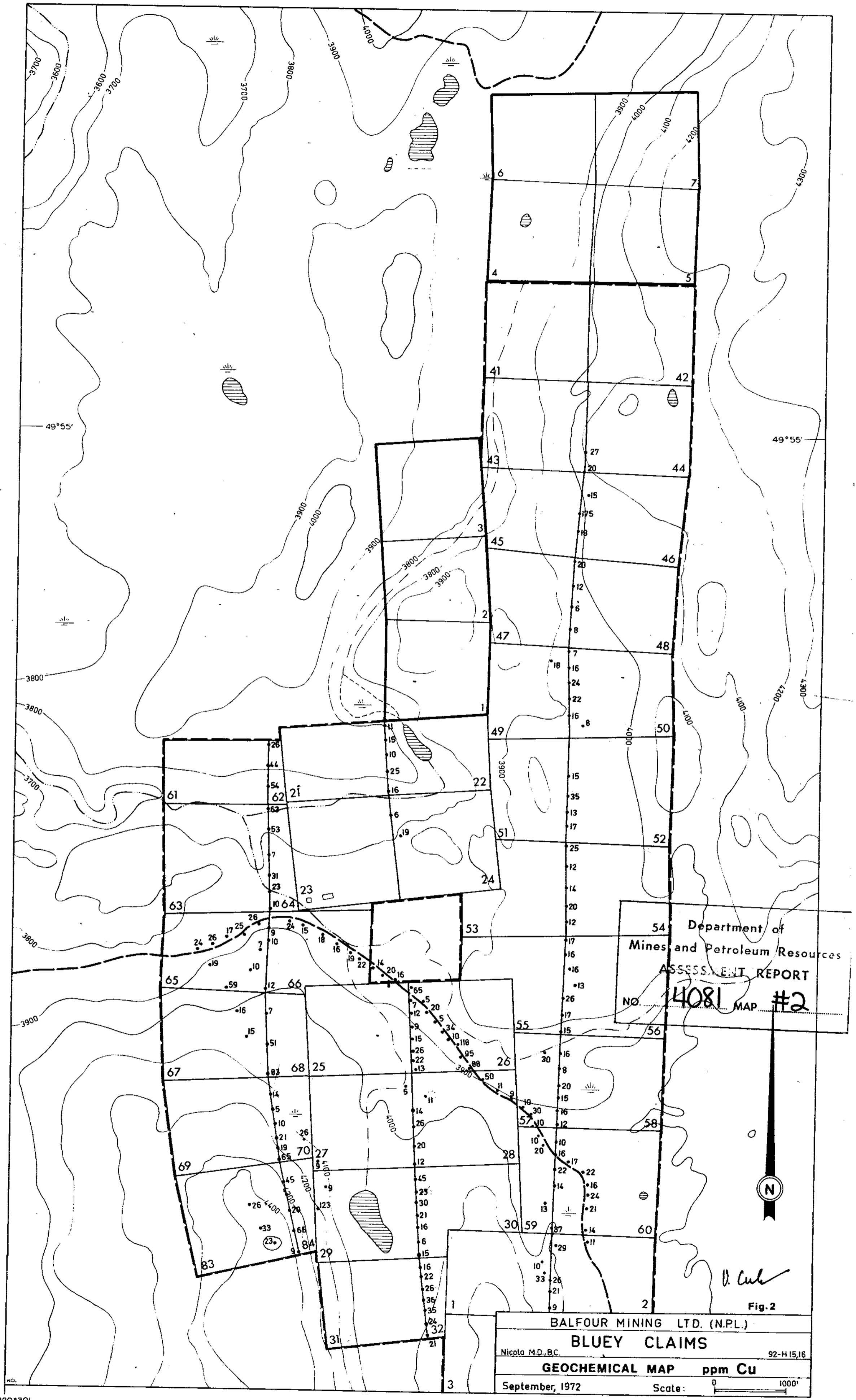
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*V. Cukor*  
Fig. 5

To accompany Geochemical Report by  
V. CUKOR, P. Eng., September 1972

BALFOUR MINING LTD. (N.P.L.)	
BLUEY CLAIMS	
Nicola M.D., B.C.	92-H15,16
PHOTOGEOLOGY	
September, 1972	Scale: 0 1000'

120°30'

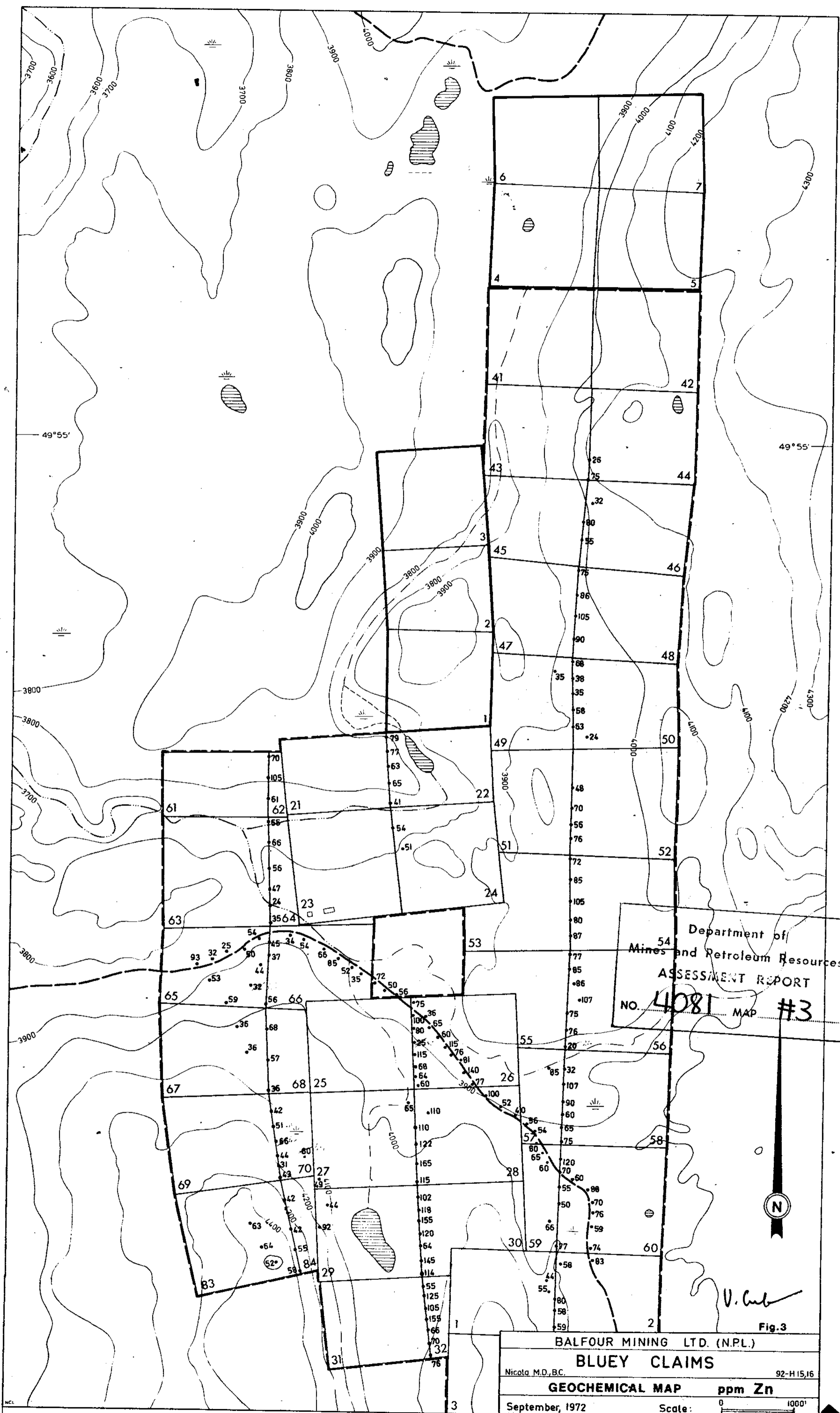


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*D. Cuth*

Fig. 2

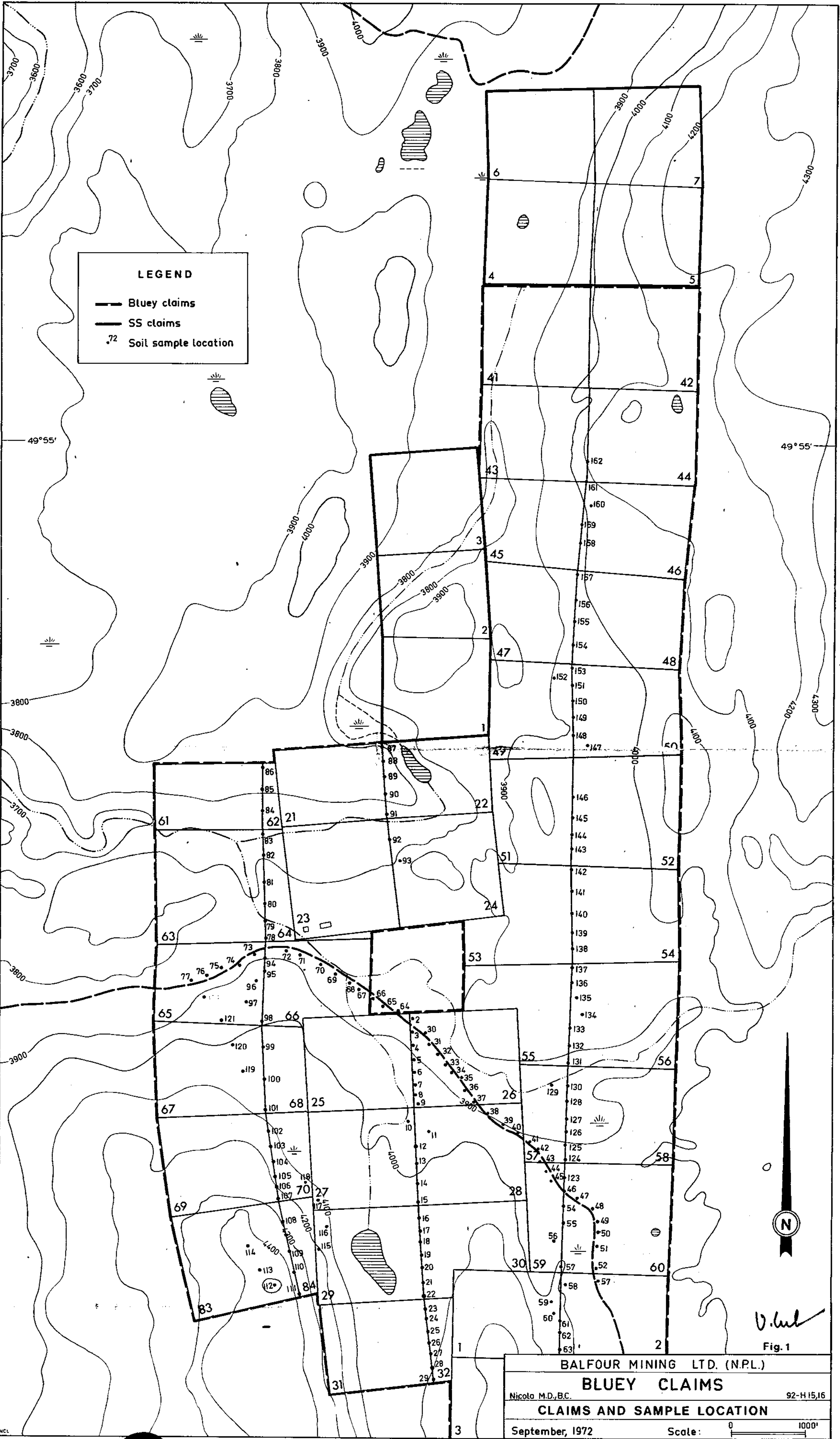
BALFOUR MINING LTD. (N.P.L.)  
**BLUEY CLAIMS**  
 Nicola M.D., B.C. 92-H 15,16  
**GEOCHEMICAL MAP ppm Cu**  
 September, 1972 Scale: 0 1000'



120°30'

Fig. 3

BALFOUR MINING LTD. (N.P.L.)  
**BLUEY CLAIMS**  
 Nicola M.D., B.C. 92-H15,16  
**GEOCHEMICAL MAP ppm Zn**  
 September, 1972 Scale: 0 1000'



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