

84-1228-13208

11/85

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,208

HANK LEIS
ASSESSMENT REPORT

on the

MATHENY 1 MINERAL CLAIM
SIMILKAMEEN MINING DIVISION

NTS 92H/10W

N. Lat. 49° 37' 00"

W. Long. 120° 52' 00"

by

NIGEL J. HULME, B.Sc.

STRATO GEOLOGICAL ENGINEERING LTD.

3566 KING GEORGE HIGHWAY

SURREY, B.C. V4A 5B6

November 5, 1984



SUMMARY

The Matheny I mineral claim consisting of 20 units, is situate on the west slopes of Mount Spearing in the Similkameen Mining Division, British Columbia, some 11 kilometers northwest of Tulameen, British Columbia.

Recently completed reconnaissance scale geological mapping has shown that the Matheny I mineral claim is underlain by volcanic rocks of the Nicola Group. Soils geochemistry has outlined anomalous areas in gold, copper, and zinc.

A program of detail soils geochemistry, geological mapping and sampling, and geophysical work consisting of magnetometer and VLF-EM surveys is recommended for the Matheny I mineral claim.

Respectfully submitted,
Strato Geological Engineering Ltd.

Nigel Hulme

Nigel J. Hulme, B.Sc.
Geologist

November 5, 1984



TABLE OF CONTENTS

Introduction	page 1
Location, Access, Topography	2
Claims	3
History.	4
Regional Geology	5
Property Geology	7
Andesite	7
Alkali Feldspar Trachyte	8
Geochemical Results.	9
Conclusions and Recommendations.	10
References	11
Certificate.	12
Time-Cost Distribution	13
Geochemical Assay Results.	Appendix A

LIST OF FIGURES

Figure 1	Location Map	follows page	2
Figure 2	Topographic Map.		2
Figure 3	Claim Map.		3
Figure 4	Regional Geology Map		5
Figure 5	Property Geology and Geochemical Sample Locals		leaflet
Figure 6	Soil Geochemistry (Cu, Ag)		leaflet
Figure 7	Soil Geochemistry (Pb, Zn)		leaflet
Figure 8	Soil Geochemistry (Au, As)		leaflet



INTRODUCTION

Pursuant to a request by Hank Leis, a preliminary exploration program was conducted over the Matheny I mineral claim, located approximately 11 kilometers northwest of Tulameen, British Columbia. Work consisting of reconnaissance scale geological mapping and geochemical prospecting was performed by Strato Geological Engineering Ltd. in August, 1984. The results of the survey work are presented in this report.

LOCATION, ACCESS, TOPOGRAPHY

The Matheny I mineral claim is situated some 11 kilometers northwest of Tulameen, British Columbia (Figure 1). The claim is accessible by gravel road from Tulameen, a distance of 15 kilometers (Figure 2).

The claim lies on the western slopes of Mount Spearing; elevations range from 1130 meters above sea level at the Legal Corner Post to 1525 meters above sea level at the northwest corner of the property. Drainage is westwards to Lawless Creek.

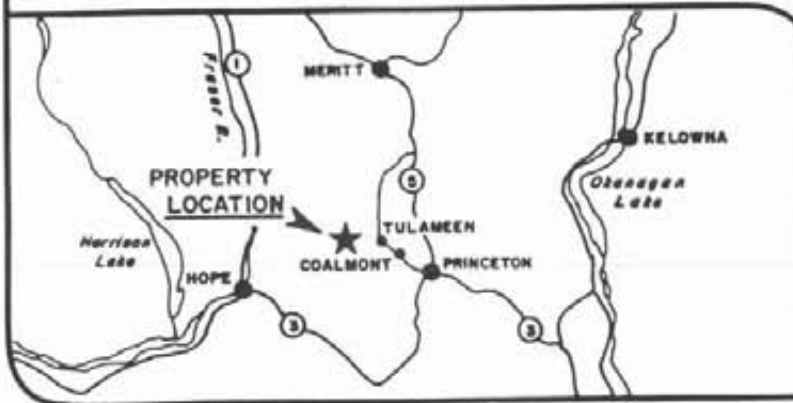
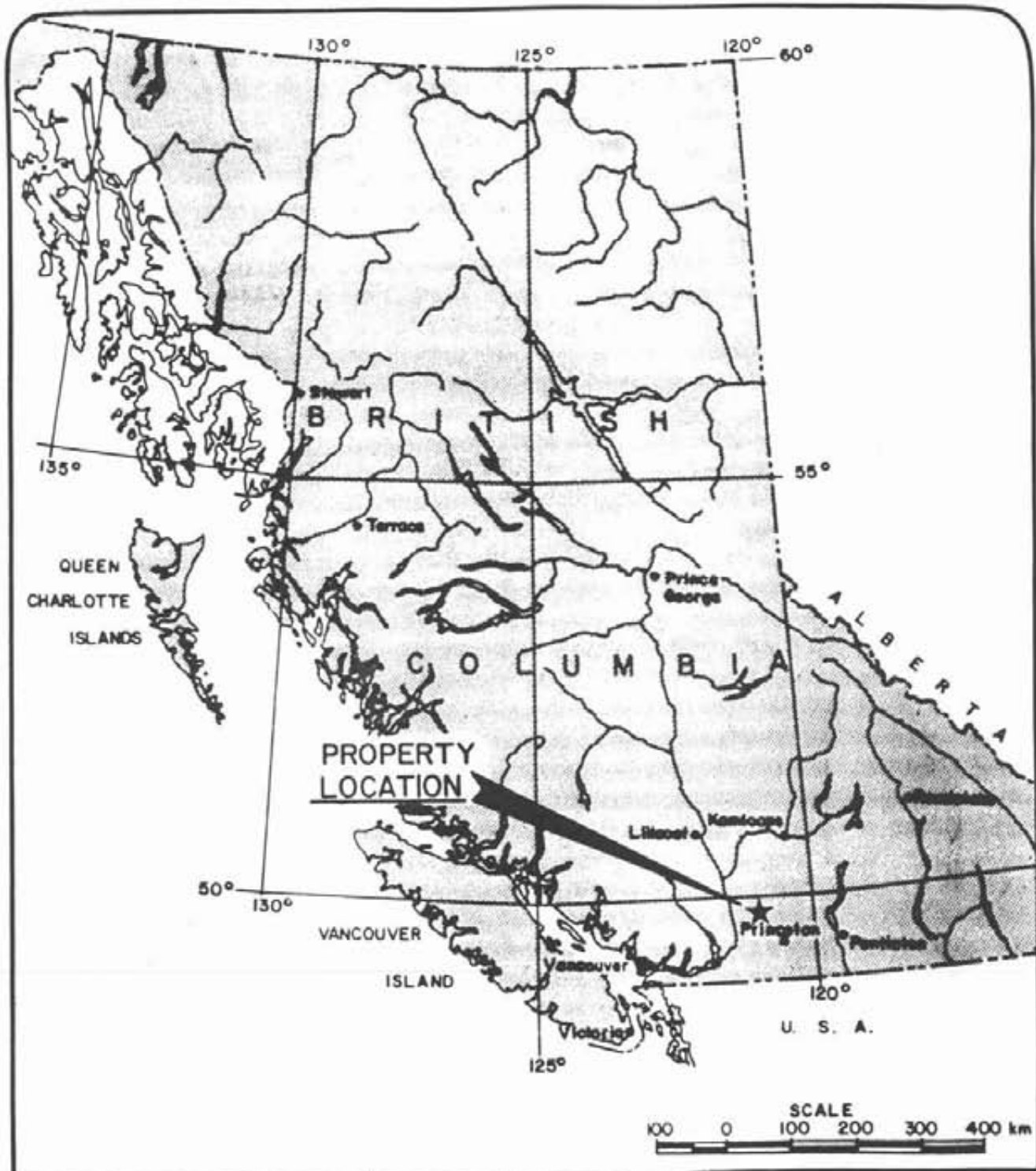


FIGURE 1
MATHENY 1
LOCATION MAP

NOVEMBER 5, 1984



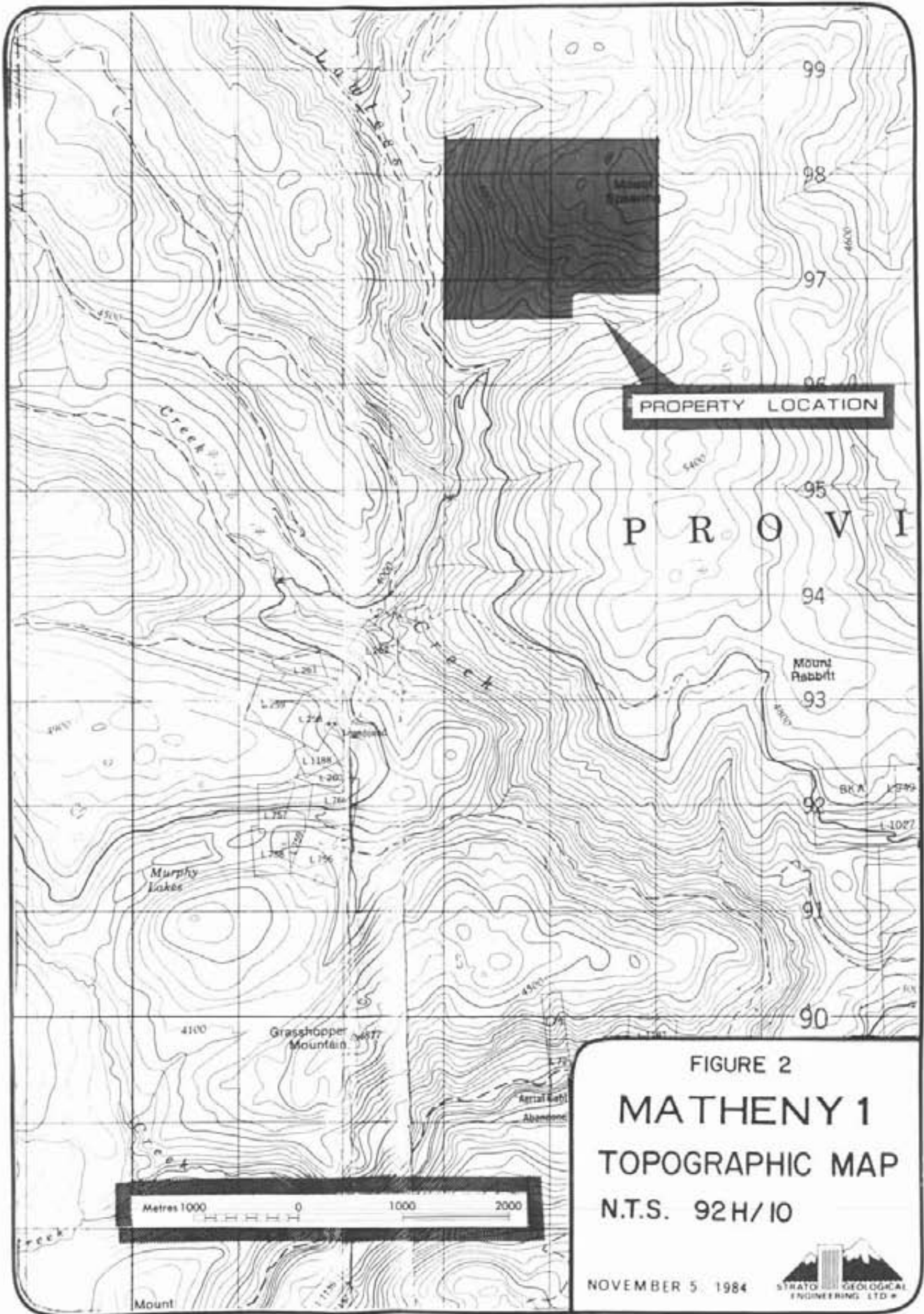


FIGURE 2
MATHENY 1
TOPOGRAPHIC MAP
 N.T.S. 92H/10

NOVEMBER 5 1984



CLAIMS

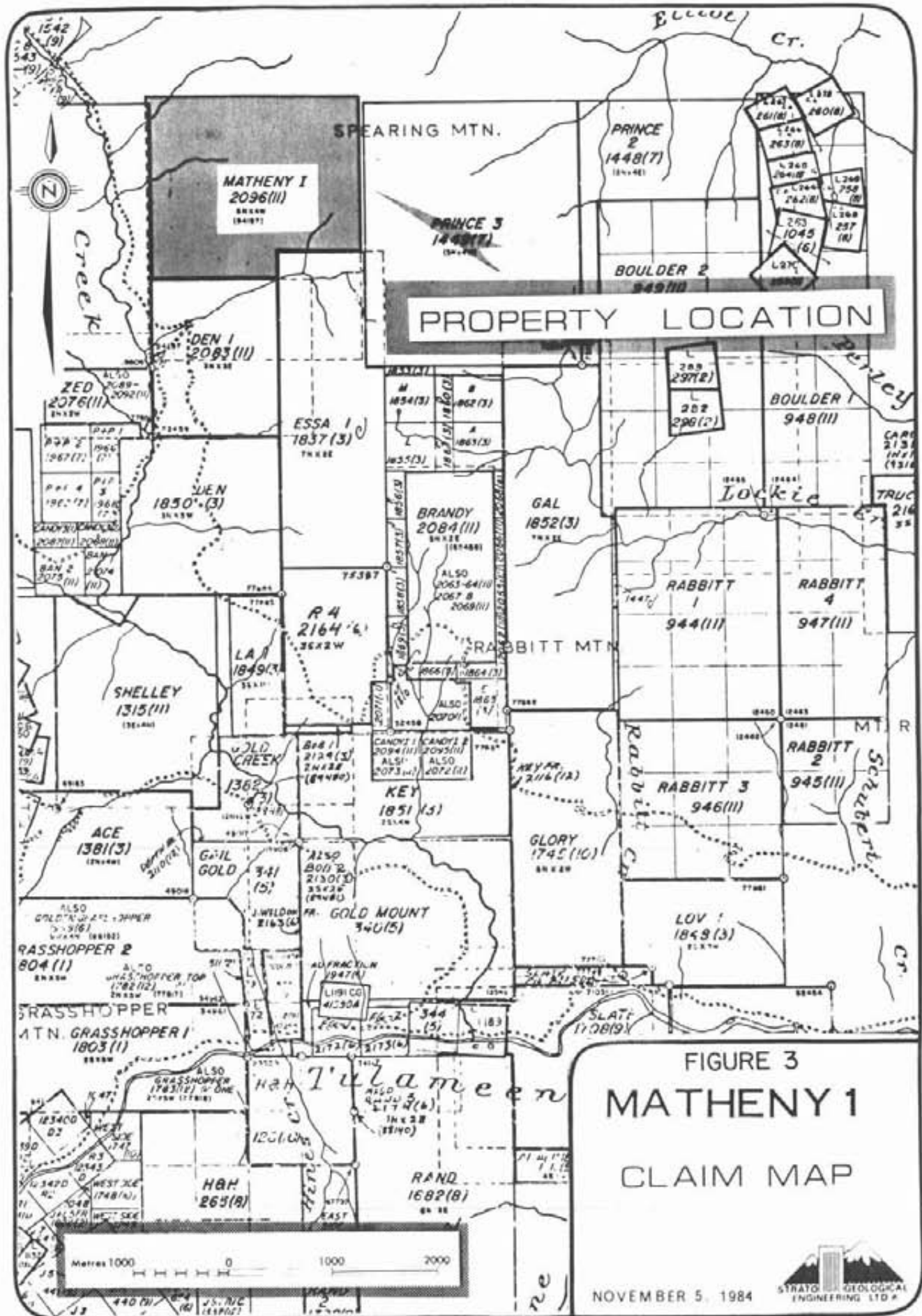
The Matheny I mineral claim is situated in the Similkameen Mining Division, approximately 11 kilometers northwest of Tulameen, British Columbia. The claim is recorded as follows:

NAME	UNITS	RECORD NO.	EXPIRY DATE
Matheny I	20	2096	November 23, 1984

Assessment work has been filed, this report being a part of the work to maintain the claims in good standing until November 23, 1987.

The claim is shown on British Columbia Ministry of Energy, Mines, and Petroleum Resources mineral claim map NTS 92H/10W.

The Matheny I mineral claim may not contain a full 20 units as it appears to overlap the Den I and Essa I mineral claims in the southern property area (Figure 3).



HISTORY

Mining development has occurred in the claim area on the former Bonanza Queen and Nevada crown grants, the Rabbitt Mine, the Old Glory Group and the Sunrise Camp.

Quartz veins with a general northerly strike and a steep dip occur in association with shear zones within Nicola Group volcanic rocks.

The veins, composed of glassy quartz and brecciated, carbonatized wall rock, vary in width from a few centimeters to 2 meters. The veins carry free gold, an undetermined telluride mineral, chalcopyrite, pyrite, galena, and sphalerite.

In 1983, Strato Geological Engineering Ltd. conducted an exploration program for Monica Resources Ltd. over the area surrounding the former Rabbitt Mine. A total of 146.2 meters of diamond drilling was drilled in three holes; the third hole intersected two vein structures assaying 0.232 oz/short ton and 1.645 oz/short ton over core lengths of 0.92 meters and 1.83 meters, respectively (Tully, 1983).

No known development has occurred on the ground covered by the Matheny I mineral claim.

REGIONAL GEOLOGY

The Lawless Creek area is underlain by volcanic and subordinate sedimentary rocks of the Nicola Group, ultramafic to felsic rocks of the Lodestone Intrusions, intrusive phases of the Coast Intrusions (Eagle granodiorite), and intrusive phases of the Otter Intrusions (Red granite) (Rice, 1960).

The majority of the Nicola rocks in the area have not been closely identified and have been termed greenstones. Possibly andesitic in composition, they include lavas, flow breccias, pyroclastics, greywacke, and mixed pyroclastics and greywacke. Interbedded with the greenstones are bands of dacite, rhyolite, fine grained dark sediments, sedimentary schists, limestone, and minor conglomerate.

The Lodestone Intrusions include pyroxene syenite, pyroxenite, peridotite, dunite, diorite, gabbro, and feldspar porphyry. The intrusions occur as dykes and stocks in the southern Lawless Creek area and on the south slopes of Grasshopper Mountain.



PROPERTY LOCATION

LEGEND

- | | | | |
|-------|-----------------------|---|--------------------------------|
| 18 | Basalt | 4 | Peridotite, pyroxenite, gabbro |
| 16,17 | Princeton Group | 3 | Nicola Group |
| 14 | Otter Intrusions | | |
| 12a-b | Kingsvale Group | | |
| 10 | Spence Bridge Group | | |
| 8 | Copper Mt. Intrusions | | |
| 5,6,7 | Coast Intrusions | | |

FIGURE 4

MATHENY 1

REGIONAL GEOLOGY



NOVEMBER 5 1984

After H.M.A. RICE, 1944

The Eagle granodiorite underlies a large area on the west slopes of Grasshopper Mountain. The principal minerals are quartz, feldspar, and biotite. The rock is slightly gneissic, coarse grained, and is mottled white and black.

A stock of red granite intrudes Nicola rocks in a hill east of Lawless Creek and south of Pioneer Creek. The rock is massive, medium grained, and consists of pink to red orthoclase, green saussurited plagioclase, quartz, and subordinate hornblende.

PROPERTY GEOLOGY

The Matheny I mineral claim is underlain by Nicola Group volcanics consisting of andesitic flows and tuffs, and alkali feldspar trachytes. The rocks trend north-northwest and display variable dips.

Andesite

Andesite flows and tuffs are present in the eastern and western areas of the property. The rocks are grey-green and weather to a buff-grey colour. Both porphyritic and aphanitic flows are present. Porphyritic rocks contain euhedral to subhedral phenocrysts of plagioclase feldspar up to 5mm long and euhedral phenocrysts of hornblende as large as 10mm. Some carbonatization and silicification has occurred; a sample (RM-1) of a slightly altered outcrop near the center of the claim assayed 7237 ppm copper, 13.7 ppm silver, and 75 ppb gold.

Tuffaceous volcanics are interbedded with flows in the eastern property area. Generally fine grained, they can contain plagioclase fragments varying from 3mm to 15mm in size.

Alkali Feldspar Trachyte

Rocks of felsic composition outcrop in the east-central claim area and are postulated to lie in a band trending north-northwesterly through the claim. The rocks display a pink fresh surface which weathers pinkish-brown and contain abundant phenocrysts of K-feldspar generally 2mm in size set in a pink, fine grained groundmass.

GEOCHEMICAL RESULTS

A total of 21 silt samples and 18 soil samples were collected from the Matheny I mineral claim. The soil samples were collected at 15 to 20cm depths from the "B-horizon", which lay under an organic cover 2 to 3cm thick. Samples were analyzed for copper, lead, zinc, silver and arsenic by the Inductive Coupled Plasma (ICP) method and for gold by the Atomic Absorption (AA) method.

Although the number of samples collected is too small to warrant statistical analysis. it can be seen from the assay results (Appendix A) that some anomalous areas are present. Specifically, these are at the locals of Mat 11, (100 ppm Cu and 172 ppm Zn) Mat 34, (35 ppb Au) and Mat 33 (75 ppb Au).

CONCLUSIONS AND RECOMMENDATIONS

The Matheny I mineral claim is underlain by volcanic rocks of the Nicola Group. Gold mineralization in the area is known to occur in quartz veins associated with shear zones within Nicola Group volcanics. Soils geochemistry has outlined anomalous areas in copper, zinc, and gold.

It is recommended that soils geochemical sampling be conducted over the Matheny I mineral claim on a maximum of 100 x 100 meter grid basis. Detailed geological mapping and sampling may be conducted over the same grid. Geophysical work consisting of magnetometer and very low frequency electromagnetic surveys may be utilized in distinguishing geological contacts and/or shear zones with which mineralization may be associated. Relationships between the geology and the geochemical and geophysical results should then outline any targets of good mineral potential.

Respectfully submitted,
Strato Geological Engineering Ltd.



Nigel J. Hulme, B.Sc.
Geologist

November 5, 1984

REFERENCES

Rice, H. M. A. (1960)

Geology and Mineral Deposits of the Princeton Map-Area,
British Columbia; Geological Survey of Canada, Memoir 243.

Tully, D. W. (1983)

Report on the Gold Mount, Gail Gold, Weldonna, Bonanza Gold,
Ace, Gold Creek and Former Bonanza Queen-Nevada Mineral Claim
Group, Grasshopper Mountain - Tulameen River Area; Don Tully
Engineering Ltd., West Vancouver, British Columbia.

CERTIFICATE

I, NIGEL J. HULME, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am a Consulting Geologist with offices at 3566 King George Highway, Surrey, B. C., Canada.
2. I graduated with a degree of Bachelor of Science, Geology, from Carleton University, Ottawa, Ont. in 1982.
3. I have worked as a Geological Assistant each summer from May 1980 with the Ontario Geological Survey, Gold Fields Mining Corporation, and St. Joe Canada Incorporated.
4. I have worked as a Geologist in Canada since December 1982.
5. I have no direct, indirect, or contingent interest in the Matheny 1 mineral claim, nor do I expect to receive any such interest.

Dated at Vancouver, Province of British Columbia, this
5th day of November, 1984.

Nigel Hulme

N. J. Hulme, B.Sc.

TIME-COST DISTRIBUTION

Soil sampling, silt sampling and geology were conducted over the Matheny 1 Mineral Claim, Record No. 2096 (20) Tulameen, B. C. by Strato Geological Engineering Ltd. during the period July 24 to August 4, 1984.

A list of personnel and distribution of costs are as follows:

Personnel

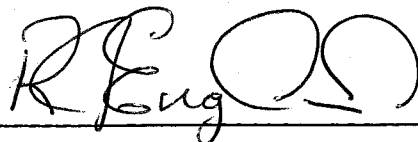
J. Gibson	Project Supervisor
N. Hulme, B.Sc.	Geologist

Cost Distribution

Field Work	\$ 2,212.50
Room and Board, Transportation	1,342.50
Assaying	402.48
Drafting	736.78
Field Supplies	167.46
Report	<u>1,200.00</u>

TOTAL	\$ <u>6,088.72</u>
-------	--------------------

Signed



Strato Geological Engineering Ltd.

A P P E N D I X A

ACME ANALYTICAL LABORATORIES LTD.
 2 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
 PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 23 1984

DATE REPORT MAILED: *Aug 27/84*

GEOCHEMICAL ICP ANALYSIS

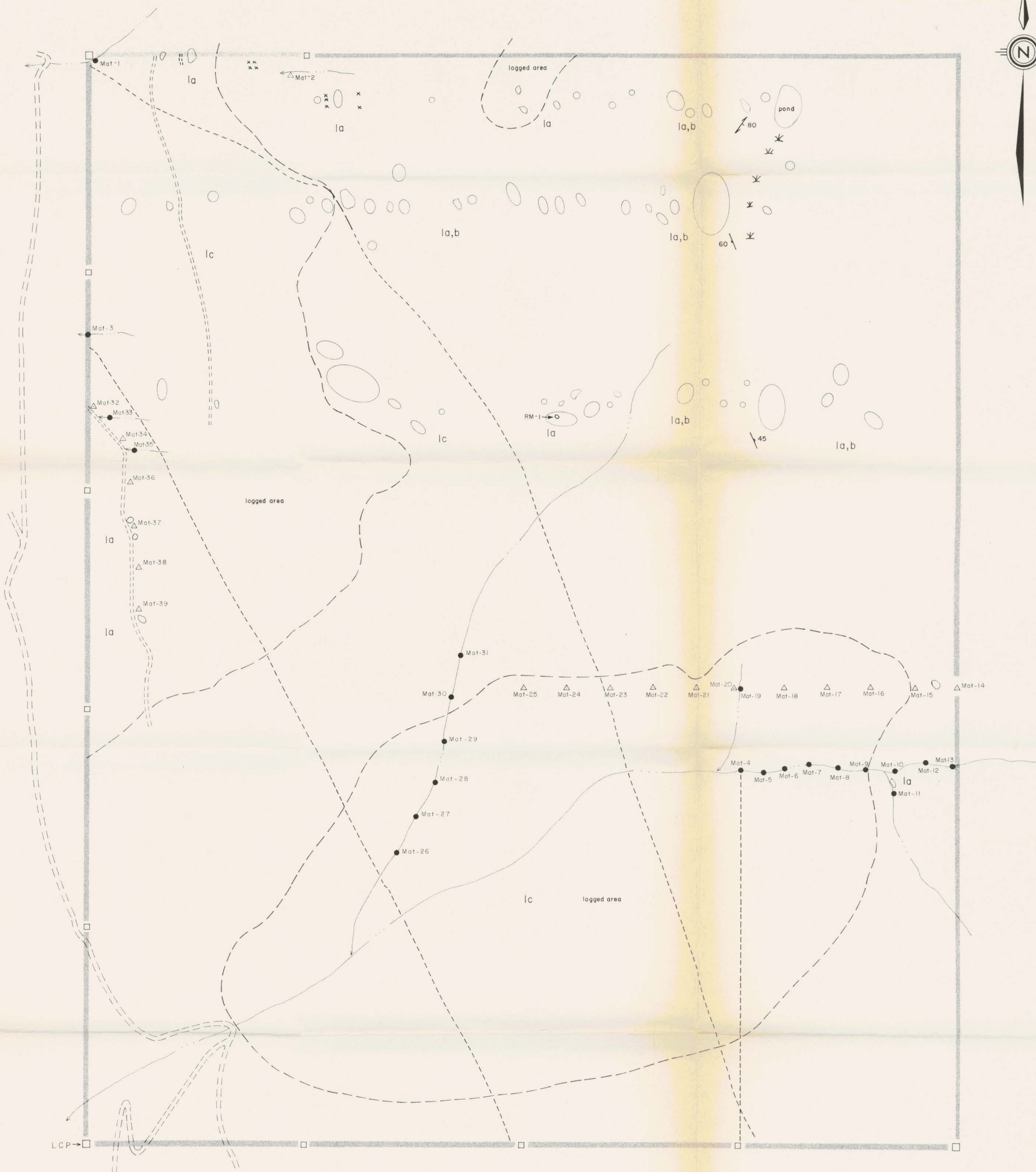
.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: SOIL AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toye* DEAN TOYE. CERTIFIED B.C. ASSAYER

STRATO GEOLOGICAL PROJECT # 517 FILE # 84-2263

PAGE 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
MAT 1	32	7	48	.4	4	5
MAT 2	26	5	47	.1	2	5
MAT 3	29	10	43	.1	2	5
MAT 4	44	11	99	.1	11	5
MAT 5	46	11	95	.2	15	5
MAT 6	42	12	102	.1	10	5
MAT 7	43	11	113	.1	6	5
MAT 8	52	10	103	.2	2	5
MAT 9	51	9	107	.1	2	5
MAT 10	36	12	88	.1	3	5
MAT 11	100	14	172	.1	4	5
MAT 12	33	13	106	.2	2	5
MAT 13	32	10	94	.1	2	5
MAT 14	23	13	97	.2	2	5
MAT 15	20	12	79	.1	4	5
MAT 16	18	9	69	.1	2	5
MAT 17	26	9	66	.2	2	5
MAT 18	18	9	50	.1	2	5
MAT 19	51	15	66	.1	7	10
MAT 20	27	13	75	.1	3	5
MAT 21	38	12	72	.4	3	5
MAT 22	27	17	63	.1	3	5
MAT 23	37	8	51	.1	4	5
MAT 24	35	10	58	.1	2	35
MAT 25	30	9	51	.1	4	5
MAT 26	43	10	57	.2	2	5
MAT 27	41	11	56	.1	2	5
MAT 28	47	9	59	.2	3	5
MAT 29	43	11	57	.2	5	5
MAT 30	45	11	56	.2	3	5
MAT 31	44	12	60	.2	3	5
MAT 32	25	7	30	.1	2	5
MAT 33	27	9	33	.1	4	75
MAT 34	25	8	35	.2	4	5
MAT 35	55	10	51	.2	4	5
MAT 36	42	10	40	.1	3	10
MAT 37	77	10	67	.3	2	15
MAT 38	40	6	49	.2	4	5
MAT 39	98	12	61	.2	7	10
STD S-1/AU 0.5	122	115	182	31.6	113	475



LEGEND

- I Nicola Group
 - a andesite
 - b andesitic tuff
 - c alkali feldspar trachyte

SYMBOLS

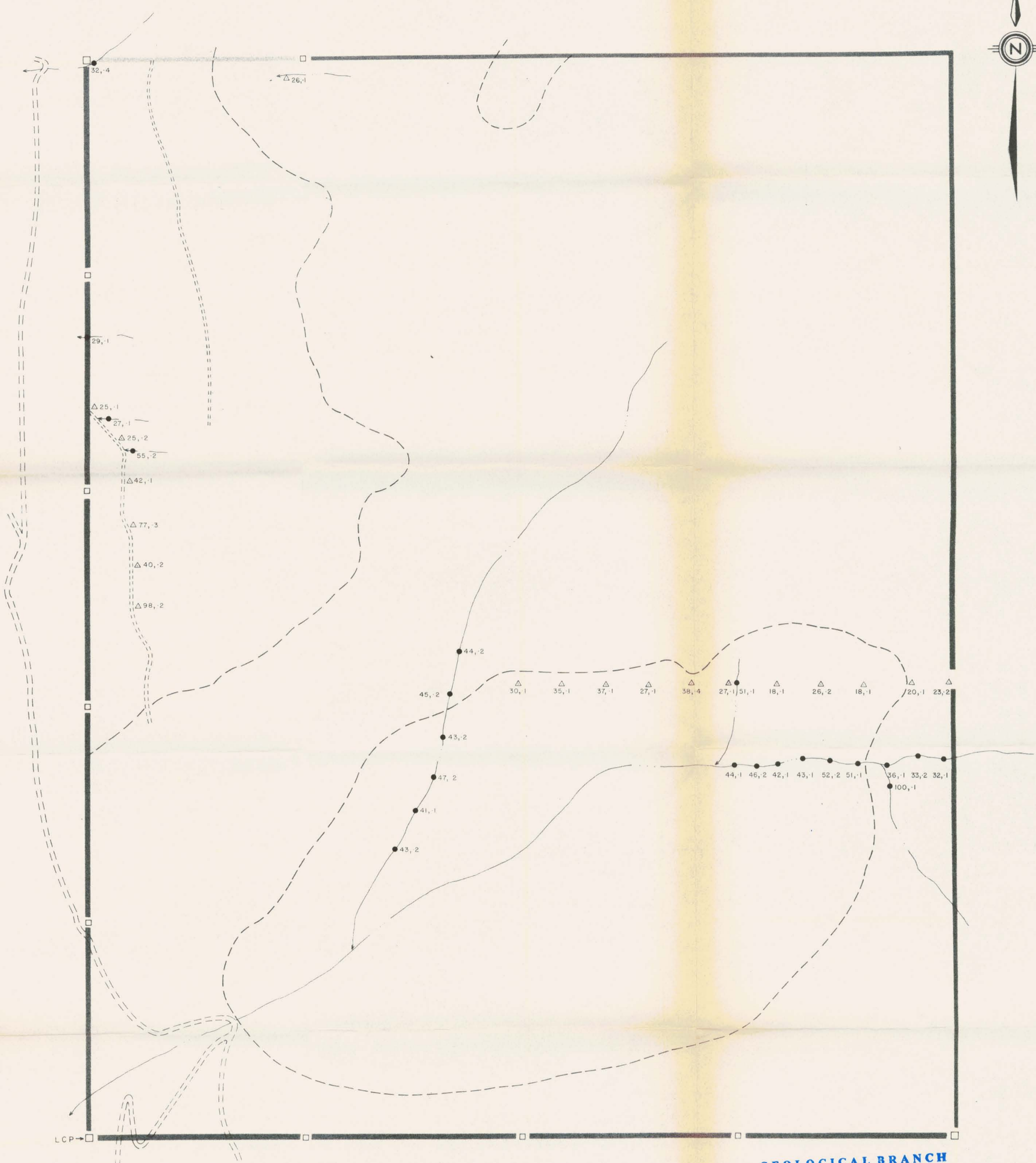
- Outcrop
- Bedding
- ✂ Clearance
- - - Geological contact (approximate, assumed)
- Rock sample location
- Silt sample location
- △ Soil sample location
- Claim post
- - - Property boundary
- - - Skidder road
- - - Gravel road
- Logged area
- Creek
- ✂ Marsh

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,208

FIGURE 5

HANK LEIS	
MATHENY I CLAIM SIMILKAMEEN M.D., N.T.S. 92H/IOW	
PROPERTY GEOLOGY and GEOCHEMICAL SAMPLE LOCALS	
<small>To accompany a report by N. Hulme, B.Sc. STRATO GEOLOGICAL ENGINEERING LTD.</small>	
<small>DRAWN BY: NH, BK, SJO</small>	<small>DATED: November 5, 1984</small>



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13,208

LEGEND

- --- Claim post
- --- Logged area
- - - Skidder road
- - - Gravel road
- ~ ~ ~ Creek

NOTES:

- △ --- Soil sample
- --- Stream sediment sample
- --- Property boundary

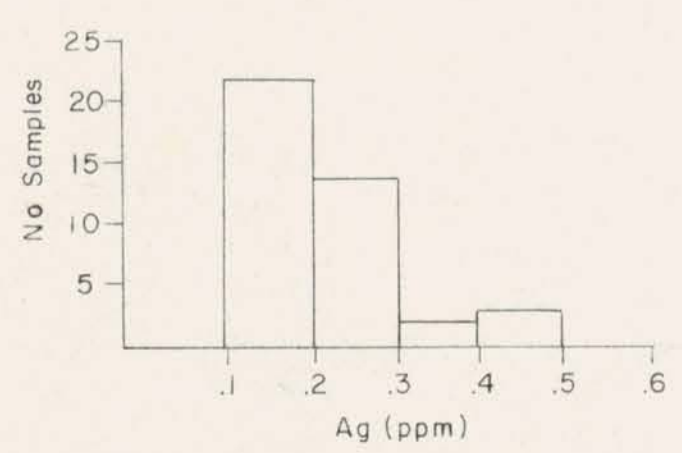
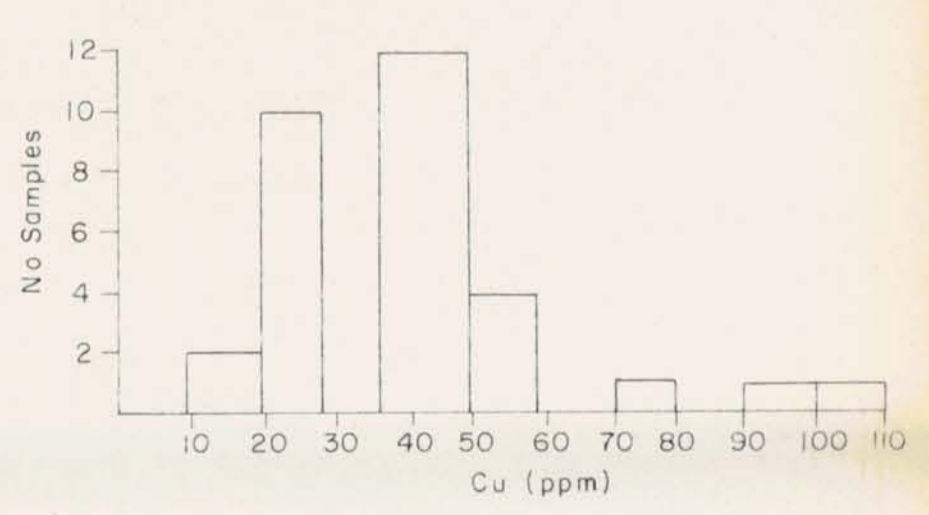
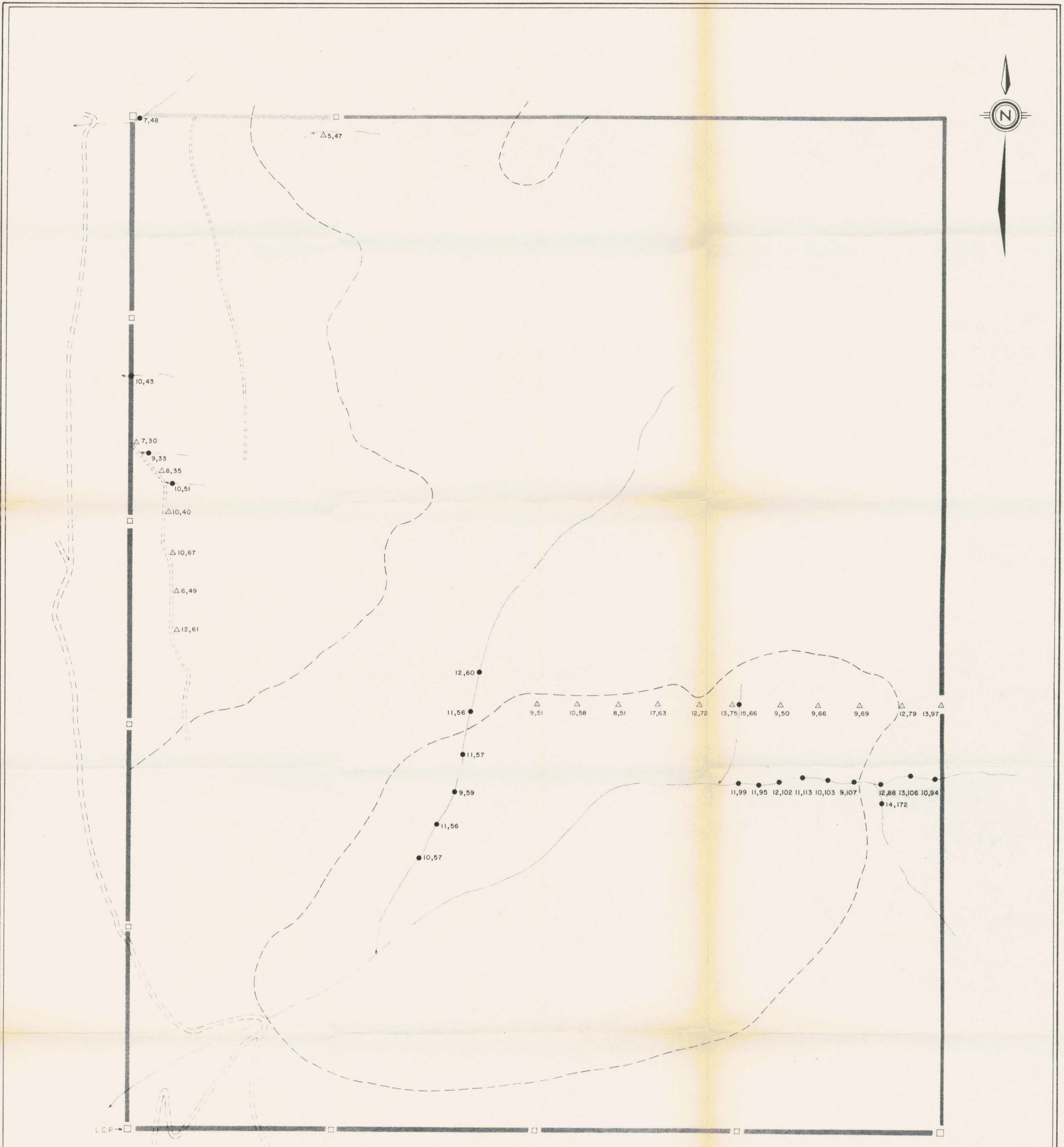


FIGURE 6

M. J. L.

HANK LEIS	
MATHENY I CLAIM SIMILKAMEEN M.D., N.T.S. 92H/IOW	
SOIL GEOCHEMISTRY Copper/Silver	
<small>To accompany a report by N. Hume, B.Sc. STRATO GEOLOGICAL ENGINEERING LTD.</small>	
<small>DRAWN BY: NH, SJO, BK</small>	<small>DATED: November 5, 1984</small>

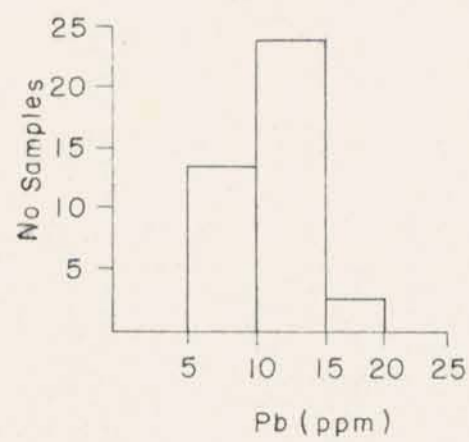
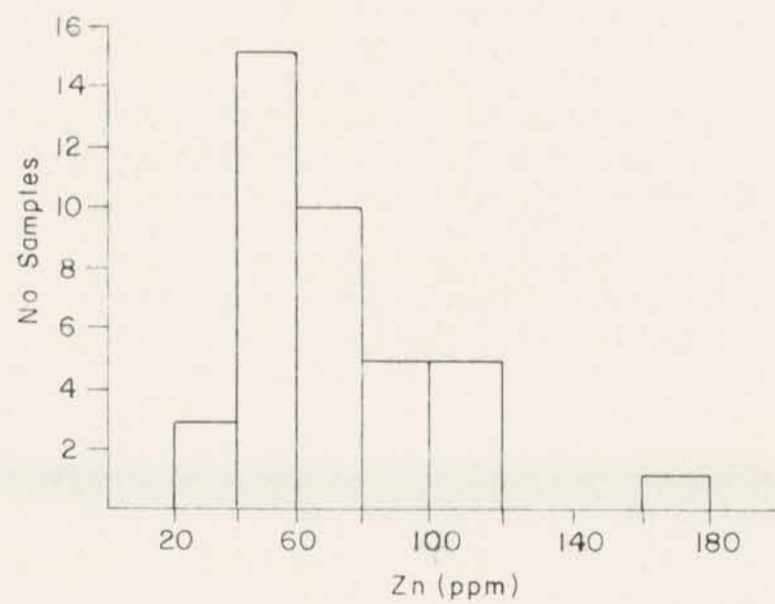


LEGEND

- Claim post
- Logged area
- Skidder road
- Gravel road
- Creek

NOTES:

- △ Soil sample
- Stream sediment sample
- Property boundary

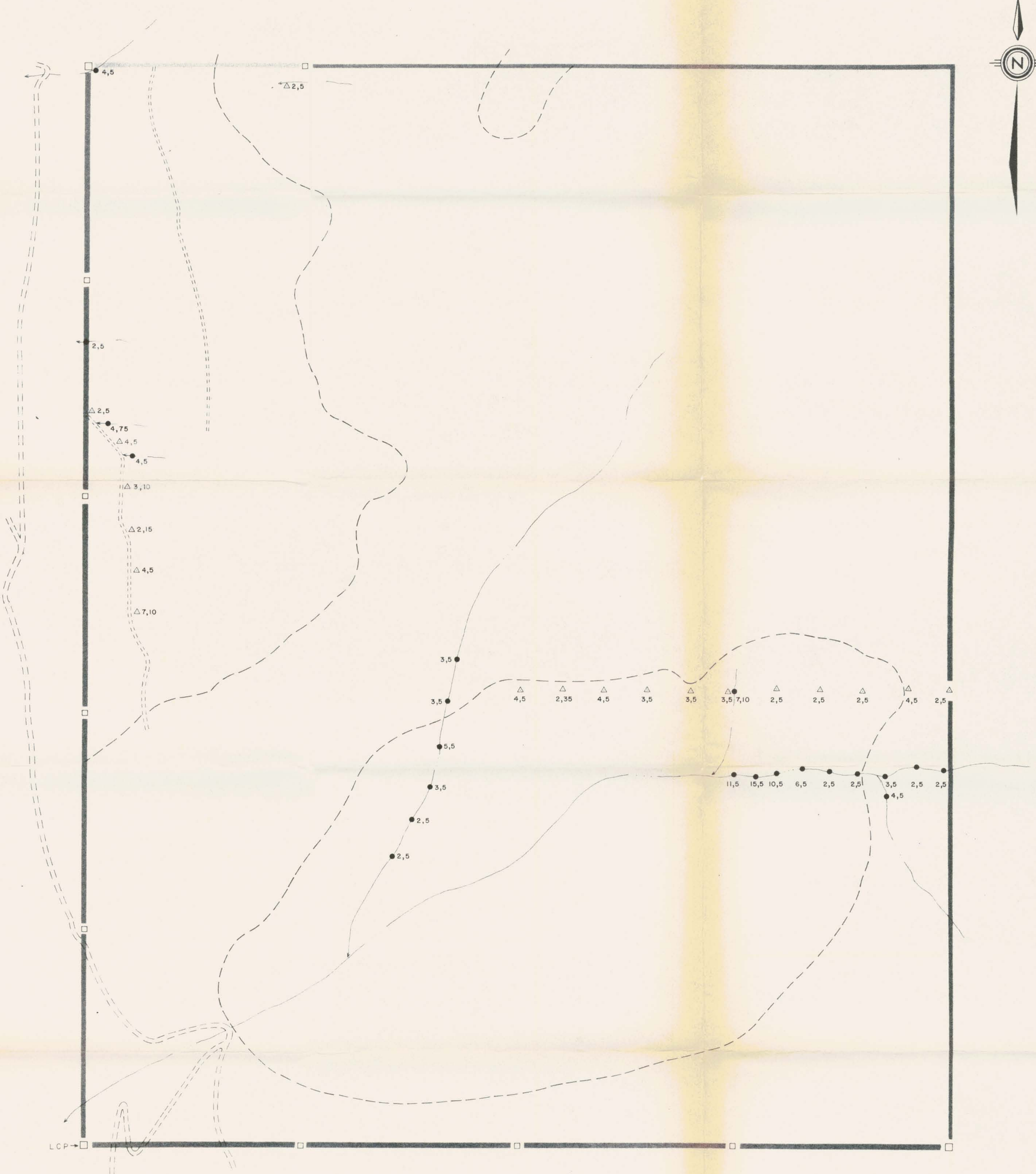


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13,208

FIGURE 7

HANK LEIS	
MATHENY I CLAIM SIMILKAMEEN M. D., N.T.S. 92H/IOW	
SOIL GEOCHEMISTRY LEAD / ZINC	
To accompany a report by N. Hulme, B.Sc. STRATO GEOLOGICAL ENGINEERING LTD.	
DRAWN BY: NH, BK, SJO	DATED: November 5, 1984



LEGEND

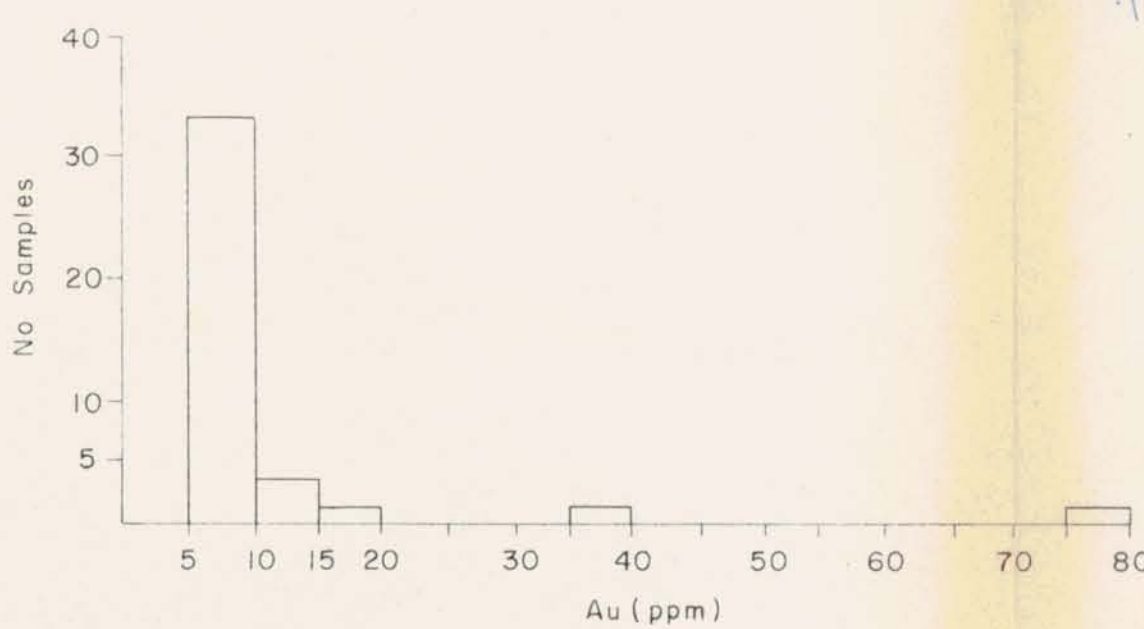
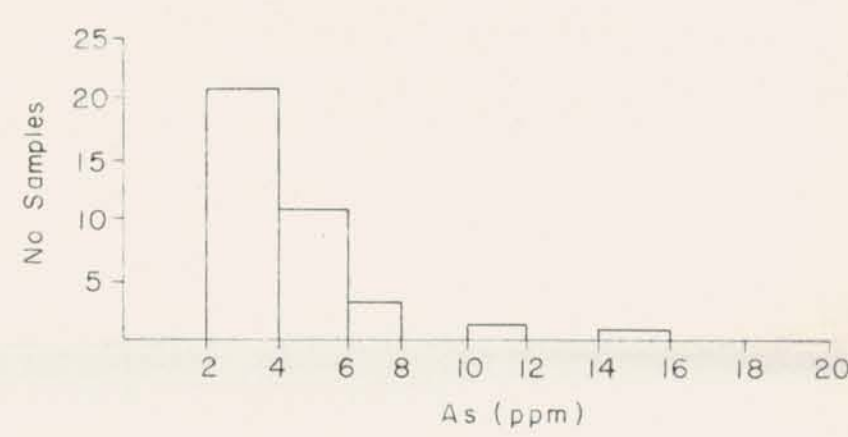
- Claim post
- Logged area
- Skidder road
- Gravel road
- Creek

NOTES:

- △ Soil sample
- Stream sediment sample
- Property boundary

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13,208



Handwritten signature

FIGURE 8

HANK LEIS	
MATHENY I CLAIM SIMILKAMEEN M. D., N.T.S. 92 H/10W	
SOIL GEOCHEMISTRY Arsenic/Gold	
To accompany a report by N. Hulme, B.Sc. STRATO GEOLOGICAL ENGINEERING LTD.	
DRAWN BY NH, BK, SJO	DATED November 5, 1984