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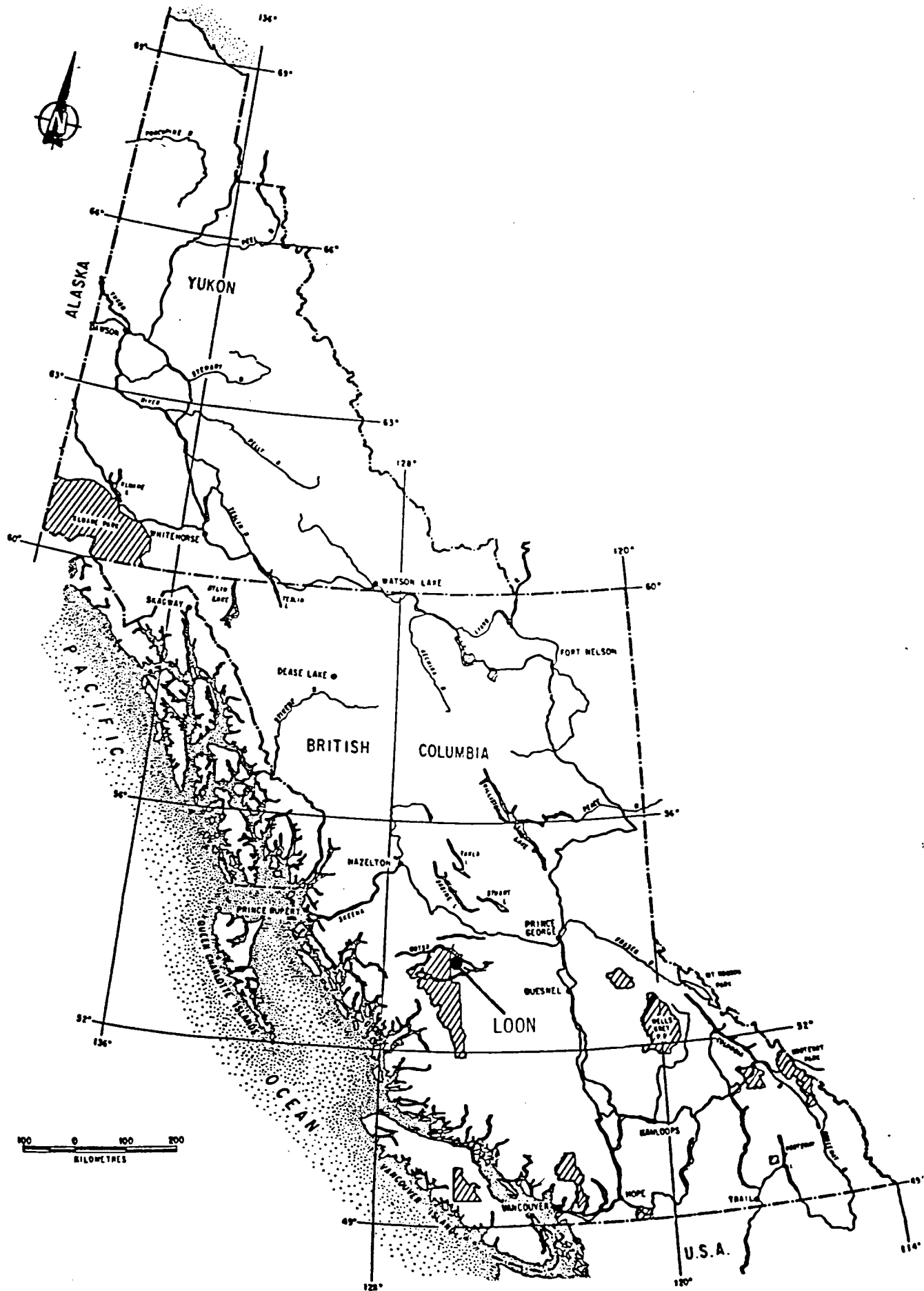


Figure 1. General Location Map (1:10,000,000)

## Introduction

During the period August 8, 1989 through August 11, 1989 two employees of Mingold Resources Inc. conducted a prospecting/rock sampling program on Loon claim 9.

## Location & Access

The Loon claims are located 70 kilometres south of Burns Lake and 216 kilometres west of Prince George (see Fig. 1). The claims occur in the Windfall Hills area north of Uduk Lake near the eastern boundary of Tweedsmuir Provincial Park (see Fig. 2) Latitude 53° 40'N, Longitude 126° 04'W. (Loon claim 9 occurs on NTS mapsheet 93 F/12. The camp was located on the south side of a small unnamed lake (Loon Lake).

Access to the claims is by fixed-wing aircraft from Burns Lake to the Loon Lake. Logging roads pass within 7 kilometres of the north boundary of the claims. These are seasonal roads used by West Fraser's Eurocan Division based out of their East Ootsa Camp. Ferry transportation across Ootsa Lake is on an availability basis only.

## Claims

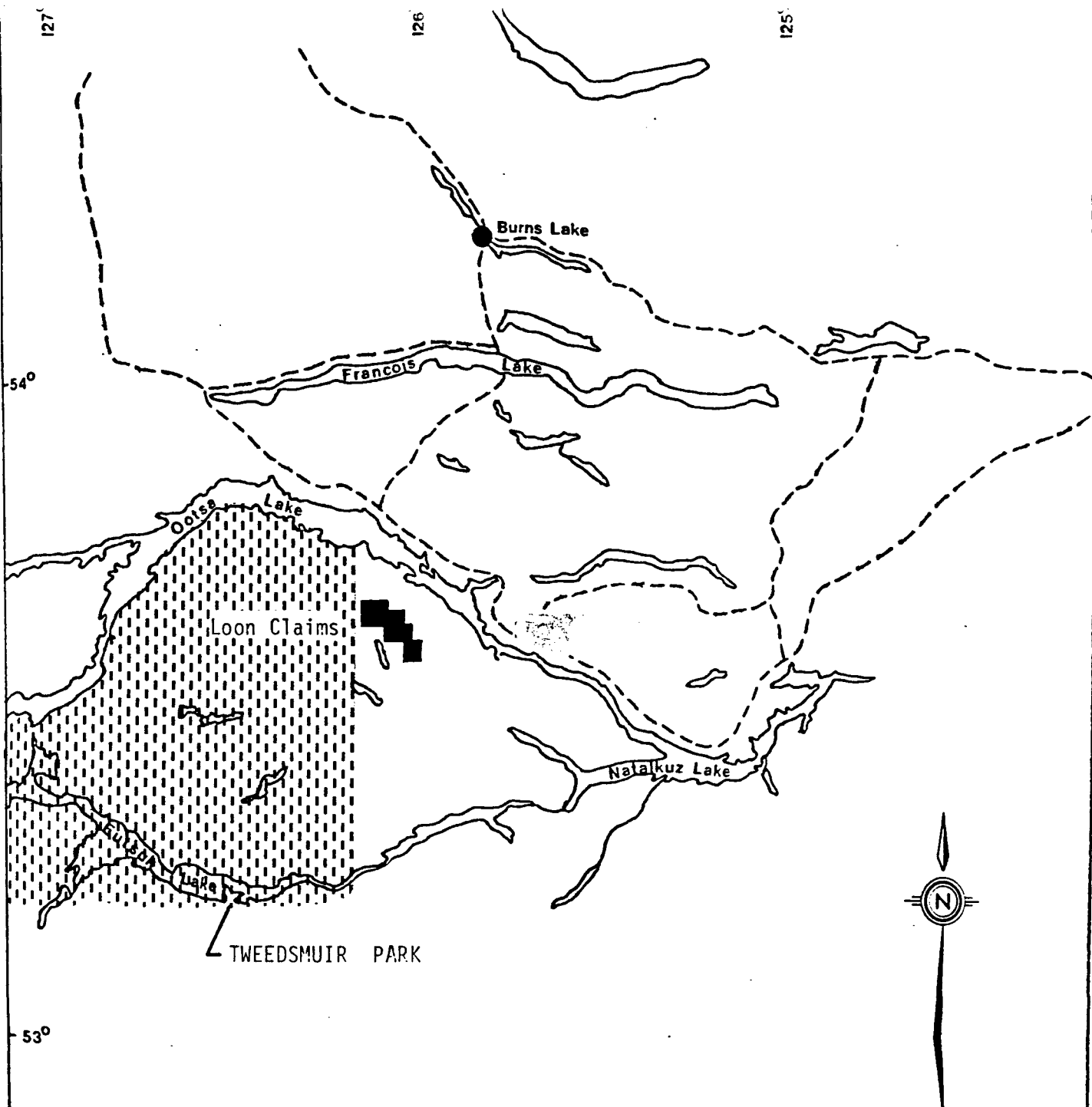
The Loon 9 claim comprise a 20 unit claim in the Omineca Mining Division. The claim is wholly owned by Mingold Resources Inc. A breakdown of claim information is shown in Table 1 and the location of the claim on Fig. 3.

<u>Claim</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Expiry Date</u>
Loon 9	20	9722	Aug. 18/88	Aug. 18/89

\*Note the expiry date shown includes the assessment credits for work presently being applied.

## Personnel

Two personnel employed by Mingold Resources conducted the field program. These employees were party chief, G. Payie, B.Sc., geologist and T. Roberts, prospector. Overall supervision was provided by the author of this report E.W. Yarow. Statement of Qualifications are included with the report.



**MINGOLD RESOURCES INC.**

VANCOUVER OFFICE

**OOTSA LAKE PROJECT**

Scale: 1:1,000,000

Date: Nov. 1988

NTS: 93E&F

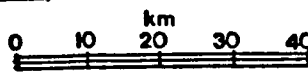
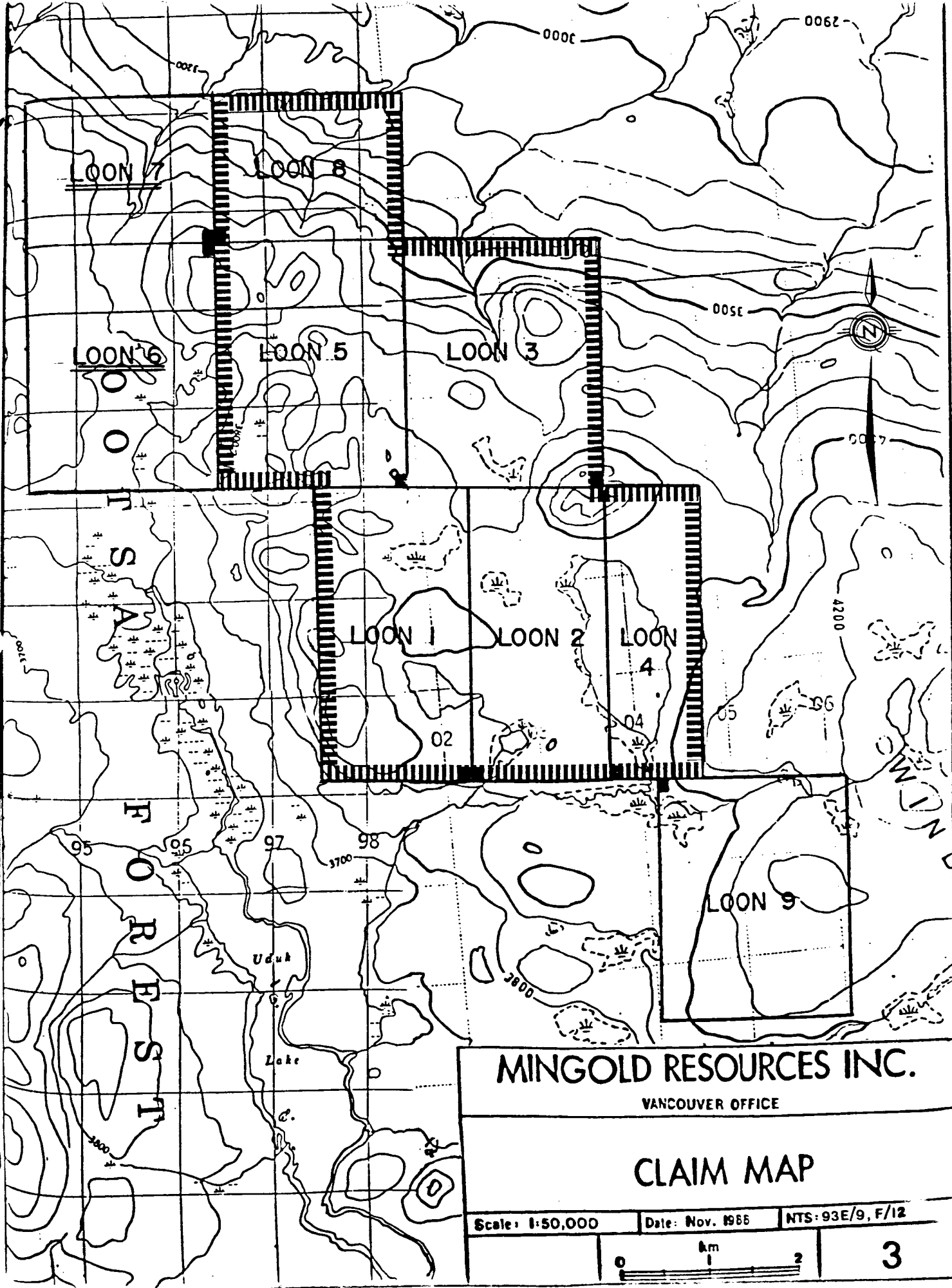


Figure No.

2



**MINGOLD RESOURCES INC.**

VANCOUVER OFFICE

**CLAIM MAP**

Scale: 1:50,000      Date: Nov. 1986      NTS: 93E/9, F/12



3

## **Work Done**

The two men completed a number of prospecting traverses which are shown along with relevant geological features on Fig. No. 4 in the back folder. Along with the prospecting five rock samples and one silt sample were collected.

## **Property History**

The first known work in the area was by H.W. Tipper of the Geological Survey of Canada. At that time, he carried out the initial government mapping of the area which was later published in G.S.C. Memoir 324. Since that time no further work is indicated until 1980 at which time Amax Exploration staked claims in the Uduk Lake area just south of the Loon property. The claims were allowed to lapse by Amax and were subsequently restaked by A & M Exploration as the Duk claims. These claims are presently still in good standing and held by Comox Resources.

In 1985, Mingold Resources did an initial pass through the area just north and east of the Loon property. In 1986, Mingold staked 268 units due east of the Loon area as the Rhub and Barb claims. The claims covered epithermal gold and silver bearing rhyolites of the Ootsa Lake Volcanic package. In 1987, work was confined to the Rhub-Barb area with Newmont Exploration staking the Barb and Gusty claims along the eastern and southern boundaries of these claims. In 1988, Mingold extended their exploration to areas of Ootsa Lake Volcanics outside the Rhub-Barb and found an accumulation of mineralized epithermal veins and breccia boulders south of Ootsa Lake. These boulders were subsequently traced "up ice" to outcrops of similar material on what is now the Loon 1 and 2 claims. In the course of staking, additional material was found in float or outcrop resulting in the expansion of the claim block to cover a total of 152 units. The claims tie onto the northern boundary of the Duk claims where similar material is found.

## **Regional Geology**

The Loon claims occur in the south-central part of the Intermontane Geological Belt of the Northern Cordillera.

Lithologies range in age from late Triassic through Miocene with intermediate to febic volcanics being the dominant rock types.

The oldest rocks exposed in the area are the U. Triassic Takla Group Volcanics which consist of island arc sequences of intermediate to basic volcanics. These were superseded by the Hazelton Group volcanics. In Basaltic to rhyolitic volcanics of Tertiary age are prevalent in the area surrounding the Loon claims.

The lower Mesozoic rocks are overlain unconformably by an extensive volcanic sequence known as the Ootsa Lake Volcanics. Recent work on the Whitesail (93E)



mapsheet further west suggests this package is entirely Eocene in age (Drobe, 1988). These rocks occur over most of the claim area and consists typically of flows and tuffs of felsic to intermediate composition.

The Ootsa Lake Group is in turn overlain and intruded by andesitic to basaltic flows, dykes and plugs of the Oligocene to Miocene Endako Group.

### **Prospecting & Rock Sampling**

A number of prospecting traverses were completed on Loon 9. The traverses were hindered by the fact less than 5 percent of the claim area has bedrock exposure. Rock types observed comprised basalt of Miocene age and argillites/sandstones of Triassic age, dacite and rhyolite flows of the Ootsa Lake Group. No gold and/or silver mineralization or alteration of rocks was observed during the course of the traverses.

Five rock samples were collected for analysis and these are described below.

- |                 |   |
|-----------------|---|
| Sample No. 158: | Grab sample of monzonite, intrusive, 1 percent pyrite.  |
| Sample No. 159: | Grab sample of mottled green and purple intermediate volcanic, no visible sulphides, limonite on fractures. |
| Sample No. 160: | Grab sample of dacite outcrop Coarse pyrite cubes.  |
| Sample No. 161: | Grab sample of silicified rhyolite with 1 percent pyrite.   |
| Sample No. 162: | Grab sample of silicified rhyodacite, quartz crystals lining vugs, 2 percent disseminated pyrite.           |

### **Conclusions**

Prospecting and rock sampling did not locate any areas of significance however prospecting was hindered by the lack of outcrop. Unless additional prospecting on other claims in the Loon group is more successful no further work is recommended for Loon 9.

## **SELECTED BIBLIOGRAPHY**

- Andrew, K. "Epithermal Precious Metal Mineralization in the Ootsa Lake Group, Wolf Prospect, Central British Columbia" Paper presented at the G.A.C. - Smithers Exploration Group Workshop; October, 1988.
- Drobe, J. "Stratigraphy and Petrology of the Ootsa Lake Group in the Whitesail Range", Paper presented at the G.A.C. Smithers Exploration Group Workshop; October, 1988.
- Taylor, K.J. "Geochemical and Geophysical Surveys, Mapping, Rock Sampling, Trenching and Linecutting Loon 1-5, Loon 8 claims", Report for assessment March 1989."
- Tipper, H.W. "Nechako River Map-area, British Columbia", Geol. Surv. Can. Memoir 324; 1963.

## **STATEMENT OF QUALIFICATIONS**

I, Edward W. Yarrow of 1819 - 127 A Street Surrey, British Columbia do hereby certify that:

1. I am a geologist with a B.Sc. in Geology from the University of British Columbia, 1970.
2. I have practised my profession continuously since 1970.
3. I am a Fellow of the Geological Association of Canada Number F2869
4. I examined the fieldwork on which this report is based and found it to conform to accepted standards within the mining industry.

E.W. Yarrow

Regional Representative, Western District  
Mingold Resources Inc.

November 16, 1989

## **STATEMENT OF QUALIFICATIONS**

I, Garry Payle, of 28 - 819 Lodi Avenue, British Columbia do hereby certify that:

1. I am a geologist with a B.Sc. in Geology from the University of British Columbia, 1984.
2. I have practised my profession continuously since 1984.
3. I was the on-site supervisor for the project on which this report is based.

November 16, 1989

## STATEMENT OF COSTS

### Personnel

Mob/Demob - 2 men/2 days/\$150/man day	600	
Prospecting - 2 men/2 days/\$150/man day	600	
Report Writing - 1 day @ \$300/day	300	
		1,500

### Transportation

Aircraft Charter - Burns Lake to Loon Lake	290	
Truck Rental - 1 day/\$50/day	50	
		340

### Room & Board

3 days/2 men/\$50/man day	300	
		300

### Analytical Charges

5 rock samples @ \$17.85/samp.	89.25	
1 silt sample @ \$15.70/samp.	15.70	
		<u>104.90</u>
		2,244.95



**COASTECH RESEARCH INC.**

M E M O R A N D U M

DATE : 15 November, 1989  
TO : Ed Yarrow, Mingold Resources  
FROM : Jack Stanley, Coastech Research  
SUBJECT: Sample Prep and Assay Procedure

---

GENERAL SAMPLE PREP AND ASSAY PROCEDURE

- Soils and Silts - Dried at 90°C  
- Screened through 80 mesh and mixed
- Rocks - Dried at 105°C  
- Crushed to 1/8 inch size  
- split in Gilson riffle to 250 grams  
- pulverized to -100 in ring grinder and mixed

Analysis

Soils, silts and rocks for Au:


- 15 to 30 gram sample is fused with a PbO flux.
- Cupeléd beads are parted with HNO<sub>3</sub>. If less than 0.35 mg of gold is present it is put into an aqua regia solution and completed by A.A.
- Samples with more than 0.35 mg of gold present from the fusion are done by the conventional gravametric method.
- A control and blank is carried with each fusion.

ICP

Soils, silts and rocks

Unless otherwise requested, the standard procedure for multi-element ICP is as follows:

- weigh 0.5 gram sample into test tube
- add nitric acid and digest on water bath for one hour
- add hydrochloric acid and digest for two hours
- cool and bulk to 25 mL and mix
- run on ICP
- each run contains a known control

  
\_\_\_\_\_  
Jack E. Stanley



# COASTECH RESEARCH INC.

COASTECH ANALYTICAL SERVICES LABORATORY

TO: Mingold Resources  
405 - 470 Granville Street  
Vancouver, BC  
V6C 1V5

Date: 29 Aug, 1989

Invoice No. 08A014

Order No. 95508

Attention: Ed Yarrow

Page 12 of 12

## C E R T I F I C A T E O F A S S A Y

I HEREBY CERTIFY the following results of assays.

	Element	Au					
	Units	PPB					
177	[REDACTED] R	[REDACTED]					
178	[REDACTED]	[REDACTED]					
179	# 00158 R	60					
180	159	13					
181	160	37					
182	161	73					
183	162	60					
184	163	57					
185	164	40					
186	[REDACTED]	[REDACTED]					
187	[REDACTED]	[REDACTED]					
188	[REDACTED]	[REDACTED]					
189	[REDACTED]	[REDACTED]					
190	Loon 7	323	(Stream Sediment)				
191	Loon 9	120	(Stream Sediment)				

*[Signature]*  
Registered Assayer, Province of B.C.





# Chemex Labs Ltd.

Analytical Chemists • Geochimists • Registered Assayers  
212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-1C1  
PHONE (604) 984-0221

To: COASTTECH RESEARCH INC

80 NIOBE ST.  
NORTH VANCOUVER, B.C.  
V7J 2C9

Project:  
Comments: ATTN: JACK STANLEY

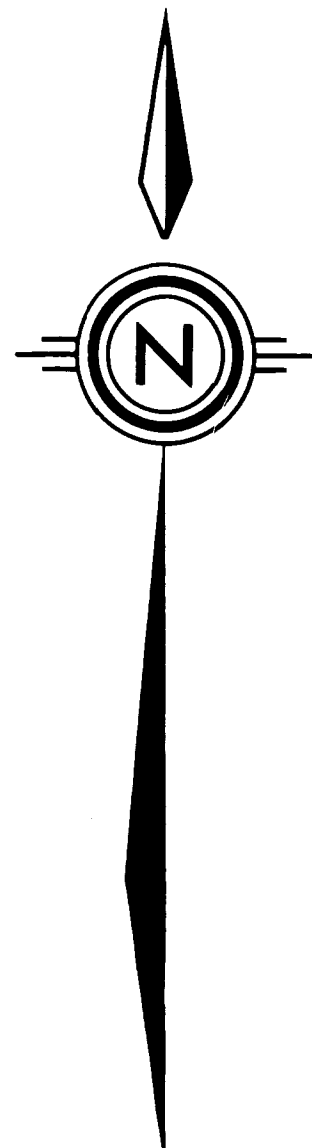
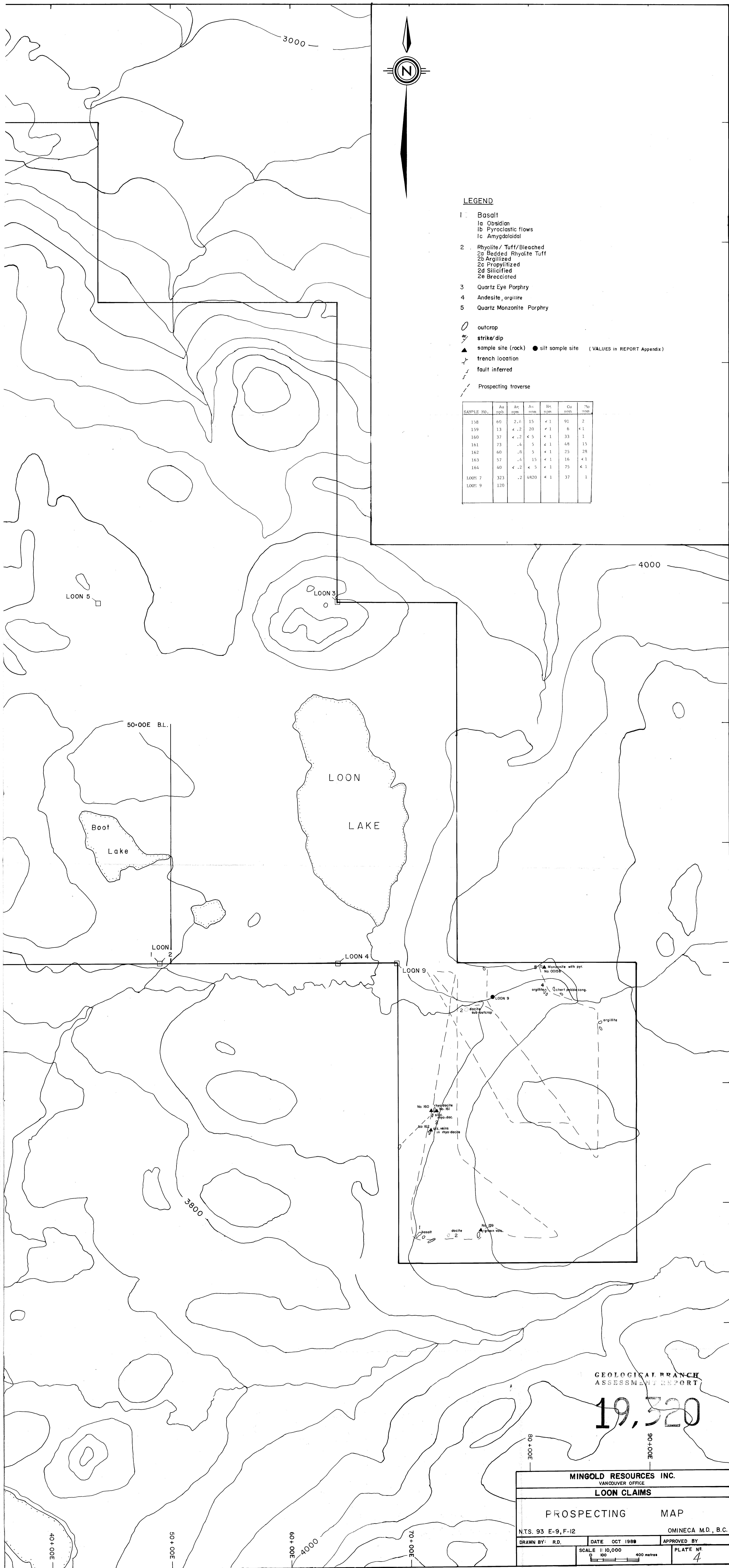
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Tot. Pages: 2  
Date : 12-SEP-89  
Invoice # : 1-8924854  
P.O. # : 89-4136

## CERTIFICATE OF ANALYSIS A8924854

SAMPLE DESCRIPTION	PREP CODE	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
40	214 238	1.44	0.6	90	20	< 0.5	< 2	0.71	< 0.5	< 1	37	3	0.97	< 10	< 1	0.24	40	0.06	310	8
41	214 238	2.01	0.8	40	30	< 0.5	< 2	0.97	< 0.5	< 1	47	7	0.96	< 10	< 1	0.40	40	0.10	340	8
42	214 238	1.54	0.6	60	30	< 0.5	< 2	0.69	< 0.5	< 1	42	7	0.93	< 10	< 1	0.39	40	0.09	300	11
43	214 238	2.55	0.6	45	50	1.5	< 2	1.00	< 0.5	3	31	12	1.13	< 10	< 1	0.43	40	0.17	365	3
44	214 238	0.34	0.6	25	20	< 0.5	< 2	0.02	< 0.5	< 1	83	4	0.42	< 10	< 1	0.27	30	0.01	35	4
45	214 238	0.30	2.4	30	10	< 0.5	< 2	0.02	< 0.5	1	126	3	0.33	< 10	< 1	0.28	30	< 0.01	30	9
46	214 238	0.32	4.0	45	20	< 0.5	< 2	0.01	< 0.5	> 1	124	1	0.36	< 10	< 1	0.32	20	< 0.01	25	10
47	214 238	0.27	1.4	45	10	< 0.5	> 2	0.01	< 0.5	> 1	146	2	0.40	< 10	< 1	0.27	30	< 0.01	25	8
48	214 238	0.28	2.8	30	10	< 0.5	2	0.01	< 0.5	< 1	162	5	0.35	< 10	< 1	0.24	30	< 0.01	35	13
49	214 238	0.29	1.4	15	10	< 0.5	2	0.01	< 0.5	1	168	2	0.25	< 10	< 1	0.23	30	< 0.01	30	32
50	214 238	0.31	1.2	30	10	< 0.5	2	0.01	< 0.5	1	213	4	0.42	< 10	< 1	0.24	20	< 0.01	30	50
51	214 238	0.33	1.6	80	10	< 0.5	> 2	0.02	< 0.5	> 1	183	12	0.52	< 10	< 1	0.23	30	0.02	45	18
52	214 238	0.26	0.6	80	10	< 0.5	> 2	0.02	< 0.5	> 1	173	2	0.47	< 10	< 1	0.19	20	< 0.01	40	30
53	214 238	0.22	1.0	140	30	< 0.5	> 2	0.01	< 0.5	3	311	13	0.73	< 10	< 1	0.14	20	< 0.01	40	19
54	214 238	0.30	0.6	75	10	< 0.5	> 2	0.02	< 0.5	< 1	321	7	0.63	< 10	< 1	0.17	20	0.01	45	12
55	214 238	0.23	1.0	125	30	< 0.5	> 2	0.02	> 0.5	> 1	282	12	0.63	> 10	> 1	0.14	10	< 0.01	40	9
135	214 238	0.71	1.0	325	460	< 0.5	> 2	0.22	4.0	1	108	105	0.78	> 10	> 1	0.32	20	0.06	100	1
00158	214 238	0.69	2.4	15	50	< 0.5	> 2	0.04	6.0	< 1	193	91	1.76	> 10	> 1	0.15	20	0.02	240	2
00139	214 238	1.51	> 0.2	20	180	< 0.5	> 2	0.45	> 0.5	10	89	6	2.35	> 10	> 1	0.26	20	0.33	785	> 1
00160	214 238	2.10	> 0.2	> 5	190	< 0.5	> 2	0.93	0.5	12	159	33	3.46	> 10	> 1	0.34	10	1.42	705	> 1
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00162	214 238	0.45	0.8	5	80	< 0.5	> 2	0.01	< 0.5	3	219	25	0.85	> 10	> 1	0.34	10	0.01	30	28
00163	214 238	0.25	0.4	15	60	< 0.5	> 2	0.03	1.0	< 1	173	16	0.42	> 10	> 1	0.15	10	< 0.01	220	> 1
00164	214 238	6.53	> 0.2	> 5	790	< 0.5	> 2	4.94	1.0	37	189	75	6.59	> 10	> 1	0.53	< 10	3.17	990	> 1
00165	214 238	0.36	0.4	45	100	< 0.5	> 2	0.03	< 0.5	< 1	149	8	1.98	> 10	> 1	0.15	10	0.01	80	2
00166	214 238	0.37	0.6	20	10	< 0.5	> 2	0.02	< 0.5	< 1	188	6	0.24	> 10	> 1	0.25	30	< 0.01	30	3
00176	214 238	0.52	0.4	75	130	< 0.5	> 2	0.03	< 0.5	< 1	189	6	1.18	> 10	> 1	0.35	30	0.02	30	5
0007	214 238	1.64	< 0.2	4820	140	< 0.5	> 2	0.73	3.0	19	31	37	3.65	> 10	> 1	0.09	20	0.68	1005	1

CERTIFICATION :

*B. Campbell*



**LEGEND**

- 1 Basalt
    - 1a Obsidian
    - 1b Pyroclastic flows
    - 1c Amygdaloidal
  - 2 Rhyolite/ Tuff/Bleached
    - 2a Bedded Rhyolite Tuff
    - 2b Argillized
    - 2c Propylitized
    - 2d Silicified
    - 2e Brecciated
  - 3 Quartz Eye Porphyry
  - 4 Andesite, argillite
  - 5 Quartz Monzonite Porphyry
- outcrop  
 ↗ strike/dip  
 ▲ sample site (rock) ● silt sample site (VALUES in REPORT Appendix)  
 ✂ trench location  
 - - - fault inferred  
 - - - Prospecting traverse

SAMPLE NO.	Au ppm	Ag ppm	As ppm	Hg ppm	Cu ppm	Mg ppm
158	60	2.6	15	< 1	91	2
159	13	< .2	20	< 1	6	< 1
160	37	< .2	< 5	< 1	33	1
161	73	.4	5	< 1	48	15
162	60	.8	5	< 1	25	28
163	57	.4	15	< 1	16	< 1
164	40	< .2	< 5	< 1	75	< 1
LOON 7	323	.2	4820	< 1	37	1
LOON 9	120					

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**19,320**

**MINGOLD RESOURCES INC.**  
VANCOUVER OFFICE

**LOON CLAIMS**

**PROSPECTING MAP**

NTS. 93 E-9, F-12 OMINECA M.D., B.C.

DRAWN BY: R.D.	DATE: OCT 1988	APPROVED BY:
SCALE: 1:10,000		PLATE NO. 4

400 metres

