

MOT 2 Claim

LOG NO: 1023	RD.
ACTION:	
FILE NO: 87-657-16305	

EXPLORATION RESULTS 7/88
on the
MOT 2 CLAIM
N.T.S. 94-D/3E
Latitude 55°05' North
Longitude 127°~~05~~ West 07'24"
Omineca Mining Division
British Columbia

October 1, 1987

on behalf of
Owner/Operator: PROLIFIC ~~RESOURCES~~ ^{PETROLEUM} LTD.
Calgary, Alberta

by
T. B. Millinoff, B.Sc., P.Geol.
TAIGA CONSULTANTS LTD.
#100, 1300 - 8th Street S.W.
Calgary, Alberta T2R 1B2

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,305

FILMED

SUMMARY

The MOT 2 claim encompasses an area underlain by Bowser sedimentary rocks and Hazelton volcanics which are intruded by dykes and sills belonging to the Bulkley intrusives. Precious and base metals mineralization present on the property appears genetically related to this series of intrusives.

The mineralization present appears to be epithermal in origin and occurs within or adjacent to Bulkley intrusives. This type of epithermal deposit is found elsewhere in British Columbia. Reserves from such deposits range up to several million tons grading 0.25 oz/ton gold or better. Given the exploration success to date, the MOT 2 claim appears to have excellent potential for the discovery of a high-grade gold deposit.

Exploration completed in 1987 included a surface program consisting of detailed geological mapping and geochemical sampling.

TABLE OF CONTENTS

INTRODUCTION	1
Location and Access	
Property Status	
Physiography	
GEOLOGY.	4
EXPLORATION HISTORY.	6
EXPLORATION TARGETS.	9
EXPLORATION RESULTS.	10
CONCLUSIONS AND RECOMMENDATIONS.	11
1987 EXPLORATION EXPENDITURES.	12
CERTIFICATE.	13
BIBLIOGRAPHY	14

APPENDIX: Analytical Techniques and Certificates of Analysis

FIGURES

1 General Location Map.	2
2 Claims Location Map	3
3 Property and Geology Map	5

MAPS (back pocket)

1 MOT 2 Compilation Map	
-------------------------	--

INTRODUCTION

The purpose of this report is to outline the prospecting and geochemical results of the 1987 exploration program on the MOT 2 claim.

Location and Access

The property is located on N.T.S. map-sheet 94-D/3 in the Omineca Mining Division at 55°05' North latitude and 127°05' West longitude (Figure 1). The property is located 110 km north-northeast of Hazelton and 152 km north of Smithers. Access to the area is by helicopter from Smithers. Motase Lake, 4 km east of the property, is suitable for float-equipped aircraft. The Omineca Resource Road is located approximately 180 km to the east; logging roads originating in New Hazelton come within 50 km. The area is located 20 km east of B.C. Railway tracks in the Driftwood River valley.

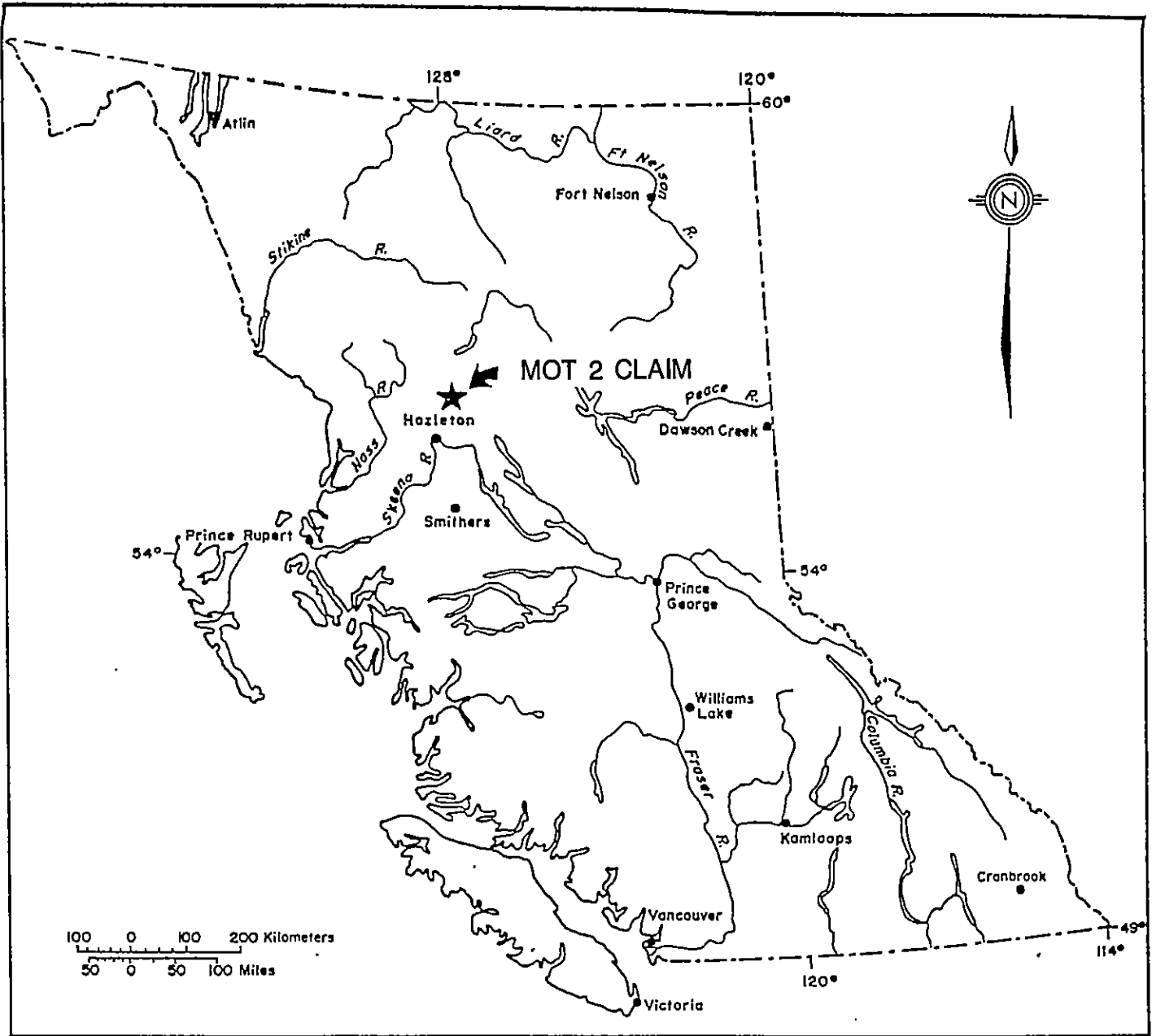
Property Status

The MOT 2 claim consists of a single modified-grid claim (Figure 2), under option to Prolific Resources Ltd. (formerly Prolific Petroleum Ltd.) from B. H. Kahlert. The current claim status is as follows:

<u>Claim</u>	<u>No. of Units</u>	<u>Record Number</u>	<u>Year of Expiry</u>
MOT 2	18	7726(7)	1987

Physiography

Topography on the property is rugged with a maximum relief in the area of 1000 m, varying from approximately 1000 m in the valleys to 2000 m on the peaks. The claims are located above treeline between 1500 and 2000 m ASL. Local relief on the northeast-facing slopes is extremely rugged, whereas the south-facing slopes and the broad U-shaped valley have more subdued relief.



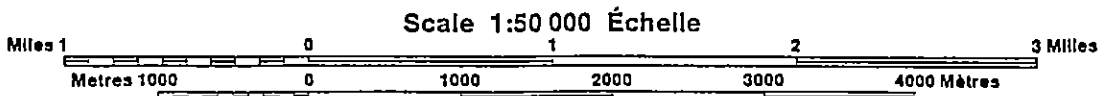
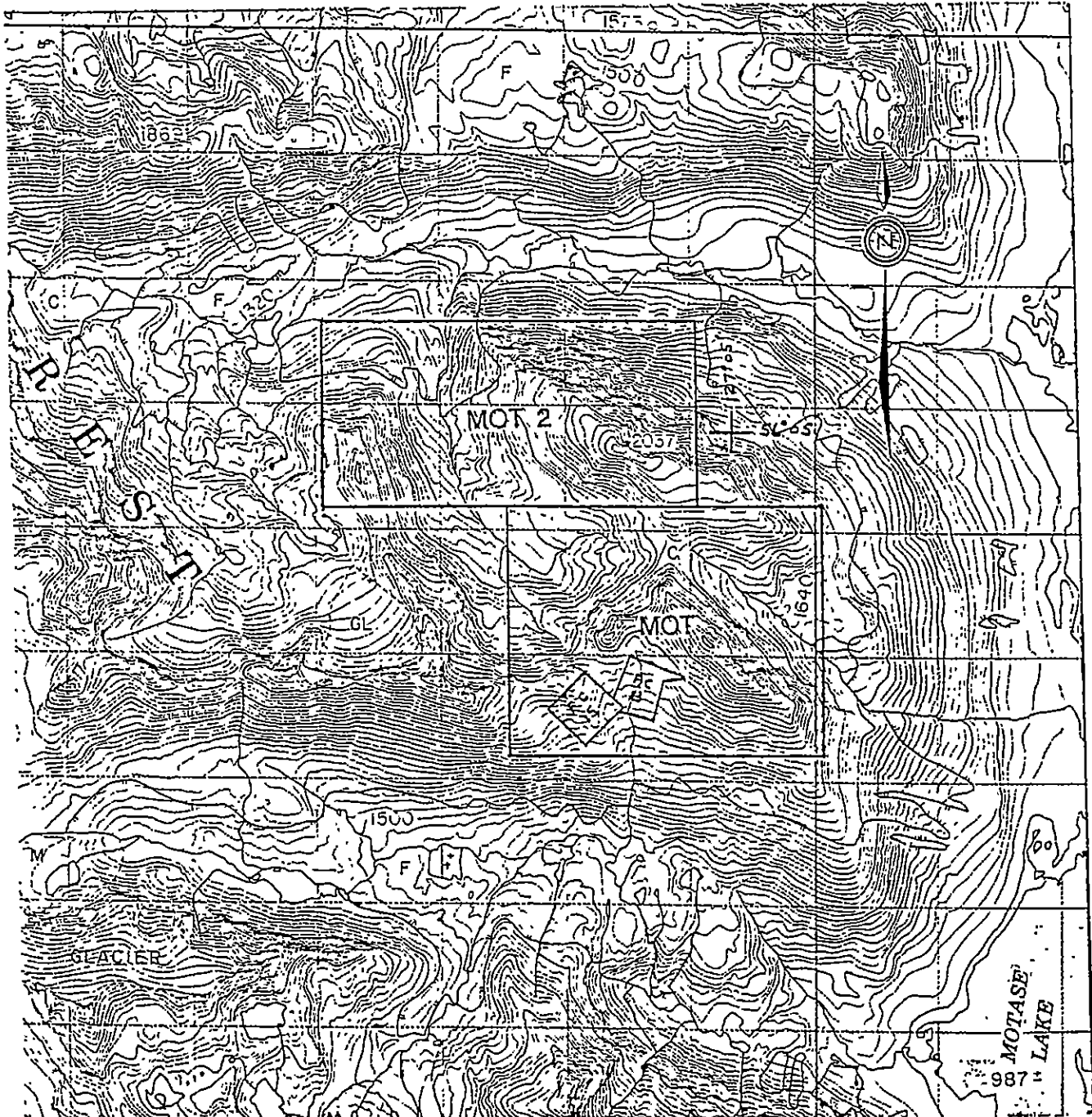
REGIONAL LOCATION MAP

MOT 2 CLAIM

Omineca Mining Division, British Columbia

FIGURE 1

MOT Claims
Motase Lake Area
Omineca Mining Division
British Columbia
NTS 94-D/3



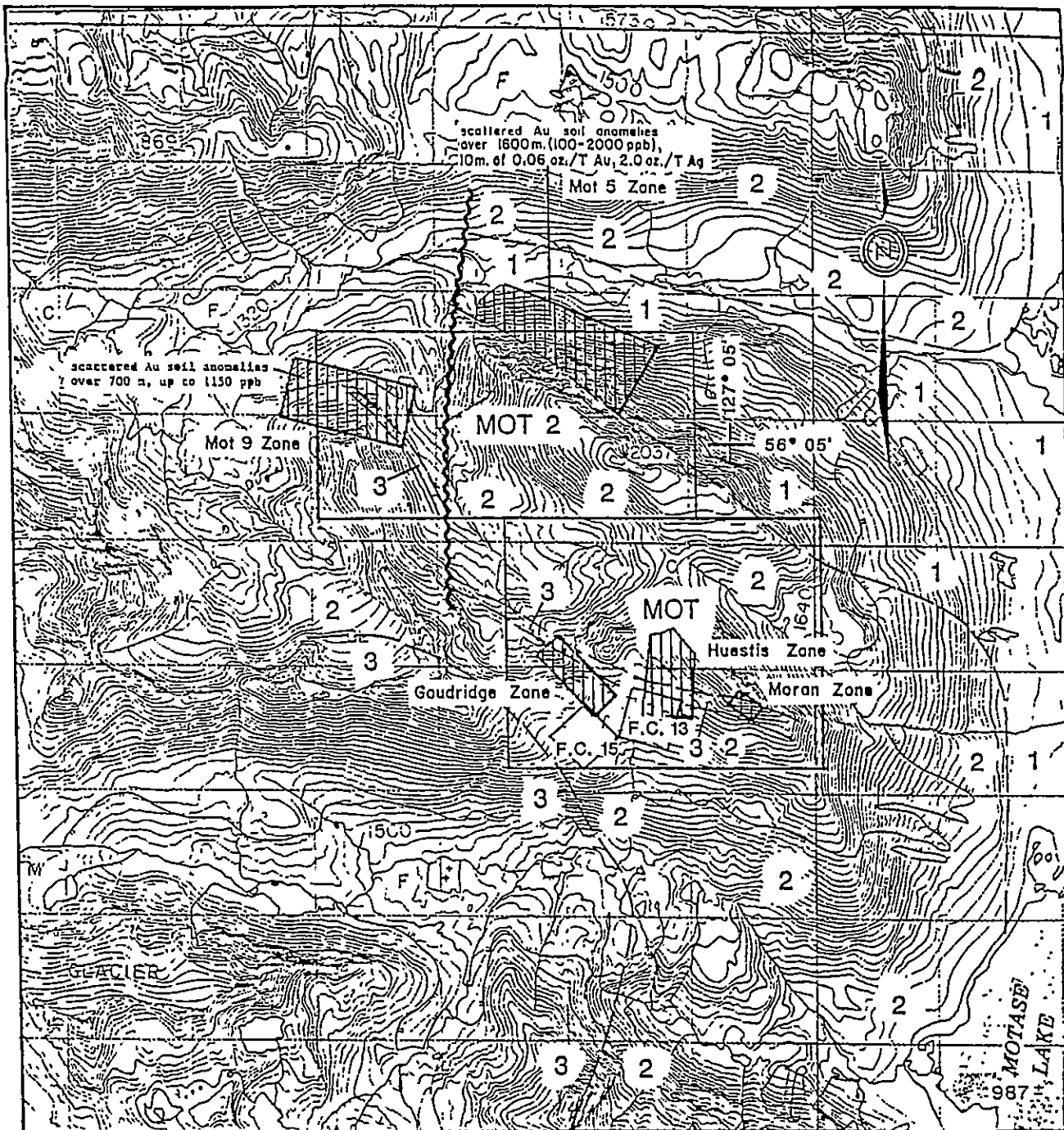
GEOLOGY

The Motase Lake property is located along the eastern edge of the Middle Jurassic to Upper Cretaceous Bowser Group clastic sediments. Intruding these sediments are andesitic volcanics belonging to the Lower Jurassic Hazelton Group. These volcanics are in turn intruded by feldspar porphyry dykes and sills which are variably altered and mineralized. These granitic rocks are related to the Cretaceous to Tertiary Bulkley intrusives which form small batholiths and stocks in the district.

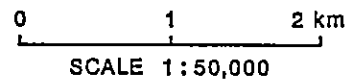
On the property, Hazelton volcanics and Bowser sediments have been intruded by two phases of Bulkley granitoids (Figure 3). The older of these is an altered granodiorite feldspar porphyry sill ranging from 50 to 80 m thick. This sill underlies the central and northwestern parts of the Motase Lake property.

The younger monzonite dykes and sills intrude all older units. These dykes and sills, along with the older intrusives, become thicker and more persistent toward a small batholith located in the central part of the property.

Precious and base metals mineralization present in the area appears spatially related to the Bulkley intrusives. Mineralization occurs either in Hazelton volcanics or Bowser sediments adjacent to Bulkley dykes or sills or within the intrusives themselves.



GEOLOGICAL LEGEND



- | | | | | | |
|---|------------------------|-------|---------|--|--|
| 3 | FELDSPAR PORPHYRY | — — — | CONTACT | | AREA OF SHOWINGS OR
GEOCHEMICAL ANOMALIES |
| 2 | ARGILLITE | ~~~~~ | FAULT | | |
| 1 | ANDESITIC TUFFS, FLOWS | | | | |

**PROPERTY AND GEOLOGY MAP
MOTASE LAKE PROPERTY**

FIGURE 3

EXPLORATION HISTORY

The earliest mention of exploration in the Motase Lake area by by C. S. Lord (1949). He reported on work carried out in 1945 by Yukon Northwest Explorations, Limited. This exploration work consisted of prospecting, geological mapping, and sampling on the Motase Group of 35 claims. Two occurrences were located, consisting of bornite and chalcocite associated with minor galena, pyrite, chalcopyrite, and possibly tetrahedrite. These minerals occurred in minute fractures and as disseminations adjacent to fractures in andesitic volcanics. A selected sample of this mineralization returned values of 0.005 oz/ton gold, 12-76 oz/ton silver, and 14-98% copper. Average values reported by the operator were about 1 oz/ton silver and 1% copper.

In 1948, the area was staked and prospected by H. H. Huestis (one of the founders of Bethlehem Copper Corporation) who held ground in the area until 1982 when the property was inherited by Cominco from Bethlehem. During this period three gold showings ("Huestis", "Goudridge", "Moran") were identified on the property.

Huestis Mining, in partnership with Noranda, carried out a diamond drilling program in 1962 to evaluate the base metals potential of the area. Noranda describes the Huestis zone as 100 x 5 feet with the average of the assays given as 0.36 oz/ton gold.

The Huestis Zone is hosted by quartz veins, altered sediments, and feldspar porphyries. Noranda has encountered anomalous gold values over an apparent width of 46.5 feet (14.17 m) in their DDH-2 with a section returning 0.33 oz/ton gold over 30 feet (9.2 m). Surface rock sampling by Cominco in 1983 returned a true width of 2 m of 0.27 oz/ton gold and 2.53 oz/ton silver within a quartz vein in the same area.

The Goudridge Zone was found by Cominco to consist of quartz with an alteration envelope at a feldspar porphyry/sediment contact. A 3 m chip sample from the zone returned 0.346 oz/ton gold, 0.47 oz/ton silver, and low

base metals values. Sampling was limited by the extreme ruggedness of the terrain (Pauwels, 1983).

The Moran Zone of quartz veins and gouge zones returned low and sporadic gold values. The best chip sample was 0.77 oz/ton gold over 0.1 metre taken from a quartz vein.

Check sampling by Cominco of Noranda's drill core is stated by them to have duplicated the earlier results.

Most of the FC claims were allowed to lapse except for the FC 13 and FC 15 which were purchased by Prolific Petroleum in 1986 from Cominco.

In 1981, Amoco Canada located the MOT claims around the Bethlehem/Cominco claims. An exploration program consisting of soil and rock sampling, detailed geological mapping, and 916 m of drilling at four locations was completed. Soil survey results indicated Mo/Cu/Au/Ag/WO₃ anomalies in the area, and a strong gold anomaly extending over 2.5 x 0.75 km (including the Huestis Zone). Unfortunately, their drilling was completed 250 to 500 m east of the Huestis Zone, and did not locate any significant mineralization. Exploration was oriented towards porphyry molybdenum/copper targets and no serious attempt was made to follow up the precious metals values.

Within the present day MOT 2 claim, Amoco defined two gold-in-soil anomalies, which are listed below:

<u>Anomaly</u>	<u>Au values</u>	<u>Size</u>
#5	up to 2000 ppb	700x100 m
	up to 1300 ppb	1600x100 m
#6	up to 1150 ppb	800x500 m
	one = 2450 ppb	

The claim was allowed to lapse in 1985.

In 1986, the MOT 2 claim was staked by B. H. Kahlert, who carried out limited rock sampling. The MOT and MOT 2 claims were optioned from Kahlert by Prolific Resources Ltd., and along with the purchase of the Cominco claims, form the present Motase Lake property.

Canadian Superior Exploration Limited carried out geological mapping, prospecting, and stream geochemical sampling in an area immediately north of the Amoco MOT claim area in 1973. They encountered weak molybdenum, copper, and gold values in float boulders of hornfelsed sediments. Gold values ranged from nil to 0.012 oz/ton. No gold analyses were carried out on silt samples. The following year, Ducanex Resources Limited carried out trenching, geological mapping, and soil geochemical sampling for Canadian Superior in the same claim area. They state that molybdenum values are always found associated with quartz veining. Molybdenum soil values up to 1000 ppm were encountered. No gold analyses were carried out on soil samples. Chip sampling of hornfelsed areas returned only trace gold values.

Amoco also carried out geochemical sampling immediately north of their MOT claim on the Horn claims (Melnyk, 1981). They focused on molybdenum exploration and so carried out very few gold analyses.

EXPLORATION TARGETS

The exploration targets sought on the Motase Lake property are fracture-controlled epithermal gold/silver veins or vein stockwork systems. Polymetallic mineral assemblages within these vein systems are known to contain economic grade gold mineralization over mineable widths. Such structurally controlled precious metals deposits elsewhere in the Canadian Cordillera range from thousands to millions of tons, grading from 0.1 to 1.0 oz/ton gold and 1 to 20 oz/ton silver.

Examples of this general class of deposit found in British Columbia include the Baker Mine in the Toodoggone area and the Reg deposit in the Iskut River area as well as the Silbak/Premier Mine north of Stewart (Panteleyev, 1986).

The preferred environment is in Upper Paleozoic to Upper Jurassic eugeo-synclinal sediments and volcanics. Most often, epithermal gold/silver deposits occur in the Omineca and Intermontaine Belts and are localized in fissures and shear zones adjacent to major faults.

EXPLORATION RESULTS

Work completed on the MOT 2 claim during June 1987 consisted of detailed prospecting and geological mapping. Thirty-six rock samples were taken by prospectors, as shown on Map 1 (back pocket). Rock samples consisted primarily of quartz vein material. Analytical results ranged from 6 ppb to 4740 ppb Au, and from 0.14 to 52.0 ppm Ag. Results for gold greater than 100 ppb are listed below:

<u>Sample</u>	<u>Au ppb</u>	<u>Au oz/ton</u>	<u>Ag ppm</u>	<u>Ag oz/ton</u>
BC-11	478		28.0	0.82
BC-14	126		0.43	
BC-16	284		14.2	
BC-17	130		5.20	
BC-19	122		28.0	0.82
BC-20	4,740	0.14	52.0	1.5
BC-21	126		6.5	
BC-24	166		5.20	
SH-23	172		12.3	
SH-24	846		2.5	
SH-26	740		56.0	1.63
SH-28b	108		0.84	
SH-29a	144		0.27	
SH-30	214		56.0	1.63
SH-35	110		36.0	1.05

CONCLUSIONS AND RECOMMENDATIONS

Based on the this season's exploration results on the MOT 2 claim, it is concluded that there exists an excellent potential for locating a gold/silver epithermal deposit on the property. Future exploration should be concentrated on the known gold targets with some additional property-scale reconnaissance work.

Trenching and geochemical sampling are recommended for Summer 1988. If the results of this program are sufficiently encouraging, a diamond drilling program should be completed in late Summer 1988.

1987 EXPLORATION EXPENDITURESINITIAL FIELD PROGRAM

Pre-Field Preparation (land use application, assembly of equipment)			\$500
Travel Expenses			1,000
Personnel			
Supervising Geologist	7 days @ \$375/diem	2,625	
Prospectors/Samplers	2 x 7 days @ \$175/diem	2,450	
Camp Cook	7 days @ \$165/diem	<u>1,155</u>	6,230
Camp Support			
Fixed-Wing and Helicopter Support		2,000	
Camp Rental and Food	28 man days @ \$35/diem	980	
Disposable Supplies (plywood, sample bags, lath, etc.)		500	
Fuel (Turbo B, propane, gasoline)		500	
Expediting and Freight		<u>300</u>	4,280
Equipment Rentals			
Radio-telephone	7 days @ \$ 9/diem	63	
Generator (750-watt)	7 days @ \$ 7/diem	<u>49</u>	112
Geochemistry and Assays			300
Miscellaneous (Base maps, geological reports, air photos, mosaics)			200
Post-Field (data compilation, report writing, drafting, secretarial, reproductions)			750
Handling Charge* on Third-Party Billings @ 12%			<u>612</u>
	Total		<u>\$13,984</u>

* to be waived if paid directly

CERTIFICATE

I, Terri Millinoff, of 116 MacEwan Drive N.W. in the City of Calgary in the Province of Alberta, do hereby certify that:

1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 100, 1300 - 8th Street S.W., Calgary, Alberta.
2. I am a graduate of the University of Windsor, B.Sc. Geology (1981), and have practised my profession continuously since graduation.
4. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
5. I am the author of the report entitled "Exploration Results on the MOT 2 CLAIM, Omineca Mining Division, British Columbia" dated October 1, 1987. I did not work on the property.
6. I have prepared this report based on data from work conducted in 1987 on the MOT claims by Brent Beattie, Project Geologist; from an Exploration Evaluation report on the Motase Lake property by L. J. Nagy, B.A.(Geol. Sci.); from public assessment files; and from information supplied by the vendors (Cominco Ltd. and B. H. Kahlert).
7. I do not own or expect to receive any interest (direct, indirect, or contingent) in the property described herein, nor in the securities of PROLIFIC RESOURCES LTD., in respect of services rendered in the preparation this report.

DATED at Calgary, Alberta, this 1st day of October, A.D. 1987.

Terri Millinoff
T. B. Millinoff, B.Sc., P. Geol.

A circular professional seal for a geologist. The outer ring contains the text "PROFESSIONAL GEOLOGIST" at the top and "ALBERTA" at the bottom. Inside the ring, the name "Terri B. Millinoff" is written in a cursive script. Below the name is a small crest or emblem. The seal is stamped over a horizontal line.

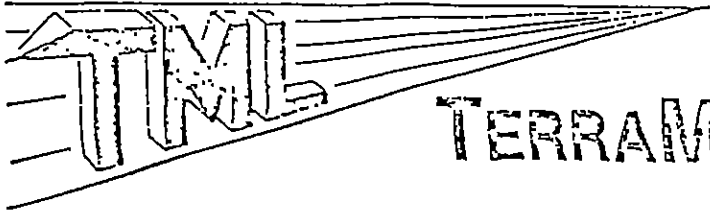
BIBLIOGRAPHY

- Baker, J.; Rainboth, W. (1973): Geological and Geochemical Report on the Horn Group of Mineral Claims, Motase Lake area, B.C.; for Canadian Superior Exploration Limited (assess.report #04731)
- Geological Survey of Canada:
 ■ Aeromagnetic Map 5282G (94-D/3) Squingula River 1:63,360
- Kahlert, B.H. (1986): Technical Report, Rock sampling, MOT claim, Omineca Mining Division; for Granges Exploration Ltd.
- Lord, G.S. (1948): McConnell Creek Map-Area, Cassiar District, British Columbia; Geol.Surv.Cda., Mem.251, pp.62-63.
- Melnyk, W.D. (1980): MOT Group Soil Geochem, Omineca Mining Division, MOT 1; for Amoco Canada Petroleum Co. Ltd. (assess. report #08844)
- (1981): Horn Group: Soil Geochemistry, Omineca Mining Division, Horn 1 and 2; for Amoco Canada Petroleum co. Ltd. (assess.report #08849)
- Miller, P. (1981): MOT Group Diamond Drilling, Omineca Mining Division, MOT 1; for Amoco Canada Petroleum Co. Ltd. (assess.report #10432)
- Morrison, M. (1974): Report on Geological and Geochemical Surveys, Horn Claims, Omineca Mining Division; for Canadian Superior Exploration Limited by Ducanex Resources Limited
- Nagy, L.J. (1987): Exploration Evaluation of the Motase Lake Property; private company report for Prolific Petroleum Ltd.
- Norpex Limited (1962): Motase Showing, Plan and Section of Drill Holes No's 1, 2, and 2A; 1"=20' scale map from Noranda Exploration Ltd., private company map from Cominco Ltd..
- (1962): Motase Showing, Geology; 1"=100' scale map from Noranda Exploration Ltd., private company map from Cominco Ltd.
- Panteleyev, Andres (1986): Toodoggone Epithermal Deposits: Comparison with Fossil Geothermal and Hot Spring Systems; from Alteration with Special Reference to Precious Metal Deposits; Dec.9/85 Univ.of B.C. short course.
- Pauwels, A.M. (1983): Assessment Report on Geologic Mapping, Rock Sampling, SC #13, Record #14533 Mining Claim, Omineca Mining Division; for Cominco Ltd. (assess.report #11630)
- (1983): Assessment Report on Geologic Mapping, Rock Sampling, MOT 1, Record #3049 Mining Claim, Omineca Mining Division; for Cominco Ltd. (assess.report #11631)
- Pauwels, A.M.; Wiley, W.E. (1983): 1983 Year End Report, Motase Lake Proj., NTS 94-D/3E; for Cominco Ltd. (private company report).

APPENDIX

Analytical Techniques

Certificates of Analysis



TERRAMIN RESEARCH LABS LTD.

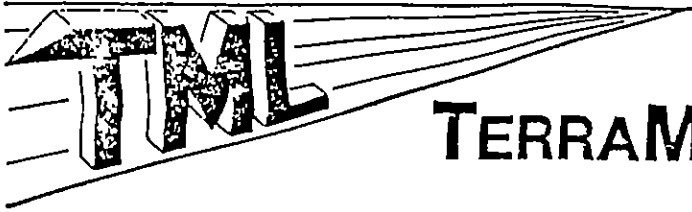
14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7
(403) 276-8668

SAMPLE PREPARATION

Soil and sediment samples are dried and sieved to -80 mesh (approx. 200 micron).

Rock Samples:

The entire sample is crushed to approx. 1/8" maximum, and split divided to obtain a representative portion which is pulverized to -200 mesh (approx 90 micron).



TERRAMIN RESEARCH LABS LTD.

14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7
(403) 278-8688

FIRE ASSAY/AA METHOD FOR GOLD AND SILVER PLATINUM AND PALLADIUM

Approximately 1 assay ton of prepared sample is fused with a litharge flux charge to obtain a lead button. The button is cupelled down to a precious metal prill which is then dissolved in aqua regia. The resulting solution is analysed by atomic absorption spectrophotometry to determine the precious metals.

: 87-253

Sample Number	Au ppb	Ag ppm
BC 1	238	40.0
11	478	28.0
12	46	4.40
13	4	0.25
14	126	0.43
15		
16	254	14.2
17	30	5.20
18		
19	122	28.0
20	4740	52.0
21	126	6.50
22	32	12.9
23	28	1.32
24	166	5.20
25	10	1.19
87 BT 1	100	7.60
2	64	1.24
3	1680	5.20
4	338	1.02
5	36	0.38
6	10	0.08
7	7640	4.30
8	294	0.45
9	16	0.27
10	582	10.7
11	28	0.29
12	238	1.56
13	88	4.90
14	186	10.5
15	1780	100.0
16	884	146.0
17	222	1.32
18	44	0.56
19	1540	10.5
20	86	2.00
21	72	32.0
22	746	380.0
23	12	1.84
24	48	7.00

Page 1

#: 87-253

	Sample Number	Au ppb	Ag ppm
	BT 25	46	7.40
0-1 m	26	44	1.45
1-2 m	27	38	0.91
2-3 m	28	108	2.30
3-4 m	29	46	4.10
4-5 m	30	318	29.0
	SH 14	236	46.0
	15	52	10.8
	16	134	0.42
	17	24	0.71
	18	18	0.59
	19	6	0.14
	20		
	21	30	3.40
	22	22	0.40
	23	172	12.3
	24	846	2.50
	24 a	12	0.21
	24 b	32	0.35
	25	52	0.42
	26	740	56.0
	27	32	25.0
	28	68	1.71
	28 a	58	1.09
	28 b	103	0.64
	29	42	0.29
	29 a	144	0.27
	29 b	28	0.31
	30	214	56.0
	31	48	25.0

Job #: 87-257

POF-BC-1

Sample Number		Au ppb	Ag ppm
BC 36		764	10.2
27		516	6.20
28	1/2	44	5.40
28	2/2	2	0.95
29		22	1.90
SH 32		4	2.50
33		46	7.10
33 a		2	1.01
33 b		4	0.47
34		174	9.60
34 a		10	0.63

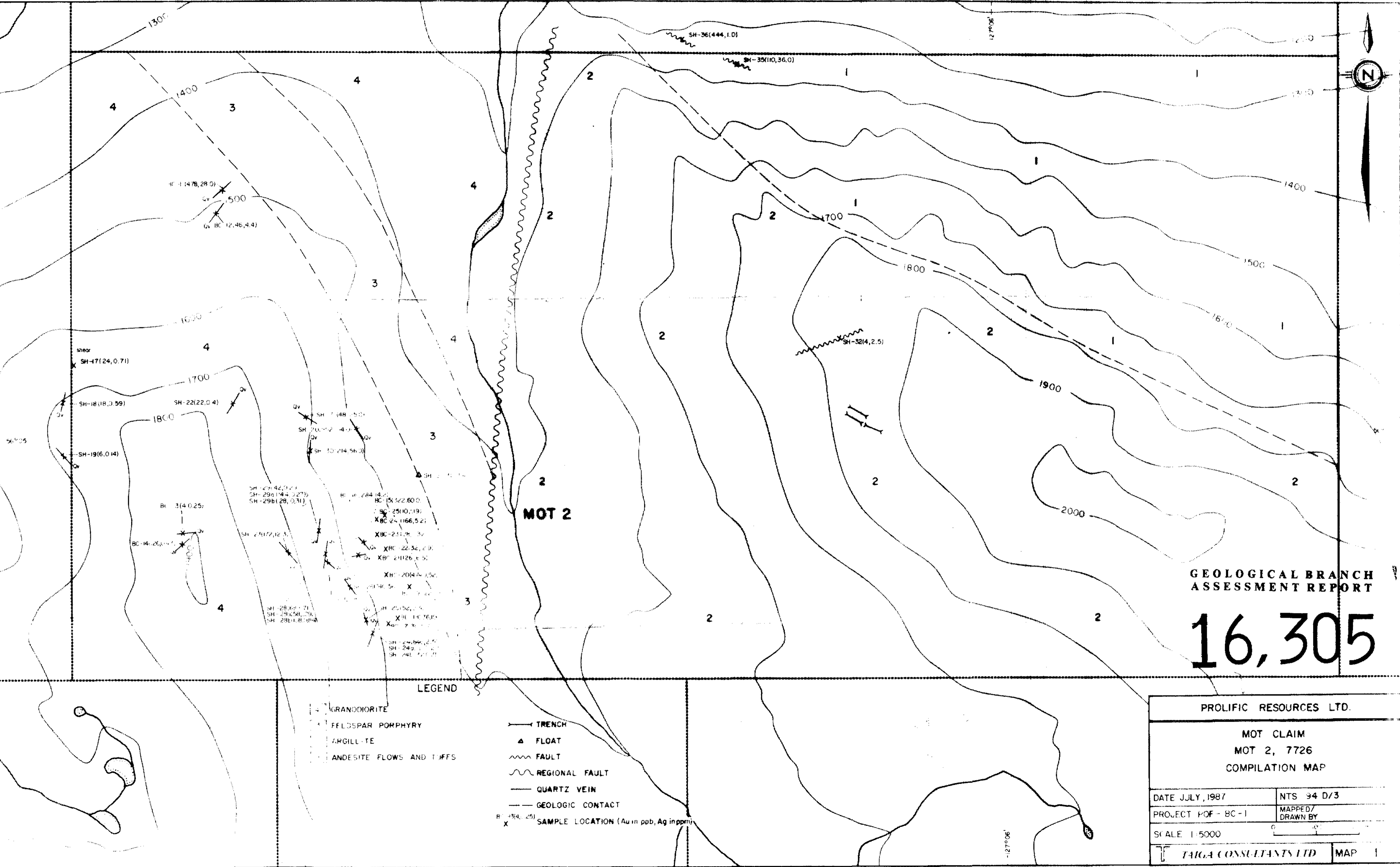
Job #: 87-269
Job POF-BC-1

Sample	Number	Au ppb	Ag ppm
BC-30	QV	84	1.27
	31 IP	14	0.12
	32 QV	306	440.0
SH-35		110	36.0
	36 Shear	444	1.00
	37 14 cm QV	82	0.45
	38 20 cm QV	54	2.60
	39 10 cm QV	1300	21.0
	40 2 cm QV	186	2.10
Chip 1	0-1 m	124	2.40
	1-2 m	130	8.70
Chip 2	0-1 m	84	1.81
	1-2 m	70	2.10
Chip 3	A-0	52	3.30
	0-1 m	38	6.40
	1-2 m	18	1.40
	2-3 m	18	1.12
	3-4 m	42	1.36
Chip 4	0-1 m	22	1.52
	1-2 m	16	0.55



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,305



LEGEND

- 4 GRANDIORITE
- 3 FELDSPAR PORPHYRY
- 2 ARGILLITE
- 1 ANDESITE FLOWS AND TUFFS
- TRENCH
- FLOAT
- FAULT
- REGIONAL FAULT
- QUARTZ VEIN
- GEOLOGIC CONTACT
- X SAMPLE LOCATION (Au in ppb, Ag in ppm)

PROLIFIC RESOURCES LTD.

MOT CLAIM
MOT 2, 7726
COMPILATION MAP

DATE JULY, 1987	NTS 94 D/3
PROJECT POF - BC-1	MAPPED/ DRAWN BY
SCALE 1:5000	
TAIGA CONSULTANTS LTD	
MAP 1	