

84-1153-13213
12/85

GEOCHEMICAL REPORT

ON THE

JAN 1 to 4 CLAIMS

KAMLOOPS MINING DISTRICT

N.T.S. 92I/15

50° 55'N 120° 56' W

for

**PACKARD RESOURCES LTD.
1032 - 355 Burrard Street
Vancouver, B.C. V6C 2G8**

by

**Gary A. Medford, Ph.D., FGAC
Consulting Geologist
3582 West 14th Avenue
Vancouver, B.C. V6R 2W4**



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,213

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1 /
LOCATION and ACCESS	1 /
PHYSIOGRAPHY and TOPOGRAPHY	1 /
WORK PROGRAM	2 /
CLAIM RECORDS	2 /
REGIONAL GEOLOGY	3 /
LOCAL and CLAIM GEOLOGY	3 /
LOCAL EXPLORATION	3 /
GEOCHEMICAL SURVEY	4 /
CONCLUSIONS	5 /
RECOMMENDATIONS	5 /
REFERENCES	6 /
CERTIFICATE	7 /

List of Figures

- Figure 1 - Location Map /
- Figure 2 - Claim Map /
- Figure 3 - Regional Geology /

List of Maps

- Map 1 - Sample Number - Location /
- Map 2 - Geochemistry /

Appendices

- Appendix 1 - Cost Statement /
- Appendix 2 - Geochemical Results Supplied by
Placer Development Ltd. Laboratory /

INTRODUCTION

The JAN 1 to 4 claims are within the southern part of the Quesnel trough, a belt well known for its prolific copper, molybdenum, lead, zinc, silver and gold mineral occurrences and deposits. The claim covers ground that has attracted interest since the turn of the century because of the presence of mercury mineralization associated with carbonate veins. Since the late seventies, considerable interest has been focused on this area because of the possibility of the finding of epithermal precious metal mineralization. The anomalous soil mercury, arsenic and antimony geochemistry found in the vicinity of these claims present interesting exploration targets that could lead to epithermal deposits such as have been extensively described and mined in Nevada.

The work described in this report has been carried out by Placer Development Ltd. Placer has given Packard Resources Ltd. permission to use the work as assessment on the claims and Packard has retained the writer to prepare a report compiling the results of their exploration program.

LOCATION and ACCESS (Fig. 1)

The legal corner posts of the JAN claims are located at $50^{\circ} 55.0' N$ and $120^{\circ} 55.7' W$. They are found north of the Criss Creek road approximately nine kilometers east of the junction with the Deadman Creek road. Both of these roads are in good condition and the latter joins with the Trans Canada Highway six kilometers west of Savona, B.C., where food and lodging is available.

PHYSIOGRAPHY and TOPOGRAPHY

The highest elevation of the property is about 4200 feet (1280 m) and the lowest is in the Criss Creek valley at about 1900 feet (579 m). The topography is gently sloping to steep in the creek valley and covered by sparse forest with little brush. The property is located in the dry belt of the province but water is available from Criss Creek year around.

123° 120° 117° 33° 30°

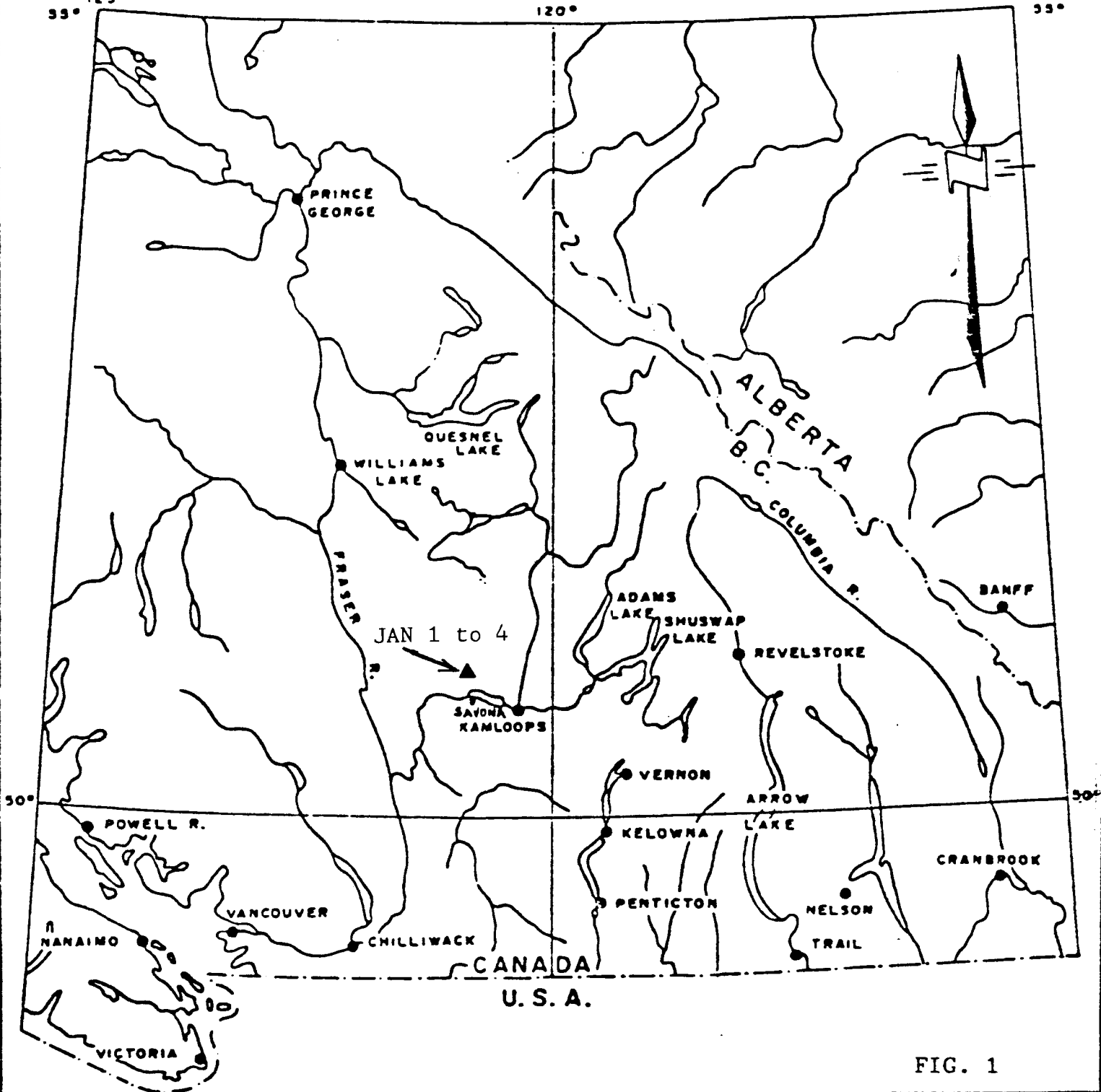


FIG. 1

PACKARD RESOURCES LIMITED.
<p>LOCATION MAP</p> <p>JAN 1 to 4 CLAIMS</p> <p>Kamloops M.D.</p>
G.A. MEDFORD, Ph.D., FGAC

100 km

WORK PROGRAM

Fieldwork was carried out by R. Boyce and P. Pacor on 6, 7 and 8 May 1984. One hundred soil samples were collected at a depth of about 15 to 20 cm (B-horizon top). Prospecting was carried out over the soil lines. Rock samples were taken from six outcrops along the soil lines. Samples were analysed at Placer's laboratory (Appendix 2).

Access to the property was gained from Kamloops where lodging was obtained.

CLAIM RECORDS

The JAN 1 to 4 claims, consisting of 63 units in total (Figure 2). They are located within the Kamloops Mining Division and found on Department of Mines claim map 92I 15N. The claims are wholly owned by Packard Resources Ltd. Government records show the following:

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Record Date</u>	<u>Expiry Date</u>
JAN 1	3147	15	Dec. 5/80	Dec. 5/84
JAN 2	3148	10	Dec. 5/80	Dec. 5/84
JAN 3	3149	18	Dec. 5/80	Dec. 5/84
JAN 4	3150	20	Dec. 5/80	Dec. 5/84

63

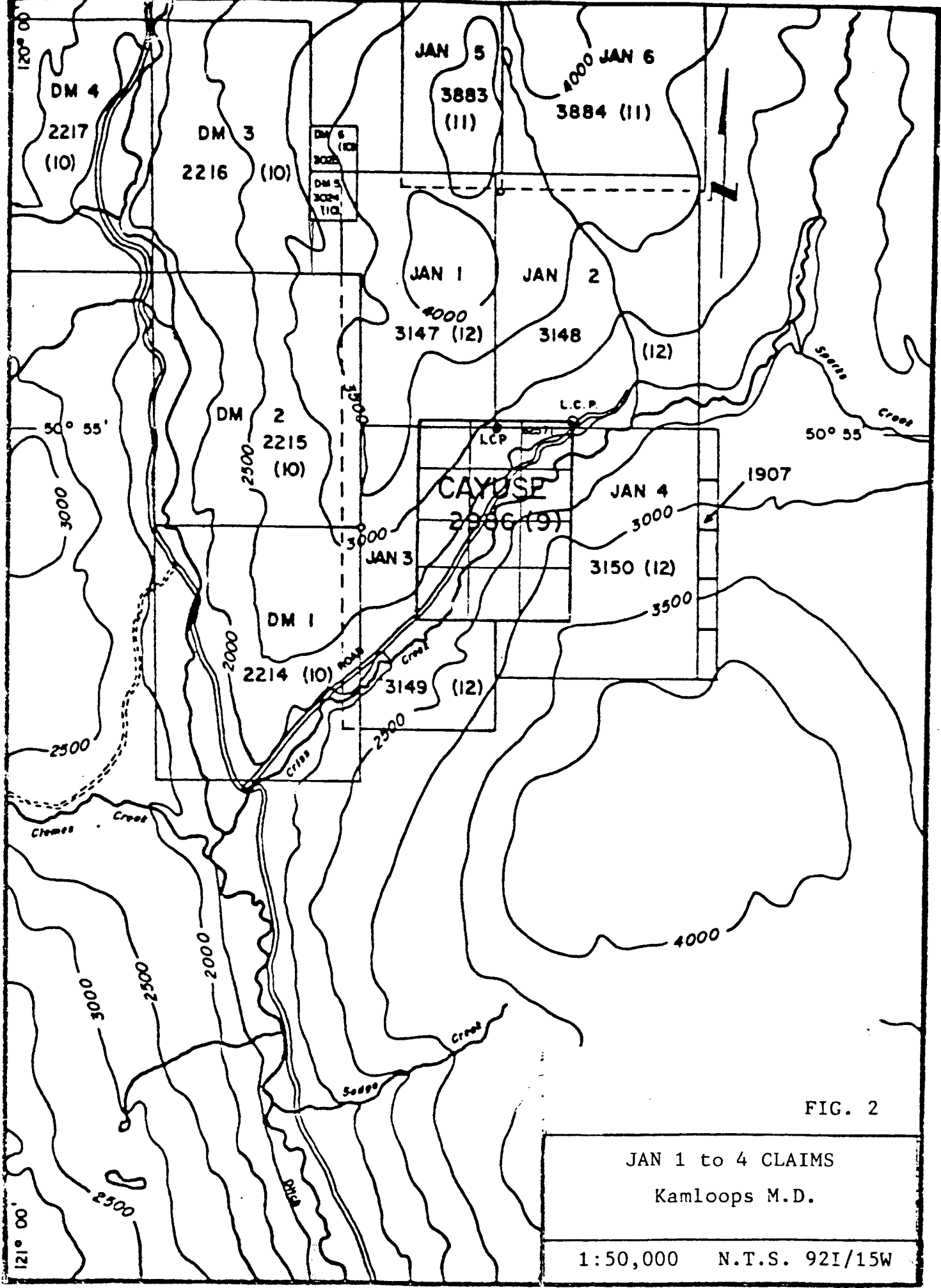


FIG. 2

JAN 1 to 4 CLAIMS
 Kamloops M.D.
 1:50,000 N.T.S. 92I/15W

REGIONAL GEOLOGY

The property lies within the area referred to as the Quesnel Trough (Campbell and Tipper, 1970), a narrow northwest trending belt consisting of Upper Triassic and Lower Jurassic volcanoclastic and sedimentary rocks. Broad areas are covered by Eocene volcanics and sediments and by Miocene-Pliocene plateau lavas. The trough hosts many copper-molybdenum deposits mainly associated with granitic intrusions as well as numerous significant copper, gold and copper-gold deposits. The latter are associated with alkalic intrusive or volcanic activity. Locations of several of these deposits are indicated in Figure 3.

LOCAL and CLAIM GEOLOGY

The claim is underlain by upper Triassic Nicola group volcanics, grey-green to purple in colour, and often stained rusty brown. To the northwest Kamloops group volcanic and sediments overlie the Nicola. Regional mapping (GSC O.F. 980) projects two faults northwest-southeast through the property with sediments of the Ashcroft formation (argillite, siltstone, sandstone, conglomerate) in fault contact to the east.

LOCAL EXPLORATION

Historical interest in mercury and related mineralization is referenced in Dickinson (1973) to which the reader is directed. Work on the adjacent D.M. claims by Guichon Explorco Ltd. (Gamble, 1981) has included detailed grid work immediately to the northwest of the JAN claims. The baselines for two grids established on the D.M. claims strike directly towards the Jan claims from the northwest and cover a fault that continues through the Jan claims. Anomalous Au zones and coincident Hg and As anomalies are found proximal to Tertiary intrusions but silver is consistently at or below detection limits (0.1 ppm). Some anomalous Mo values were also detected.

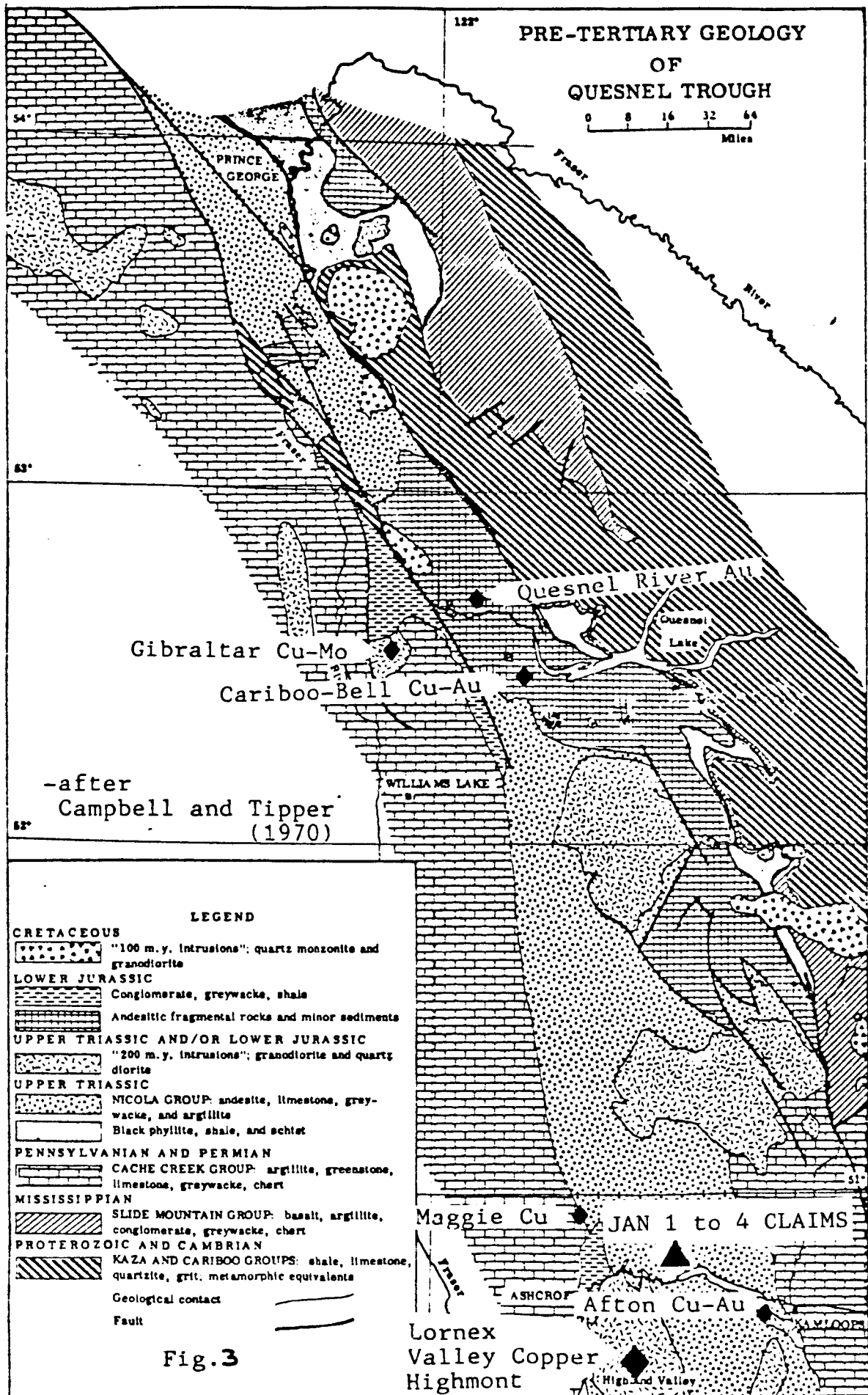


Fig. 3 — Schematic map of the pre-Tertiary geology of the Quesnel Trough and surroundings. The Trough is defined by the occurrence of Upper Triassic and Lower Jurassic volcanic and sedimentary rocks and is bounded by Paleozoic or older rocks on either side.

Previous work on the Jan claims by Placer Development Ltd. has also resulted in some anomalous Au, Sb, As, Cu and Zn zones, but Mo has been found to be present in only low concentrations and silver not detectable. An Hg-As anomaly directly north of the Cayuse claim may be the extension of a similar anomaly found on the Cayuse claim. Dickinson (1973) postulated this elongate Hg-As anomaly to define a fault zone running north-south through the Cayuse claim.

In 1972, Andex Mines carried out mapping and widespaced geochemical work on the Split 1-40 claims which are now contained by the Cayuse and JAN claims (Amendologine, 1972). Substantial Ag anomalies (many greater than 5 ppm) were outlined based on auger sampling to a depth of 18 inches (30 cm), as well as a few weak Cu and Zn anomalies. Subsequent B horizon sampling reported by Dickinson (1983) did not reproduce the earlier results but frequently indicated the presence of Ag above the detection limit (i.e., 0.2 to 0.6 ppm). In addition, Hg and As proved highly anomalous but Au was below 10 ppb in all soils.

GEOCHEMICAL SURVEY

Two thirds of samples were taken from soils overlying Nicola Group volcanics west of the fault on Map 1. The remaining third came from Ashcroft Group sediments to the east. Several samples along the southerly road were downhill from a Kamloops Group basalt ridgetop to the south. Samples were collected from the B horizon.

Geochemical results are not encouraging. Only one soil sample showed detectable gold (0.12 ppm). It was located in the Ashcroft unit, 100 metres east of the bounding fault along the line of Tertiary intrusives. Float noted was mainly basalt and minor diorite. About one-sixth of samples contain greater than 180 ppb mercury. Most of these occur in the Nicola unit, and there is no apparent connection with faults. Silver, antimony and arsenic are all at or below detection limit, and base metals are background.

Rock samples are all quite high in mercury. The highest (1733 ppb) occurs in pegmatite at a blasted pit. A sample of the foliated dioritic host rock returned lower values. Similarly, soils taken near surface, and immediately above bedrock returned

low values, although mercury was higher near bedrock. One basalt sample contained 12 ppm arsenic. It was heavily limitized and altered quartz-carbonate veined rock, probably of the Nicola Group. This rock-type was common in float in the southwestern area. All other metal values in the rocks were at background level.

CONCLUSIONS

Contour soils could more effectively show the geochemical signature of the area if a line or two were run lower on the slope. The slope is steeper and probably has little glacial-source material, and would reflect downslope migration from a bigger area, including that topographically lower. Also, there is more outcrop in the canyon walls. However, it is believed that there has been adequate coverage to reveal some indication of mineralization. Favourable rock units have been crossed, both by map and by observation, and no significant values have emerged.

RECOMMENDATIONS

The old claim posts of Split 1-40 should be located and from these the position of a couple of the strong Ag anomalies reported in the assessment report A.R. 4305. The original sampling procedure should be employed in an attempt to reproduce the silver anomalies. If successful results are obtained, a detailed grid sampling program should be carried out on the Cayuse and JAN 1 and 2 claims that now cover the same area.

The JAN 3 and 4 claims should be allowed to lapse as little encouragement has been obtained on ground covered by these claims other than on the portion overlapping the Cayuse claim which is presently in good standing.

REFERENCES

Amendolagine, E. 1972. Workprogress Report on Andex Mines Ltd. Property, Split 1-40, A.R. 4305.

Campbell, R.B. and Tipper, H.W., 1970. Geology and Mineral Deposits of the Quesnel Trough, British Columbia. CIM Trans. Vol. LXXIII pp. 174-179.

Dickinson, R.A., 1983. A Geochemical Report on the Cayuse Claim, Kamloops, M.D.

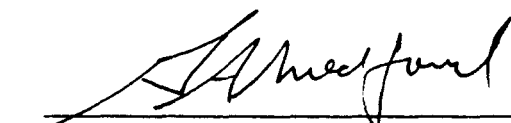
Gamble, D., 1981. Geological and Geochemical Surveys of the D.M. Claims, Hoodo Grid, Kamloops M.D. A.R. 9729.

Medford, G.A. 1984. Geochemical and Geophysical Report on The Cayuse Claim, Kamloops M.D. Filed for assessment.

CERTIFICATE

I, Gary A. Medford, with business address at 3582 West 14th Avenue, Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geologist and have been engaged in my profession for over 15 years.
- 2) I am a graduate of McGill University with B.Sc. Honours (1968) and M.Sc. (1970) degrees in geology, and have graduated from The University of British Columbia with a Ph.D. (1976) in geology.
- 3) I am a Fellow of the Geological Association of Canada.
- 4) I have no direct or indirect interest in the JAN 1 to 4 claims.
- 5) The cost statement in this report is as represented to me by R.A. Boyce, Placer Development Ltd.

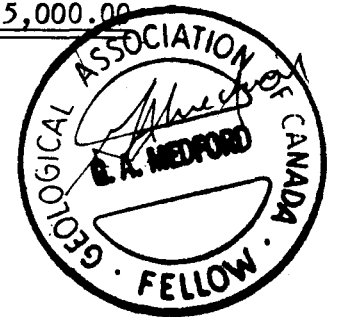

Gary A. Medford, Ph.D., FGAC



APPENDIX 1

Cost Statement

R. Boyce, May 6, 7, 8 @ \$252.00	756.00
P. Pacor, May 6, 7, 8 @ \$252.00	756.00
Room and Board	216.00
Vehicle	196.00
Supplies	45.00
Geochemistry, 106 soils @ \$ ^{17.35} 1,839.00 ; 7 rocks @ \$20.50	1,983.00
Planning & reporting	<u>654.00</u>
	\$ 4,606.00
G.A. Medford, preparation of assessment report and secretarial	<u>394.00</u>
TOTAL	<u>\$ 5,000.00</u>



3 OF 3

PLACER GEOCHEM ASSAY SYSTEM: DATA FROM Carabine E. Jenkins

GRID	SAMPLE	PROJECT	MO	CU	ZN	PE	AG	AU	AS	HG	BA	SB	
92115W	27558	4037	3	14	21	3	<0.02	<0.02	12	301	0.04	<2	CONGLOMERATE
92115W	27559	4037	4	6	9	5	<0.02	<0.02	<2	1753	0.03	<2	PEGMATITE (IN PIT)
92115W	27560	4037	2	88	72	8	<0.02	<0.02	<2	245	0.03	<2	ALTERED BASALT
92115W	27561	4037	3	13	45	4	<0.02	<0.02	12	656	0.02	<2	BASALT
92115W	27562	4037	3	26	49	4	<0.02	<0.02	<2	115	0.02	<2	BASALT
92115W	27563	4037	2	21	39	6	<0.02	<0.02	<2	121	0.03	<2	PEGMATITE
92115W	27563*	4037	1	80	70	108	1.0		<2	121	0.02	<2	PEGMATITE
test	STD G	4037											
test	STD AU	4037						1.90					
test	STD SB	4037											
test	STD HG	4037								310			134

END OF LISTING - 11 RECORDS PRINTED
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AUTOVALU

APPENDIX 2A

STANDARD ANALYSIS METHODS USED BY DOL GEOCHEM LAB ARE LISTED BELOW:
ALL RESULTS EXPRESSED AS INDICATED IN UNITS COLUMN BELOW

	UNITS	WT. %	ATTACK USED	TIME	RANGE	METHOD
MO	PPM	0.5	C HCL04/HNO3	4HRS	1-1000	ATOMIC ABSORPTION
CU	PPM	0.5	C HCL04/HNO3	4HRS	2-4000	ATOMIC ABSORPTION
ZN	PPM	0.5	C HCL04/HNO3	4HRS	2-3000	ATOMIC ABSORPTION
PB	PPM	0.5	C HCL04/HNO3	4HRS	2-3000	A.A. BACKGROUND COR.
CD	PPM	0.5	C HCL04/HNO3	4HRS	0.2-200	A.A. BACKGROUND COP.
NI	PPM	0.5	C HCL04/HNO3	4HRS	2-2000	ATOMIC ABSORPTION
CO	PPM	0.5	C HCL04/HNO3	4HRS	2-2000	ATOMIC ABSORPTION
AG1	PPM	0.5	C HCL04/HNO3	4HRS	0.2-20	A.A. BACKGROUND COR
AG2	PPM	0.5	C HNO3	2HRS	0.02-4.00	A.A. SOLVENT EXTRACT.
AU	PPM	3.0	C HBR/PR	12HRS	0.02-4.00	A.A. SOLVENT EXTRACT
U	PPM	0.25	DIL HNO3	2HRS	1.0-1000	FLUORIMETRY SOLV. EX.
V	PPM	0.5	C HF/HCL04/HNO3/HCL	6HRS	5-1000	ATOMIC ABSORPTION
W	PPM	1.0	C HF/HNO3/HCL/H2SO4	4HRS	5-500	A.A. SOLVENT EXTRACT.
F	PPM	0.20	HA2CO3/KNO3 FUSION	30MIN	40-4000	SPECIFIC ION ELECTODE
AS	PPM	0.5	C HCL04/HNO3	4HRS	1-1000	A.A. HYDRIDE GENERATE
SE	PPM	0.5	C HCL04/HNO3	4HRS	1-1000	A.A. HYDRIDE GENERATE
BI	PPM	0.5	C HCL04/HNO3	4HRS	2-2000	ATOMIC ABSORPTION
YK	PPM	0.5	C HCL04/HNO3	4HRS	2-3000	ATOMIC ABSORPTION
FE	%	0.5	C HF/HCL04/HNO3/HCL	6HRS	0.02-20%	ATOMIC ABSORPTION
HG	PPM	0.5	DIL HNO3	2HRS	5-2000PPM	A.A. COLD VAPOR GEN.
PA	%	0.5	C HF/HI/OXALIC	4HRS	0.02-20%	ATOMIC ABSORPTION
NA	%	0.5	C HF/HCL04/HNO3/HCL	6HRS	0.2 -20%	ATOMIC ABSORPTION
K	%	0.5	C HF/HCL04/HNO3/HCL	6HRS	0.2 -20%	ATOMIC ABSORPTION
CA	%	0.5	C HF/HCL04/HNO3/HCL	6HRS	0.02-20%	ATOMIC ABSORPTION
SR	PPM	0.5	C HF/HCL04/HNO3/HCL	6HRS	10-2000	ATOMIC ABSORPTION
MG	%	0.5	C HF/HCL04/HNO3/HCL	6HRS	0.2-20%	ATOMIC ABSORPTION
SN	PPM	1.0	H4I FUSION	15MIN	5-500	A.A. SOLVENT EXTRACT.
LOI	%	1.0	ASH 600 DEG C	2HRS	0.02-99%	WEIGH RESDUE

27558
COBBLE CONGLOMERATE

CRISS
CREEK

120°55.5'W

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,213

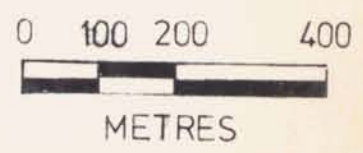
50°54'N

+ soil sample
Δ rock sample



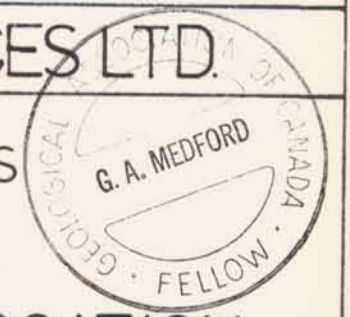
JAN 4

JAN 3



PACKARD RESOURCES LTD.

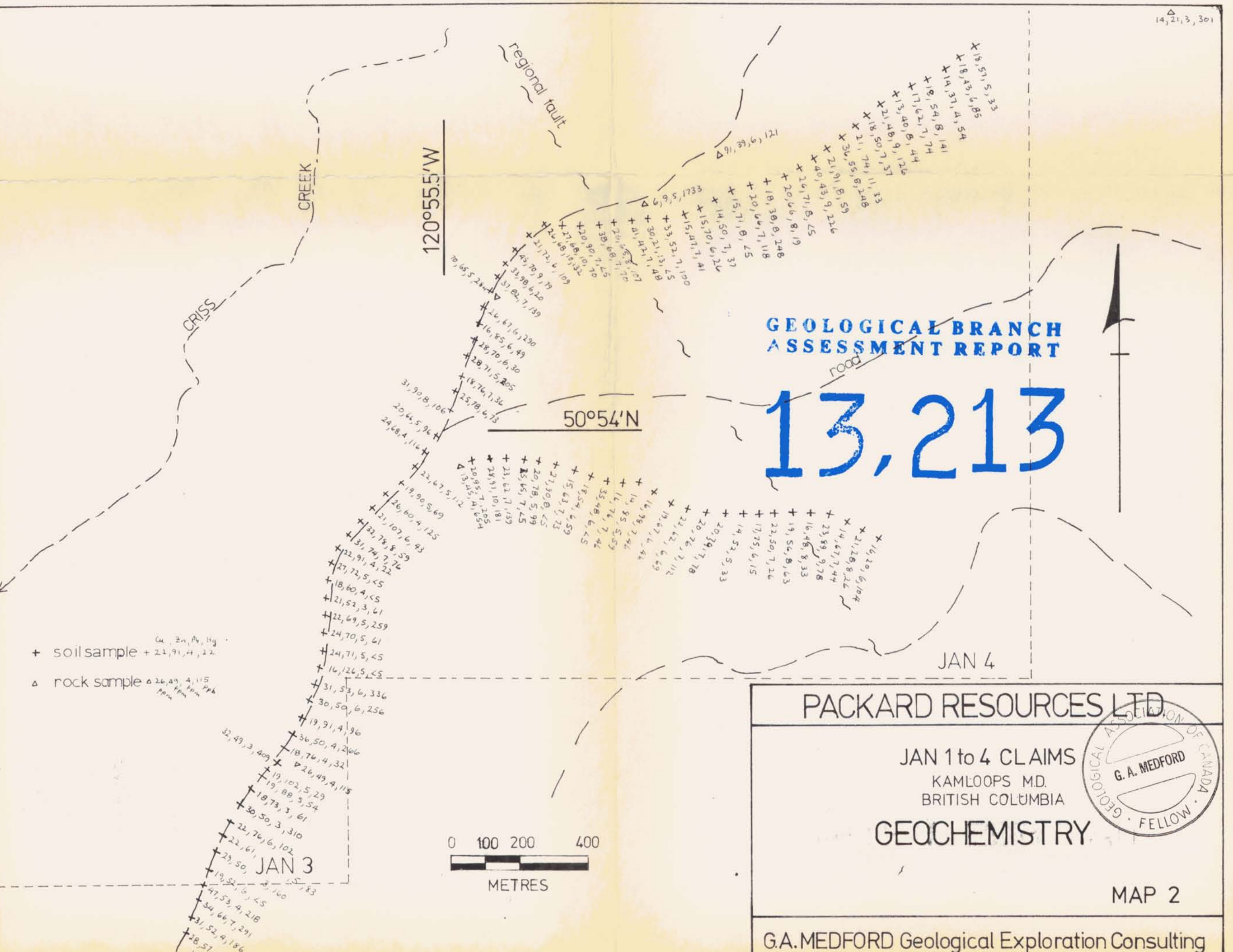
JAN 1 to 4 CLAIMS
KAMLOOPS MD.
BRITISH COLUMBIA



SAMPLE NUMBER-LOCATION

MAP 1

G.A.MEDFORD Geological Exploration Consulting



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,213

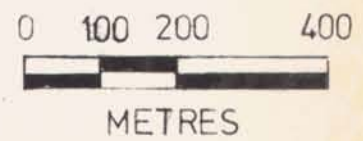
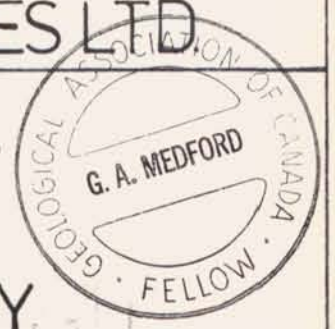
JAN 4

+ soil sample + 22,91,4,22
 Δ rock sample Δ 26,89,4,115
Cu, Zn, Pb, Hg ppm

PACKARD RESOURCES LTD

JAN 1 to 4 CLAIMS
KAMLOOPS M.D.
BRITISH COLUMBIA

GEOCHEMISTRY



JAN 3

MAP 2

G.A.MEDFORD Geological Exploration Consulting