87-391 - 15913
4/88

ASSESSMENT REPORT

SOIL-GEOCHEMICAL, GEOLOGICAL, SAMPLING AND METALLURGICAL WORK
ON THE JEFF 3 CLAIM
CLAIM SHEET 82G/12E 4NX5W= 20 UNITS
ANNIVERSARY DATE: MAY 7, 1987

LOCATED AT WILD HORSE RIVER (WEST SIDE), B.C.
FORT STEELE MINING DIVISION
SOUTHEASTERN BRITISH COLUMBIA

LATITUDE: 49°39'N
LONGITUDE: 115°32.5'W

FILMED

FIELD WORK MARCH 28, 1987

ON BEHALF OF

OPERATOR: GOVERNOR RESOURCES LTD.
200-675 WEST HASTINGS STREET
VANCOUVER, BRITISH COLUMBIA V6B 4Z1

REPORT BY: DR. W.D. GROVES, P.Eng.
200-675 WEST HASTINGS STREET
VANCOUVER, BRITISH COLUMBIA V6B 4Z1

AND

R. ROBSON, MINING TECH., B.C.I.T.

REPORT DATE: JUNE 28, 1987

TABLE OF CONTENTS

PAGE

Abstract..... 1

Introduction..... 2

A. Property - Location, Access & Physiography..... 2
B. Status of Property..... 2
C. History..... 2
D. References..... 3
E. Summary of Work Done..... 4

Technical Data - Interpretation..... 4

A. Regional and Property Geology & Geomorphology..... 4

B. Geochemistry..... 7

1. Field Procedure and Laboratory Analysis..... 7
2. Quartz float sampling results..... 7

C. Metallurgical Testing - Gravity Tests..... 7

1. Sample preparation and analytical technique..... 7
2. Results of Testwork..... 8

Conclusions..... 8

APPENDICES:

APPENDIX I	Work Cost Statement
APPENDIX II	Certificate, W.D. Groves
	Certificate, R. Robson
APPENDIX III	Assay Certificate
APPENDIX IV	Statement of Work

ILLUSTRATIONS

Figure 1	Location Map: Scale 1 cm = 100 km
Figure 2	Claim Plan 82G/12E, Scale 1:50,000: Shows Jeff 3 Claim
Figure 3	Regional Geology - after Rice (1937), Scale: 1:63,360
Figure 4	Base Topog Sample Grid and Geology Map, Scale: 1:5,000

ABSTRACT

The Jeff 3 claim between Mause Creek (on the south) and Fisher Creek (on the north) is a 4Nx5W=20 unit claim covering a high northwesterly-trending ridge underlain by block khaki-green Creston Formation Purcell Group impure Precambrian quartzites, folded on the NE axes. Mause Creek flows westward across the south boundary of the claim following a well-developed cross-bed cleavage in the quartzites. A major easterly normal fault, mapped by Rice (1937) marked by a large quartz vein, passes well to the south of the subject claim.

A float traverse across approximately 1 km of Creston quartzite scree below the upper bluffs on the N side of Mause Creek, collected 4 composite samples of minor quartz (carbonate, serecite) tension-fracture and "bleed" quartz veinlets from the quartzite. This material represents perhaps 1/4 of 1% of the scree.

Gravity concentration analysis of a composite sample of this veinlet quartz float material showed the existence of concentratable gold values, but very low overall gold values in the quartz.

Snow conditions and time limitations prevented more comprehensive examination of the claim work: traversing and sampling, metallurgical analyses, logistics and report costs amount to $ 2,341.50, or enough to hold the 20-unit claim for its first year.

Recommendation is to do some summer traversing of the claim area, hopefully helicopter-supported.

INTRODUCTION

A. Property, - Location, Access & Physiography

The Jeff 3 claim is staked from a SW LCP just below the road up the north side of Mause Creek, and above the creek itself, some 4 1/2 km above where the Mause Creek road leaves the main forestry road up the east side of the Wild Horse River. It covers the high NW by W trending ridge in the block Creston quartzites between Mause and Upper Fisher Creek.

Access is by 4WD up the Mause Creek road from Fort Steele and the Wild Horse east side forestry main. Access via trail up Fisher Creek, to a point just NW of the claims boundary is also possible, though snow conditions of spring 1987 precluded this.

Physiography is rugged: lower blocky quartzite, severe slopes, and upper bluffs in the quartzite. Vegetation is fairly sparse, dwarf timber and open bluffs are severe on the southern part of the claim.

B. Status of Property

The Jeff 3 claim is a 20-unit modified grid claim running 4N x 5W from a SE LCP #124395. Claim was staked by Mr. Ken Gourley, FMC 261153 Gourkd, March 20, 1986 and recorded at the end of the month. Claim was in good standing when the field visit was made. Claim Reocrd No. is 2602(4), on the mid-east edge of Claim Sheet 82G/12E, Fort Steele M.D., Southeastern B.C.

C. History

H.M.A. Rice of the Geological Survey of Canada mapped the Wild Horse River area at 1:63,360 and published in 1937. He meticulously marked and visited the various trails, workings, adits etc. in the area known prior to the time. Aside from a trail up Mause Creek, approximately corresponding to the present

forestry road used for access, no workings are marked the claim, and therefore it is doubtful if the area has any previous mining history, since hardrock development in the Wild Horse area began well before 1900, as prospectors attempted to trace up the placer gold being recovered from the river. Rice's 1937 map simply marks the general claims area Unit 3(Creston quartzites).

D. References

1. Geological Survey of Canada, Memoir 207, Cranbrook Map Area, British Columbia, by H.M.A. Rice, No. 2435, 1937. (Regional Map)

2. "Data Relating to the Tit-for-Tat, Lenz Lode and Celt A Claims, Fort Steele M.D., B.C. Albury Resources Ltd. 1/86, by R. Kregosky (Fieldwork, 1982). Figure 5.

3. Cominco Smelter Sheets(3 sheets) 1975, Dardanelles 95 ton bulk sample, for Magnum Enterprises Ltd. (Assay Sheets, Item 4).

4. a) B.C. Minister of Mines Reports: 1898, p. 1026
   Tit-for-Tat, Dardanelles claims

   b) IBID, 1925, p. A229, Dardanelles Group.

5. Assessment Report on Geophysical and Geochemical Surverys on the "A" Mineral Claim, Ft. Steele, Wallinger Creek, for Justice Mining Corporation, by L. Sookachoff, P.Eng. Work from July 12 to December 19, 1983. Report dated December 19, 1983.

6. Assessment Report on follow-up Geochemical Surveys, "A" claim, Ft. Steele M.D., B.C., NTS 82G/12E, for Justice Mining Corp., by Dr. W.D. Groves, P.Eng.

7. Report on Dardanelles, Motherlode and Tit-for-Tat Crown-granted Claims,

and Surrounding Location Ground, A1, Ramses and C1 Claims, Fort Steele M.D., Cranbrook Area, B.C., NTS 82G/12E by Dr. W.D. Groves, P.Eng. dated April 25, 1986.

E. Summary of Work Done

Principal work done in 1987 was a one-day two-man visit to the southeastern portion of the claim by the author and Mr. Kelly Gourley. Work consisted of making general geological observations, and conducting a 1 km traverse up the scree above the road and then westward along the base of the quartzite bluffs, then back to the road again. En route, 4 tension-quartz veinlet float samples, Q1 through Q4, were collected and brought back to Vancouver for gravity concentration at Robson Labs in Port Moody. Results of assays of test results are attached to this report. Access logistics proved rather difficult due to snow on the road: the 4WD was nearly lost over the bank at one point.

E.TECHNICAL DATA AND INTERPRETATION

A. REGIONAL AND PROPERTY GEOLOGY AND GEOMORPHOLOGY

Regional geology is treated by Rice (G.S.C. 1937, Ref. 1). The following attempts to summarize features of his report relevant to the general claim area.

The Wild Horse River area is underlain by folded and faulted units of the Proterozoic Lower Purcell series. The series totals some 11,300 m in thickenss. Upward, relevant units are; the Aldridge mostly rusty weathering dark argillites, the Creston: grey-green phyllites, trending upward into white, reddish, green and purple thin bedded quartzites, and the Kitchener: orthoquartzites to well bedded dolomites. The subunits are 1300-3000 m thick each, in transitiional conformal sequence. Flat thrust-fault veins such as the Dardanelles vein cut the Lower Creston, just above the predominantly phyllite-predominantly quartzite transition. Large normal faults, such as the Mause Creek Fault (easterly) south

side down also cut the section, and the Wildhorse, a major NE to N20E steep W normal fault with 5 feathers parallels the west side of the river.

Rice also mentions the section in the general subject area is cut by numerous unmapped small-displacement block faults 'stepping' the section. By way of general tectonic history, Rice postulates an initial Proterozoic (Windermere) age of open northerly regional folding. This was followed, in Jurassic-Tertiary time, by compression, causing northerly-trending folding, becoming west-overturning, with srikes locally turned by previous structures. During the same period thrust faulting occurred, followed by major and minor tension, block and normal faulting. The latest episodes of faulting were in Laramide time (time of the formation of the Rockies overthrusting). During this period, intrusion of stocks into major faults and the entry of magmatic solutions (ankerite dykes, quartz veins, etc.) into normal and thrust fault loci occurred.

The rocks exposed on the Jeff 3 claim area are greenish khaki impure Creston blocky bedded .3-.5 m thick quartzites with thin argillaceous interbeds, now at an attitude of approximately N45E/85NW. Major and minor faults cut the Purcell series rocks: a normal fault of large displacement (1300-3000 m) cuts in an easterly direction across Mause Mountain to the south of Mause Creek (i.e., just south of the subject property). This fault dips 70^{o} N and is reported by Rice to be occupied by a quartz vein up to 10 m wide. A major N20E/steep SE normal fault (east-side-down, of comparable displacement), disrupts the axial plane of a syncline in Alderidge and Creston sediment up the Wild Horse River. Ir appears structurally to have had strike-slip as well as normal fault movements (the latter suggested by stratigraphic offset).

Minor "step" block faulting and flat Laramide thrust faulting also cut across the moderately to steeply dipping Purcell rocks of the area. Another direction of major faults (such as that up Victoria Creek), is N30W/steep. Both flat and step faults are marked by quartz veins, and slightly earlier ankerite or ankerized diorite sills. The ankerite phase is associated with low Pb, Zn (Ag) mineralization. The later quartz veins may be bull-quartz (Mause Creek Fault vein)

or gold-quartz-sulfides. The latter are thought to be the source of the Tertiary-age placer gold found in the Wild Horse River system (over $6 million in placer gold extracted from the river before 1900).

The Mause Creek road, which forms the main access to the southern portion of the JEFF 3 claim, contours up the steep northern bank of Mause Creek, which runs generally westerly (downstream direction) across the property. Above the road is 2-300 m of blocky greeny-khaki weathering quartzite scree, above which bluffs in the quartzite rise another 500-1000 meters at about 30-45^{o}. These Creston formation blocky quartzites, with some argillaceous interbeds, lie at about N45E/85^{o}NW (i.e., on-edge to the valley direction). A strong orthogonal cleavage at E20^{o}S/55^{o}SW, and a subsidiary one at E/75^{o}N (a foreset bed cleavage) create the planes on the face of the bluffs. Evidently, initial interest in the claim area was due to quartz float in the quartzite reported by staker, Mr. Ken Gourley. To this end, the author and Mr. Kelly Gourley traversed across about 1 km of scree, angling up to the base of the bluffs in the SE portion of the claim from the vicinity of the LCP, and selectively collected four composite samples of vein and veinlet quartz float (Samples Q1-Q4, incl.). See location, Figure 4. The quartz material came from small tension-fracture veinets and 'bleeds' in the quartzite (up to .05 m thick). The quartz material also contained small amounts of sericite and carbonate but was barren of sulfides, albeit in places with slight rosy hematite stains from blacksand lenses in the quartzite formation. The samples were then composited, crushed ground and gravity - concentrated at Robson Lab in Port Moody, and the conentrate middlings and tails submitted for gold fire assay. Gold was present (it enriched the gravity con), but in only trace amounts in this instance.

In the area traversed, quartz float constituted perhaps 1/4 of one percent of the talus: the rest was blocky, greeny-khaki quartzite and minor argillaceous interbedded material.

The northeastern portion of the claims is crossed at high elevation by the headwaters of northwest by west flowing Fisher Creek. A trail is shown on the topog map up Fisher Creek to just NW of the NW corner of the claim. Due to snow conditions

on March 30, 1987, when the property visit was made, (the 4WD almost went off the snowy edge of the Mause Creek road) access to the Fisher Creek portion of the claim was not attempted.

B. GEOCHEMISTRY

1. Field Procedure and Laboratory Analysis

Field procedure was to select quartz float fragments from the generally Creston-quartzite scree as a reasonsbly fair way to sample quartz veins and veinlets eroding of the 1000 m plus bluffs above.

Laboratory analysis constituted 1 assay-ton fire assay on the products of a fine grind gravity concentration test on a riffle split 1/2 crushed composite sample formed from Q1 through Q4. Standard 1-assay ton scale lead collected fire assays were carried out by Minen Labs in North Vancouver (Assay Sheet attached).

2. Quartz Float Sampling Results

Details of metallurgical comminution and gravity concentration on the Q1-Q4 composite sample is given by Robson Labs (Port Moody) report dated May 11, 1987. (Appendix IV, attached) While concentratable (i.e. particulate) gold values were demonstrated these were exceedingly low for the tension quartz veinlet material in the quartzite scree.

C. METALLURGICAL TESTING

1. Sample preparation and analytical technique.

Quartz float composite sample Q1 through Q4 were each crushed and composited.

The composite was milled to 65 mesh minus and carefully hand-panned. Concentrates and tails were sampled and sent to Minen Labs for 1-assay ton fire assay for gold. Appendix IV gives details.

2. **Results of Test Work**

While concentratable gold values exist in the tension quartz (carbonate, serecite) material from the Creston on the claims, values are definitely sub-economic) even in the gravity concentrate.

On the basis of this testwork, it is advised to look elsewhere on the claims for features of economic interest.

CONCLUSIONS

The flatly SE dipping quartz-sulfides veins seen by prospector, Ken Gourley, on the east adjoining Jeff 2 claim, do not seem to exend west across the Jeff 3 property.

Yours respectfully,

William D. Groves.

W.D. Groves, Ph.D., P.Eng.

APPENDIX I

WORK COST STATEMENT

APPENDIX I

WORK COST STATEMENT - JEFF 3 CLAIM

Field Personnel

Dr. W.D. Groves, P.Eng.
(Geological, Chemical Engineering)@ $350/day
Mr. Kelly Gourley, Prospector @ $225/day

Field Activity- 28 March/87	W.D. Groves, 1 day Geological traverse, composite talus quartz-vein samples to cliff base, measure beds, back to road	$ 350.00
	K.G. accompanied W.D.G. 4 composite talus vein-quartz, 1 day	225.00
		$ 575.00
	Meals, 1 day @ $30/man day, 2 men	$ 60.00
	1 day, 4WD @ $50/day + $20 fuel	70.00
		$ 130.00
	Transportation: 1/3 of Vancouver-Cranbrook Airfare (2 x $310.20) (3-property trip) $620.40/3	205.00
	Travel Standby time 1/2 dy, W.D.G. @ $200, K.G. @ $100	150.00
		$ 355.00
	Field work and transport:	$ 1,060.00

Laboratory test costs.
Robson Labs Gravity Test, composited 4 samples
Gravity Test - 1/2 x $575, including R. R. report.

Test Assay Costs

Two - 1-assay ton gold assays (2 x 12)	$ 24.00
Test work + assays	287.50
	$ 311.50

Report preparation cost:

W.D.G., 2 days @ #50	700.00
Drafting, 1:5,000 map base, F. Chong	60.00
Rough Draft typing - B. Bell, 4 hours @ $10	40.00
Word Processing - DBS - 4 hours @ $25	100.00
Maps, Xerox, 3 large maps x 4 cc	50.00
Report covers, xerox copies	20.00
Total Report Cost:	$ 970.00

Total Work Cost:

($1,060 + $ 311.50 + $970.00)=	$ 2,341.50

APPENDIX II

CERTIFICATE

CERTIFICATE

I, William D. Groves, do hereby certify that:

1. I, William D.Groves, am a Consulting Engineer (geological) with an office at 200-675 West Hastings Street, Vancouver, British Columbia, V6B 4Z1.

2. I am a graduate of the University of British Columbia (B.A.Sc. in Geological Engineering, 1960). I am a graduate of the University of Alberta, B.Sc., in Chemical Engineering in 1962, and of the University of British Columbia with a Ph.D. in Chemical Engineering in 1971.

3. I am a registered Professional Engineer in the Province of British Columbia.

4. I have practised my profession since 1960.

5. I visited the Jeff 3 mineral claim on March 28, 1987 to carry out stream sediment geochemical sampling and geological work, and supervised the work of prospector, Kelly Gourley, at that time.

6. I have not received directly or indirectly, nor do I expect to receive any interest, direct or indirect, in the Jeff 3 claim, nor do I beneficially own, directly or indirectly any securities of Governor Resources Ltd., nor do I expect to receive any such interests.

Respectfully submitted,

William D. Groves.

W.D. Groves, Ph.D., P.Eng.
28 June 1987

CERTIFICATE

I, Robert Lewis Robson, hereby state:

1. I am a Mining Technologist, graduating from British Columbia Institute of Technology (B.C.I.T.) in 1982.

2. I am an Oil and Gas Technologist, graduating from B.C.I.T. in 1983.

3. I have practised extractive metallurgy since 1983, specialising in ore benefication, leaching and gravity separation.

4. I worked on samples from Governor Resources' Jeff-3 claim during April 1987 under the direction of Mr. W. D. Groves, P.eng.

5. I have no interest in Governor Resources, nor in any of the company's properties.

Respectfully submitted

Robert L. Robson
May 11 1987

APPENDIX III

MIN—EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX:VIA USA 7601067 UC

Certificate of ASSAY

Company:GROSVENOR RESOURCES INC.
Project:
Attention:K.GOURLEY/W.D.GROVES

File:7-289/P2
Date:APRIL 14/87
Type:TAILINGS ASSAY

We hereby certify the following results for samples submitted.

Sample Number	AU* G/TONNE	AU* OZ/TON	DRY WT GM
SCAT 1 SLIMES	0.06	0.002	485.0
SCAT 1 COARSE TAILS	0.18	0.005	1475.0
SCAT 2 FINES	0.33	0.010	432.0
SCAT 2 COARSE	0.19	0.006	1287.0
GEOFF TAILS	0.12	0.004	1470.0 ← JEFF 3

* 1 ASSAY TON

Certified by

MIN-EN LABORATORIES LTD.

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX:VIA USA 7601067 UC

Certificate of ASSAY

Company:GROSVENOR RESOURCES INC.
Project:
Attention:K.GOURLEY/W.D.GROVES

File:7-289/P1
Date:APRIL 13/87
Type:CONCENTRATES

We hereby certify the following results for samples submitted.

Sample Number	TOTAL AU MG	TOTAL WT GM
SCAT 1 CONC	0.120	17.15
SCAT 2 CONC	0.144	31.20
COMP Q CONC	0.072	8.78

← JEFF B · WDG ·

WDG

Certified by

MIN-EN LABORATORIES LTD.

APPENDIX IV.

REPORT ON THE GRAVITY CONCENTRATION TESTS ON ROCK SAMPLES FROM GOVERNOR RESOURCES [redacted] JEFF 3 CLAIM [redacted] LOCATED IN CRANBROOK, BRITISH COLUMBIA

WDG.

FOR
W.D. GROVES PhD. P.ENG.
GOVERNOR RESOURCES

BY
ROBERT ROBSON
MINING TECHNOLOGIST (BCIT)
MAY 11 1987

INTRODUCTION

This report describes the results of the gravity concentration tests on six rock samples from Governor Resources' Mutt and Jeff claims, located in Cranbrook, B.C.. The objective of these tests was to establish the grade of the samples and if any precious metals would be collected in the gravity concentrate.

Test procedure included crushing, sampling, milling, and panning the milled pulp. These tests were carried out at Chapko Labs in Port Moody, B.C.. The cons and tails were assayed at Min-En Labs in North Vancouver, B.C..

JEFF3 CLAIM

Four samples were received, each one was weighed, crushed, and sampled by a Jones splitter. The split samples were then combined to form a composite and then milled to 65 mesh and panned. The concentrates and tails were sent for gold analysis. The weights of the samples and the weight that made up the composite are listed below:

SAMPLE #	WEIGHT	WEIGHT TO COMPOSITE
	(---------- grams ----------)	
Q1	2350	584
Q2	2309	578
Q3	2135	533
Q4	2050	512
TOTAL	8844	2207

The results of the panning are listed below:

PRODUCT	WEIGHT (grams)	WEIGHT %	ASSAY (oz Au/ton)	GOLD DISTRIBUTION (%)
concentrate	8.78	.43	.072	6.8
tails	1998.	99.57	.005	93.2
heads (calc)	2007.	100.00	.005	100.0

The results show that this sample is low grade; there is some upgrading in the concentrate but not enough to be of economic significance. The concentrate was primarily composed of pyrite and some quartz.

R. Robson.

WDG.

0 100 200 300 MILES
0 100 200 300 400 500KM.

JEFF 3 CLAIM

LOCATION MAP

N.T.S. 82G-12 PORT STEELE M.D., B.C.

K. S. G.	DATE: MAY 1987
SCALE AS SHOWN	FIGURE Nº. 1

CHONG

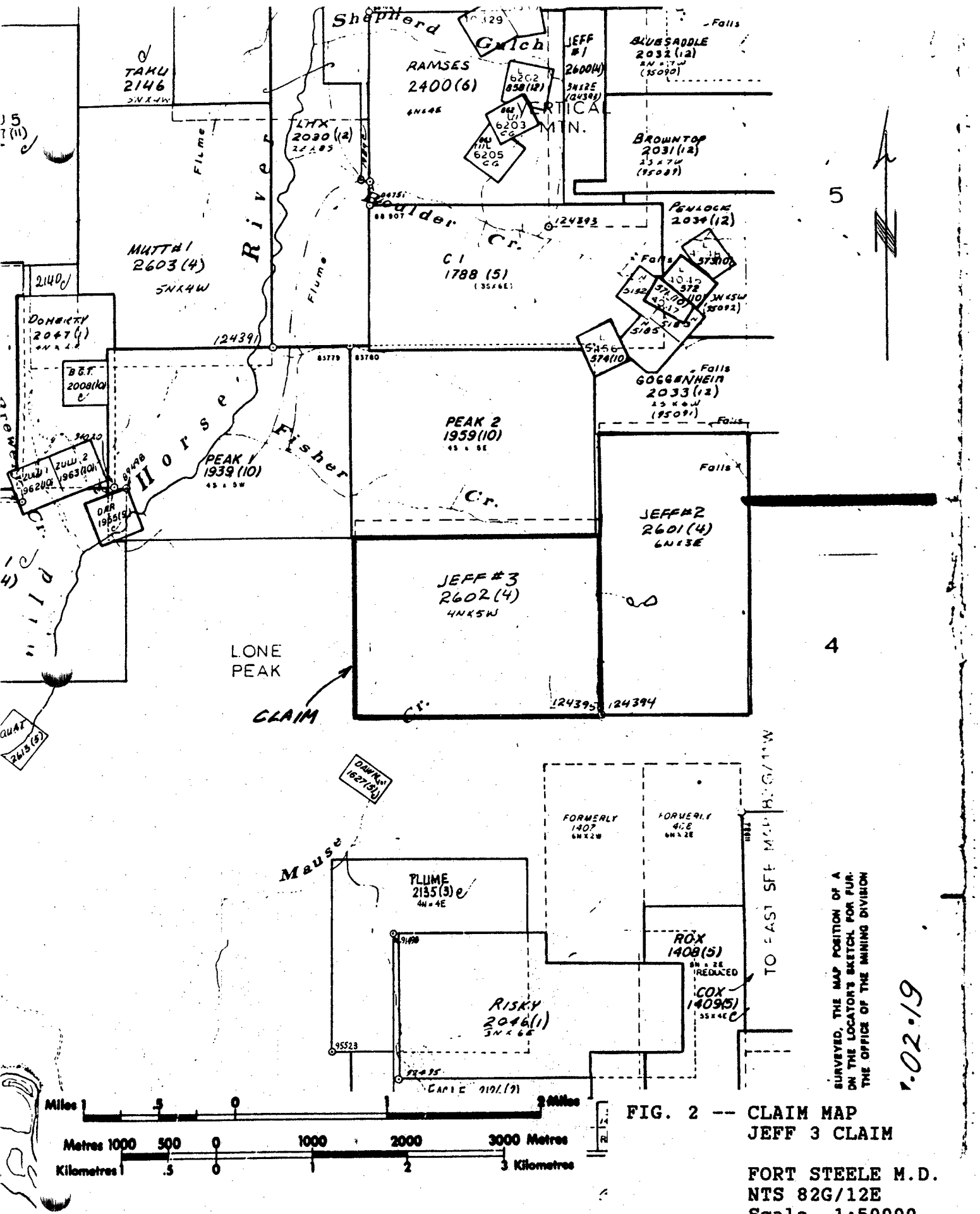

FIG. 2 -- CLAIM MAP
JEFF 3 CLAIM

FORT STEELE M.D.
NTS 82G/12E
Scale 1:50000

LEGEND

CENOZOIC

MODERN
RECENT AND PLEISTOCENE

12 — *Glacial drift; silt, sand, gravel*

MESOZOIC OR CENOZOIC

CRETACEOUS OR TERTIARY

11 — *Granodiorite*

PALAEOZOIC

CAMBRIAN
LOWER CAMBRIAN

10 — *EAGER FORMATION: argillite*

9 — *CRANBROOK FORMATION: quartzite, magnesite*

PRECAMBRIAN

UPPER PURCELL SERIES

8 — *GATEWAY FORMATION: argillaceous quartzite, dolomitic argillite, concretionary and pisolitic dolomite*

LOWER PURCELL SERIES

7 — *PURCELL EXTRUSIVES: andesitic lava*

PURCELL INTRUSIVES: diorite sills and dykes

SIYEH FORMATION: highly coloured argillite and dolomitic argillite

4 — *KITCHENER FORMATION: green, grey and purple, buff weathering, dolomitic argillite*

3 — *CRESTON FORMATION: green, purple and white, argillaceous quartzite*

2 — *ALDRIDGE FORMATION: grey, rusty weathering argillite and argillaceous quartzite*

1 — *FORT STEELE FORMATION: white quartzite, banded grey argillite and quartzite, black limy argillite, grey-green, dolomitic argillite*

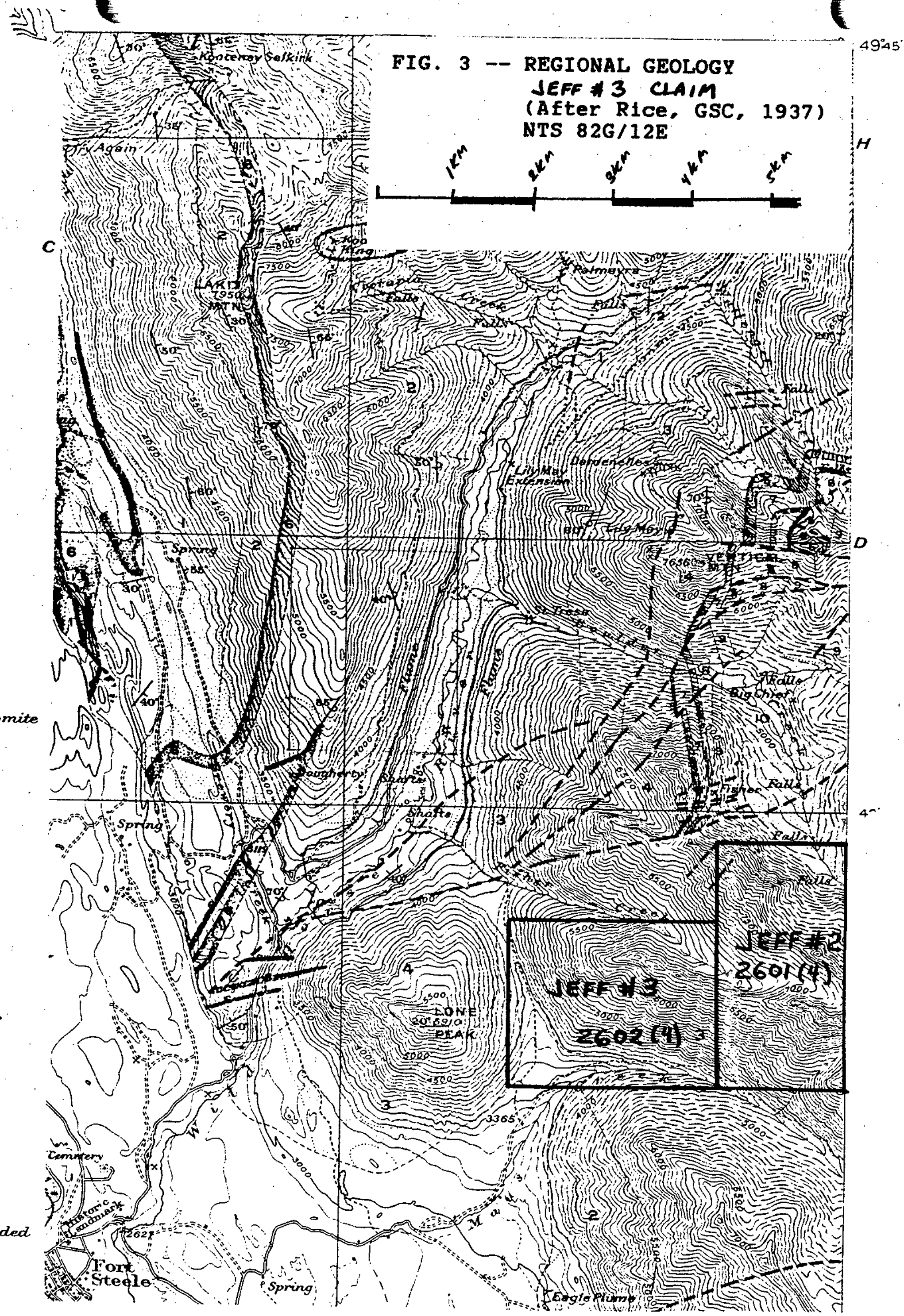

FIG. 3 -- REGIONAL GEOLOGY
JEFF #3 CLAIM
(After Rice, GSC, 1937)
NTS 82G/12E

6800'

FISHER CREEK

6800'

6800'

6000' (1830m)

CREEK

5000' (1525m)

BLOCKY LOWER CRESTON 1-1.5m QUARTZITE

045°

85°

Q3

TRAVERSE
(W.D.G. & K.G. Mar. 29/87)

Q4

Q2

Q1

L.C.P.

4000' (1220m)

MAUSE CREEK

4000'

ROAD

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,913

JEFF 3 CLAIM

LEGEND

98	GRAB SAMPLE LOCATION & Nº.
═══	ROAD
←·····—	CREEK
—4000'—	CONTOURS AT 200' INTERVAL
------	TRAVERSE

N

GOVERNOR RESOURCES LTD.

JEFF 3 CLAIM W/G.

GRAB SAMPLE MAP

N.T.S. 82G-12E FORT STEELE M.D., B.C.

0 100 200 300 metres

SCALE 1:5000	DATE: JUNE 1987
DRAWN BY: W.G.	FIGURE Nº. 4

CHONG