

PROSPECTING AND GEOLOGICAL REPORT

JOCK 1 - 13 Mineral Claims

NTS 94E/2W and 7W
Latitude 57°13' North
Longitude 126°50' West
Omineca Mining Division
British Columbia

1986 January 10

on behalf of
GOLDEN RULE RESOURCES LTD.
Calgary, Alberta

FILMED

by
James W. Davis, M.Sc., P.Geol., F.GAC
TAIGA CONSULTANTS LTD.
#100, 1300 - 8th Street S.W.
Calgary, Alberta T2R 1B2

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,789

SUMMARY

A brief reconnaissance of the JOCK 1-13 mineral claims was carried out in the summer of 1985. This program consisted of prospecting, lithochemical sampling, and limited geological mapping. The best results were obtained from the JOCK 3 claim where anomalous gold geochemical results were received from a quartz breccia zone. Results elsewhere on the property were negligible.

Based on these results, a more detailed exploration program is proposed for the JOCK 3 claim, along with additional prospecting and mapping on most of the remaining property. Given the unfavourable geological setting of the JOCK 11-13 claims, it is recommended that no further exploration work be carried out and that these claims be allowed to lapse.

TABLE OF CONTENTS

Certificate		
INTRODUCTION		1
Property and Ownership		
Location and Access		
Physiography and Glaciation		
Previous Work		
REGIONAL GEOLOGY		5
PROPERTY GEOLOGY		7
EXPLORATION TARGETS.		8
GEOCHEMISTRY		10
CONCLUSIONS AND RECOMMENDATIONS.		11
BIBLIOGRAPHY		12
Appendix I	Rock Sample Descriptions	
Appendix II	Analytical Techniques	
Appendix III	Certificates of Analysis	
Appendix IV	Summary of Expenditures	

<u>FIGURES</u>	1	General Location Map.	2
	2	Claims Location Map	3

BACK POCKET :

MAP 1	Geology and Geochemistry
-------	--------------------------

CERTIFICATE

I, James Wilson Davis, 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 St. Louis University with a B.Sc. Geology (1967) and a M.Sc. Geology (1969).
3. I have practised my profession continuously since 1969.
4. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and a Fellow of the Geological Association of Canada.
5. I personally supervised the field aspects of the exploration program conducted on the JOCK 1-13 mineral claims during August 1985, which work is described herein.
6. I did not receive and do not expect to receive any interest (direct, indirect, or contingent) in the property described herein nor in the securities of Golden Rule Resources Ltd. in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 10th day of January, A.D. 1986.

Respectfully submitted,



PERMIT TO PRACTICE TAIGA CONSULTANTS LTD.	
Signature	<i>J. W. Davis</i>
Date	Jan 10, 1986
PERMIT NUMBER: P 2399	
The Association of Professional Engineers, Geologists and Geophysicists of Alberta	

INTRODUCTIONProperty and Ownership

The JOCK 1-13 mineral claims form a contiguous block of claims in northern British Columbia (Figure 1). The claims are owned by Golden Rule Resources Ltd. of Calgary, Alberta. The claims are described more specifically as follows:

	<u>Claim Name</u>	<u>No. of Units</u>	<u>Record Number</u>	<u>Date of Record</u>
Group	JOCK 1	4	2699	
	JOCK 2	18	2700	
	JOCK 3	15	2701	April 8, 1980
	JOCK 4	20	2702	
	JOCK 5	4	2703	
Group	JOCK 6	20	69582 6990(3)	
	JOCK 7	20	69583 6969	
	JOCK 8	20	69584 6970	
	JOCK 9	8	69585 6971	
	JOCK 10	6	69586 6972	February 21, 1985
Group	JOCK 11	16	69587 6973	March
	JOCK 12	12	69588 6974	
	JOCK 13	20	69589 6975(3)	
		<u>183</u>		

Figure 2 illustrates the exact location and extent of the claims described above.

Location and Access

The JOCK 1-13 mineral claims are located in NTS map-areas 94E/2W and 94E/7W, approximately 300 km north of Smithers. The approximate geographic coordinates of the claims are 57°13' North latitude and 126°50' West longitude.

The property encompasses an area between Jock Creek and Finlay River. Access to the property is via fixed-wing aircraft to the Sturdee Airstrip and then by helicopter to the property.

Physiography and Glaciation

The claims lie within the Cassiar Mountains physiographic subdivision of the Interior Plateau. The region was entirely glaciated and is charac-

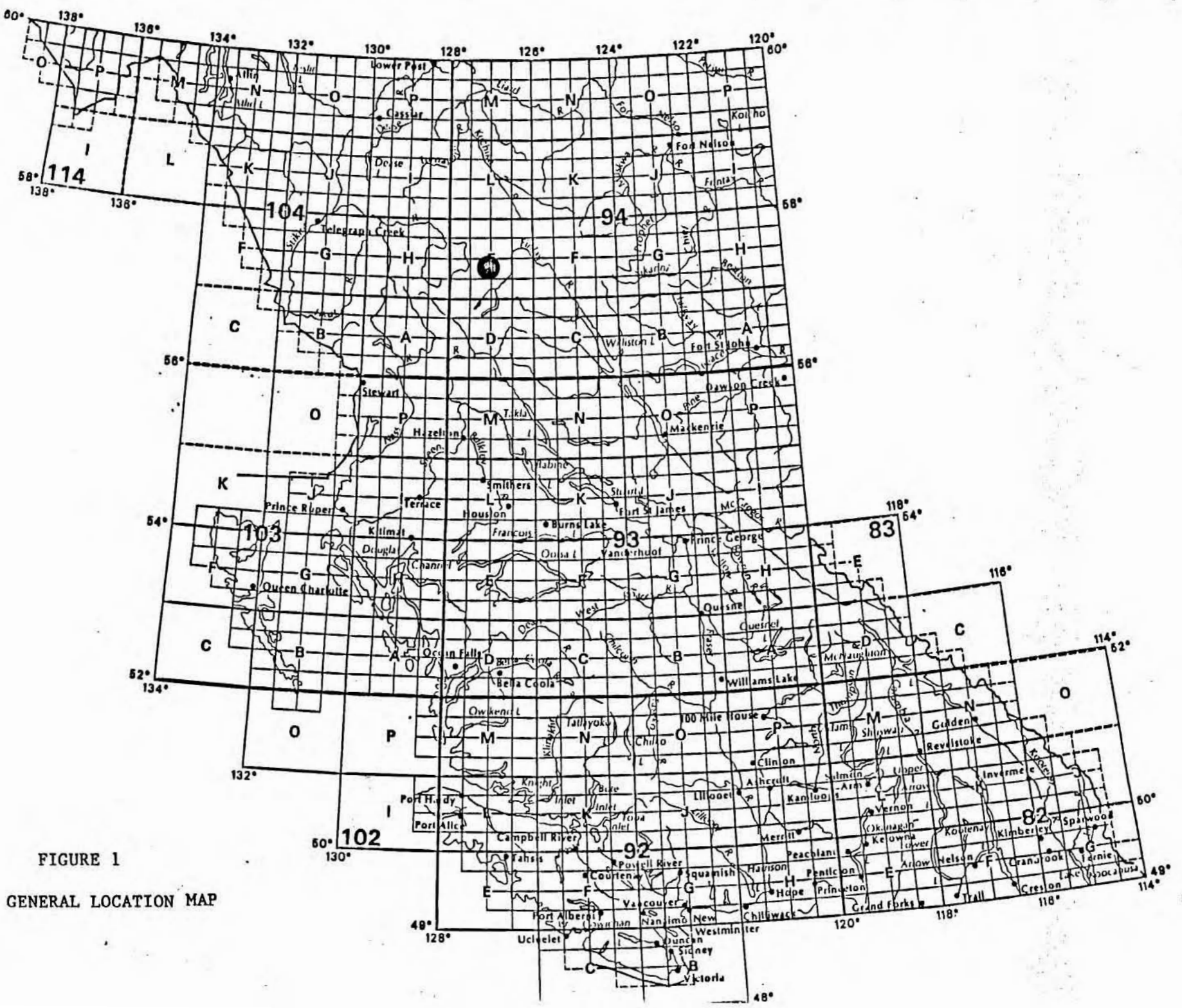
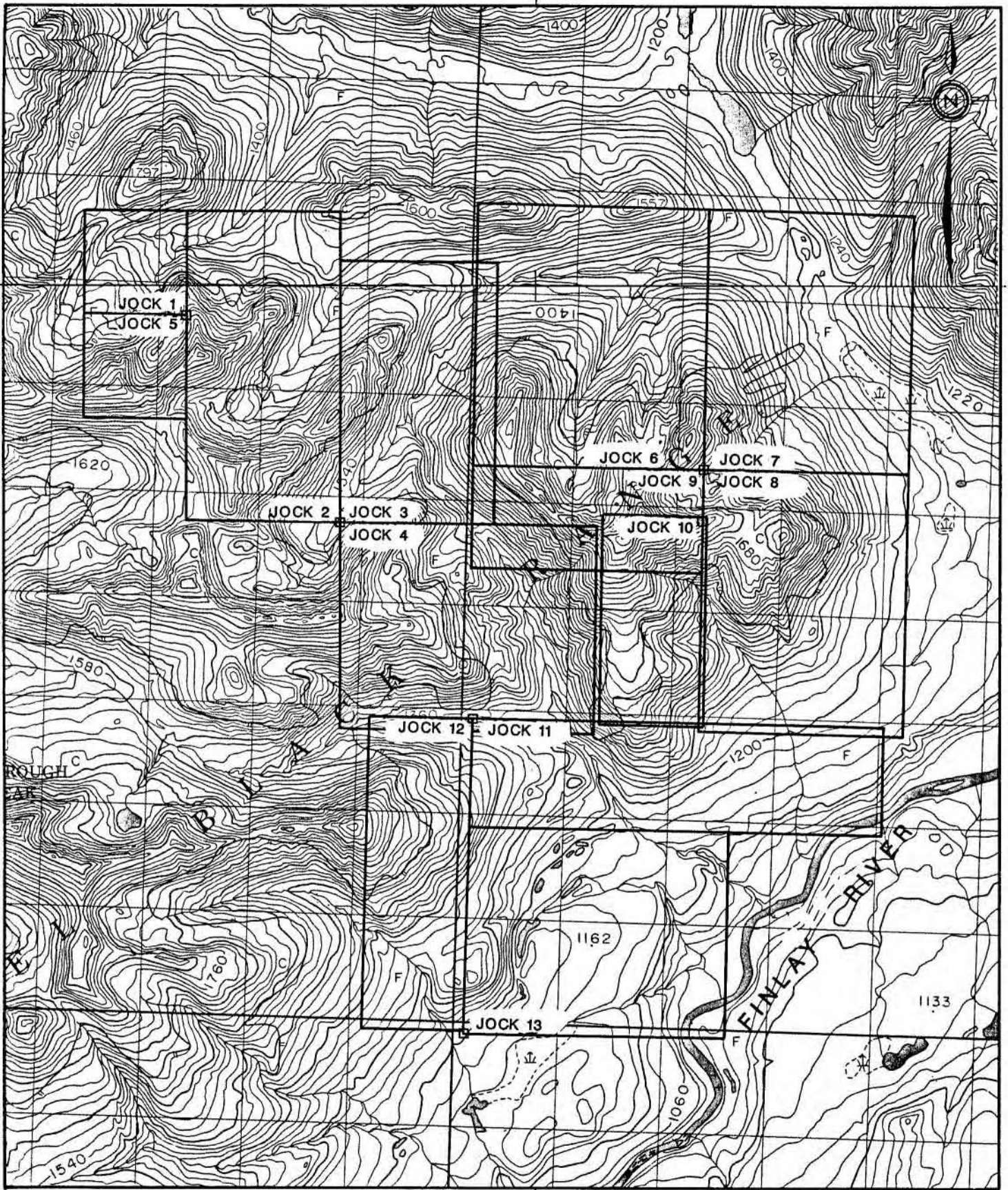


FIGURE 1

GENERAL LOCATION MAP

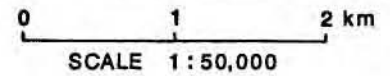
57° 15'

57° 15'



NTS 94 E/2, 94 E/7

126° 50'



LOCATION MAP OF JOCK CLAIMS 1 - 13

FIGURE 2

terized by wide U-shaped drift-filled valleys and deeply-cut V-shaped upland valleys. Mountain peaks in the area average 1980 metres ASL, and rise fairly abruptly from the major valleys. The topographic expression of the Toodoggone Volcanics is considerably more subdued as compared to the rugged topography in areas underlain by Takla Group volcanic rocks.

On the JOCK claims, the maximum relief from the incised valley of Finlay River to the adjacent mountain peaks is in the order of 850 metres. The upland areas, where most of the claims are located, are dissected by tributaries to Finlay River. The original V-shaped profile of these valleys has been modified by valley glaciation to produce the current U-shaped profile. The headwalls of these valleys have been carved into cirques and arêtes. This precipitous topography makes prospecting traverses difficult in these upland areas.

Previous Work

Exploration for base and precious metals occurred during two periods (1968-1969, and 1980 to the present). During the initial phase of exploration, work was carried out in the area by Kennco Exploration, Cominco Mines, and Quebec Cartier Mines. This work consisted of geological mapping with soil, rock, and silt geochemical sampling, and was designed to evaluate both the base and precious metals potential of the area. Renewed exploration interest began in 1980 with the emphasis on precious metals. In 1980, the JOCK claims were staked by Serem Ltd. and a program consisting of geological mapping and geochemical sampling was completed. Also in 1980, the JOCK 1-5 claims were staked by Golden Rule Resources Ltd. In 1981, on behalf of Golden Rule, Taiga Consultants Ltd. carried out an exploration program consisting of airborne VLF-EM and magnetometer surveys followed by helicopter supported reconnaissance geological mapping, geochemical sampling, and prospecting. Additional exploration was carried out by Taiga on behalf of Golden Rule in 1983. This work consisted of limited follow-up work on previously delineated geochemical anomalies along with prospecting and mapping. In 1985, Golden Rule acquired the JOCK 6-13 claims. All 13 claims constitute the property explored during the summer of 1985 by Taiga.

REGIONAL GEOLOGY

During 1971-75, the regional geology of the Toodoggone area was mapped by the Geological Survey of Canada at a scale of 1:250,000 under the direction of Dr. H. Gabrielse, with the results published in 1977 as GSC Open File 483. The B.C. Ministry of Energy, Mines and Petroleum Resources carried out a mapping program in the Toodoggone area from 1971 to 1984, with a compilation published in 1985 at a scale of 1:50,000 as Preliminary Map 61. This mapping, completed under the direction of T. G. Schroeter, details the units of the Toodoggone Volcanics which had become the focus of gold exploration in the district. The following description of the regional geology is excerpted from his 1982 report:

"The Toodoggone area lies within the eastern margin of the Intermontane Belt. The oldest rock exposed are wedges of crystalline limestone more than 150 metres thick that have been correlated with the Asitka Group of Permian age. The next oldest rocks consist of andesitic flows and pyroclastic rocks including augite-tremolite andesite porphyries and crystal and lapilli tuffs that belong to the Takla Group of Late Triassic age. The Omineca intrusions of Jurassic and Cretaceous age (potassium-argon age of 186 to 200 Ma obtained by the Geological Survey of Canada) range in composition from granodiorite to quartz monzonite. Some syenomonzonite bodies and quartz feldspar porphyry dykes may be feeders to the Toodoggone rocks which unconformably overlie the Takla Group. The 'Toodoggone' volcanic rocks (named informally by Carter, 1971) are complexly intercalated volcanic and volcanic-sedimentary rocks of Early to Middle Jurassic age, 500 metres or more in thickness, along the west flank of a northwesterly trending belt of 'basement' rocks at least 90 kilometres in length by 15 kilometres in width. A potassium-argon age of 186 ± 6 Ma was obtained by Carter (1971) for a hornblende separated from a sample collected from a volcanic sequence 14 kilometres southeast of Drybrough Peak. Four principal subdivisions of 'Toodoggone' rocks have been recognized:

- (1) Lower Volcanic Division — dominantly pyroclastic assemblage including purple agglomerate and grey to green to purple dacitic tuffs.
- (2) Middle Volcanic Division — an acidic assemblage including rhyolites, dacites, 'orange' crystal to lithic tuffs, and quartz feldspar porphyries; includes welded tuff. The 'orange' colour of the tuffs resulted from oxidation of the fine-grained matrix while the rock was still hot. A coeval period of explosive volcanism included the formation of 'laharic' units and intrusion of syenomonzonite bodies and dykes. This event was accompanied by explosive brecciation along zones of weakness, predominantly large-scale faults and attendant splays, followed by silicification and deposition of precious and base metals to varying degrees in the breccia. Rounded fragments of Omineca intrusive rocks are rare components in Toodoggone tuffs.

- (3) Upper Volcanic-Intrusive Division — grey to green to maroon crystal tuffs and quartz-eye feldspar porphyries.
- (4) Upper Volcanic-Sedimentary Division — lacustrine sedimentary rocks (sometimes varved), stream bed deposits, and possible local fan-glomerate deposits and interbedded tuff beds.

Many Toodoggone rocks have a matrix clouded with fine hematite dust implying a subaerial origin, however, some varieties may have accumulated in shallow water. The host rock for mineralization (division 2) is an orange to chocolate brown coloured crystal tuff with varying amounts of lithic and vitric ash. Broken crystals of plagioclase and quartz are set in a fine-grained 'hematized' matrix of quartz and feldspar. The exact chemical composition(s) and rock name(s) await chemical analyses. Carter (1971) determined the composition of a suite of rocks collected from the Toodoggone area to range from latites to dacite.

To the west, Upper Cretaceous to Tertiary pebble conglomerates and sandstones of the Lower Tango Creek Formation of the Sustut Group unconformably overlies both Takla Group volcanic rocks and Toodoggone volcanic rocks.

The structural setting was probably the most significant factor in allowing mineralizing solutions and vapours to migrate through the thick volcanic pile in the Toodoggone area. The entire area has been subjected to repeated and extensive normal block faulting from Jurassic to Tertiary time. It is postulated that a northwesterly trending line of volcanic centres along a gold/silver-rich 'province' marks major structural breaks, some extending for 60 kilometres or more (for example, McClair Creek system, Lawyers system). Prominent gossans are often associated with structural zones but many contain only pyrite; sulphides occur as disseminations and fracture fillings in Toodoggone and Takla Group rocks. Thrusting of Asitka Group limestones over Takla Group rocks probably occurred during Middle Jurassic time.

Today Toodoggone rocks display broad open folds with dips less than 25°. The Sustut Group sedimentary rocks have relatively flat dips and do not appear to have any major structural disruptions."

PROPERTY GEOLOGY

The oldest rock units exposed in the area of the JOCK claims consist of marble and black argillite of Permian age. These units have been tentatively assigned to the Asitka Group. These sedimentary rocks are exposed in a narrow fault slice just west of the JOCK 12 claim.

Volcanic rocks units belonging to the Upper Triassic Takla Group are exposed over much of the southern part of the JOCK property. The volcanic rocks consist of basalt flows and breccias and andesite with minor interbedded sediments including chert, siltstone, and limestone.

Unconformably overlying these Triassic rocks are the Lower to Middle Jurassic "Toodoggone Volcanics". The oldest unit of the Toodoggone Formation consists of the crystal tuff, lapilli tuff, and agglomerate of dacitic composition (Unit 1A). Overlying this unit is a sequence of sediments (Unit 2) consisting of conglomerate, greywacke, tuff, and epiclastics. Unit 3 in this succession is composed of trachyte and trachy-andesite porphyry flows and tuffs. Undifferentiated volcanic and sedimentary units belonging to the Toodoggone Formation have been designated as Unit 9 on Map 1 of this report.

Also exposed on the property are intrusive rocks varying in composition from quartz monzonite to granodiorite that probably represent the intrusive feeder dykes for some of the Toodoggone volcanics. Elsewhere in the area, plugs and stocks of these intrusives are exposed which may represent subvolcanic domes associated with Toodoggone volcanism.

A number of quartz veins and quartz breccia vein systems were mapped within the property. These epithermal veins represent late-stage hydrothermal mineralization associated with Toodoggone volcanism and as such were the primary focus of exploration for precious metals deposits within this region.

Glacial and glacio-fluvial deposits are formed in valley bottoms and adjacent to Finlay River as thick gravel terraces.

EXPLORATION TARGETS

The focus of exploration activity in the Toodoggone district is the epithermal gold mineralization associated with subaerial Early Jurassic intermediate to acidic volcanism (Toodoggone Volcanics). Gold mineralization also occurs within Late Triassic alkaline andesitic rocks (Takla Group) and Early Jurassic calc-alkaline volcanic rocks (Hazelton Group); however, this gold mineralization is viewed as being in the "root zone" of the epithermal event related to Toodoggone volcanism (e.g., the Baker Mine).

The structural setting of these epithermal vein systems is of primary importance in the development of gold mineralization within the Toodoggone Volcanics. Faulting and concomitant brecciation form the conduits for ascending hydrothermal solutions and vapours. It is often secondary tensional fractures in crudely concentric fracture systems related to collapse structures, major faults, or dilatant zones within major fault systems, which supply the necessary plumbing system for gold mineralization in this camp. It is also necessary that repeated fault movements and hence brecciation occur, allowing multiple hydrothermal solutions to continue to circulate. If only a single brecciation occurs, the ascending solutions carrying silica will eventually heal the fractures and restrict the passage of additional gold-bearing solutions. Only by recurrent faulting and brecciation can the process of gold mineralization be carried to the stage where economic concentrations of gold can be anticipated.

Adjacent to these epithermal deposits, there are both lateral and vertical alteration patterns. The outer propylitic zone consists of chlorite, epidote, calcite, and pyrite, which grades inward to an argillic/phyllitic zone consisting of sericite, montmorillonite, illite, and silica. Finally, there is the silicified core zone immediately adjacent to the vein system that consists of silica, adularia, and/or albite.

Hematite and manganese oxides are normally abundant in mineralized zones. Native gold, electrum, barite, and minor pyrite have been found within these silica-rich zones along with amethystine quartz. In addition to gold, anomalous silver, lead, zinc, and copper values have been found associated with these epithermal vein systems. However, these systems appear to be relatively free of contaminants such as arsenic and antimony.

As with the alteration patterns, the pattern of gold mineralization exhibits vertical and lateral variations, which are controlled by temperature and pressure conditions within the breccia zones which in turn control the boiling point levels for the mineralizing solutions. The upper levels of these systems are characterized by a barren silica cap with increasing gold values with depth. This simple model is complicated by re-brecciation which changes the physical characteristics of the system and the changing chemical composition of hydrothermal solutions during the various pulses of mineralization.



GEOCHEMISTRY

During various prospecting traverses on the JOCK claims, 54 rock samples were collected and sent to Eco-Tech Laboratories Ltd. in Kamloops for litho-geochemical analysis of gold and silver. Descriptions of these rock samples are tabulated in Appendix I of this report; analytical techniques and results are presented in Appendices II and III, respectively.

Due to the fact that only potentially mineralized samples were collected, a meaningful statistical treatment was not possible. In general, based on litho-geochemical results throughout the district, values of 25 ppb Au are considered threshold and values above 100 ppb Au are considered anomalous. For silver, 0.5 ppm is considered threshold while values above 5.0 ppm are deemed anomalous.

Based on these criteria, only two samples proved to be anomalous. These samples are: SM-JK-1 (450 ppb Au, 0.5 ppm Ag) and SM-JK-2 (210 ppb Au, 2.1 ppm Ag). Both samples were acquired from the northern part of the JOCK 3 claim in an area underlain by Toodoggone Volcanics. Sample SM-JK-1 was taken from an argillically altered quartz breccia. Sample SM-JK-2 consisted of argillically altered quartz-eye andesite located near SM-JK-1. Since there appears to be a close association between this quartz-eye andesite unit and gold-bearing quartz breccia systems at the Lawyers and the Mets properties, this area should receive additional exploration attention.

CONCLUSIONS AND RECOMMENDATIONS

The reconnaissance program of prospecting, geological mapping, and lithogeochemical sampling was carried out on the JOCK 1-13 mineral claims during the summer of 1985.

Only one area on the JOCK 3 claim was found to have anomalous high geochemical results in a geological setting considered favourable for epithermal vein deposits. Two samples collected from this claim returned values of 450 ppb and 210 ppb gold from a quartz breccia and the adjacent silicified wallrock. These results, while of no commercial interest, are considered highly favourable from a geochemical standpoint, and further intensive exploration on this claim is considered justified.

On the remainder of the JOCK claims, little of interest was located. However, it must be borne in mind that inclement weather conditions during early September hampered the work and restricted the effectiveness of this prospecting/sampling program. Thus, additional prospecting and sampling would be in order, to complete a proper evaluation of the JOCK property with the exception of the JOCK 11-13 claims. The latter claims, because of their unfavourable geological settings, should be allowed to lapse.

BIBLIOGRAPHY

- Carter, N.C. (1972): Toodoggone River Area, B.C.; in B.C. Min. Energy Mines, GEM 1971, pp.63-70.
- Carne, J. F. (1981): Geological Mapping and Geochemical Sampling, OJ and ARG claims, Omineca Mining Division; for Serem; B.C. Dept. of Mines, Assess.Rpt. 9501.
- Cooke, D.L. (1968): Geochemical Report, XMAS claims, Omineca Mining Div.; for Cominco; B.C. Dept. of Mines, Assess.Rpt. 1940.
- (1969): Geochemical Report, PIL claims, Omineca Mining Division; for Cominco; B.C. Dept. of Mines, Assess.Rpt. 1888.
- Diakow, L.J. (1984): Geology between Toodoggone and Chukachida Rivers; in Geological Fieldwork 1983; B.C. Energy Mines, Paper 1984-1, pp.139-145.
- (1985): Potassium-Argon Age Determination from Biotite and Hornblende in Toodoggone Volcanic Rocks; in Geological Fieldwork 1984; B.C. Energy Mines, Paper 1985-1, pp.298-300.
- Gabrielse, H. (1977): Geology of the Toodoggone and Were map-areas, B.C.; Geol.Surv.Cda., Open File 483.
- Gabrielse, H.; Wanless, R.K.; Armstrong, R.L.; Erdman, L.R. (1980): Isotopic Dating of Early Jurassic Volcanism and Plutonism in north-central British Columbia; in Current Research Part A; Geol.Surv.Cda., Paper 80-1A, p.27-32.
- Panteleyev, A. (1983): Geology between Toodoggone and Sturdee Rivers, B.C.; in Geological Fieldwork 1982; B.C. Energy Mines, Paper 1983-1, p.142-148.
- Schroeter, T.G. (1982): Toodoggone River, B.C.; in Geological Fieldwork 1981; B.C. Energy Mines, Paper 1982-1, pp.122-133.
- (1983): Toodoggone River area, B.C.; in Geological Fieldwork 1984; B.C. Energy Mines, Paper 1985-1, pp.291-298.
- Stevenson, R.W. (1968): Geological, Geochemical Report on the Kemess claims, Omineca Mining Division; for Kennco Exploration; B.C. Dept. of Mines, Assess.Rpt. 1705.
- (1969): Geochemical Report on the PINE claims, Omineca Mining Div.; B.C. Dept. of Mines, Assess.Rpt. 2035.
- Vulimiri, M.R. and Crawford, S.R. (1980): Geological, Geochemical, and Geophysical Report on the JOCK claims, Omineca Mining Division; for Serem; B.C. Dept. of Mines, Assess.Rpt. 9086.

A P P E N D I X I

Rock Sample Descriptions

ROCK SAMPLE DESCRIPTIONS

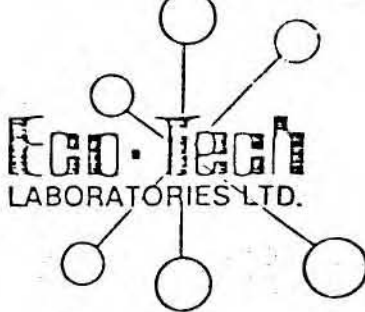
- BT-J-1 trachy-andesite porphyry, limonitic, silicified.
- BT-J-2 quartz breccia, limonitic, vuggy.
- BT-J-3 quartz breccia, limonitic, grey, chalcedonic.
- BT-J-4 quartz, sheared, vuggy; and trachy-andesite porphyry.
- BT-J-5 quartz, bluish-grey, pyrite blebs and crystals to .5 cm and clay minerals.
- BT-J-6 as above; more weathered, limonitic.
- BT-J-7 trachy-andesite porphyry, greyish-green, pyritic, limonitic, weakly silicified, fine-grained, approx. 10% v.f.g. diss. Py.
- BT-J-8 as above; dark grey matrix.
- BT-J-9 dacite tuff, fine-grained to aphanitic, 3% v.f.g. diss Py and trace chalcopyrite, malachite.
- DD-J-01 trachy-andesite porphyry, pyritic, silicified, greyish-green matrix, pink feldspars to 2 mm.
- DD-J-02 as above.
- DD-J-03 as above; sheared, limonitic.
- DD-J-04 as above; very limonitic, not sheared.
- DD-J-05 trachy-andesite porphyry, limonitic, silicified.
- DD-J-06 as above.
- DD-J-07 felsic volcanic, brecciated, pale grey, silicified, with plagioclase laths to .5 cm in length, approx 5% v.f.g. diss Py.
- DD-J-08 as above.
- DD-J-09 trachy-andesite porphyry, limonitic, silicified, approx 7-10% v.f.g. diss Py.
- DD-J-10 as above, 10% Py.
- DD-J-11 as above, 2% Py.
- DD-J-12 as above, 2% Py, part of quartz vein.
- DD-J-13 trachy-andesite porphyry, silicified, pale greyish-green, approx 5% v.f.g. diss pyrite.
- DD-J-14 as above, 15% v.f.g. diss pyrite.
- DD-J-15 quartz, limonitic, bluish-grey, pyritic to approx 15% f.g. diss.
- DD-J-16 altered rock consisting of quartz, clay minerals, limonite; no remnant texture.
- DD-J-17 trachy-andesite porphyry, pale greenish-grey, weakly silicified, approx 10% f.g. diss Py.

- DD-J-18 quartz, bluish-grey, 10% v.f.g. diss Py, weathers rusty, limonitic.
- DD-OFF-1 intermediate volcanic (flow rock?), very fine-grained, dark green, approx 5% v.f.g. diss Py.
- DD-OFF-2 as above, pyritic quartz veinlets to 2 mm in width.
- JD-J-1 trachy-andesite porphyry, brecciated, m.g. to c.g., potassic and propylitic alteration, minor quartz-epidote veinlets, 3% CaCO₃.
- JD-J-2 trachy-andesite, limonitic, vuggy, pyritic, siliceous, tuffaceous texture.
- JD-J-3 trachy-andesite tuff, siliceous, approx 8% v.f.g. diss Py, strike 325° dip 90°, greenish-grey to rusty weathering; on east side, weakly propylitically altered trachy-andesite porphyry; on west, less pyritic tuff.
- JD-J-4 (trachy-andesite?) tuff, siliceous, weakly brecciated, approx 4% v.f.g. diss Py, strike 335°.
- JD-J-5 as above.
- JD-J-6 as above; weakly silicified.
- JD-J-7 trachy-andesite porphyry, pale grey, silicified, approx 10% v.f.g. diss Py.
- JD-J-8 quartz-calcite vein, 10 cm wide: quartz, calcite, drusy quartz, and minor hematite. Wallrock: aphanitic, silicified trachy-andesite, brecciated, quartz as fracture filling (numerous small veins in this area).
- MJ-J-01 vein material: calcite, quartz, minor chlorite.
- MJ-J-02 quartz-eye andesite, extremely altered by clay minerals (white to yellow), relict texture of phenocrysts.
- MJ-J-03 trachy-andesite porphyry, silicified, approx 5% v.f.g. diss Py, minor (<1%) barite.
- MJ-J-04 as above, no barite.
- MJ-J-05 dacite tuff(?), pale greenish-grey, silicified, fractured plagioclase laths to 4 mm; aphanitic matrix, quartz and plag phenocrysts, approx 5% v.f.g. diss Py.
- MJ-J-06 as above, plag laths to .5 cm, Py to 10%.
- MJ-J-07 intermediate to mafic volcanic, aphanitic, silicified, dark grey, pyritic.
- SM-JK-01 quartz breccia, argillically altered, limonitic on weathered surface.
- SM-JK-02 quartz-eye andesite, pale greyish-white, argillically altered.

SM-JK-03 trachy-andesite porphyry, diss Py.
SM-JK-04 quartz-vein talus, limonitic.
SM-JK-05 quartz-eye andesite, limonitic, approx 5% diss Py.
SM-J-06 quartz vein material, vuggy, limonitic; wallrock, leached,
silicified, vuggy, trachy-andesite porphyry.
SM-J-07 sinter, limonitic, siliceous.
SM-J-08 quartz vein, vuggy, limonitic, epidote and hematite; in volcanic,
chloritic, dark green, propylitically and potassically altered.
SM-J-09 as above.
SM-J-10 trachy-andesite porphyry, limonitic, vuggy, leached.

A P P E N D I X I I

Analytical Techniques



GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION

1. Soil or sediment samples are dried at 60°C, the lumps of soil are broken up on a bucking board and the entire sample is sieved through an 80 mesh screen.
2. Rock samples are crushed and pulverized to -100 mesh.

GEOCHEMICAL ANALYSIS FOR Cu, Pb, Zn, Ag, Sb, Ni, Co, Cd

1.0 gram of sample is leached in 3 ml HNO₃ overnight at room temperature. The sample is brought up to 90°C in a water bath, 1.5 ml HCl is added, and the leaching is continued for a further 90 minutes. The sample is then cooled, diluted to 10 ml with distilled water and the above elements are determined by Atomic Absorption.

Minimum Reportable Concentrations

<u>Element</u>	<u>ppm</u>
Cu	1.
Pb	2.
Zn	1.
Ag	0.2
Sb	1.
Ni	2.
Co	2.
Cd	0.02

GEOCHEMICAL ANALYSIS FOR Au

The gold is collected in a silver bead through inquartation and conventional fire assaying of 10 grams of material. The bead is digested in aqua regia in a water bath at 90°C, the gold is then extracted into MIBK and determined by Atomic Absorption.

Minimum Reportable Concentration 5 ppb

A P P E N D I X I I I

Certificates of Analysis



ENVIRONMENTAL TESTING
 GEOCHEMISTRY
 ANALYTICAL CHEMISTRY
 ASSAYING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 2J3 Phone (604) 573-5700
 Telex: 048-8393

September 26, 1985

CERTIFICATE OF ANALYSIS

CLIENT: Manson Creek Resources Ltd.
 Ste. 150 - 1300 - 8th Street S.W.
 CALGARY, Alberta
 T2R 1B2

ATTENTION: Mr. Glen Harper

SAMPLE IDENTIFICATION: 71 rock samples received September 17, 1985

CERTIFICATE OF ANALYSIS NUMBER: ETK 85-78

<u>Description</u>	<u>Au (ppb)</u>	<u>Ag (ppm)</u>
BT-S-23	10	0.1
-24	40	0.4
-25	20	0.5
-26	50	3.5
SM-M-1	35	0.2
BT-M-25	40	0.9
-26	150	1.1
-27	440	3.9
-28	15	0.4
-29	20	0.2
-30	55	0.1
-31	45	0.2
-32	65	0.3
-33	230	1.6
-34	550	4.2
-35	780	1.7
SM-J-6	25	0.2
-7	15	0.3
-8	15	0.3
-9	10	0.1
-10	20	0.3
DD-OFF-01	15	0.7
-02	15	0.4

.../2



ENVIRONMENTAL TESTING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
ASSAYING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 2J3 Phone (604) 573-5700
Telex: 048-8393

September 26, 1985

CERTIFICATE OF ANALYSIS

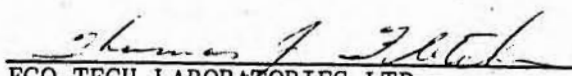
CLIENT: Golden Rule Resources Ltd.
Ste. 150 - 1300 - 8th Street S.W.
CALGARY, Alberta
T2R 1B2

ATTENTION: Mr. Glen Harper

SAMPLE IDENTIFICATION: 22 rock samples received September 17, 1985

CERTIFICATE OF ANALYSIS NUMBER: ETK 85-77

<u>Description</u>	<u>Au (ppb)</u>	<u>Ag (ppm)</u>
JD-K-6	15	0.5
-7	15	0.2
SM-K-5	10	0.1
-14	5	0.3
-17	5	0.4
-20	10	0.9
-23	5	0.8
-29	10	0.3
-30	20	0.1
-31	15	0.3
-32	40	0.2
-33	10	0.4
-34	15	0.1
-35	20	0.2
-36	5	0.3
-37	15	0.1
-58	5	0.4
-59	20	1.5
SM-JK-1	450	0.6
-2	210	2.1
-4	15	0.3
-5	25	0.4

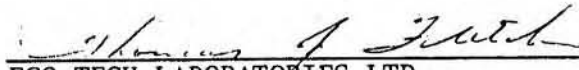

ECO-TECH LABORATORIES LTD.
Thomas J. Fletcher, B.Sc.
Chief Assayer

TJF/mil

cc: Taiga Consultants Ltd.
Calgary, Alta.
Attn: Mr. J. KAMLOOPSIEFFERSON - BURNABY

<u>Description</u>	<u>Au (ppb)</u>	<u>Ag (ppm)</u>
JD-J-01	5	0.3
-02	5	0.6
-03	10	0.2
-04	25	0.8
-05	10	0.5
-06	35	1.9
-07	5	0.2
-08	10	1.9

NOTE: < = less than


ECO-TECH LABORATORIES LTD.
Thomas J. Fletcher, B.Sc.
Chief Assayer

TJF/mil

cc: Taiga Consultants Ltd.
Calgary, Alta.
Attn: Mr. J. Davis, Chief Geologist

<u>Description</u>	<u>Au (ppb)</u>	<u>Ag (ppm)</u>
DD-J-05	25	0.2
-06	35	0.3
-07	10	0.1
-08	15	0.3
-09	10	0.5
-10	10	0.4
-11	5	0.6
-12	10	0.5
-13	15	0.3
-14	35	1.0
-15	20	0.8
-16	55	0.3
-17	20	0.4
-18	25	0.3
BT-J-1	25	0.6
-2	95	0.4
-3	5	0.3
-4	75	7.2
-5	25	0.2
-6	25	0.3
-7	25	0.4
-8	15	0.4
-9	5	3.4
MJ-J-1	<5	3.4
-2	35	0.5
-3	<5	0.4
-4	<5	0.2
-5	5	0.4
-6	5	0.7
-7	5	0.9
DD-K-10	15	2.2
-11	75	2.1
-12	5	0.6
-13	<5	0.1
-14	40	0.5
-15	5	0.7
DD-J-01	5	0.6
-02	35	0.3
-03	10	0.4
-04	<5	0.3

.../3

A P P E N D I X I V

Summary of Expenditures

SUMMARY OF EXPENDITURESJOCK 1 - 13 Claims

PRE-FIELD

Project review/planning, crew/equipment assembly		\$	751.27
--	--	----	--------

PERSONNEL

Project Supervisor			
J. W. Davis	5.0 days @ \$325	1,625.00	
Project Geologist			
T. B. Millinoff	0.5 day @ \$240	120.00	
Prospectors/Samplers			
D. D. Dancer	5.0 days @ \$135	675.00	
B. C. Beattie	2.0 days @ \$130	260.00	
S. J. Maltby	2.0 days @ \$127	254.00	
M. D. Jamieson	6.0 days @ \$102	612.00	
Cook			
S. P. Dancer	2.5 days @ \$120	<u>300.00</u>	3,846.00

CAMP SUPPORT

Camp Food	23 man days @ \$23/diem	529.00	
Camp Equipment	23 man days @ \$12/diem	276.00	
4x4 truck rental		65.00	
Radio-telephone	2 x 6 days @ \$ 9/diem	108.00	
Generator	6 days @ \$ 7/diem	<u>42.00</u>	1,020.00

CHARTER TRANSPORTATION

Fixed-wing and helicopter support			5,399.03
-----------------------------------	--	--	----------

TRAVEL EXPENSES

1,251.74

DISPOSABLE SUPPLIES

30.14

EXPEDITING/FREIGHT

34.68

TELEPHONE TOLLS

53.71

GEOCHEMICAL ANALYSES

564.00

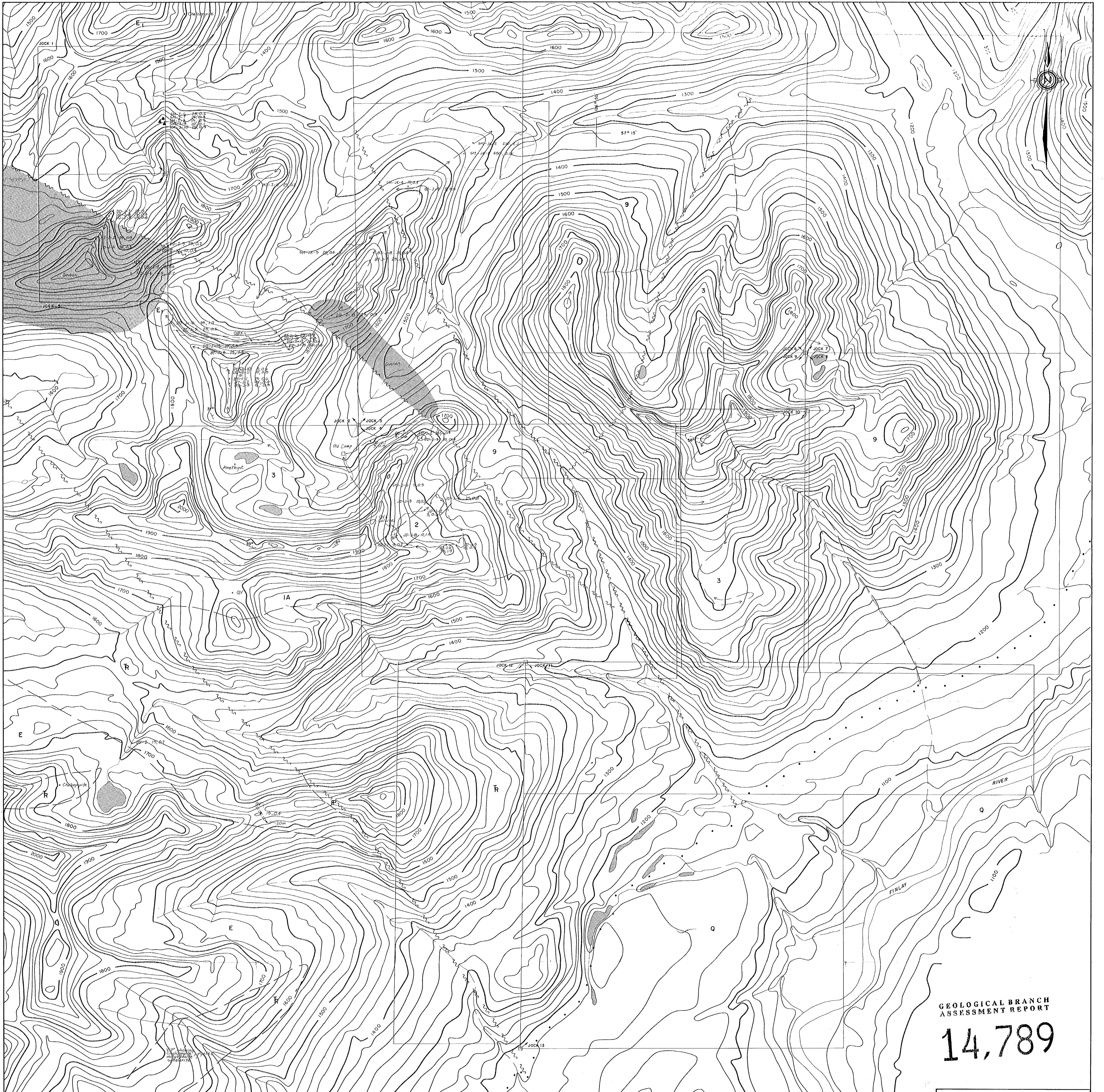
REPRODUCTIONS

Maps, airphotos; photocopying report			242.26
--------------------------------------	--	--	--------

POST-FIELD

Report writing, drafting, secretarial, preparation of filing forms.			<u>2,790.00</u>
--	--	--	-----------------

TOTAL			<u><u>\$ 15,982.83</u></u>
-------	--	--	----------------------------



GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,789

GEOLOGICAL LEGEND

- Quaternary
- 1 Unconsolidated Glacial and Alluvial Deposits
- Lower to Middle Jurassic
- 2 Conglomerate, Greywacke, Tuff, and Epiclastics
- 3 Quartz Monzonite and Granodiorite
- E Granodiorite, Quartz Diorite
- 4 Undivided "Toodoggone Volcanics"
- 5 Trachyte and Trachy-Andesite Porphyry
- 6 Triassic
- 7 Augite Porphyry Basalt Flows and Breccias
- 8 Permian
- 9 Limestone, Argillite, and Basalt

SYMBOLS

- Formational Contact
- Fault
- Boundary of Q
- Strike and Dip
- Gossan
- Quartz Vein
- Quartz Breccia
- Rock Sample (Au ppb, Ag ppm)
- Boulder Sample (Au ppb, Ag ppm)

GOLDEN RULE RESOURCES LTD.

JOCK 1-13 CLAIMS

GEOLOGY AND GEOCHEMICAL
SAMPLE LOCATIONS

DATE	OCT. 1985	NTS	94E / 2,7
PROJECT	GR-BC-78/148	DRAWN BY	J.W.D.
SCALE	1:10,000		
TARGA CONSULTANTS LTD		MAP 1	