

LOG NO:	1109	FD
SECTION		
FILE NO.		

**REPORT ON THE GEOLOGICAL  
EXPLORATION OF THE RICH 1 - 13 MINERAL CLAIMS**

Kobau Mountain Area  
Osoyoos Mining Division  
British Columbia

NTS 82E/4E

Lat 49° 07'    Long 119° 38'

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**19,284**

Minnova Inc.  
3rd Floor, 311 Water Street  
Vancouver, B.C.  
V6B 1B8

by: N.W. Gibson

date: Nov. 2, 1989

19284



Province of  
British Columbia

Ministry of  
Energy, Mines and  
Petroleum Resources

ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) Geological	TOTAL COST \$57,895
--	------------------------

AUTHOR(S) Nicholas Gibson SIGNATURE(S) *Nicholas Gibson*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED Aug 10, 1989 YEAR OF WORK 1989

PROPERTY NAME(S) Richter

COMMODITIES PRESENT Au, Ag

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION Osoyoos NTS 82E/4E

LATITUDE 49° 07' LONGITUDE 119° 38'

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Rich 1 through Rich 13

OWNER(S)

- (1) Minnova Inc.
- (2)

MAILING ADDRESS

3rd Floor - 311 Water St.  
Vancouver, B.C. V6B 1B8

OPERATOR(S) (that is, Company paying for the work)

- (1) Minnova Inc.
- (2)

MAILING ADDRESS

3rd Floor - 311 Water St.  
Vancouver, B.C. V6B 1B8

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

The property rests on Paleozoic Koba Group metasediments and metavolcanics which  
are intruded by Mesozoic Nelson plutonic granodiorite. Gossanous outcrops occur  
in heavily silicified zones.

REFERENCES TO PREVIOUS WORK

## SUMMARY

The Richter property of Minnova Inc. consists of 212 mineral claim units located 17km northwest of Osoyoos in south-central British Columbia. The area has only recently been open to staking as it was a military reserve until 1986.

The Richter property lies in the proximity of four past gold producers, the Dividend-Lakeview mine, the Dankoe mine, the Mak Siccar mine and the historic Fairview camp. In common with the latter 2 mines, the property is underlain by Paleozoic Kobau Group metasediments and metavolcanics and Mesozoic Nelson plutonic rocks.

Geological mapping at 1:10,000 scale and lithosampling was undertaken from May through August, 1989. The results of the work have defined two areas to be further explored. Thirteen kilometres of grid was emplaced over one of these. Gold bearing gossans which ran up to 2200 ppb Au and 6800 ppb Au are indicated in the Testalinden Grid and the ridge areas.

A program of large scale mapping, soil geochemical surveying and geophysical work is recommended over 2 areas of interest as the second stage of exploration. Contingent upon the stage II results, an exploratory diamond drilling program could be recommended.

TABLE OF CONTENTS

	page
1. INTRODUCTION.....	1
1.1 Location and Access.....	1
1.2 Ownership and Claim Status.....	3
1.3 References.....	3
1.4 Physiography.....	3
1.5 History.....	5
1.5.1 Regional.....	5
1.5.2 Property.....	6
2. GEOLOGY.....	7
2.1 Regional.....	7
2.2 Property.....	7
2.2.1 Lithology.....	7
2.2.2 Structure.....	11
2.2.3 Mineralization.....	12
3. PHYSICAL WORK.....	17
4. CONCLUSIONS.....	18
4.1 Lithology.....	18
4.2 Structure.....	18
4.3 Mineralization.....	19
4.3.1 Known.....	19
4.3.2 Potential.....	19
5. RECOMMENDATIONS.....	21
6. COST STATEMENT.....	22
7. CERTIFICATE.....	23

### Figures

Figure 1	Location map.....	2
Figure 2	Claim plan.....	4
Figure 3	Regional Geology.....	8
Figure 4(a)	Geology - North Sheet.....	pocket
Figure 4(b)	Geology - South Sheet.....	pocket
Figure 5(a)	Sample Locations and Anomalous Values -North Sheet.....	pocket
Figure 5(b)	Sample Locations and Anomalous Values -South Sheet.....	pocket
Figure 6	Testalinden Grid and Ridge Area Locations...	15

### Tables

Table 1	Summary of claim information.....	3
Table 2	Fairview Camp Au and Ag Production.....	5
Table 3	Geochemistry.....	13

### Appendices

Appendix I	Bibliography.....	24
Appendix II	Assay and Analyses Certificates.....	25
Appendix III	Analytical Procedures.....	26

## 1. INTRODUCTION

This report describes the results of a prospecting and mapping exploration program for gold mineralization in the Rich 1 through Rich 13 mineral claims (212 units) in the Osoyoos Mining Division of south-central British Columbia. The claims were staked in 1988 following the removal of the military reserve status which previously encompasses the property area.

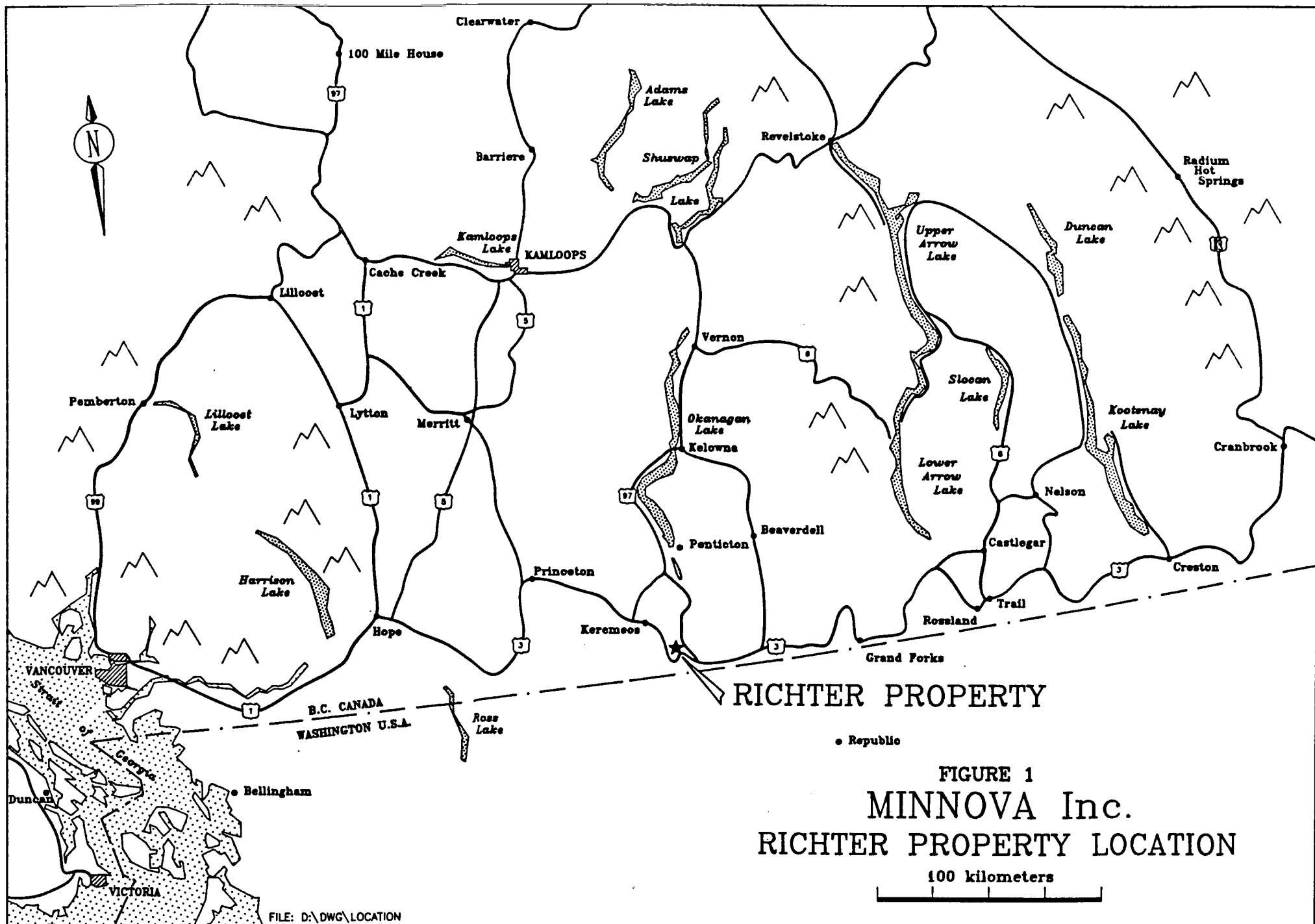
No previous mineral exploration is known on the property. The 1989 exploration program was a grassroots program consisting of preliminary regional mapping and sampling. Four previous gold producing mines are in the vicinity of the Richter Property; the Fairview Camp, the Dankoe Mine, the Mak Siccar mine and the Dividend-Lakeview mine.

The 1989 exploration program, from May through mid August consisted of 166 man-days of field work which included the implementation of 13 km of grid and prospecting and geological mapping (239 geochemical and 71 lithochemical samples analyzed) over 212 units.

### 1.1 Location and Access

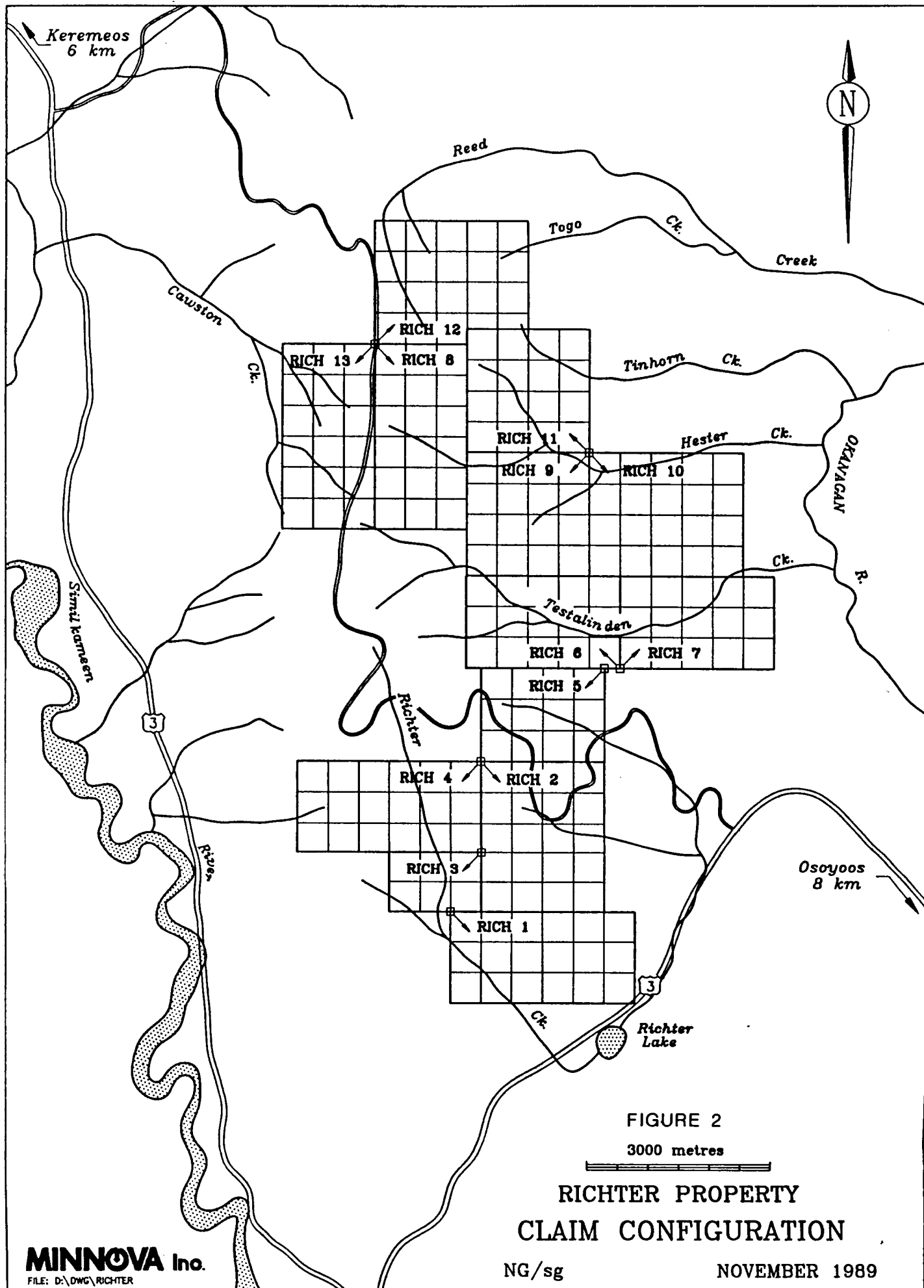
The Rich claims are located in south-central British Columbia in the Osoyoos Mining Division, ten kilometres north of the forty-ninth parallel, between the Okanagan and Similkameen valleys. They are centred at 49°07'N latitude and 119°38'E longitude within NTS area 82E/4E (figure 1).

The claims are most easily accessed via the Queen Elizabeth II Observatory Road, a good gravel road which ascends Mt. Kobau from Richter Pass on highway 3, 15km west of Osoyoos. Access from the north is available along a fair weather British Columbia Forest Service road which extends north from the Oliver-Cawston road, 5.5km east of Cawston. This road traverses in a north-south direction along the entire ridge to Mt. Kobau where it joins the Queen Elizabeth II Observatory road. A number of 4 wheel









thickness of glacial till covering the property including sections of very thick sequences of glacial lacustrine deposits reaching up to 75m exposed in the Testalinden creek valley.

The topography of the property is moderate to steep. The three major drainages which drain to the east have very steep and thickly vegetated valley walls making travel difficult. The ridges and southern slopes of the property are covered in sage but are otherwise open so travel is easy. The elevation ranges from 515m at Richter Lake at the southern end of the property to 1848m above sea level along the ridge on the western side of the property.

## 1.5 History

### 1.5.1 Regional

Mining activity in the region dates back to the late 1800's. The oldest and best known gold camp in the area is the historic Fairview Camp. It is situated about 6 kilometres west of Oliver, immediately north of the Richter Property. The camp consists of the Fairview, Stemwinder, Morning Star, Tinhorn and several smaller properties. Its earliest period of mining took place from 1895 to 1904 with intermittent work up to 1961 (Netolitzky, 1986). The gold in the Fairview Camp was won from north-west trending quartz veins hosted in the Kobau Group metasediments and metavolcanics adjacent to the Oliver and Fairview granodiorite. The following table summarizes the total production from the largest mines (Fletcher, 1986).

Table 2 Fairview Camp Au and Ag Production

	Tonnes	Au(g/t)	Ag(g/t)
Fairview	440,000	3.84	47.99
Stemwinder	25,400	5.83	59.43
Morning Star	7,500	19.20	43.54
Total	472,900	4.19	48.53

The camp is currently under active exploration and is reporting encouraging results.

The Dankoe mine is located on the lower sloped of Mt. Kobau. It was in production from 1913 to 1928 and intermittently until 1979. Gold, silver, copper, lead, and zinc were taken from lenticular quartz veins in the hosting Kruger Syenite. From the 388,475 tonnes mined 300,593g gold and 119,898,954g silver were produced (Taiga, 1983).

The Dividend-Lakeview property is situated immediately west of Osoyoos in the Anarchist Group altered volcanics and sediments which are possibly correlative with the Kobau Group (Okulitch, 1969a). It was mined intermittently from 1907 to 1949, producing 504,396g gold, 87,244g silver and 73,351kg copper from 111,252 tonnes mined. The deposit is a skarn exhibiting typical skarn mineralogy, ie. garnet, epidote and diopside (Taiga, 1983).

The Mak Siccar property is the closest producing mine to the Rich claims. It is located on the west slope of Mt. Kobau. Gold and silver mineralization occurs along the faulted contact of the diorite and Kobau sediments in quartz veins. From 1934 to 1939 it produced 4,012g gold and 1,960g silver from 189 tonnes mined.

#### 1.5.2 Property

There are no published references to mineral exploration on what are now the Rich claims. The property was previously a military reserve and therefore restricted from mineral exploration. The restricted status was lifted in 1986.

## GEOLOGY

### 2.1 Regional

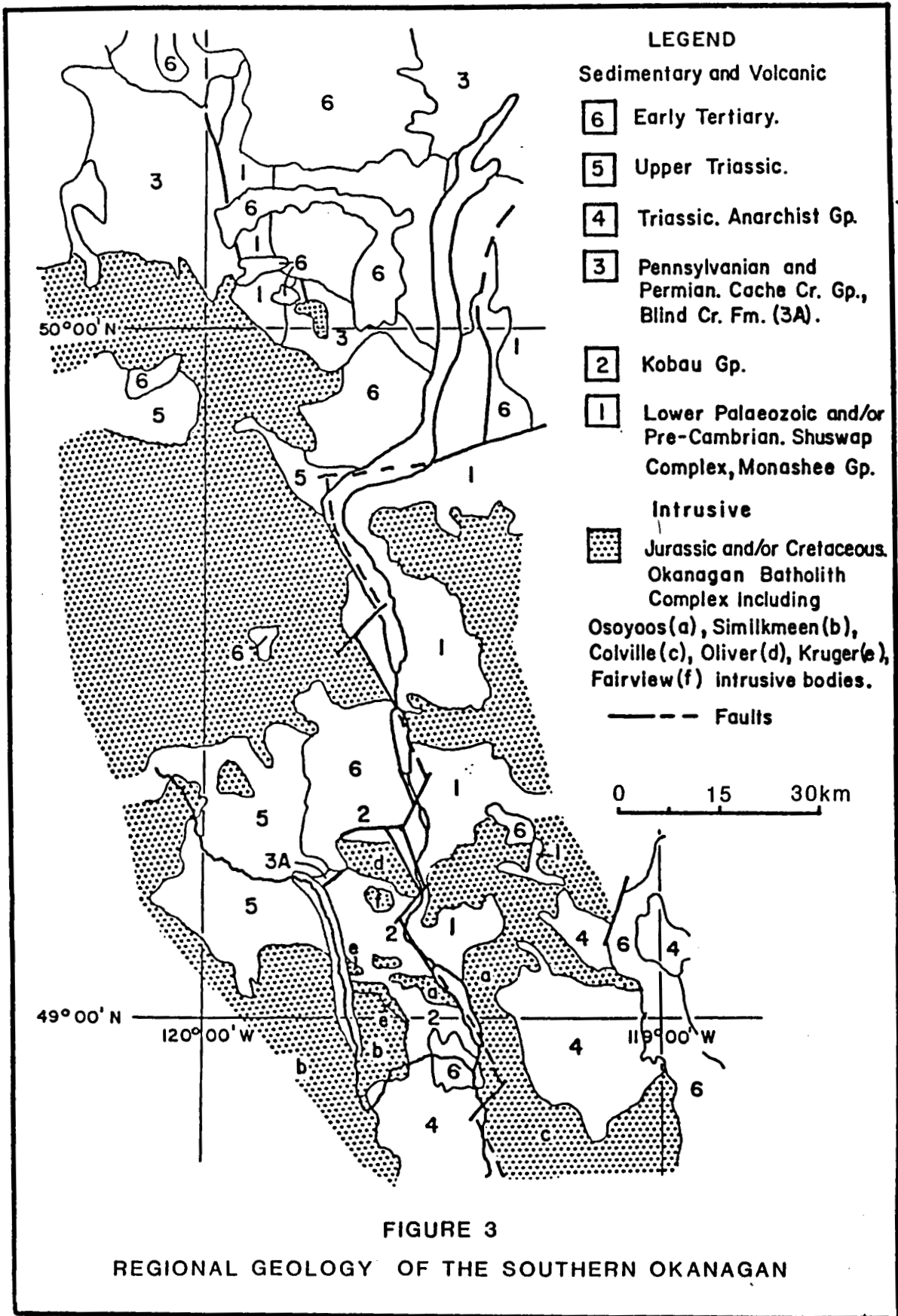
Figure 3 illustrates a generalized regional geology of the southern Okanagan (Okulitch, 1969a). The most recent regional map compiled for the southern Okanagan was done by Templeman-Kluit in 1989 for the GSC.

The most prominent structural feature in the area is traced by the Okanagan Valley which follows a gently west-dipping crustal shear (Tempelman-Kluit, Parkinson, 1986). Outcropping in the east of the valley are the oldest rocks in the area, the Monashee Group, Shuswap Complex of Precambrian and/or Lower Paleozoic age. Stratigraphically overlying this are pre-middle Mesozoic metamorphic rocks consisting of the Kobau Group, the Eache Creek Group and the Blind River Formation in contact with the Triassic Anarchist Group metamorphosed volcanics and sediments which lie immediately south of the property. Numerous intrusive bodies of the Cretaceous and/or Jurassic Okanagan Batholith Complex occur throughout the region. These include the Testelinden, Oliver, Fairview and Kruger intrusive bodies found on or adjacent to the Richter Property.

### 2.2 Property

#### 2.2.1 Lithology

Figures 4(a) and 4(b) depicts the geology of the property as determined through the 1989 field mapping. Two rock groups are represented on the property; the Carboniferous Kobau Group metasediments and metavolcanics and the Mesozoic Nelson Plutonic rocks.



## Kobau Group

The Kobau Group was first designated as a separate unit of probable Carboniferous age by Bostock (1940). This designation has been supported by Okulitch (1969a). These rocks have been tentatively divided into 3 mappable units; the quartzite unit, the phyllite unit and the calcareous phyllite unit. These are equivalent to units 1, 2 and 3 respectively on figures 4(a) and 4(b). All three units are gradational into each of the others making boundary definition in some cases difficult at best.

Regional metamorphism has resulted in the greenschist metamorphic facies being achieved. This is believed to have taken place during the first of 3 episodes of deformation (Okulitch, 1969a), discussed under the heading, Structure. One outcrop containing garnet, indicating a higher grade of metamorphism was located within the Testalinden Grid area. This is likely a result of localized contact metamorphism as it lies in contact with an intrusive. Due to the extent of the regional metamorphism, bedding and top indicators have been obliterated. Therefore the true chronostratigraphy remains unknown.

The quartzite unit is a grey to green to blue, fine to coarse grained foliated rock with micaceous partings intercalated with quartz in 1-2mm layered intervals. The foliation can be strong to indistinct. Also occurring within this unit is a bed of massive fine grained white to grey purely siliceous quartzite. The maximum thickness observed for this distinct subunit is 1 metre.

Quartz veining is common, occurring mostly as veinlets concordant and crosscutting the foliation. Mineralization of any sort is uncommon. Where it does occur, it is usually found as localized pockets of gossan generally related to fault structures. Heavy silicification over large areas is frequent. This was found to be a reliable indicator of a nearby intrusive body. The silicification may be a result of mobilization of silica within the quartzite during regional or thermal metamorphism or, in some cases, it may be derived from an adjacent or underlying intrusive

body.

The phyllite unit is a light to dark green, rarely grey to black, fine grained, strongly foliated, generally chloritic rock. Occasionally there is minor fine grained disseminated pyrite. More often than not this unit has been silicified, sometimes to such an extent as to make it difficult to distinguish it from the quartzite. As with the quartzite, the silicification is a good indicator of a nearby intrusive body. The phyllite unit is the most favourable rock type for faulting on the property. Subsequently it is occasionally host to fault controlled mineralization and gossanous zones.

The calcareous phyllite unit is similar to the phyllite unit in so much as it is green, fine grained, chloritic and strongly foliated. Its distinction is it is host to concordant and discordant carbonate veinlets as well as containing indigenous carbonate material. Contained within this unit is a bed of white to light blue pure crystalline calcite marble (subunit 3a on figures 4(a) and 4(b)). The maximum thickness observed in this subunit is 30m.

### Intrusive Rocks

The first episode of intrusive activity formed basic and ultrabasic rocks. These are now included in the Kobau Group and are part of what makes up the phyllite unit. They have been metamorphosed to actinolitic and chloritic phyllitic greenstone and are conformable with the rest of the Kobau Group.

Four other intrusive rock types occur on the property; granodiorite, monzonite, diorite and gabbro. The granodiorite occurs predominantly as two large stocks on the south end of the property, the Osoyoos and the Testalinden granodiorite. Both of these are considered to be part of the larger Triassic (?) - Jurassic Nelson Plutonic Suite (Little, 1961). Both intrusive bodies are classic granodiorites, fine to medium grained with macroscopic plagioclase, K-feldspar and quartz. Biotite and or hornblende

occur as accessory minerals.

The gabbro occurs as a very coarse grained rock along the borders of the Testalinden granodiorite. It also occurs as a fine to medium grained rock with parallel to subparallel alignment of the mafic phenocrysts more distal from the granodiorite. The very coarse grained version is generally fairly fresh while the finer grained version shows signs of alteration, possibly albite alteration, along with silicification and in some places, a high degree of oxidation.

The monzonite is located predominantly in the northern half of the property. It can occur as a grey hornblende porphyry or as a medium grained rock that appears very similar to the granodiorite but under chemical analysis reports less silica than a granodiorite.

The diorite also occurs as a hornblende porphyry. It is always spatially associated with either the monzonite or granodiorite.

Age relationships between the different types of intrusive rock are difficult to ascertain. It is possible that they represent completely different episodes of intrusive activity, but the only evidence for this is the variation in chemistry and the fresher appearance of the diorite and monzonite. A simpler explanation is that the gabbro, diorite, and monzonite represent border phases of the Nelson granodiorite or, that they represent separate pulses from the same parent magma. In either case the age of all four rock types would remain within the Triassic (?) - Jurassic age as phases of the Nelson Plutonic Suite.

### 2.2.2 Structure

Okulitch (1969a) believes the Kobau Group to have undergone 3 distinct phases of deformation. The earliest produced near isoclinal folding and shearing accompanied by metamorphism to the greenschist facies. The second phase resulted in overturned and normal folds. The third phase of deformation caused doming and



gentle folding, along with fracturing, and is considered to be possibly contemporaneous with the Mesozoic intrusions. As each period of folding has been successively overprinted on the previous event, the result is a sequence of complex tight, isoclinal, overturned recumbent, chevron and refolded folds. These structures have been observed and noted in the field.

The final phase of deformation has resulted in a dome centred east of the northern portion of the property so that the property is located on the southwest flank of the dome. Jointing and fracturing are thought to have occurred during this phase of deformation as they are observed to cut the previous 2 phases of deformation.

Faulting on the property and surrounding area is believed to have taken place during the Tertiary (Church 1967). The majority of the faults (59% of those mapped) on the Richter Property trend northwest between 300 degrees and 340 degrees. A comparison with the regional trend of foliation reveals a strong correlation with the prevalent trend of faulting. Faulting tends to occur in the phyllite unit.

### 2.2.3 Mineralization

Table 3 list the analyses and rock types of 30 rock samples which returned an anomalous Cu, Pb, Zn, Ag, and/or Au result. Anomalous sample locations are shown in Figures 5(a) and 5(b). Certificates of analysis are given in Appendix II. Analytical procedures are outlined in Appendix III.

#### Copper

Anomalous copper values were returned from the full spectrum of rock types found on the property. One hundred ppm Cu was used as an arbitrary anomalous cutoff. Three anomalous samples were taken from gossans, six more were from different rock types. The highest value returned is 1600ppm Cu from a phyllitic quartzite with quartz veinlets carrying pyrite (RG 129). There is a moderate

Table 3

Rock Geochemistry

Sample Number	Sample Description	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
RL003	Fine grained gabbro dyke, 3% pyrrhotite	39	69	54	2.7	5
RL008		65	67	82	1	5
RL108	Siliceous phyllite with tight isoclinal folding	35	62	109	1.2	10
RL112	Calcareous phyllite with minor pyrite	146	44	122	1.3	10
RL121	Fine grained gabbro dyke	115	63	73	2.5	5
RL122	Phyllitic gabbro dyke	25	61	75	2.7	15
RL135	Rusty, medium grained diorite	30	32	58	0.9	40
RL141	Fine grained Monzonite	18	24	67	1	50
RL149	Quartzite	133	46	57	4.8	10
RL152	Crystalline limestone	6	83	9	2.3	5
RL153	Crystalline limestone	6	86	11	2.4	5
RL155	Hornblende porphyry diorite with cubic pyrite	44	33	74	2	5
RL157	Fine grained gabbro	111	18	39	3.4	10
RL160	Phyllitic fine grained gabbro	53	36	79	4	5
RG001	Chloritic phyllite, 5% pyrrhotite	234	31	162	1.8	150
RG007	Gossanous fault zone	71	2400	78	10	1
RG009	Gossanous fault zone	410	67	120	1.3	43
RG129	Phyllitic Quartzite with pyrite hosted in quartz veinlet	1600	33	105	3	1
RG131	Quartzite with minor pyrite, chalcopryrite	40	18	147	1.2	81
RG138	Gossanous quartz vein within gossanous intrusive	34	15	63	0.4	2200
RG120	Quartzite with heavy Mn stain	26	6	59	0.7	121
RG146	Graphitic phyllite with rusty quartz veinlets	200	20	910	1.4	8
RG168	Calcareous phyllite	6	35	37	2.2	13
RG141	Calcareous chloritic phyllite	16	27	20	2	5
RG210	Siliceous graphitic phyllite	50	10	42	0.4	4
RG243	Gossan	262	28	182	1.3	3
RG246	Gossanous fault gouge in quartzite	219	24	62	1.2	2
RG241	Gossan	16	16	159	0.8	79
RG253	Hematitic quartz vein within a quartzite	27	7	10	0.3	57
RG258	Gossanous quartz vein, subcrop	78	39	21	0.6	135
RG280	Strong gossan	7	5	117	1.9	6800
RG282	Rusty quartz vein, 1 metre wide	16	8	50	0.6	76
RG313	Strong gossan in contact with large silicified zone	318	66	128	2	3

correlation with Ag mineralization revealed in the samples.

#### Lead

Only one sample returned an anomalous lead value (RG007, 2400ppm Pb). This was taken from a gossanous fault zone. Silver returned 10.0 ppm from the same sample.

#### Zinc

Zinc has returned erratic values throughout the property without any consistent correlations with either rock type or other mineralization being distinguishable. This is not unusual as zinc is a highly mobile element. The only strongly anomalous value returned is from sample RG 146, a graphitic phyllite with rusty quartz veinlets. It returned 910ppm Zn, along with 200ppm Cu.

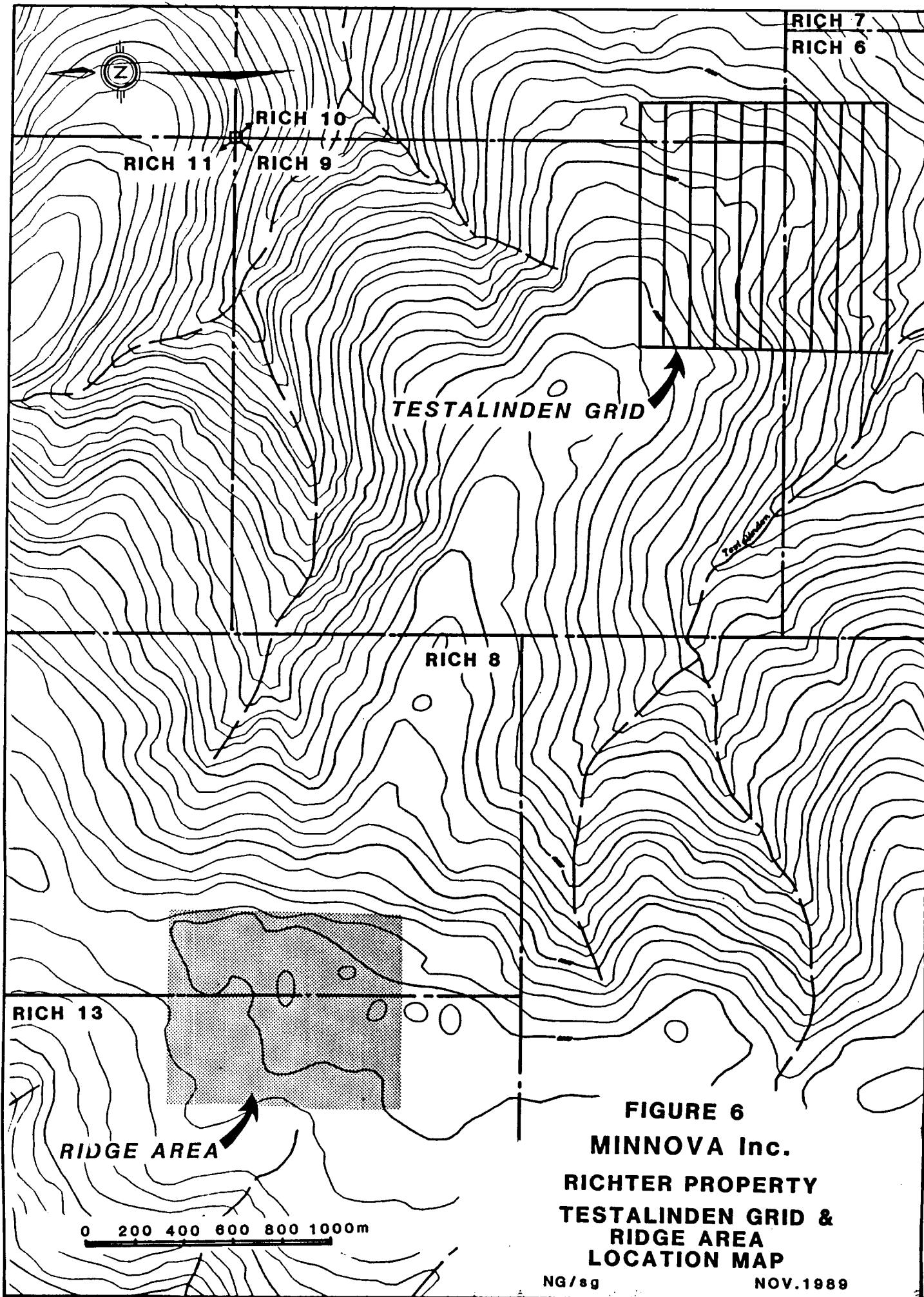
#### Silver

A cutoff of 2.0 ppm Ag was used to determine anomalous Ag values. Of The 14 anomalous samples, 6 were intrusive rock, 5 of these were gabbroic rocks. Interestingly 2 marble samples (RL152, 2.3ppm; RL153, 2.4ppm) ran Ag values. There is a weak correlation between Ag and Cu mineralization.

#### Gold

Fifteen ppb was used as a cutoff to determine anomalous Au values. The single consistent parameter among the samples which returned anomalous gold values is, all but one were altered or mineralized. The highest return was 6800 ppb from a strong gossan within the Testelinden Grid area (RG280). Another very anomalous sample (RG138, 2200ppb) was taken from a similar gossan within the ridge area outlined in figure 6. No correlation between Au and any other metal is apparent.

The ridge area and Testalinden Grid both appear to be zones which have undergone intense silicification. Each area has spatially related intrusive rocks and gossanous outcrops which are highly quartzed veined. The quartz veins trend in every direction



and are 1cm to 5cm wide.

### 3. PHYSICAL WORK

During the course of the 1989 field season a grid was emplaced on the north slope of Testalinden Creek within the claim boundaries of Rich 6, Rich 9 and Rich 10. A total of 13 km of grid was established. The lines, 100m apart were flagged and picketed at 25m station intervals. The grid location is illustrated in figure 6.

The grid overlies a highly silicified area with altered intrusives and gossans. Sample RG 280 which ran 6800ppb Au was taken from this area.

## 4. CONCLUSIONS

### 4.1 Lithology

The claims are underlain by 2 rock types, the Carboniferous Kobau Group metasediments and metavolcanics and the Mesozoic Nelson plutonic rocks. The Kobau Group is divided into 3 units; a grey to green phyllitic sometimes massive quartzite, a green, strongly phyllitic, chloritic phyllite and a green strongly phyllitic chloritic calcareous phyllite. The latter contains a sub-unit of massive white to light blue crystalline marble. All of these units have been regionally metamorphosed to the greenschist facies.

The Kobau Group has been intruded by Triassic(?) - Jurassic Nelson plutonic rocks. Two large stocks of fine to medium grained granodiorites outcrop on the southern end of the property. Gabbroic, monzonite and diorite rocks occur as phases of the granodiorite.

### 4.2 Structure

The Kobau Group has undergone 3 phases of deformation. The first two have created complex tightly folded and refolded structures. The third phase caused doming, gentle folding and fracturing. It is believed to be contemporaneous with the Mesozoic intrusive episode.

A high degree of faulting occurred during the Tertiary, slicing up the folded structures of the Kobau Group. A majority of the faults trend northwest paralleling the regional foliation. Due to the lack of well defined stratigraphic boundaries and little physical evidence of the faulting, such as slickensides, fault displacements are difficult to impossible to ascertain.

### 4.3 Mineralization

#### 4.3.1 Known

Minor sulphide mineralization occurs sporadically throughout the property, as disseminated pyrite, predominantly in the phyllite unit. Also there are a few localized gossanous fault zones. Quartz veins and veinlets occur in all of the Kobau Group rock units but are unmineralized. Table 2 outlines the samples which did run anomalous metal values. The most outstanding of these are RG280 (6800ppb Au) and RG138 (2200ppb Au). Both were taken from highly silicified and quartz veined gossans. These samples illustrate the potential for ore grade gold mineralization.

Other evidence for gold mineralization comes from nearby gold producers. The Fairview camp lies directly north of the Richter Property and has a long history of gold production won from gold bearing quartz veins. Also the Mak Siccar Mine on the west slope of Mount Kobau has produced significant gold from shear related quartz veins along the contact of the same intrusive and Kobau Group rocks which occur on the Richter Property. Further afield is the Dividend-Lakeview Mine which produced gold from a skarn hosted in the Anarchist Group which is possibly the same package of rocks as the Kobau Group.

#### 4.3.2 Potential

The results of the geological and geochemical work on the Richter Claims to date are encouraging. For the following reasons, I consider the property to have a good potential of hosting economic gold mineralization:

- 1) The claims are underlain by the same rock groups which host gold mineralization at the nearby Fairview and Mak Siccar mines.
- 2) Several fractures and or faults cross the Testalinden Grid area with related silicified zones, quartz veins and gossans.



3) Two gossans have returned very high gold values, 6800ppb and 2200ppb Au and there are other similar gossans which have yet to be properly sampled.

4) Both the Testalinden Grid area and the ridge area appear to be highly silicified thereby providing a mechanism for the mobilization and localization of gold.

In summary, the Testalinden Grid area and the ridge area both appear to be suitable environments for gold mineralization. The geology approximates the geology of 2 nearby historic gold producers, the degree and extent of silicification provides a mechanism for the localization of gold, and a very high gold value was returned from each of the areas.

## 5. RECOMMENDATIONS

Based on the results of the 1989 geological work, I recommend that Minnova Inc. proceed with a second stage of gold exploration on the Richter Property. The stage II program should consist of:

- 1) Mapping the Testalinden Grid at a 1:2500 scale
- 2) Lithogeochemical sampling the Testalinden Grid at regular intervals to identify any alteration zones and mineralized rock.
- 3) Soil sampling the Testalinden Grid at 25m intervals
- 4) Conducting a geophysical survey over the Testalinden Grid, possibly a resistivity survey or VLF-EM survey.
- 5) Implementing a 14km grid with 100m spaced lines and 25m stations along cut lines (due to the dense bush) on the ridge area.
- 6) Following steps 1 through 4 outlined above on the Ridge Grid.

Contingent upon the results of stage II, a program of exploratory diamond drilling could be recommended. The possibility of trenching should also be considered before the details of stage III are finalized.

COST STATEMENT

Geologist	\$250/day	75 days	\$18,750
Field Assistants	\$150/day	91 days	\$13,650
Geochemical Rock Analysis	\$15/sample	239 samples	\$ 3,585
Lithochemical Rock Analysis	\$35/sample	71 samples	\$ 2,485
Truck Rental and Fuel	\$65/day	85 days	\$ 5,525
Room & Board	\$25/day	166 days	\$ 4,150
Report & Drafting	\$250/day	15 days	\$ 3,750
Materials & Field Supplies			\$ 2,000

Total = \$53,895

7. CERTIFICATE

I, Nicholas W. Gibson, resident of Vancouver, Province of British Columbia, hereby certify as follows.

1) I am a contract geologist, presently employed by Minnova Inc., 311 Water Street, Vancouver, B.C..

2) I graduated with a degree of Bachelor of Science, Geology from the University of Windsor in 1986.

3) I have practiced my profession continuously since graduation.

4) I have no direct, indirect or contingent interest in the shares or business of Minnova Inc., nor do I intend to have any interest.

5) This report is based on my examination of available reports and air photographs, geological field mapping, and organization and supervision of geochemical sampling on the Richter Property.

November 2, 1989

---

N.W. Gibson, B.Sc  
Geologist

**APPENDIX I**  
**Bibliography**

## BIBLIOGRAPHY

- Bauerman, H. (1884): Report on the Geology of the Country near the Forty-Ninth Parallel of North Latitude, West of the Rocky Mountains; Geol. Nat. Hist. Surv. Canada, Rept. Prog., 1882, 1883, 1884.
- Bostock, H.S. (1940): Keremeos, British Columbia; Geological Survey of Canada, Map 341 A.
- Campbell, R.B. (1966): Tectonics of the South Central Cordillera of British Columbia; in Tectonic History and Mineral Deposits of the Western Cordillera, Canadian Institute of Mining Metallurgy, Special Vol. 8, pp. 61-71.
- Church, B.N. (1967): Geology of the White Lake Area, British Columbia; Unpublished Ph.D. Thesis, University of British Columbia.
- Daly, R.A. (1912): Geology of the North American Cordillera at the Forty-Ninth Parallel; Geol. Surv. of Canada, Mem. 38, pts 1, 2, 3.
- Fletcher, D.M. (1986): Report on the Stemwinder Property, Highland Valley Res. Ltd., Private Company Report.
- Holland, S.S. (1964): Land Forms of British Columbia. A Physiographic Outline, Bull No. 48, British Columbia Dept. of Mines and Petroleum Res..
- Lewis, P., et al. (1988)a: Geology and Structure of the Kobau Group Between Oliver and Cawston, British Columbia with some Notes on some Auriferous Quartz Veins (82E/4E), B.C. Energy, Mines, and Petroleum Res., Geological Fieldwork, 1988; Paper 1989-1, pp. 19-25.
- Lewis, P. et al (1989)b: Geology of the Kobau Group between Oliver and Cawston, British Columbia, B.C. MEMPR, Openn File 1989-2.
- Little, H.W. (1969): Geology of the Kettle River, Map 15-1961, Kettle River, B.C., Sheet 82E (West Half), Geological Survey of Canada.
- Meyers, R.E. (1987): Fairview Mine; Exploration in British Columbia, Part B, B.C. MEMPR, pp. B7 - B15.
- Nasmith, H. (1962): Late Glacial History and Surficial Deposits of the Okanogan Valley, British Columbia; Bull. B.C. Dept. of Mines and Petroleum Res. No. 46.

- Netolizky, R.K. (1986): Evaluation Report on the Fairview Property, Oliver, B.C., Okin Res. Inc., Propectus Report to the Vancouver Stock Exchange, November 1986.
- Okulitch, A.V. (1969)a: Geology of Mount Kobau, Unpublished PhD Thesis, University of British Columbia.
- Okulitch, A.V. (1969)b: Polyphase Deformation in the Kobau Group, Mt. Kobau, British Columbia, Geological Survey of Canada, Proceedings, Volume 20.
- Okulitch, A.V. (1973): Age and correlation of the Kobau Group, Mount Kobau, British Columbia, Canadian Journal of Earth Sciences, Volume 10, p. 1508.
- Sinclair, A.J., et al (1984): Geology of the Gypo-Quartz vein, Oliver, British Columbia (82/4) B.C. MEMPR, Geological Fieldwork 1983, Paper 1984-1.
- Spirito, F.D. (1986): Phase I Geological, Geophysical and Geochemical Report on the Mak Siccar Project, A.R. 15,920.
- Taiga Consultants Ltd. (1983): British Columbia Precious Metals Study, Taiga Consultants Ltd, Private Company Report.
- Tempelman-Kluit, D., Parkinson, D. (1986): Extension Across the Eocene Okanagan Crustal Shear in Southern British Columbia; Geology, Vol. 14, pp. 318-321.

**APPENDIX II**

**Assay and Analyses Certificates**





**MINERVA  
ENVIRONMENTALS  
LABORATORIES**

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate 9/V/0390/R/G/002

Company: MINNOVA INC.

Project: 656

Attn: G. EVANS

Date: MAY-31-89

Copy 1. MINNOVA INC., VANCOUVER, B.C.

2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCK samples submitted MAY-27-89 by KEVIN LEE.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
✓ RG 001	234	31	162	1.8	150
RG 002	66	11	27	0.7	1
RG 003	14	24	12	1.2	2
RG 004	34	17	84	0.8	4
RG 005	78	20	86	0.7	2
RG 006	38	25	19	1.2	3
✓ RG 007	71	2400	78	10.0	1
RG 008	62	13	51	0.5	1
✓ RG 009	410	67	120	1.3	43
✓ RG 010	174	29	98	0.9	2
RG 011	43	26	59	1.0	3
RG 012	54	24	119	0.9	2
RG 013	32	6	14	0.2	1
RG 014	18	9	17	0.2	1
RG 015	5	4	39	0.2	5
RG 016	6	5	36	0.4	1
RG 128	66	14	73	0.8	2
✓ RG 129	1600	33	105	3.0	1
RG 130	56	31	53	1.6	1
RG 131	40	18	147	1.2	81
RG 132	72	11	65	0.6	2
✓ RG 133	120	4	42	0.2	4
✓ RG 134	140	6	12	0.2	1
✓ RG 135	118	11	26	0.3	1
RG 136	17	5	6	0.1	2
RG 137	10	13	7	0.2	1
✓ RG 138	34	15	63	0.4	2200
✓ RG 139	21	9	47	0.2	36
✓ RG 140	8	10	157	0.2	1
RG 141	26	9	23	0.2	3

Certified by

MIN-EN LABORATORIES



**MIN  
• EN  
LABORATORIES**

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMISTRY • ANALYSIS • RESEARCH • GEOCHEMISTRY

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate 9/V/0365/R/G/002

Company: MINNOVA INC.  
Project: 656  
Attn: G.EVANS

Date: MAY-27-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 27 CORE samples submitted MAY-22-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG101	16	6	11	0.2	2
RG102	14	2	4	0.2	1
RG103	12	10	8	0.3	2
RG104	17	4	8	0.3	3
RG105	46	4	9	0.3	2
-----					
RG106	48	9	20	0.8	3
RG107	23	2	18	0.6	4
RG108	32	9	109	1.0	2
RG109	4	6	50	0.4	1
RG110	7	7	53	0.4	2
-----					
RG111	5	11	115	0.7	3
✓ RG112	159	9	66	0.6	2
RG113	8	3	34	0.5	2
RG114	37	7	55	0.6	1
RG115	4	6	32	0.6	4
-----					
RG116	79	5	39	0.8	2
RG117	35	6	36	0.6	1
RG118	4	14	18	0.8	2
RG119	70	6	38	0.9	1
✓ RG120	26	6	59	0.7	121
-----					
RG121	88	14	94	1.3	9
✓ RG122	42	19	113	1.4	4
RG123	35	3	18	0.4	7
RG124	71	11	79	1.0	1
RG125	49	16	48	0.9	3
-----					
RG126	56	10	44	0.4	1
RG127	79	12	54	0.9	2

Certified by \_\_\_\_\_

*[Signature]*  
MIN-EN LABORATORIES

Geochemical Analysis Certificate

9V-0461-RG1

Company: MINNOVA INC.  
Project: 656  
Attn: I. PIRIE/G. EVANS

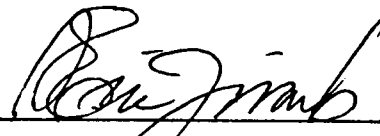
Date: JUN-14-89

Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCK samples submitted JUN-08-89 by K.LEE.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG142	35	10	52	1.0	8
RG143	18	10	32	0.6	18
RG144	24	8	30	0.5	4
RG145	43	6	61	0.6	13
RG146	200	20	910	1.4	8
RG147	50	4	14	0.4	3
RG148	34	19	54	0.6	16
RG149	20	5	19	0.4	7
RG150	6	2	5	0.4	18
RG151	7	2	6	0.4	23
RG152	4	3	4	0.4	12
RG153	35	10	107	0.8	2
RG154	38	4	29	0.3	7
RG155	33	8	14	0.4	3
RG156	15	7	20	0.3	2
RG157	22	4	8	0.3	16
RG158	14	4	5	0.2	9
RG159	20	3	50	0.4	6
RG160	14	4	9	0.4	4
RG161	28	6	38	0.5	7
RG162	32	5	26	0.4	11
RG163	113	14	73	1.0	2
RG164	163	16	195	0.6	3
RG165	22	4	13	0.3	1
RG166	11	6	4	0.4	3
RG167	4	3	8	0.2	9
RG168	6	35	37	2.2	13
RG169	40	28	63	1.4	6
RG170	23	9	106	0.3	14
RG171	2	3	7	0.2	3

Certified by



MIN-EN LABORATORIES

Geochemical Analysis Certificate

9V-0461-RG2

Company: MINNOVA INC.  
Project: 656  
Attn: I.PIRIE/G.EVANS

Date: JUN-16-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 CORE samples submitted JUN-08-89 by K.LEE.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB	AS PPM	HG PPB	BA PPM
RG172	42	14	37	0.5	5			
RG173	34	6	11	0.2	2			
RG174	12	4	10	0.2	2			
RG175	25	2	13	0.2	21			
RG176	9	4	13	0.2	4			
RG177	36	4	31	0.4	11			
RG178	68	9	20	4.8	42			
RG179	58	7	35	0.7	25			
RG180	69	8	6	0.2	21			
RG181	63	6	27	0.2	39			
RG182	29	10	30	0.4	5			
RG183	10	10	29	0.4	3			
RG184	89	26	73	1.0	9			
RG185	16	12	61	0.6	12			
RG186	44	6	17	0.3	2			
RG187	5	6	29	0.4	19			
RG188	62	10	16	0.4	16			
RG189	71	12	75	1.0	4			
RG190	33	6	37	0.4	2			
RG191	16	27	20	2.0	5			
RG192	72	12	33	0.6	2			
RG193	10	5	5	0.4	3			
RG194	29	5	33	0.3	2			
RG195	164	10	51	0.4	9			
RG196	66	9	19	0.4	18	15	20	20
RG197	25	4	50	0.2	2	14	25	100
RG198	9	4	7	0.1	2	12	15	20
RG199	8	5	5	0.1	3	8	15	10
RG200	12	2	4	0.1	3	5	15	40
RG201	16	4	8	0.2	6	7	20	400

Certified by



MIN-EN LABORATORIES



Geochemical Analysis Certificate

9V-0461-RG3

Company: MINNOVA INC.  
Project: 656  
Attn: I.PIRIE/G.EVANS

Date: JUN-16-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 27 ROCK samples submitted JUN-08-89 by K.LEE.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PFB	AS PPM	HG PPB	BA PPM
RG202	60	14	81	0.6	29	8	15	900
RG203 N/S	NO	SAMPLE						
RG204	32	6	34	0.3	2	3	15	70
RG205	23	4	18	0.2	1	1	25	390
RG206	142	50	40	0.4	2	18	20	600
RG207	8	6	17	0.2	3	2	25	10
RG208	11	2	27	0.2	2	2	25	320
RG209	112	15	80	1.0	2	4	35	400
RG210	50	10	42	0.4	4	6	20	1160
RG211	20	3	9	0.2	3	3	25	80
RG212	12	4	11	0.4	2	2	20	820
RG213	17	5	12	0.2	18	17	65	20
RG214	14	2	12	0.2	1	8	25	90
RG215	30	2	12	0.2	2	15	20	40
RG216	12	2	8	0.1	2	3	15	20
RG217	48	14	72	0.8	19	1	20	940
RG218	16	3	15	0.3	21	3	20	120

Certified by

MIN-EN LABORATORIES



**MIN  
• EN  
LABORATORIES**

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMISTS • ASSAYERS • ANALYSIS • GEOCHEMISTS

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9998

**Geochemical Analysis Certificate**

9V-0521-RG1

Company: MINNOVA INC.  
Project: RICHTER 656  
Attn: I.PIRIE/G.EVANS

Date: JUN-22-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCK samples submitted JUN-18-89 by W.HINDLEY.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG219	19	58	116	0.4	2
RG220	16	21	41	0.6	1
RG221	61	16	19	0.4	3
RG222	72	21	97	0.8	4
RG223	15	11	31	0.4	6
RG224	22	12	17	0.4	2
RG225	7	15	20	0.4	2
RG226	29	11	26	0.5	1
RG227	40	8	33	0.3	3
RG228	15	7	9	0.2	4
RG229	12	6	4	0.4	3
RG230	16	6	4	0.2	1
RG231	28	28	98	1.2	2
RG232	77	16	51	0.8	4
RG233	36	12	26	0.2	1
RG234	26	15	4	0.2	2
RG235	25	8	29	0.4	3
RG236	14	12	52	0.4	1
RG237	31	5	22	0.3	2
RG239	50	31	26	0.4	1
RG240	2	6	3	0.4	2
RG241	16	16	159	0.8	79
RG242	9	10	7	0.4	2
RG243	262	28	182	1.3	3
RG245	29	24	109	0.9	1
RG246	219	24	62	1.2	2
RG247	77	15	78	1.0	2
RG248	12	5	11	0.2	1
RG249	119	27	104	1.2	2
RG250	112	16	43	0.7	1

Certified by

MIN-EN LABORATORIES



**MINNOVA  
• ENVIRONMENTAL  
LABORATORIES**

**SPECIALISTS IN MINERAL ENVIRONMENTS**  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

***Geochemical Analysis Certificate***

**9V-0521-RG2**

**Company:** MINNOVA INC.  
**Project:** RICHTER 656  
**Attn:** I. PIRIE/G. EVANS

**Date:** JUN-25-89

Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

*We hereby certify the following Geochemical Analysis of 5 ROCK samples submitted JUN-18-89 by W.HINDLEY.*

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG251	89	18	78	0.7	2
RG252	13	4	14	0.3	4
RG253	<u>76</u>	14	55	0.4	1
RG254	48	12	59	0.4	2
RG255	27	7	10	0.3	57

**Certified by** \_\_\_\_\_

**MIN-EN LABORATORIES**



**MIN  
• EN  
LABORATORIES**

**SPECIALISTS IN MINERAL ENVIRONMENTS**  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-0660-RG2

Company: MINNOVA INC.  
Projects: 656  
Attn: I. PIRIE/N. GIBSON

Date: JUL-18-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCKS samples submitted JUL-07-89 by N. GIBSON.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG244	27	20	44	0.8	2
RG256	7	4	8	0.3	1
RG257	29	16	7	0.3	1
RG258	78	39	21	0.6	135
RG259	8	6	78	0.5	3
RG261	141	4	19	0.5	6
RG262	15	6	16	0.4	2
RG263	36	11	36	0.6	2
RG264	28	7	35	0.4	3
RG265	84	15	129	1.7	1
RG266	79	13	58	1.0	4
RG267	83	11	70	0.9	2
RG268	55	35	61	1.0	2
RG269	4	9	10	0.6	1
RG270	39	7	112	0.6	3
RG271	17	6	42	0.7	2
RG272	58	6	49	0.6	2
RG273	29	19	67	1.2	1
RG274	41	7	24	0.6	1
RG275	11	5	15	0.4	1
RG276	7	3	4	0.3	2
RG277	6	7	9	0.7	2
RG278	36	4	15	0.4	3
RG279	12	6	48	0.5	53
RG280	7	5	177	1.9	6800
RG281	21	6	32	0.7	22
RG282	16	8	50	0.6	76
RG283	49	16	59	0.7	3
RG284	93	14	88	1.0	2
RG285	77	22	89	1.0	9

Certified by 

MIN-EN LABORATORIES



Geochemical Analysis Certificate

9V-0660-RG3

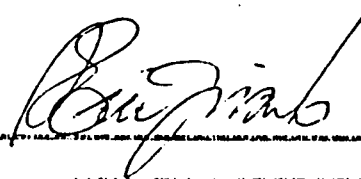
Company: MINNOVA INC.  
Project: 656  
Attn: I. PIRIE/N. GIBSON

Date: JUL-18-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 30 ROCK samples submitted JUL-07-89 by N. GIBSON.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG286	82	10	38	0.7	3
RG287	34	13	52	0.7	1
RG288	6	41	22	1.6	2
RG289	55	17	49	1.0	8
RG290	9	9	22	0.2	2
RG291	13	18	78	0.9	2
RG292	61	11	62	0.6	3
RG293	38	7	39	0.4	1
RG294	5	4	13	0.2	1
RG295	107	7	25	0.6	4
RG296	5	43	23	1.9	2
RG297	9	17	58	1.2	2
RG298	38	15	44	0.6	3
RG299	4	32	14	1.3	1
RG300	2	3	8	0.1	2
RG301	46	8	14	0.3	1
RG302	3	16	62	0.7	1
RG303	11	13	29	1.2	1
RG304	13	12	32	1.0	3
RG305	5	13	28	1.1	2
RG306	14	4	11	0.4	1
RG307	34	11	65	0.8	1
RG308	7	4	18	0.6	2
RG309	21	5	34	0.5	1
RG310	2	9	63	0.8	3
RG311	19	14	34	1.1	2
RG312	5	19	80	1.6	3
RG313	318	66	128	2.0	3
RG314	17	3	8	0.5	1
RG315	43	11	82	1.1	2

Certified by



Geochemical Analysis Certificate

9V-0660-RG4

Company: MINNOVA INC.  
Project: 656  
Attn: I. PIRIE/M. GIBSON

Date: JUL-18-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Geochemical Analysis of 6 ROCK samples submitted JUL-07-89 by N. GIBSON.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
RG316	4	20	60	0.6	3
RG317	8	8	18	0.7	2
RG318	39	11	33	0.4	2
RG319	104	9	112	0.7	12
RG320	189	13	46	0.7	4

Certified by





**MIN  
• EN  
LABORATORIES**

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMICALS • ANALYTICAL • METALS • MINERALOGY

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9V-0780-RG2

Company: MINNOVA INC.  
Project: RICHTER  
Attn: I.PIRIE/N.GIBSON

Date: AUG-03-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

*We hereby certify* the following Geochemical Analysis of 30 ROCK samples submitted JUL-28-89 by N.GIBSON.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	AU-FIRE PPB
---------------	--------	--------	--------	--------	-------------

RG321	14	26	49	0.5	6
RG322	14	6	22	0.2	4
RG323	18	25	113	1.2	2

Certified by

MIN-EN LABORATORIES

COMPANY: MINNOVA INC.

PROJECT NO: 656

ATTENTION: G. EVANS

MIN-EN LABS ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

(604)980-5814 OR (604)988-4524

(ACT:F31) PAGE 1 OF 1

FILE NO: 9/V/0390/R/J/001

\* TYPE ROCK GEOCHEM \* DATE: 06-01-1989

(VALUES IN PPM)	AG	AS	BA	CU	PB	SB	ZN	AU-PPB
RL001	1.5	12	169	111	45	2	54	5
RL002	1.3	6	41	70	56	7	72	10
RL003	2.7	6	54	59	69	9	92	5
RL004	1.2	16	61	94	37	3	47	5
RL005	.4	6	37	5	33	2	44	5
RL006	1.4	9	15	69	31	2	43	5
RL007	.1	55	32	50	20	1	21	5
RL008	1.0	557	29	65	67	34	82	5
RL009	1.5	14	51	107	49	4	39	5
RL010	.1	15	46	10	23	1	162	5
RL011	.4	6	100	9	25	1	45	5
RL116	.8	13	12	7	10	1	8	5
RL117	.7	12	29	6	9	1	8	5
RL118	.1	8	119	11	15	1	155	5

COMPANY: MINNOVA INC.

MIN-EN LABS ICP REPORT

(ACT:F26) PAGE 1 OF 2

PROJECT NO: 656

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0390/R/L/001

ATTENTION: G.EVANS

(604)980-5814 UR (604)988-4524

# TYPE LITHO GEOCHEM # DATE: 06-01-1989

(VALUES IN %)	AL2O3	BAT	CAO	FE2O3	K2O	MGO	MNO2	NA2O	P2O5	SI02	TIO2	S
RL001	13.07	.371	8.29	9.18	2.98	4.70	.10	1.99	.24	52.79	2.12	.72
RL002	15.80	.086	7.54	6.61	3.65	3.70	.17	4.52	.19	50.02	.57	.24
RL003	17.15	.058	4.03	11.01	1.21	4.79	.39	4.80	.70	48.80	2.81	.51
RL004	16.35	.096	6.89	7.47	3.05	4.02	.16	5.24	.21	53.27	.59	.07
RL005	16.71	.048	6.47	4.41	1.15	1.65	.12	4.11	.02	62.92	.39	.02
RL006	14.42	.020	10.49	11.49	.50	5.72	.21	3.54	.11	49.47	1.57	.06
RL007	1.71	.011	.01	1.24	.53	.26	.34	.01	.01	93.75	.09	.04
RL008	14.10	.021	7.16	11.49	2.47	5.55	.24	1.02	.14	43.79	1.30	.02
RL009	12.05	.066	12.69	9.80	1.67	7.75	.18	2.93	.20	48.39	.71	.45
RL010	18.07	.077	.01	3.93	6.76	.21	.14	4.90	.01	64.65	.04	.01
RL011	16.44	.063	4.69	3.96	1.62	1.51	.11	4.03	.01	63.02	.37	.02
RL116	14.09	.033	8.02	3.02	.79	1.50	.12	5.33	.02	64.12	.64	.02
RL117	16.59	.020	13.21	2.60	1.02	2.58	.10	3.87	.11	55.95	.60	.03
RL118	18.48	.098	.01	4.41	5.57	.15	.12	6.69	.01	62.27	.11	.01

COMPANY: MINNOVA INC.

MIN-EN LABS ICP REPORT

(ACT:F26) PAGE 2 OF 2

PROJECT NO: 856

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0390/R/L/001

ATTENTION: G. EVANS

(604)980-5814 OR (604)988-4524

\* TYPE LITHO GEOCHEM \* DATE: 06-01-1989

(VALUES IN %)	TOT(%)
RL001	96.55
RL002	93.30
RL003	96.27
RL004	97.41
RL005	98.03
RL006	97.59
RL007	97.96
RL008	87.31
RL009	96.89
RL010	98.79
RL011	95.83
RL116	97.71
RL117	96.68
RL118	97.90

Certificate of Assay

9/V/0390/R/A/002

Company: MINNOVA INC.  
Project: 656  
Attn: G.EVANS

Date: JUN-02-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Assay of 14 ROCK samples  
submitted MAY-27-89 by G.EVANS.

Sample Number	LOI %
RL 001	2.90
RL 002	5.80
RL 003	3.50
RL 004	1.50
RL 005	1.00
-----	
RL 006	1.60
RL 007	1.10
RL 008	11.60
RL 009	2.50
RL 010	0.20
-----	
RL 011	3.10
RL 116	1.30
RL 117	2.20
RL 118	1.30

Certified by \_\_\_\_\_

*Stephany*  
MIN-EN LABORATORIES

MIN  
• EN

LABORATORIES

**VANCOUVER OFFICE:**

705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**

33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

Certificate of Assay

9/V/0365/R/A/001

Company: MINNOVA INC.

Project: 656

Attn: I.PIRIE/G.EVANS

Date: MAY-30-89

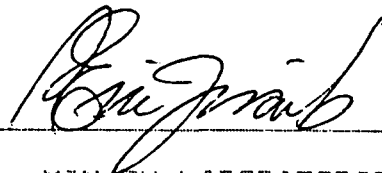
Copy 1. MINNOVA INC., VANCOUVER, B.C.

2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Assay of 14 ROCK samples  
submitted MAY-22-89 by W.HINDLEY.

Sample Number	LOI %
RL 101	7.20
RL 102	2.00
RL 103	1.30
RL 104	3.90
RL 105	3.00
-----	
RL 106	2.90
RL 107	1.10
RL 108	1.50
RL 109	1.30
RL 110	1.00
-----	
RL 112	2.80
RL 113	3.10
RL 114	1.20
RL 115	1.10

Certified by



MIN-EN LABORATORIES



COMPANY: MINNOVA INC.

PROJECT NO: 656

ATTENTION: G.EVANS

MIN-EN LABS ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

(604)980-5814 OR (604)988-4524

(ACT:F26) PAGE 2 OF 2

FILE NO: 9/V/0365/R/L/001

\* TYPE LITHO GEOCHEM \* DATE: 05-30-1989

(VALUES IN %)	TOT(%)
RL101	95.41
RL102	96.72
RL103	97.94
RL104	96.19
RL105	97.25
RL106	96.30
RL107	97.92
RL108	97.47
RL109	97.66
RL110	98.03
RL112	95.88
RL113	95.90
RL114	97.69
RL115	98.06

COMPANY: MINNOVA INC.

MIN-EN LABS ICP REPORT

(ACT:F26) PAGE 1 OF 2

PROJECT NO: 656

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0365/R/L/001

ATTENTION: G.EVANS

(604)980-5814 OR (604)988-4524

\* TYPE LITHO GEOCHEM \* DATE: 05-30-1989

(VALUES IN %)	AL2O3	BAT	CAO	FE2O3	K2O	MGO	MNO2	NA2O	P2O5	SI02	TIO2	S
RL101	8.85	.012	11.39	18.58	.29	5.45	.56	.49	.71	44.72	.52	3.84
RL102	13.81	.021	10.34	9.03	.92	6.81	.20	3.62	.07	50.84	.99	.06
RL103	17.03	.036	2.27	11.09	3.63	3.03	.20	5.58	.39	53.46	1.18	.05
RL104	14.99	.148	9.68	9.42	2.25	4.46	.17	3.17	.33	49.28	1.03	1.24
RL105	14.61	.097	9.56	10.47	2.32	7.04	.33	2.47	.17	47.89	.93	1.36
RL106	16.70	.062	6.26	5.54	2.89	2.01	.14	3.89	.18	57.97	.59	.07
RL107	17.57	.130	4.93	4.02	2.60	1.74	.11	5.91	.06	60.44	.35	.05
RL108	15.99	.284	7.41	12.86	4.10	7.13	.16	.69	.30	45.42	3.01	.12
RL109	16.25	.119	2.91	3.64	2.62	1.16	.10	4.49	.01	65.98	.36	.03
RL110	14.65	.016	15.07	10.42	.63	4.48	.14	2.54	.28	47.17	2.55	.08
RL112	16.27	.485	3.03	13.85	2.58	2.31	.22	3.78	.32	50.84	2.18	.01
RL113	13.78	.025	13.90	10.43	.27	5.49	.17	3.91	.22	45.55	2.13	.02
RL114	17.17	.067	1.92	11.36	4.04	2.29	.23	4.82	.39	54.30	1.08	.04
RL115	16.14	.014	.01	1.21	4.59	.08	.02	6.65	.01	69.28	.06	.02

COMPANY: MINNOVA INC.

MIN-EN LABS ICP REPORT

(ACT:F31) PAGE 1 OF 1

PROJECT NO: 656

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0365/R/J/001

ATTENTION: G. EVANS

(604)980-5814 OR (604)988-4524

\* TYPE ROCK GEOCHEM \* DATE: 05-30-1989

(VALUES IN PPM)	AG	AS	BA	CU	PB	SB	ZN	AU-PPB
RL101	.9	21	17	171	30	1	41	5
RL102	.5	9	129	47	24	1	33	5
RL103	.8	19	228	10	48	4	141	5
RL104	.6	11	67	136	22	1	21	10
RL105	.7	14	397	85	43	5	68	5
RL106	.6	11	107	17	30	1	65	5
RL107	.5	5	56	27	20	1	32	5
RL108	1.2	40	2276	35	62	10	109	10
RL109	.4	10	118	3	25	1	55	5
RL110	.8	22	66	85	30	2	40	5
RL112	1.3	43	2291	146	44	5	122	10
RL113	.9	26	86	71	39	4	55	5
RL114	1.1	20	328	16	38	3	142	10
RL115	.4	1	12	7	25	1	46	10

COMPANY: MINING A. INC.

PROJECT NO: 856

ATTENTION: L. PIRIE/S. EVANS

MINERAL LABS LTD. P.O. BOX

708 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

(604) 980-5811 or (604) 980-4524

FACT: F311 PAGE 1 OF 1

FILE NO: 9/V/0461/R/0/004

\* TYPE ROCK GEOCHEM \* DATE: 06-16-1989

(VALUES IN PPM)	83	45	59	03	25	53	ZN	AU-PPB
RL119	1.9	45	11	23	57	8	101	10
RL120	.8	10	95	32	27	1	100	5
RL121	2.5	35	266	115	65	7	73	5
RL122	2.7	44	180	25	61	6	75	15
RL123	.9	11	162	8	24	1	47	5
RL124	1.7	15	57	36	48	1	86	5
RL125	.8	10	51	45	33	1	76	5
RL126	.4	8	11	40	12	1	10	5
RL127	.7	4	55	11	16	1	119	5
RL128	1.7	31	139	55	77	1	85	5

COMPANY: MINNOVA INC.

PROJECT NO: 856

ATTENTION: I. PIRIE/G. EVANS

MIN-EM LABS 10F REPORT

705 WEST 15TH ST., NORTH WANDLER, S.C. V7M 1T2

604-957-5674 OR 604-999-4524

(401:F2b) PAGE 1 OF 1

FILE NO: 9/V/0461/R/L/004

\* TYPE ROCK BEGCHEN \* DATE: 06-16-1999

(VALUES IN %)	AL2O3	SiO2	CaO	Fe2O3	MgO	MnO2	Na2O	P2O5	SiO2	TiO2	S	
RL119	12.30	.011	13.93	11.11	1.57	1.57	.21	1.54	.14	40.73	1.00	.04
RL120	15.82	.105	4.72	3.62	3.29	1.77	.10	2.29	.01	62.52	.33	.03
RL121	12.02	.041	12.13	1.99	1.66	7.16	.19	2.60	.24	45.14	.69	.06
RL122	15.64	.037	4.24	3.07	1.97	2.46	.18	1.93	.29	47.21	.62	.02
RL123	15.91	.115	4.55	3.02	2.42	1.15	.09	3.55	.01	64.29	.28	.01
RL124	17.25	.05	.72	3.76	3.84	2.08	.23	4.42	.08	62.06	.41	.02
RL125	12.61	.111	.01	3.76	4.39	1.62	.19	2.12	.01	70.12	.30	.02
RL126	.81	.005	.01	.78	.14	.14	.05	.01	.01	95.83	.02	.01
RL127	17.56	.155	.01	4.96	7.59	.32	.05	4.62	.01	62.58	.16	.01
RL128	15.75	.054	.90	5.60	3.87	1.39	.17	6.43	.10	63.55	.42	.02

COMPANY: MINORVA INC.

MINORVA LABORATORY

PAGE: 1 OF 1

PROJECT NO: 856

700 WEST 10TH ST., MONTGOMERY, VICTORIA, B.C. V7M 1T2

FILE NO: 9/V/0461/R/L/004

ATTENTION: I. PIRIE/S. EVANS

(604)980-8818 OR (604)988-524

\* TYPE ROCK GEOCHEM \* DATE: 06-10-1989

(VALUES IN %) TO (%)

RL119	88.24
RL120	94.82
RL121	90.15
RL122	92.87
RL123	95.21
RL124	98.07
RL125	97.16
RL126	98.27
RL127	98.36
RL128	98.80



# MIN-EN LABORATORIES

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

## Assay Certificate

9V-0461-RA4

Company: MINNOVA INC.  
Project: 656  
Attn: I. PIRIE/G. EVANS

Date: JUN-16-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Assay of 10 ROCK samples  
submitted JUN-09-89 by K.LEE.

Sample Number	LOI %
RL119	10.55
RL120	4.30
RL121	9.10
RL122	5.95
RL123	3.80
RL124	1.15
RL125	1.90
RL126	0.75
RL127	0.75
RL128	0.50

Certified by

MIN-EN LABORATORIES





BY: MINNOVA INC.

MIN-EN LABS ICP REPORT

(ACT:F26) PAGE 1 OF 2

PROJECT NO: RICHTER 656

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0521/R/L/003

ATTENTION: I.PIRIE/G.EVANS

(604)980-5814 OR (604)988-4524

\* TYPE LITHO GEOCHEM \* DATE: 06-26-1989

(VALUES IN %)	AL2O3	BAT	CAO	FE2O3	K2O	MGO	MNO2	NA2O	P2O5	SIO2	TIO2	S
RL129	15.24	.025	10.97	9.26	1.15	6.11	.14	3.55	.17	49.05	2.02	.02
RL130	18.21	.095	5.08	6.54	1.96	2.22	.13	4.48	.16	56.92	.67	.35
RL131	7.14	.041	4.81	21.62	1.14	4.72	.30	.09	.16	53.42	.88	1.82
RL132	19.91	.237	.25	4.14	3.60	.84	.02	7.15	.16	60.52	.17	.14
RL133	6.36	.014	7.96	6.11	.66	2.64	.72	.69	.01	67.75	.62	.02
RL134	17.30	.053	.01	5.25	6.97	.21	.04	5.43	.01	61.97	.09	.03
RL135	16.26	.052	5.86	6.33	1.78	2.51	.16	3.42	.12	59.69	.52	.03
RL136	17.43	.076	1.29	3.62	3.85	.92	.09	2.71	.01	65.64	.34	.05
RL137	9.20	.062	2.95	4.69	1.88	1.94	.15	1.55	.01	74.20	.45	.19
RL138	18.55	.163	2.28	7.61	5.21	1.29	.17	5.24	.28	55.50	.59	.01
RL139	14.12	.013	4.06	9.38	.92	5.33	.31	4.36	.17	57.11	1.52	.08
RL140	15.96	.104	3.99	3.72	2.47	1.23	.10	4.33	.02	66.05	.38	.01
RL141	16.81	.077	1.90	6.24	3.03	2.50	.15	2.04	.06	62.39	.52	.07
RL142	17.23	.081	3.51	3.82	3.96	.99	.10	2.29	.01	63.40	.34	.04
RL143	16.78	.043	4.41	5.03	1.25	1.62	.14	3.99	.01	61.28	.38	.25
RL144	16.40	.053	4.17	4.48	1.34	1.42	.13	3.48	.04	64.21	.37	.02

LABORATORY: MINNOVA INC.

MIN-EN LABS ICP REPORT

(ACT:F26) PAGE 2 OF 2

PROJECT NO: RICHTER 656

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0521/R/L/003

ATTENTION: I.PIRIE/G.EVANS

(604)980-5814 OR (604)988-4524

\* TYPE LITHO GEOCHEM \* DATE: 06-26-1989

(VALUES IN %) TOT(%)

RL129 97.70

RL130 96.82

RL131 96.15

RL132 97.14

RL133 93.54

RL134 97.34

RL135 96.74

RL136 96.01

RL137 97.27

RL138 96.91

RL139 97.39

RL140 98.37

RL141 95.77

RL142 95.76

RL143 95.19

RL144 96.10



**MINERVA  
• ENVIRONMENTAL  
LABORATORIES**

**SPECIALISTS IN MINERAL ENVIRONMENTS**  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601087 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9998

Assay Certificate

9V-0521-RA1

Company: MINNOVA INC.  
Project: RICHTER 656  
Attn: I. PIRIE/G. EVANS

Date: JUN-26-89  
Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Assay of 16 ROCK samples submitted JUN-18-89 by W.HINDLEY.

Sample Number	LOI %
RL129	1.10
RL130	2.35
RL131	4.90
RL132	1.95
RL133	5.40
RL134	1.75
RL135	2.30
RL136	3.00
RL137	1.90
RL138	2.15
RL139	1.55
RL140	.75
RL141	3.20
RL142	3.60
RL143	3.95
RL144	2.95

Certified by   
MIN-EN LABORATORIES







**MIN-EN LABORATORIES**

SPECIALISTS IN MINERAL ENVIRONMENTS  
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

**TIMMINS OFFICE:**  
33 EAST IROQUOIS ROAD  
P.O. BOX 867  
TIMMINS, ONTARIO CANADA P4N 7G7  
TELEPHONE: (705) 264-9996

Assay Certificate

9V-0660-RA2

Company: MINNOVA INC.  
Project: 656  
Attn: I. PIRIE/N. GIBSON

Date: JUL-21-89

Copy 1. MINNOVA INC., VANCOUVER, B.C.  
2. MINNOVA INC., PENTICTON, B.C.

We hereby certify the following Assay of 16 ROCK samples  
submitted JUL-07-89 by N. GIBSON.

Sample Number	LOI %
RL145	4.45
RL146	4.00
RL147	5.50
RL148	4.90
RL149	6.10
RL150	2.25
RL151	.85
RL152	39.40
RL153	41.90
RL154	2.00
RL155	4.75
RL156	5.40
RL157	2.65
RL158	2.60
RL159	1.50
RL160	3.35

Certified by

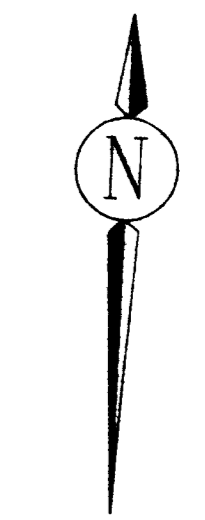
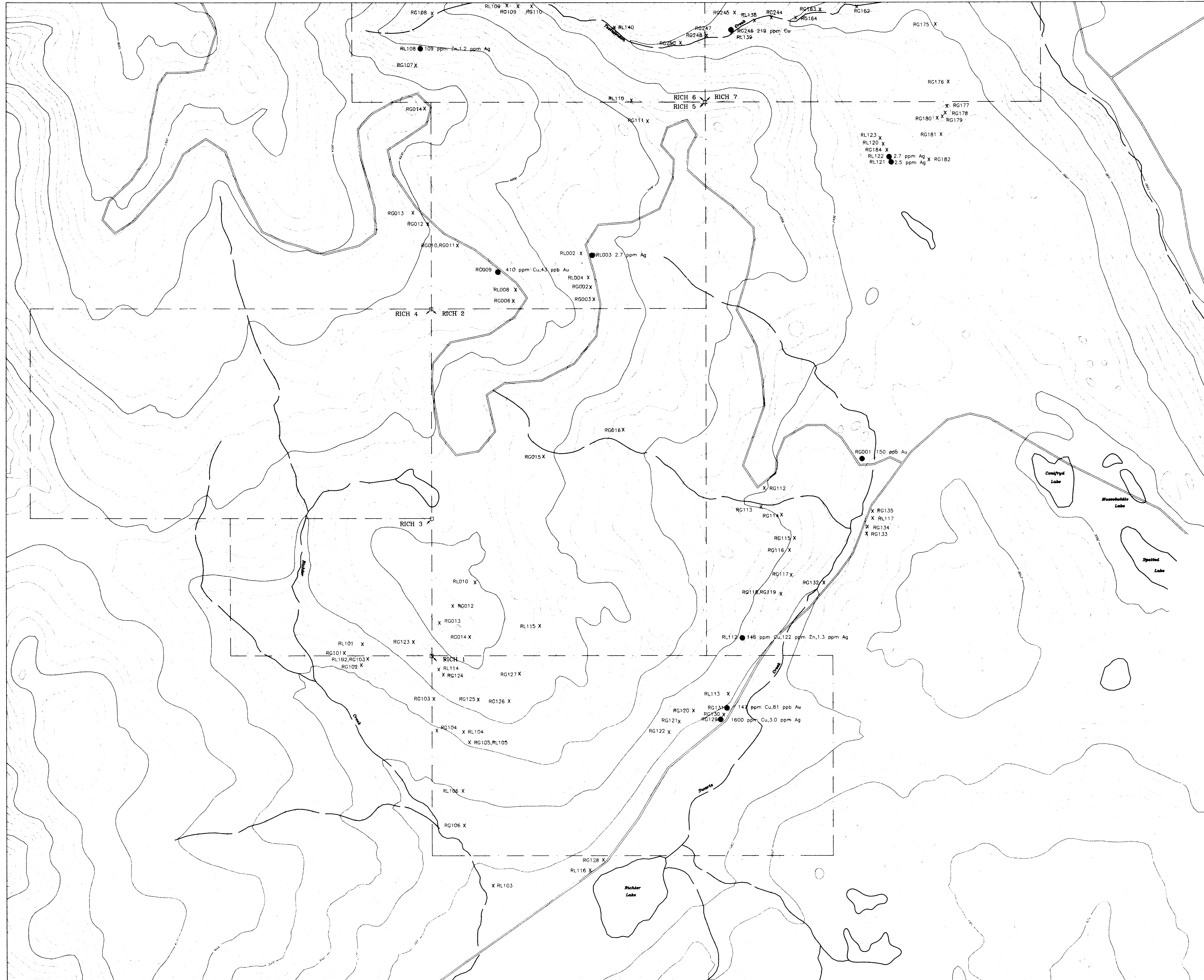
MIN-EN LABORATORIES

**APPENDIX III**  
**Analytical Procedures**

## ANALYTICAL PROCEDURES

Samples were shipped to Min-En laboratories in North Vancouver for preparation and analysis. Rock samples collected averaged 1 kg. Samples were analyzed for Cu, Pb, Zn, Ag, and Au through standard ICP methods with the exception of Au. Gold was analyzed by fire assay and atomic absorption.



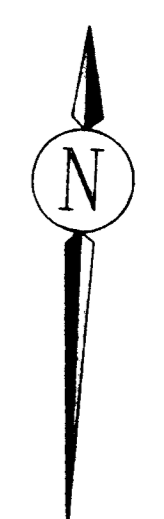
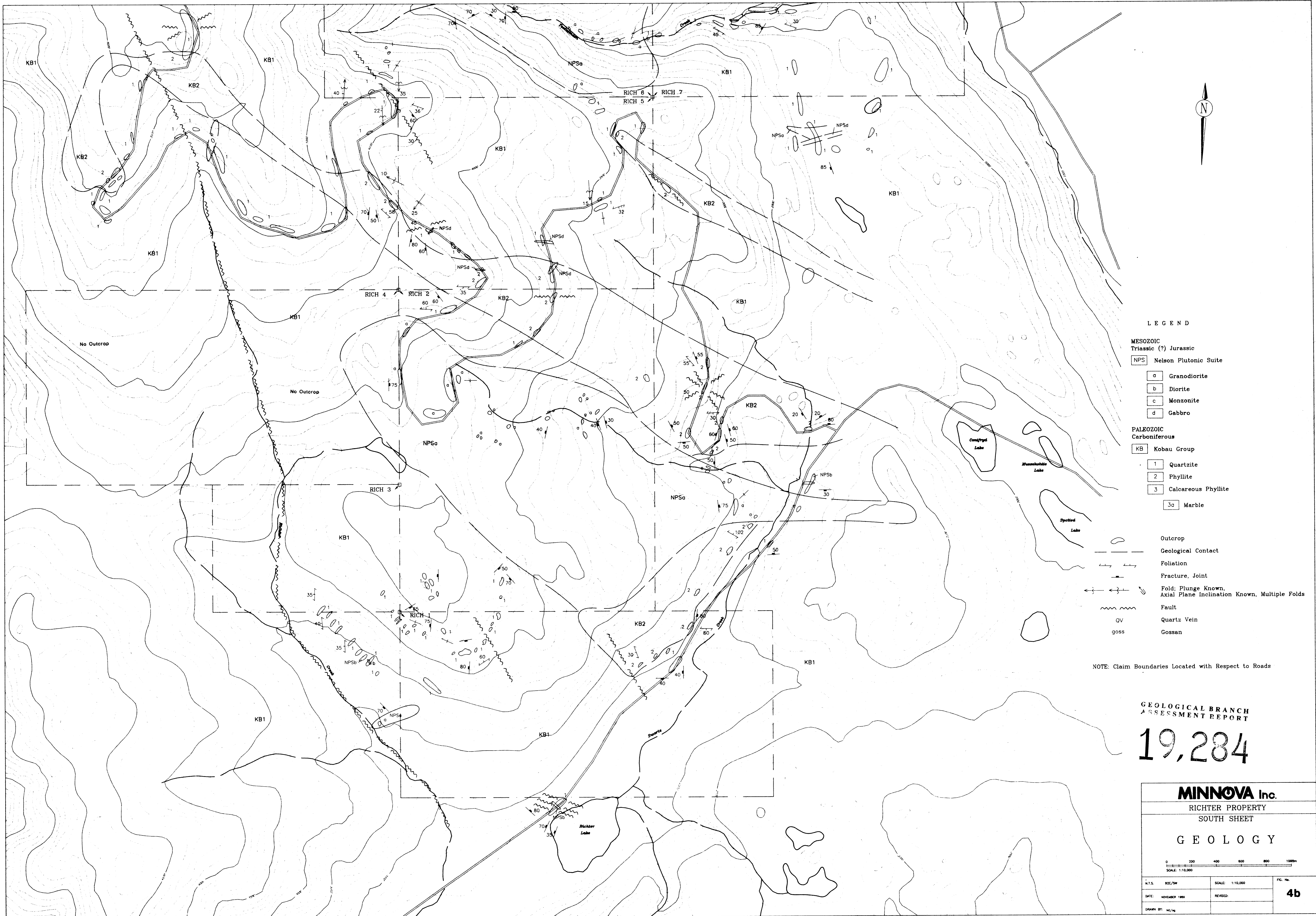


GEOLOGICAL BRANCH  
ASSESSMENT REPORT  
**19,284**

ANOMALOUS ROCK SAMPLE LOCATION ●  
ROCK SAMPLE LOCATION X

<b>MINNOVA Inc.</b>	
RICHTER PROPERTY	
SOUTH SHEET	
ROCK GEOCHEMISTRY	
SAMPLE LOCATIONS	
WITH ANOMALOUS RESULTS	
 SCALE: 1:10,000	
N.T.S. 926/2W	SCALE: 1:10,000
DATE: NOVEMBER 1989	REVISED:
DRAWN BY: NG/sg	FIG. No. <b>5b</b>





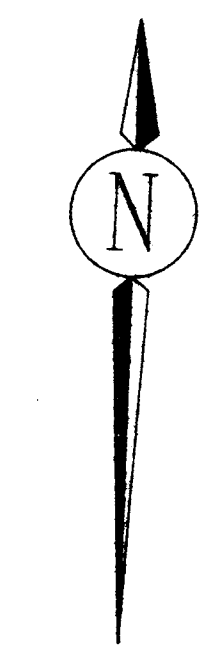
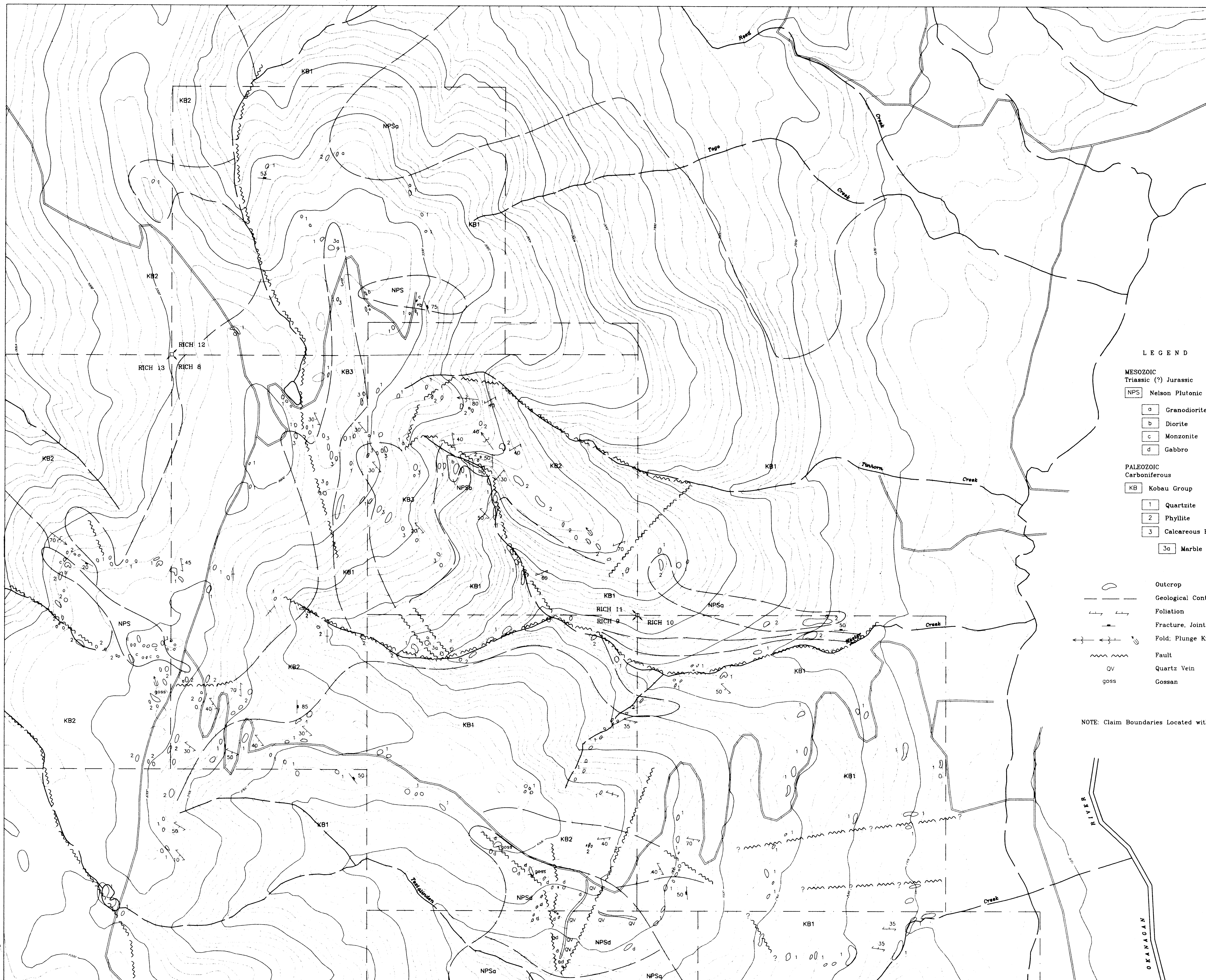
- LEGEND**
- MESOZOIC**  
Triassic (?) Jurassic
- NPS** Nelson Plutonic Suite
- a Granodiorite
  - b Diorite
  - c Monzonite
  - d Gabbro
- PALEOZOIC**  
Carboniferous
- KB** Kobau Group
- 1 Quartzite
  - 2 Phyllite
  - 3 Calcareous Phyllite
  - 3a Marble
- Outcrop
- Geological Contact
- ↔ Foliation
- Fracture, Joint
- ↔↔↔ Fold: Plunge Known, Axial Plane Inclination Known, Multiple Folds
- ~ Fault
- QV Quartz Vein
- goss Gossan

NOTE: Claim Boundaries Located with Respect to Roads

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**19,284**

<b>MINNOVA Inc.</b>		
RICHTER PROPERTY SOUTH SHEET		
<b>G E O L O G Y</b>		
0 200 400 600 800 1000m SCALE: 1:10,000		
N.T.S.	82E/5W	SCALE: 1:10,000
DATE: NOVEMBER 1988	REVISED:	FIG. No. <b>4b</b>
DRAWN BY: HG/AG		



**LEGEND**

- MESOZOIC**  
Triassic (?) Jurassic
- NPS Nelson Plutonic Suite
  - a Granodiorite
  - b Diorite
  - c Monzonite
  - d Gabbro
- PALEOZOIC**  
Carboniferous
- KB Kobau Group
  - 1 Quartzite
  - 2 Phyllite
  - 3 Calcareous Phyllite
  - 3a Marble

- Outcrop
- Geological Contact
- Foliation
- Fracture, Joint
- Fold; Plunge Known, Axial Plane Inclination Known; Multiple Folds
- Fault
- Quartz Vein
- Gossan

NOTE: Claim Boundaries Located with Respect to Roads

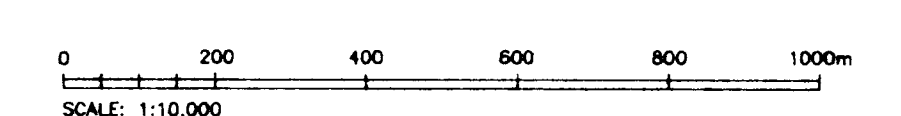
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**19,284**

**MINNOVA Inc.**

RICHTER PROPERTY  
NORTH SHEET

**G E O L O G Y**



N.T.S.	9/2/99	SCALE: 1:10,000	FIG. No.
DATE:	NOVEMBER 1999	REVISED:	<b>4a</b>
DRAWN BY:	HC/ky		