NTS 093L/10E TRIM 093L 057

## GROUSE MOUNTAIN JULIA VEIN PROJECT GEOCHEMICAL, GEOPHYSICAL REPORT

McQUARRIE LAKE, HOUSTON, B.C.

## OMENICA MINING DIVISION

## FOR

TORCH RIVER RESOURCES LTD., BANKERS HALL, WEST TOWER, SUITE 1000, 888-3 ${ }^{\text {rd }}$ Street SW, CALGARY, AB T2P 5C5

BY

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DEC 15, 2007
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### 1.0 SUMMARY

This report was prepared by Andris Kikauka, P.Geo. at the request of Torch River Resources Ltd to describe and evaluate the results of geological, geophysical and geochemical surveys carried out on mineral tenure ID \# 553762. The claim (and 4 additional perimeter claims) are registered $100 \%$ to FMC 143363 (William E. Pfaffenberger).

This report summarizes geological and geochemical fieldwork carried out on the Grouse Mtn/Julia Vein project (mineral tenure ID \# 553762) describing economically significant base and precious metal bearing mineral zones. The Grouse Mtn claims are located 20 km north-northwest of Houston, B.C (Fig. 1).

Access to the Grouse Mtn claims are via a 7.2 km 4WD forest access road (which crosses private land) from highway 16. Helicopter support is required for access to remote portions of the claim.

The claims are underlain by a complex of extrusive, intrusive, and sedimentary rocks. The intrusive rocks include Late Cretaceous Bulkley Intrusive Suite and Eocene Goosly monzodiorite to gabbro (Fig. 3 and 4). Intrusive rocks are spatially related to base and precious metal bearing mineralization located on the following occurrences: Grouse Mtn (Minfile 93L 251), Paola (Minfile 93L 296), and Christina (Minfile 93L 295).

Geological, geochemical and geophysical data compiled by the author has led to recommendations for work on the Grouse Mtn claims. A two phase program of geological mapping, geophysical and geochemical survey grids and follow-up core drilling is recommended. Proposed fieldwork within the Grouse Mtn claims, would be focused on exploring known and new mineral occurrences, as well as detailed ground investigation of geophysical and geochemical anomalies.

Phase 1 recommendations include geological mapping, geochemical rock chip sampling, EM and magnetometer geophysics with a proposed budget of $\$ 75,000$. The proposed fieldwork would involve approximately 7 kilometers of geophysical and geochemical grid lines across geochemical targets outlined. Contingent on results from phase 1, a second phase that includes $1,250 \mathrm{~m}$ of core drilling, geochemical sampling, and geological mapping is recommended. The estimated budget for phase 2 is $\$ 400,000$. The proposed budget total for phase 1 and 2 is $C \$ 475,000$.

### 2.0 INTRODUCTION

In June, 2007, Mr William E. Pfaffenberger requested the writer review all relevant information on the Grouse Mtn group of claims owned by Torch River Res Ltd. If appropriate, outline a program of surface exploration and diamond drilling to enhance development of $\mathrm{Ag}-\mathrm{Au}-\mathrm{Cu}-\mathrm{Pb}-\mathrm{Zn}$ bearing mineralization situated on the subject property. This report is based in part on previous work, carried out by various mining companies, the British Columbia Geological Survey, as well as the author's site visit that included geological mapping, geophysical surveys and geochemical sampling. This report is partly based on published and unpublished fieldwork reports carried out by various private sector mining company personnel and public sector government personnel.

### 3.0 RELIANCE ON OTHER EXPERTS

This report is based in part on documents and technical reports prepared by various authors. The portions of this report that give information gathered from various authors are referenced. The documents and technical reports from other authors were used to compile the Grouse Mtn property history.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

The Grouse Mtn group consists of contiguous mineral tenures that are located 20 km NNW of Houston, BC. The Grouse Mtn group of mineral tenures is within the Omenica Mining Division and the registered owner of the mineral tenures is FMC number 143363, William E. Pfaffenberger (president, Torch River Res Ltd).

The Grouse Mtn claim group is comprised of the following www.mtonline.gov.bc.ca mineral tenures (Fig. 2):

| CLAIM NAME* | HECTARES | TENURE NO. | EXPIRY DATE |
| :--- | :---: | :---: | :---: |
| Grouse Mtn 1 | 468.706 | 553762 | August 14, 2009* |
| Grouse Mtn 2 | 187.428 | 553764 | August 14, 2009* |
| Grouse Mtn 3 | 131.243 | 553767 | August 14, 2009* |
| Grouse Mtn 4 | 318.562 | 557529 | August 14, 2009* |
| Grouse Mtn 5 | 356.079 | 557530 | August 14, 2009* |

*Expiry date based on assessment work on mto tenure 553762 (work done June, 2007, Min of Energy and Mines, GSB event number 4182133).

The author is not aware of any planned or existing land use that would adversely affect development of mineral resources on the Grouse Mtn property. The mineral tenure area has not been subject to a legal survey.

### 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE \& PHYSIOGRAPHY

The property is located 2 km west of McQuarrie Lake about 20 kilometres northnorthwest of Houston, B.C (Fig. 1). Elevations on the claims range from $3,870-4,985$ feet ( $1,180-1,520 \mathrm{~m}$ ). The Grouse Mtn claim ID \# 553762 can be accessed via a 7.2 km 4 WD forest access road (which crosses private land) from highway 16. Alternate access to other portions of Grouse Mtn claim group is via helicopter.

There are moderate slopes (and rare steep slopes) throughout the Grouse Mtn claims and the road access follows a ridge where slopes are $<20$ percent grade, except where the Julia Vein adit is located next to the road where short ( $<50 \mathrm{~m}$ ) sections exceed 20 percent grade

The town of Houston is approximately 45 minutes driving time to the Grouse Mtn claim (located 2 km west of McQuarrie Lake). The community of Houston has over 500 permanent residents that include a small percentage of people actively involved in mining and exploration. A variety of services are available in Houston, that include health, emergency, aircraft, mechanical, equipment, lumber, transportation, and retail stores. Additional services are available in Smithers, B.C. Westland Helicopters and Highland Helicopters operate charter flights from their base in Houston, BC.

### 6.0 PROPERTY HISTORY

The Grouse Mtn claim group has been intermittently explored for mineral resources over the past 50 years. Recorded exploration in the Grouse Mountain area began in 1914 with discovery of copper-zinc-silver mineralization near Coppermine Lake, where work on the Ruby Zone included 1,100 meters of crosscutting and 18,000 meters of core drilling (1980's). Historic resource estimates on the Ruby prospect include 360,000 tonnes @ $0.38 \% \mathrm{Cu}, 4.23 \% \mathrm{Zn}$, 0.88 opt Ag. The Ruby Zone mineral resource is located about 1 kilometre south of mineral tenure ID \# 553762.

A chronological summary of previous work on the Grouse Mtn claim group (carried out on mineral tenure ID \# 553762) is summarized as follows:
The first recorded work on the Grouse Mtn vein system (also referred to as Gwenda, Cornucopia, Chance, Julia Veins) was in 1938 and 1940 when 2.72 tonnes of ore produced 12,548 grams silver and 85.3 kgs copper (Source: MINFILE). In 1952, the owners of the claim performed hand trenching, stripping and excavation of a 15 metre long adit. Grades up to 312 opt Ag, 0.33 opt Au and $4.0 \%$ Cu were recorded. From 1964 to 1970, additional trenching and road development was carried out. In 1984, Adriatic Resources carried out 26 diamond drill holes, (total depth of 1,170 metres or 3,838 feet), geological
mapping, geochemical soil surveys, and geophysical VLF-EM surveys (Cavey, 1990). Significant assay results from 1984 core drilling on the Julia, Gwenda, and Christina Vein systems are summarized as follows (Cavey, 1990):

| Hole <br> no. | From <br> $(\mathrm{m})$ | To <br> $(\mathrm{m})$ | Interval <br> $(\mathrm{m})$ | \% Cu | Ag opt | Au opt | \% Pb | \% Zn | Zone <br> name |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $84-2$ | 16.69 | 16.76 | 0.07 | 0.24 | 7.03 | 0.006 |  |  | Julia |
| $84-2$ | 21.91 | 21.98 | 0.07 | 0.13 | 6.64 | 0.009 |  |  | Julia |
| $84-2$ | 28.94 | 29.45 | 0.51 | 2.30 | 55.72 | 0.135 |  |  | Julia |
| $84-4$ | 23.38 | 23.59 | 0.21 | 1.04 | 48.46 | 0.045 | 0.02 | 0.81 | Julia |
| $84-4$ | 42.61 | 42.88 | 0.27 | 0.62 | 44.94 | 0.059 | 6.87 | 8.57 | Julia |
| $84-5$ | 15.91 | 16.21 | 0.30 | 0.41 | 23.03 | 0.014 | 0.47 | 0.60 | Julia |
| $84-26$ | 5.24 | 6.00 | 0.76 | 0.32 | 13.83 | 0.023 | 0.08 | 0.67 | Julia |
| $84-26$ | 6.80 | 7.47 | 0.67 | 0.34 | 12.24 | 0.011 | 0.01 | 0.08 | Julia |
| $84-26$ | 10.00 | 10.58 | 0.58 | 0.55 | 30.10 | 0.031 | 3.26 | 3.65 | Julia |

The results indicate relatively higher grades of silver bearing mineralization are associated with relatively higher $\mathrm{Cu}-\mathrm{Pb}-\mathrm{Zn}$ values. Relatively higher gold values have a positive correlation with increased copper percentage. Due to a lack of 3D data and understanding of the distribution of mineralization, it is not known whether these intervals represent true width. Work done by Adriatic Resources in 1984 indicates the presence of variable and relatively narrow drill intercept intervals ( $0.07-0.76 \mathrm{~m}$ ) of elevated silver values and lesser gold associated with copper-zinc bearing minerals over a vertical distance of less than 30 metres and strike length of less than 200 metres on the Julia (aka Last Chance) quartzsulphide fissure vein occurrence.

In 2005, Valley Resources Ltd carried out trenching and excavated a total of 8 trenches, 140 metres in length (Hanson, 2005). Trenches were mapped and grab samples were collected from mineralized intervals. Fourteen rock chip samples were collected and submitted to Acme Analytical, Vancouver, BC for base and precious metal geochemical analysis.

### 7.0 GEOLOGICAL SETTING

The property is underlain mainly by andesitic (calc-alkaline) tuffs/flows, volcanic breccia, minor siltstone, greywacke, and volcaniclastic rocks of Lower Jurassic Hazelton Group Telkwa Formation. In the Grouse Mountain area, the Hazelton Group has been intruded by Upper Cretaceous and/or Eocene stocks and northnorthwest trending dykes that include feldspar porphyry, feldspar-biotite porphyry, and fine-grained mafic lithologies (Fig. 3 and 4). The feldspar porphyries which occur west of Grouse Mountain have similar mineralogy to the Eocene intrusions found at the Equity Silver Mine (located approximately 50 kilometres southeast of Grouse Mountain). The main lithologies that have been mapped within 1 kilometre radius from the Julia Vein are summarized as follows:

Eocene Goosly Intrusive Complex
Monzodioritic to gabbroic dykes/sills
Late Cretaceous Bulkley Intrusive Complex calc-alkaline intermediate composition dykes/sills

Lower Jurassic Hazelton Group Telkwa Formation: andesitic (calc-alkaline) tuffs/flows, volcanic breccia, minor siltstone, greywacke, and volcaniclastic rocks

Epigenetic quartz-carbonate-polymetallic sulphide minerals (pyrite-chalcopyrite-sphalerite-galena-tetrahedrite) occur as vein/shear zones trending $\mathbf{N}$ to NE and dipping moderately west.

### 8.0 DEPOSIT TYPES

Exploration on the Grouse Mtn group of claims is directed towards precious and base metal bearing zones. The main deposit type on the subject property consists of epigenetic, hydrothermal quartz-sulphide fissure vein/replacement systems.

### 9.0 MINERALIZATION

Within the Grouse Mtn group of claims, there are quartz-carbonate-sulphide vein and/or replacement deposit types:

| Deposit Type | Au:Ag Ratio | Ore Minerals | Gangue Minerals | Textures | Alteration | Structure | Age |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Au-Ag Base <br> Metal <br> Veins, Polymetallic | $\begin{aligned} & >1: 126 \\ & <1: 1163 \end{aligned}$ | Pyrite, Chalcopyrite, Sphalerite Tetrahedrite, Galena, | K-feldspar, chlorite, calcite, epidote, kaolinite, sericite | Quartzcalcite intergrowths, comb structure, Colloform, vuggy, cockade | Pyrite, chlorite, silica, sericite, carbonate | Vein stockwork, breccia veins, dyke margin disseminated | Early Cretaceous, Eocene |

### 10.0 EXPLORATION

Grouse Mountain/Julia Vein June, 2007 fieldwork summary:
A 400 meter long by 250 meter wide area was surveyed by east-west oriented grid lines spaced at 50 meters apart. The 400 meter long north-south oriented baseline was thinned, brushed and marked with orange flagging. The 2007 grid focused on the main area of previous mining of the Julia Vein (1938 and 1940 2.72 tonnes of ore produced 12,548 grams silver and 85.3 kgs copper (Source: MINFILE), trenching and drilling (carried out by Adriatic Resources, 1984). The 2007 grid consists of 8 east-west lines with a total of 77 soil samples taken at 25 meter spacing along 1.725 kilometers of grid lines. The soil samples were taken from a depth of 20-35 centimeters using a grubhoe and placed into marked kraft envelopes. The grid lines were also surveyed with a GEM -GSM 19 proton magnetometer, with mobile readings taken at 12.5 meter spacing along 2 kilometers of east-west oriented grid lines (L 4750 N to L 5100 N ). A total of 3 rock chip samples were taken from widths ranging from 0.2 to 0.3 m .
Approximately 2 kilograms of rock chips were collected from previously trenched exposures of the Julia quartz-sulphide vein system. The rock chips were placed in marked poly ore bags and all samples were shipped to Pioneer Labs, Richmond, BC for 30 element ICP geochemical analysis, Au geochemical analysis, and whole rock geochemical analysis. A total of 156 magnetometer readings were taken at 12.5 m interval along E-W oriented grid tie-lines covering a total distance of 1.8 kilometres. The magnetometer survey was carried out to attempt to detect the presence of intrusive rock high in magnetite content (mag high) and to locate altered and silicified rock (mag low). Results from the mag survey shows a variation of 422 nT (ranging from 56390 to 56812 ), which occurs at the west end of L4850 N ( $\operatorname{stn} 4887 \mathrm{E}$ to 4912 E ), suggesting there may be intrusive rocks with high magnetite content in this area (Fig. 5). There is a very weak 20-30 nT response over the Julia Vein area suggesting that alteration has destroyed magnetic minerals adjacent to the Julia Vein. Two other moderate strength (100-200 nT) positive magnetic anomalies occur (L $4800 \mathrm{~N} \operatorname{stn} 4937 \mathrm{E}$, and L $5000 \mathrm{~N}, \operatorname{stn} 4912 \mathrm{E}$ ), which may also be explained by the presence of magnetic minerals and related intrusive rocks. Areas of known mineralization in the area of the Julia Vein form a poorly defined, weak strength (20-30 nT) magnetic low (Fig. 5).

### 11.0 DRILLING

In 1984, Adriatic Resources carried out 26 diamond drill holes, (total depth of 1,170 metres or 3,838 feet), geological mapping, geochemical soil surveys, and geophysical VLF-EM surveys (Cavey, 1990). Significant assay results from 1984 core drilling on the Julia, Gwenda, and Christina Vein systems are summarized as follows (Cavey, 1990):

| Hole <br> no. | From <br> $(\mathrm{m})$ | To <br> $(\mathrm{m})$ | Interval <br> $(\mathrm{m})$ | \% Cu | Ag opt | Au opt | \% Pb | \% Zn | Zone <br> name |
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| $84-2$ | 16.69 | 16.76 | 0.07 | 0.24 | 7.03 | 0.006 |  |  | Julia |
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| $84-4$ | 23.38 | 23.59 | 0.21 | 1.04 | 48.46 | 0.045 | 0.02 | 0.81 | Julia |
| $84-4$ | 42.61 | 42.88 | 0.27 | 0.62 | 44.94 | 0.059 | 6.87 | 8.57 | Julia |
| $84-5$ | 15.91 | 16.21 | 0.30 | 0.41 | 23.03 | 0.014 | 0.47 | 0.60 | Julia |
| $84-26$ | 5.24 | 6.00 | 0.76 | 0.32 | 13.83 | 0.023 | 0.08 | 0.67 | Julia |
| $84-26$ | 6.80 | 7.47 | 0.67 | 0.34 | 12.24 | 0.011 | 0.01 | 0.08 | Julia |
| $84-26$ | 10.00 | 10.58 | 0.58 | 0.55 | 30.10 | 0.031 | 3.26 | 3.65 | Julia |

The results indicate relatively higher grades of silver bearing mineralization are associated with polymetallic base metal values. Gold values obtained from 1984 drill core samples show a correlation with increased copper percentage.

### 12.0 SAMPLING METHOD AND APPROACH

Torch River Res 2007 grid consists of 8 east-west lines that were surveyed with Garmin 60Cx GPS and flagged at 25 m intervals. A total of 77 soil samples taken at 25 meter spacing along 1.725 kilometers of grid lines (Fig. 4). The soil samples were taken from a depth of 20-35 centimeters using a grubhoe and placed into marked kraft envelopes. The grid lines were also walked with a GEM -GSM 19 proton magnetometer. A total of 156 mobile readings were taken at 12.5 meter spacing along 2 kilometers of east-west oriented grid lines (L 4750 N to L 5100 N ). The survey was carried out during 0900 to 1300 hours on June 27, 2007 which was checked for magnetic activity by checking NRC magnetic readout for their base stations throughout Canada for the day of the Grouse Mtn magnetic survey. The total field magnetic data from the Grouse Mountain was manually corrected by looping (returning to a common point on the baseline and doing a repeat reading and adjusting the readings manually to compensate for minor diurnal variation.

A total of 3 rock chip samples were taken from widths ranging from 0.2 to 0.3 m . Approximately 2 kilograms of rock chips were collected from previously trenched exposures of the Julia quartz-sulphide vein system. The rock chips were placed in marked poly ore bags and all samples were shipped to Pioneer Labs, Richmond, BC for 30 element ICP geochemical analysis, Au geochemical analysis, and whole rock geochemical analysis.

### 13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sampling and assay data from 2007 was carried out using relevant and reliable methods. The samples were prepared using standard analytical procedures by Pioneer Labs, Richmond, B.C. This includes crushing the rock chip samples, and passing through -10 mesh, and splitting 250 grams and pulverizing and passing -150 mesh. Multi-element ICP analysis was done on all samples which involves taking 0.5 grams sample and digesting with 3 ml of aqua regia, diluted with 10 ml water. Gold analysis was done separately on all samples taking 10 grams and digesting with aqua regia, MIBK extracted, and finished by AA or graphite furnace AA.

### 14.0 DATA VERIFICATION

Pioneer Labs performs internal quality control by performing routine check analysis on random samples to verify data. The results of geochemical surveys performed are intended to be an exploration guide and do not constitute mineral resource or reserve studies involving geo-statistical evaluation.

### 15.0 ADJACENT PROPERTIES

The well mineralized Babine Eocene age and Bulkley Cretaceous age belt of intrusive rocks extend for 50 km north and south of Houston, BC. Exploration and development of mineral deposits in the Houston area include Lakeview, Fireweed, CR and Poplar occurrences that contain various base and precious metal bearing minerals.

### 16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Grouse Mountain group of claims has had limited past production (in 1938 and 1940 when 2.72 tonnes of ore produced 12,548 grams silver and 85.3 kgs copper Source: MINFILE). This work on the Julia Vein is poorly documented, and there has been no metallurgical testing of mineralization.

### 17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The Grouse Mountain group of claims does not have any established mineral resource or mineral reserve estimate.

### 18.0 OTHER RELEVANT DATA AND INFORMATION

The Grouse Mtn group of claims has an abandon cabin (circa 1938-40) situated about 150 m north of the Julia Vein adit.

### 19.0 INTERPRETATIONS AND CONCLUSIONS

A compilation of geological, geochemical and geophysical data indicates there are several areas of interest for follow-up mineral exploration fieldwork on the subject property. The area west of McQuarrie Lake has numerous quartzsulphide vein occurrences. At the Julia Vein, the better mineralized zones are developed along brittle-ductile fault zones that generate quartz-carbonate veins related to fractures (conjugate shear fractures) that generally occur within a shear zone and/or fault structure. Results from 2007 soil sampling program show a relatively strong silver anomaly ( $>5 \mathrm{ppm} \mathrm{Ag}$ ) immediately adjacent to the Julia Vein near the adit and two trenches located $50-100 \mathrm{~m} \mathrm{SSW}$ of and 50-100 m N of the adit (Fig. 4). Soil in these areas of $>5 \mathrm{ppm} \mathrm{Ag}$ contain above average $\mathrm{Cu}-\mathrm{Au}-\mathrm{Zn}$ values. Relatively moderate-strength and more wide-spread silver in soil anomalies ( $1-5 \mathrm{ppm} \mathrm{Ag}$ ) are located in the NE portion of the grid area. Total field magnetometer positive anomalies did not correlate with silver in soil anomalies (Fig. 5). The strongest magnetometer positive anomalies were located in the southwest portion of the grid area which is close to a large NW trending Eocene Goosly dyke that appears as a regional scale total field moderate strength magnetic high (GSC Map 7760G, Airborne Magnetic Survey, 1968). The silver in soil anomalies correlated with a weak and poorly defined total field magnetic low located in the centre and east portions of the grid area.

### 20.0 RECOMMENDATIONS

Intrusion-related $\mathrm{Ag}-\mathrm{Au}-\mathrm{Cu}-\mathrm{Zn}$ bearing quartz-sulphide fissure veins occur in the area of the Grouse Mtn 1-5 claims. Geological, geochemical and geophysical fieldwork focused on outlining the presence of base and precious metal bearing quartz-sulphide veins on the Grouse Mtn claim group is recommended.

In order to advance exploration on the Grouse Mtn property, a 2 phase fieldwork program focused on exploring known mineral occurrences, geophysical and geochemical anomalies. As well as follow up work on known mineral occurrences, a program of mapping and sampling is recommended. The economic viability of the mineralization situated on the Grouse Mtn claims should be evaluated. Based on the potential for discovery of base and precious metal bearing mineralization, a 2 phase program of core drilling, geological mapping, DEEP-EM (Pulse-EM or UTEM) and magnetometer geophysics, and geochemical sampling is recommended.

## PHASE 1

Detailed geological mapping and geochemical soil and rock chip sampling is recommended. Magnetometer geophysics covering about 6 km of grid lines is also recommended. The approximate budget for this work would be $\mathbf{C} \$ 75,000$.

PHASE 2
Contingent on the results of phase 1 , diamond drilling is recommended. The total diamond drilling in phase 2 would amount to 2,000 meters ( 6,096 feet). Additional geological mapping and sampling is also recommended. The proposed budget for phase 2 is approximately $\mathrm{C} \$ 400,000$.

PROPOSED BUDGET
PHASE 1

| Item | Description | Amount (Cdn\$) |
| :---: | :---: | :---: |
| Personnel: <br> Geologist <br> Field Assistant | 25 days $X \$ 300 /$ day <br> 25 days $\times \$ 250 /$ day | $\begin{aligned} & 7,500 \\ & 6,250 \end{aligned}$ |
| Camp costs <br> Satellite phone <br> Equipment (generators, saws, etc.) | 25 days $X \$ 100 /$ day <br> 1 month X \$1,000/month | $\begin{array}{r} 2,500 \\ 1,000 \\ 500 \end{array}$ |
| Expenses <br> Food <br> Fuel <br> Travel | 175 man-days X \$20/man/day | $\begin{aligned} & 3,500 \\ & 1,750 \\ & 2,000 \end{aligned}$ |
| Transportation Survey costs | Helicopter charters 7 km grid lines | $\begin{aligned} & 14,500 \\ & 25,000 \end{aligned}$ |
| Analytical soil and rock samples | 500 samples $X$ \$25/sample | 6,200 |
| Communication <br> Telephone and Fax |  | 800 |
| Report and drafting |  | 2,500 |
| Filing Fees |  | 1,000 |
| Total |  | 75,000 |

TOTAL PHASE $1=\$ 75,000$

Contingent on the results of phase 1, a second phase of fieldwork including 2,000 meters of core drilling is recommended and outlined as follows:

PROPOSED BUDGET- PHASE 2

| Item | Description | Amount (Cdn\$) |
| :---: | :---: | :---: |
| Personnel: <br> Geologist Field Assistant Cook | 50 days $X \$ 300 /$ day <br> 50 days $X \$ 250 /$ day <br> 50 days $X$ \$175/day | $\begin{array}{r} 15,000 \\ 12,500 \\ 8,750 \end{array}$ |
| Camp costs Satellite phone Equipment (generators, saws) | 50 days $X \$ 100 /$ day 2 months $X \$ 1,000 /$ month | $\begin{aligned} & 5,000 \\ & 2,000 \\ & 1,550 \end{aligned}$ |
| Drilling | 2,000 meters (6,562 ft) | 270,000 |
| Expenses <br> Food <br> Fuel <br> Travel | 350 man-days X \$20/man/day | $\begin{aligned} & 7,000 \\ & 4,200 \\ & 4,000 \end{aligned}$ |
| Transportation |  | 49,000 |
| Analytical <br> Core and rock samples | 500 samples X \$25/sample | 12,500 |
| Communication <br> Telephone and Fax |  | 1,600 |
| Report and drafting |  | 4,000 |
| Filing Fees |  | 2,900 |
| Total |  | \$ 400,000 |

TOTAL PHASE 1 \& $2=\mathbf{4 7 5 , 0 0 0}$

### 21.0 REFERENCES

Cavey, George, 1990, Report on the AIC International Res Corp Chance Property

EMPR AR 1925-pg 141, 1926-pg 135, 1928-pg 169, 1929-pg 169, 1937-C11 EMPR GEM 1970-pg 158, 1972-pg 397-417
EMPR Assessment report $10,182,12,374,12,364,13,364,13,720,14,256,20,665$, 21,880
EMPR Fieldwork 1988, pg 195-208
GSC Map 7760G, 1968, Airborne Magnetic Survey, Smithers 93L, 1"=4 miles
Hanson, Daryl J., 2005, Geological Report Grouse Mtn (Julia) Property, Omenica Mining Division, for Valley Resources Ltd.

### 22.0 DATE AND SIGNATURE PAGE

I, Andris Kikauka, of 4901 East Sooke Rd., Sooke B.C. V0S 1NO am a self employed professional geoscientist. I hereby certify that;

1. I am a graduate of Brock University, St. Catharines, Ont., with an Honours Bachelor of Science Degree in Geological Sciences, 1980.
2. I am a Fellow in good standing with the Geological Association of Canada.
3. I am registered in the Province of British Columbia as a Professional Geoscientist.
4. I have practiced my profession for twenty years in precious and base metal exploration in the Cordillera of Western Canada, U.S.A., South America, and for three years in uranium exploration in the Canadian Shield.
5. I am responsible for the technical report on behalf of Torch River Resources Ltd.
6. The information, opinions, and recommendations in all sections of this technical report are based on fieldwork carried out on the subject properties as well as historic data from various referenced sources.
7. I am not aware of any material fact or material change with respect to the subject matter in this technical report that is not reflected in this report or omissions that render the report to be misleading.
8. I am employed as an independent consultant. This report is intended to satisfy the requirements of the Mineral Act with respect to filing assessment work.

Andris Kikauka, P. Geo.,


Dated Dec 15, 2007 at Sooke, B.C.


## ITEMIZED COST STATEMENT-

GROUSE MTN/JULIA VEIN PROJECT- GEOCHEMICAL ANALYSIS ANDGEOPHYSICAL MAGNETOMETER SURVEY FIELDWORK DURING JUNE 24-28,2007 ON MINERAL TENURE 553762
TRIM 093L 057, OMENICA MINING DIVISION
FIELD CREW:
Andris Kikauka (Geologist) 5 Days ..... \$ 1,855.00 FIELD COST:
Mob and Demob ..... 210.00
Equipment and Supplies ..... 90.00
Magnetometer Survey ( 139 readings, 1.8 km line grid) ..... 450.00
Geochemical analysis 77 soil, 3 rock ICP 30 element, Au geochem ..... 1,680.00
Helicopter charter ( 1.2 hours) ..... 1,382.00
Food \& Accommodation ..... 436.62
Report ..... 600.00
Total amount $=\$ 6,703.62$


## Exploratıon ,.ssistant




| sample no | easting | northing | elevation | strike | dip | grid northing | grid easting | $\mathrm{g} / \mathrm{t} \mathrm{Ag}$ | $\mathrm{g} / \mathrm{t} \mathrm{Au}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GM-07-AR-1 | 646002 | 6050037 | 1392 m |  | 3680 SE | 4800 | 4975 | 29 | 0.11 |
| GMi-07-AR-2 | 646023 | 6050077 | 1400 m |  | 3282 SE | 4836 | 4995 | 4.8 | 0.04 |
| GM-07-AR-3 | 646032 | 6050122 | 1394 M |  | 2085 SE | 4895 | 5020 | 93.1 | 0.08 |

PIONEER LABORATORIES INC. APPENDIXA TORCH RIVER RESOURCES LTD. Project: Grouse/Julia
Sample Type: Soils/Rocks

GEOCHEMICALANALYSIS CERTIFICATE Multi-element ICP Analysis - . 500 gram sample is digested with 3 ml of aqua regia, diluted to 10 ml with water. This leach is partial for $\mathrm{Mn}, \mathrm{Fe}, \mathrm{Ca}, \mathrm{P}, \mathrm{La}, \mathrm{Cr}, \mathrm{Mg}$, Ba, $\mathrm{Ti}, \mathrm{B}, \mathrm{W}$ and limited for $\mathrm{Na}, \mathrm{K}$ and Al . Detection Limit for Au is 3 ppm. *Au Analysis- 10 gram sample is digested with aqua regia, MIBK extracted, and is finished by $A A$ or graphite furnace $A A$.

| ELEMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Mg |  |  |  | Al | Na | K | W | Au* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAMPLE | ppm | ppm | ppm | ppm | ppm | ppm |  | ppm | \% | ppm | ppm |  | ppm | ppm | PPTI | ppm pp |  | ppm | \% |  |  | ppm | \% | ppm |  | ppm | \% | \% | \% | ppm | ppb |
| L4750N 4875E | 2 | 33 | 32 | 268 | 1.6 | 15 | 11 | 2556 | 4.70 | 31 | 8 | ND | 2 | 14 | 1.2 | 10 | 3 | 76 | . 15 | . 180 | 7 | 22 | . 33 | 185 | . 02 | 20 | 2.20 | . 01 | . 05 | 2 | 1 |
| L4T3ON 4900E | 1 | 19 | 18 | 183 | . 9 | 19 | 8 | 426 | 4.72 | 20 | 9 | ND | 2 | 11 | . 6 | 3 | 3 | 81 | . 14 | . 085 | 6 | 24 | . 52 | 124 | . 02 | 20 | 2.40 | . 01 | . 05 | 2 | 4 |
| L4T30N 4925E | 1 | 26 | 20 | 176 | . 4 | 16 | 9 | 470 | 5.12 | 34 | 8 | ND | 2 | 8 | . 5 | 3 | 3 | 73 | . 05 | . 080 | 5 | 24 | . 61 | 97 | . 01 | 20 | 2.45 | . 01 | . 03 | 2 | 1 |
| L4750N 4950E | 2 | 22 | 22 | 212 | . 5 | 24 | 11 | 1119 | 3.63 | 49 | 8 | ND | 2 | 18 | . 8 | 4 | 3 | 58 | . 35 | . 061 | 7 | 29 | . 65 | 147 | . 01 | 20 | 1.95 | . 01 | . 04 | 2 | 1 |
| L4750N 4973E | 2 | 63 | 24 | 198 | 1.8 | 23 | 9 | 1222 | 3.38 | 38 | 8 | ND | 2 | 46 | 2.2 | 5 | 3 | 50 | 1.34 | . 146 | 21 | 28 | . 57 | 234 | . 01 | 20 | 2.35 | . 01 | . 06 | 2 | 1 |
| L4750N 5000E | 2 | 16 | 22 | 168 | . 3 | 11 | 12 | 2187 | 3.38 | 19 | 8 | ND | 2 | 19 | 1.8 | 3 | 3 | 69 | . 33 | . 057 | 6 | 20 | . 33 | 192 | . 01 | 20 | 1.62 | . 01 | . 06 | 2 | 3 |
| L4750N 5025E | 1 | 16 | 24 | 144 | . 3 | 15 | 10 | 577 | 3.31 | 24 | 8 | ND | 2 | 17 | . 5 | 3 | 3 | 56 | . 28 | . 025 | 6 | 21 | . 55 | 149 | . 01 | 20 | 1.84 | . 01 | . 04 | 2 | 2 |
| L4TSON 5050e | 1 | 9 | 17 | 50 | . 3 | 6 | 3 | 153 | 2.94 | 13 | 8 | ND | 2 | 8 | . 5 | 3 | 3 | 69 | . 07 | . 051 | 5 | 14 | . 15 | 73 | . 01 | 20 | 1.28 | . 01 | . 02 | 2 | 4 |
| L4750N 5073E | 1 | 14 | 20 | 143 | . 3 | 12 | 6 | 297 | 3.55 | 12 | 8 | ND | 2 | 12 | . 5 | 3 | 3 | 64 | . 24 | . 037 | 4 | 17 | . 39 | 115 | . 01 | 20 | 1.66 | . 01 | . 03 | 2 | 1 |
| L4750N 5100E | 2 | 32 | 33 | 237 | . 3 | 15 | 16 | 5941 | 4.41 | 17 | 8 | ND | 2 | 18 | 1.2 | 9 | 3 | 70 | . 44 | . 107 | 9 | 24 | . 45 | 332 | . 01 | 20 | 2.52 | . 01 | . 08 | 2 | 1 |
| L4800N 4875E | 2 | 19 | 19 | 119 | . 3 | 13 | 7 | 377 | 3.66 | 16 | 8 | ND | 2 | 20 | . 6 | 3 | 3 | 70 | . 31 | . 038 | 8 | 19 | . 45 | 178 | . 01 | 20 | 1.99 | . 01 | . 03 | 2 | 1 |
| L4800N 4900E | 1 | 8 | 20 | 24 | . 4 | 6 | 2 | 161 | 1.55 | 6 | 8 | ND | 2 | 17 | . 5 | 3 | 3 | 61 | . 18 | . 036 | 3 | 20 | . 23 | 60 | . 06 | 20 | 1.21 | . 01 | . 04 | 2 | 1 |
| L4800N 4925E | 1 | 10 | 15 | 74 | . 3 | 7 | 4 | 777 | 2.58 | 11 | 8 | ND | 2 | 10 | . 5 | 3 | 3 | 53 | . 15 | . 043 | 4 | 12 | . 26 | 126 | . 01 | 20 | 1.13 | . 01 | . 04 | 2 | 1 |
| L4800N 4950E | 1 | 40 | 23 | 272 | . 7 | 17 | 12 | 3940 | 3.92 | 18 | 8 | ND | 2 | 35 | 1.8 | 16 | 3 | 61 | . 75 | . 110 | 11 | 24 | . 52 | 361 | . 01 | 20 | 2.46 | . 01 | . 07 | 2 | 1 |
| L4800N 4973E | 1 | 169 | 31 | 312 | 32.4 | 22 | 16 | 1573 | 4.37 | 47 | 8 | ND | 2 | 15 | 1.5 | 29 | 3 | 64 | . 23 | . 062 | 9 | 25 | . 73 | 162 | . 02 | 20 | 2.22 | . 01 | . 05 | 2 | 145 |
| L4800N 5000E | 1 | 12 | 15 | 81 | . 5 | 8 | 5 | 255 | 3.74 | 13 | 8 | ND | 2 | 13 | . 5 | 3 | 3 | 75 | . 14 | . 051 | 4 | 15 | . 29 | 93 | . 02 | 20 | 1.34 | . 01 | . 04 | 2 | 1 |
| L4800N 5025E | 1 | 9 | 11 | 77 | . 4 | 9 | 5 | 207 | 2.87 | 6 | 8 | ND | 2 | 14 | . 5 | 3 | 3 | 55 | . 12 | . 041 | 4 | 16 | . 31 | 113 | . 01 | 20 | 1.83 | . 01 | . 03 | 2 | 2 |
| L4800N 5050E | 1 | 48 | 31 | 230 | 1.1 | 23 | 13 | 1294 | 4.22 | 25 | 10 | ND | 2 | 19 | 1.1 | 3 | 3 | 61 | . 37 | . 066 | 11 | 25 | . 72 | 237 | . 01 | 20 | 2.42 | . 01 | . 05 | 2 | 1 |
| L4800N 5073E | 1 | 24 | 14 | 96 | . 3 | 11 | 31 | 24575 | 4.85 | 21 | 8 | ND | 2 | 23 | . 5 | 11 | 3 | 153 | . 28 | . 255 | 5 | 35 | . 33 | 231 | . 05 | 20 | 1.88 | . 01 | . 05 | 2 | 3 |
| L4800N 5100E | 1 | 44 | 10 | 40 | . 4 | 12 | 7 | 722 | 3.26 | 16 | 8 | ND | 2 | 24 | . 5 | 3 | 3 | 103 | . 22 | . 143 | 3 | 38 | . 37 | 77 | . 03 | 20 | 1.94 | . 01 | . 03 | 2 | 1 |
| L4850N 4875E | 1 | 25 | 19 | 158 | . 3 | 15 | 8 | 578 | 4.06 | 36 | 8 | ND | 2 | 10 | . 5 | 3 | 3 | 67 | . 10 | . 051 | 6 | 20 | . 53 | 103 | . 01 | 20 | 2.14 | . 01 | . 04 | 2 | 1 |
| L4850N 4900E | 1 | 45 | 23 | 252 | . 7 | 20 | 10 | 2397 | 3.93 | 25 | 8 | ND | 2 | 55 | 1.6 | 7 | 3 | 64 | . 91 | . 086 | 11 | 27 | . 53 | 358 | . 01 | 20 | 2.87 | . 01 | . 06 | 2 | 1 |
| L4850N 4925E | 1 | 28 | 19 | 150 | . 8 | 13 | 10 | 1352 | 3.36 | 29 | 8 | ND | 2 | 26 | . 9 | 7 | 3 | 66 | . 46 | . 076 | 12 | 21 | . 40 | 215 | . 01 | 20 | 2.08 | . 01 | . 05 | 2 | 1 |
| L4850N 4950E | 2 | 16 | 14 | 126 | . 3 | 16 | 9 | 462 | 3.90 | 69 | 9 | ND | 2 | 12 | . 5 | 4 | 3 | 67 | . 14 | . 031 | 5 | 22 | . 65 | 95 | . 01 | 20 | 1.88 | . 01 | . 05 | 2 | 1 |
| L4850N 4973E | 1 | 21 | 18 | 121 | . 3 | 15 | 8 | 528 | 3.65 | 45 | 8 | ND | 2 | 9 | . 5 | 3 | 3 | 73 | . 09 | . 071 | 5 | 21 | . 59 | 98 | . 01 | 20 | 1.91 | . 01 | . 05 | 2 | 16 |
| L4850N 5000E | 1 | 506 | 22 | 247 | 45.6 | 16 | 11 | 896 | 3.65 | 70 | 8 | ND | 2 | 13 | 2.8 | 105 | 3 | 60 | . 17 | . 085 | 5 | 20 | . 55 | 119 | . 01 | 20 | 2.06 | . 01 | . 04 | 2 | 54 |
| L4850N 5025E | 1 | 30 | 19 | 179 | . 4 | 22 | 13 | 990 | 3.54 | 17 | 8 | ND | 2 | 9 | . 5 | 3 | 3 | 55 | . 12 | . 061 | 6 | 23 | . 63 | 117 | . 02 | 20 | 2.33 | . 01 | . 03 | 2 | 8 |
| L4850N 5050E | 1 | 40 | 27 | 211 | 1.2 | 19 | 10 | 579 | 5.40 | 118 | 8 | ND | 2 | 8 | . 6 | 8 | 3 | 73 | . 05 | . 069 | 5 | 27 | . 66 | 111 | . 01 | 20 | 2.65 | . 01 | . 04 | 2 | 7 |
| L4850N 5075E | 1 | 24 | 22 | 82 | 2.2 | 9 | 5 | 315 | 4.07 | 41 | 8 | ND | 2 | 7 | . 5 | 4 | 3 | 85 | . 05 | . 058 | 4 | 18 | . 22 | 105 | . 01 | 20 | 1.77 | . 01 | . 03 | 2 | 5 |
| L4850N 5100E | 1 | 20 | 19 | 180 | 2.2 | 15 | 10 | 692 | 3.22 | 18 | 8 | ND | 2 | 13 | . 5 | 6 | 3 | 58 | . 34 | . 044 | 6 | 20 | . 58 | 189 | . 01 | 20 | 1.80 | . 01 | . 04 | 2 | 3 |

ELEMENT SAMPLE L4900N 4875E L4900N 4900E L4900 4925 E L4900N 4950E L4900N 4973E

L4900 5000e L4900N 5025E L4900N 5050E L4900N 5075E L4900N 5100E
L4950N 4875E L4950N 4900E L4950N 4925E L4950N 4950E L4950N 4975E L4950N 5000E L4950N 5025E L4950N 5050E L4950N 5075E L4950N 5100E L5000N 4875E L5000N 4900E L5000N 4925E L5000N 4950E L5000N 4975E

L5000N 5000E L5000 5025E L5000N 5050E 5000N 5075E L5000N 5100E L5050N 4875E L5050N 4900E L5050N 4925E L5050N 4950E L5050N 4975E

| Mo ppm | $\begin{gathered} \text { Cu } \\ \text { ppm } \end{gathered}$ | $\begin{aligned} & \mathrm{Pb} \\ & \mathrm{ppm} \end{aligned}$ | $\begin{array}{r} \mathrm{Zn} \\ \text { ppm } \end{array}$ | $\begin{array}{r} \mathrm{Ag} \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \mathrm{Ni} \\ \mathrm{ppm} \end{gathered}$ |  | Mn <br> ppm | $\begin{gathered} \mathrm{Fe} \\ \% \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { ppm } \end{gathered}$ | $\begin{array}{r} \mathrm{U} \\ \mathrm{ppm} \end{array}$ |  | $\begin{array}{r} \text { Th } \\ \text { ppm } \end{array}$ | $\begin{gathered} \mathrm{Sr} \\ \mathrm{ppm} \end{gathered}$ | $\mathrm{Cd}$ ppm | $\begin{gathered} \text { Sb } \\ \text { ppm } p \end{gathered}$ | $\begin{array}{r} \mathrm{Bi} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \text { V } \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \mathrm{Ca} \\ \% \end{gathered}$ |  |  | $\begin{gathered} \mathrm{Cr} \\ \mathrm{ppm} \end{gathered}$ | $\begin{array}{r} \mathrm{Mg} \\ \% \end{array}$ | $\begin{gathered} \text { Ba } \\ \text { ppm } \end{gathered}$ | $\begin{gathered} \mathrm{Ti} \\ \% \end{gathered}$ | pprn | $\begin{aligned} & \text { Al } \\ & \% \end{aligned}$ | $\begin{gathered} \mathrm{Na} \\ \% \end{gathered}$ | $\begin{aligned} & K \\ & \% \end{aligned}$ | $\begin{array}{r} W \\ \text { ppm } \end{array}$ | Au ppb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 22 | 22 | 129 | . 8 | 11 | 8 | 485 | 6.28 | 397 | 8 | ND | 2 | 8 | . 5 | 6 | 3 | 87 | . 11 | . 074 | 3 | 18 | . 58 | 118 | . 03 | 20 | 2.25 | . 01 | . 03 | 2 | 3 |
| 1 | 19 | 15 | 111 | . 3 | 12 | 7 | 353 | 4.15 | 23 | 8 | ND | 2 | 8 | . 5 | 3 | 3 | 94 | . 08 | . 048 | 4 | 20 | . 38 | 70 | . 02 | 20 | 2.00 | . 01 | . 04 | 2 | 1 |
| 1 | 13 | 16 | 107 | . 5 | 9 | 6 | 406 | 4.29 | 18 | 8 | ND | 2 | 8 | . 5 | 3 | 3 | 78 | . 11 | . 056 | 3 | 17 | . 28 | 72 | . 02 | 20 | 2.10 | . 01 | . 03 | 2 | 1 |
| 2 | 34 | 30 | 231 | . 3 | 14 | 10 | 4088 | 3.41 | 13 | 8 | ND | 2 | 21 | 1.4 | 9 | 3 | 58 | . 44 | . 083 | 9 | 22 | . 38 | 209 | . 01 | 20 | 2.07 | . 01 | . 05 | 2 | 1 |
| 1 | 21 | 17 | 119 | . 3 | 11 | 7 | 702 | 3.81 | 17 | 8 | ND | 2 | 8 | . 5 | 3 | 3 | 81 | . 08 | . 087 | 4 | 19 | . 39 | 86 | . 01 | 20 | 1.85 | . 01 | . 05 | 2 | 1 |
| 1 | 20 | 22 | 131 | . 4 | 13 | 7 | 558 | 4.24 | 26 | 8 | ND | 2 | 11 | . 8 | 3 | 3 | 81 | . 12 | . 069 | 5 | 20 | . 36 | 142 | . 01 | 20 | 1.71 | . 01 | . 04 | 2 | 13 |
| 1 | 20 | 19 | 114 | . 5 | 10 | 5 | 409 | 3.56 | 16 | 8 | ND | 2 | 16 | . 5 | 3 | 3 | 74 | . 27 | . 055 | 5 | 17 | . 26 | 188 | . 01 | 20 | 1.45 | . 01 | . 04 | 2 | 8 |
| 3 | 82 | 36 | 385 | 2.5 | 24 | 13 | 3211 | 5.09 | 31 | 8 | ND | 2 | 35 | 2.9 | 7 | 3 | 76 | 1.10 | . 254 | 16 | 30 | . 56 | 317 | . 01 | 20 | 3.40 | . 01 | . 07 | 2 | 9 |
| 1 | 18 | 20 | 123 | . 4 | 13 | 7 | 336 | 4.70 | 26 | 8 | ND | 2 | 11 | . 5 | 3 | 3 | 92 | . 11 | . 045 | 5 | 23 | . 43 | 99 | . 01 | 20 | 1.90 | . 01 | . 04 | 2 | 7 |
| 1 | 10 | 19 | 47 | . 5 | 5 | 3 | 166 | 1.73 | 4 | 8 | ND | 2 | 12 | . 5 | 3 | 3 | 45 | . 11 | . 028 | 5 | 12 | . 21 | 82 | . 01 | 20 | 1.22 | . 01 | . 04 | 2 | 6 |
| 1 | 13 | 12 | 109 | . 3 | 11 | 6 | 326 | 3.91 | 15 | 8 | ND | 2 | 7 | . 5 | 3 | 3 | 92 | . 06 | . 061 | 5 | 19 | . 42 | 71 | . 02 | 20 | 1.58 | . 01 | . 04 | 2 | 7 |
| 1 | 8 | 18 | 52 | . 5 | 8 | 4 | 220 | 3.90 | 13 | 8 | ND | 2 | 6 | . 5 | 3 | 3 | 103 | . 04 | . 099 | 5 | 17 | . 22 | 52 | . 03 | 20 | 1.52 | . 01 | . 03 | 2 | 5 |
| 1 | 5 | 11 | 16 | . 3 | 3 | 2 | 133 | 1.26 | 2 | 8 | ND | 2 | 9 | . 5 | 3 | 3 | 36 | . 15 | . 046 | 2 | 5 | . 08 | 22 | . 11 | 20 | . 52 | . 01 | . 03 | 2 | 4 |
| 2 | 17 | 18 | 180 | . 3 | 15 | 10 | 759 | 4.59 | 17 | 8 | ND | 2 | 8 | . 5 | 3 | 3 | 92 | . 11 | . 064 | 5 | 24 | . 49 | 96 | . 02 | 20 | 1.96 | . 01 | . 04 | 2 | 1 |
| 1 | 17 | 16 | 112 | . 7 | 13 | 7 | 768 | 4.73 | 23 | 8 | ND | 2 | 12 | . 5 | 3 | 3 | 93 | . 20 | . 091 | 5 | 22 | . 43 | 110 | . 02 | 20 | 1.70 | . 01 | . 04 | 2 | 1 |
| 1 | 15 | 16 | 121 | . 4 | 12 | 6 | 381 | 4.87 | 18 | 8 | ND | 2 | 12 | . 5 | 3 | 3 | 102 | . 13 | . 067 | 5 | 23 | . 34 | 104 | . 03 | 20 | 1.72 | . 01 | . 03 | 2 | 1 |
| 2 | 393 | 37 | 1267 | 6.9 | 28 | 12 | 2423 | 3.92 | 81 | 8 | ND | 2 | 45 | 10.6 | 25 | 4 | 55 | 1.23 | . 149 | 23 | 35 | . 64 | 208 | . 01 | 20 | 2.47 | . 01 | . 07 | 2 | 3 |
| 2 | 113 | 37 | 566 | 5.5 | 22 | 12 | 2927 | 3.83 | 51 | 8 | ND | 2 | 49 | 4.5 | 13 | 3 | 51 | 1.76 | . 260 | 26 | 26 | . 42 | 280 | . 01 | 20 | 3.30 | . 01 | . 05 | 2 | 4 |
| 3 | 148 | 24 | 451 | 3.7 | 24 | 11 | 3374 | 4.19 | 58 | 8 | ND | 3 | 33 | 4.7 | 21 | 3 | 60 | . 81 | . 196 | 25 | 27 | . 35 | 244 | . 02 | 20 | 4.02 | . 01 | . 04 | 2 | 7 |
| 1 | 26 | 30 | 166 | 2.3 | 15 | 13 | 601 | 3.98 | 26 | 8 | ND | 2 | 24 | . 8 | 5 | 3 | 73 | . 52 | . 059 | 8 | 22 | . 55 | 139 | . 01 | 20 | 2.49 | . 01 | . 05 | 2 | 3 |
| 1 | 19 | 38 | 114 | . 4 | 8 | 8 | 966 | 4.59 | 209 | 8 | ND | 2 | 9 | . 5 | 3 | 3 | 129 | . 12 | . 102 | 4 | 17 | . 29 | 102 | . 02 | 20 | 1.53 | . 01 | . 04 | 2 | 15 |
| 3 | 20 | 23 | 261 | . 4 | 11 | 9 | 876 | 5.06 | 40 | 8 | ND | 2 | 16 | 1.0 | 3 | 3 | 110 | . 34 | . 057 | 5 | 23 | . 33 | 141 | . 01 | 20 | 1.98 | . 01 | . 03 | 2 | 1 |
| 1 | 12 | 15 | 99 | . 3 | 8 | 4 | 296 | 3.27 | 15 | 8 | ND | 2 | 11 | . 5 | 3 | 3 | 87 | . 14 | . 061 | 5 | 18 | . 25 | 94 | . 02 | 20 | 1.29 | . 01 | . 03 | 2 | 1 |
| 1 | 19 | 12 | 99 | . 3 | 13 | 7 | 290 | 5.33 | 17 | 8 | ND | 2 | 11 | . 5 | 3 | 3 | 179 | . 11 | . 049 | 5 | 22 | . 45 | 64 | . 06 | 20 | 1.97 | . 01 | . 02 | 2 | 1 |
| 1 | 13 | 16 | 106 | .3 | 10 | 5 | 304 | 4.40 | 24 | 8 | ND | 2 | 7 | . 5 | 3 | 3 | 100 | . 05 | . 068 | 5 | 19 | . 35 | 64 | . 02 | 20 | 1.88 | . 01 | . 03 | 2 | 3 |
| 1 | 24 | 28 | 183 | . 9 | 14 | 8 | 623 | 4.06 | 33 | 8 | ND | 2 | 10 | . 6 | 3 | 3 | 92 | . 09 | . 072 | 5 | 23 | . 45 | 99 | . 02 | 20 | 1.86 | . 01 | . 03 | 2 | 1 |
| 2 | 234 | 51 | 715 | 4.4 | 24 | 14 | 3553 | 3.99 | 75 | 8 | ND | 2 | 44 | 6.7 | 19 | 3 | 62 | 1.25 | . 204 | 21 | 31 | . 62 | 205 | . 01 | 20 | 2.44 | . 02 | . 05 | 2 | 12 |
| 2 | 175 | 62 | 462 | 1.2 | 23 | 33 | 7143 | 5.48 | 97 | 8 | ND | 2 | 37 | 5.8 | 12 | 3 | 84 | 1.14 | . 161 | 22 | 21 | . 74 | 180 | . 01 | 20 | 2.98 | . 01 | . 04 | 2 | 4 |
| 2 | 361 | 29 | 800 | 3.7 | 23 | 15 | 3119 | 3.47 | 104 | 8 | ND | 2 | 57 | 6.3 | 19 | 6 | 45 | 2.33 | . 215 | 29 | 24 | . 40 | 181 | . 01 | 20 | 2.98 | . 01 | . 04 | 2 | 5 |
| 2 | 21 | 65 | 147 | 1.1 | 7 | 7 | 393 | 4.42 | 80 | 8 | ND | 2 | 8 | . 5 | 5 | 3 | 101 | . 09 | . 062 | 5 | 10 | . 17 | 85 | . 01 | 20 | 1.75 | . 01 | . 04 | 2 | 3 |
| 2 | 15 | 14 | 300 | . 3 | 13 | 6 | 354 | 4.27 | 16 | 8 | ND | 2 | 9 | 1.1 | 3 | 3 | 91 | . 12 | . 040 | 5 | 19 | . 43 | 79 | . 02 | 20 | 1.71 | . 01 | . 03 | 2 | 2 |
| 1 | 26 | 124 | 493 | . 5 | 14 | 8 | 551 | 4.53 | 24 | 8 | ND | 2 | 7 | 1.3 | 4 | 3 | 77 | . 09 | . 070 | 5 | 21 | . 45 | 72 | . 01 | 20 | 1.90 | . 01 | . 04 | 2 | 1 |
| 12 | 95 | 441 | 2316 | 2.5 | 28 | 21 | 5679 | 4.93 | 95 | 11 | ND | 2 | 14 | 16.4 | 11 | 4 | 78 | . 97 | . 089 | 17 | 26 | . 63 | 123 | . 01 | 20 | 2.31 | . 01 | . 04 | 2 | 4 |
| 1 | 122 | 49 | 3618 | 1.1 | 26 | 13 | 1604 | 3.57 | 44 | 8 | ND | 2 | 26 | 20.3 | 7 | 3 | 57 | . 85 | . 066 | 16 | 27 | . 65 | 92 | . 02 | 20 | 1.69 | . 01 | . 05 | 2 | 2 |
| 2 | 35 | 103 | 505 | . 9 | 21 | 19 | 1252 | 4.15 | 65 | 8 | ND | 2 | 9 | 1.4 | 5 | 4 | 61 | . 14 | . 068 | 6 | 26 | . 67 | 79 | . 01 | 20 | 2.41 | . 01 | . 04 | 2 | 2 |



For Ag greater than 35 ppm , assay digestion
is required for correct data.

## TORCH RIVER RESOURCES LTD.

Project: Grouse Mtn/Julia
Sample Type: Rocks

WHOLE
ROCK
ROCK ANALYSIS
0.20 gram sample is fused with LiBO2, disolved in $100 \mathrm{mls} 5 \% \mathrm{HNO}$ and is finished by ICP/ES.

Analyst RSim
Report No. 2070769
Date: August 02, 2007

| ELEMENT | SiO 2 | Al2O3 | Fe 2 O 3 | MgO | CaO | Na 2 O | K2O | TiO2 | P2O5 | MnO | Cr 2 O 3 | Ba | Ni | Sr | Z | Y | Nb | Sc | LOI | TOT/C | TOT/S | SUM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAMPLES | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% | \% |
| GM-07-AR-01 | 43.70 | 8.3 | 9.38 | 4.78 | 13.03 | 0.07 | 1.95 | 0.41 | . 13 | . 64 | . 021 | 267 | 38 | 202 | 19 | 13 | 5 | 18 | 17.4 | 4.84 | . 32 | 99.88 |
| GM-07-AR-02 | 47.36 | 6.55 | 11.6 | 4.31 | 12.99 | 0.03 | 1.22 | 0.31 | . 07 | . 58 | . 025 | 142 | 39 | 199 | 17 | 11 | 5 | 14 | 14.8 | 4.33 | 1.33 | 99.89 |
| GM-07-AR-03 | 52.01 | 2.15 | 8.38 | 4.88 | 13.14 | 0.04 | 0.44 | 0.10 | . 03 | . 51 | . 016 | 57 | 32 | 208 | 6 | 7 | 5 | 6 | 18.1 | 5.35 | . 26 | 99.83 |

## APPENDIX B

## Geomagnetism Summary Plot from Canadian Magnetic Observatories

Canadian Magnetic Observatories - 1 min data

[Close this window][Print this page][Info on plot]

## APPENDIX C

/Gem Systems GSM-19T 6112151 v7.0 7 XI 2006 M t-e2.v7 /ID 1 file 01survey.m 15 II 00 June 27, 2007 /
/X Y nT sq cor-nT time
04750N 05100.00E 56487.53 99 000000.00 000442.0
$04750 \mathrm{~N} \quad 05087.50 \mathrm{E} \quad 56502.2999 \quad 000000.00000510 .0$
$04750 \mathrm{~N} \quad 05075.00 \mathrm{E} \quad 56522.0899000000 .00000530 .0$
$04750 \mathrm{~N} \quad 05062.50 \mathrm{E} \quad 56545.8799000000 .00000602 .0$
04750N 05050.00E

04750N 05037.50E
04750N 05025.00E
04750N 05012.50E
$04750 \mathrm{~N} \quad 05000.00 \mathrm{E}$
04750N 04987.50E
04750N 04975.00E
04750N 04962.50E
04750N 04950.00E
04750N 04937.50E
04750N 04925.00E
04750 N 04912.50 E
04750N 04900.00E
04750N 04887.50E
04750N 04875.00E
04750N 04862.50 E
04750N 04850.00E
04800N 04850.00E
04800N 04862.50 E
04800N 04875.00E
04800N 04887.50E
04800N 04900.00E
04800N 04912.50E
04800N 04925.00E
04800N 04937.50E
04800N 04950.00 E
04800N 04962.50E
04800N 04975.00E
04800N 04987.50E
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004338.0 $\begin{array}{ll}000000.00 & 004530.0 \\ 000000.00 & 004558.0\end{array}$ $\begin{array}{ll}000000.00 & 004650.0 \\ 000000.00 & 004718.0\end{array}$ $\begin{array}{ll}000000.00 & 005010.0 \\ 000000.00 & 005038.0\end{array}$ $\begin{array}{ll}000000.00 & 005106.0 \\ 000000.00 & 005134.0\end{array}$ $\begin{array}{ll}000000.00 & 005350.0 \\ 000000.00 & 005426.0\end{array}$ $\begin{array}{ll}000000.00 & 005534.0 \\ 000000.00 & 005602.0\end{array}$ $\begin{array}{ll}000000.00 & 005630.0 \\ 000000.00 & 005658.0\end{array}$ $\begin{array}{ll}000000.00 & 005726.0 \\ 000000.00 & 005746.0\end{array}$ $\begin{array}{ll}000000.00 & 005946.0 \\ 000000.00 & 010006.0\end{array}$ $\begin{array}{ll}000000.00 & 010122.0 \\ 000000.00 & 010158.0\end{array}$ 000000.00010226 .0 000000.00010250 .0 000000.00010318 .0 000000.00010350 .0 000000.00010434 .0 000000.00010506 .0 000000.00010542 .0 000000.00010614 .0 000000.00010638 .0 000000.00010718 .0 000000.00010742 .0 000000.00010802 .0 000000.00010826 .0 000000.00010850 .0 000000.00010910 .0 000000.00011022 .0 $000000.00 \quad 011050.0$

|  |  |
| :---: | :---: |
| 5000N | 04 |
| 5000N | 04 |
| 5000N | 049 |
| 5000 N | 04937 |
| 5000 N | 04 |
| ON | 04 |
| 000N | 04 |
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| 5000 N | 05 |
| ON | 050 |
| 5000 N | 05025 |
| 5000 N | 0503 |
| 5000 N | 05 |
| 01 | 050 |
| 5000N | 05075. |
| 5000N | 05087 |
| 00 | 051 |
| 5050 N | 05100 |
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| 050 | 0506 |
| 5050N | 05050.00E |
| 5050N | 05037 |
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| 5050N | 05012 |
| 5050N | 05000.00 |
| 050N | 04 |
| 05050N | 04 |
| 5050N | 04962. |
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| 050N | 04900. |
| 0 | 048 |
| 50N | 04875. |
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| 5100 | 048 |
| 00N | 04862.50E |
| 5100N | 04875.00E |
| ON | 04887 |
| ON | 04900 |
| 100N | 04912.50E |
| 5100 N | 04925.00E |
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| 5100N | 04950.00 |
| 5100N | 04962.50E |
| 5100N | 04975.00E |
| 100 | 04987 |
| 5100 N | 05000.00E |
| 05100N | 05012.50E |
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| ON | 05037.50E |
| 5100N | 05050.00E |
| 5100 | 05 |


|  | 99 |  |  |
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| 4 | 99 | 00 | 011154.0 |
| 56669.71 | 99 | 000000.00 |  |
|  | 99 | 000000.00 |  |
| 8 | 99 | 000000.00 |  |
| 56548.05 | 99 | 000 |  |
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|  | 99 | 00 |  |
| 56529.07 | 99 | 000000 |  |
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|  | 99 |  |  |
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| 56521.47 | 9 |  |  |
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|  | 99 |  |  |
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| 485.45 | 99 | 000000.00 | 01 |
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