# GEOCHEMICAL ANO LINE CUTTING REPORT 

on the

CIRQUE GROUP

Paul River Area Omineca Mining Division<br>N. T. S. $94-\mathrm{F}-6,811$<br>Latitude: $\quad 57^{\circ} 30^{\prime} \mathrm{N}$<br>Longitude: $\quad 125^{\circ} 09^{\prime} \mathrm{W}$

MINERS! Renouscrs Ea?.a!:


No. 68
by
W. ROBERTS

CYPRUS ANVIL MINING CORPORATION

July 18, 1978.

Field Work Done During the Period: June $20-$ July 19, 1978.

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## LIST OF CLAIMS

| Claim No. | Record Number | No. of Units | Recording Date |
| :---: | :---: | :---: | :---: |
| 1 | 685 | 20 | July 20, 1977 |
| 2 | 679 | 20 | July 25, 1977 |
| 3 | 680 | 20 | July 25, 1977 |
| 4 | 686 | 18 | July 20, 1977 |
| 5 | 681 | 12 | July 25, 1877 |
| 6 | 682 | 18 | Juty 25, 1977 |
| 7 | 683 | 12 | Juty 25, 1977 |
| 8 | 684 | 20 | July 25, 1977 |
| 11 | 791 | 4 | Sept. 19, 1977 |

# GEOCEEMICAI AND LINE CUTTING REPORT 

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CIRQUE GROUP

## INTRODUCTION

The Cirque Group, totalling 144 units, was staked to cover several gossans and two float occurrences ct barite-pyrite-lead-zinc mineralization near the headmaters of the paul River. Cyprus Anvil Mining Corporation performed preliminary soil and silt sampling, prospecting, and geological mapping during the period June 20 to August 1, 1977.

In Barch 1978, an orthephoto base wap at a scale of 1:5000 was prepared for control of detailed work on the claim group. In July a totel of 4.5 km of base line and 48 km of cross lines were cut for survey control. Seventy soll samples were taken along 4 east-west trending lines on Claim CIRQLE 11.

## LOCATION ANO ACCESS

The CIRQUE Group is located near the headwaters of the Paul River in mortiseastern British Colundia. The clains cover a northwest trending ridye between the faul River on the southeast and Ciruue Creek on the northwest. The legal corner post for CIRQue ciaims 1, 2, 4 and 5 , located on a ridge roughly at lacitude $57^{\circ} 30^{\prime} \mathrm{N}$ and longitude $125^{\circ} 09^{\circ} \mathrm{N}$, is 30 km oast of Ware, 27 km south of Chesterfielo Lake and $\hat{2} 7 \mathrm{~km}$ northeast or Grave Mountain.


Field work on the CIRQUE Group was conducted with a helicopter borne program base at Pretzel Lake, 18 km to the southeast. Logisticai support for the program was provided by float equipped fixed wing aircraft based at Watson Lake 320 km to the northwest or Mackenzie, 264 km to the southwest.

## REGIONAL GEOLOGY

A narrow sinuous northwest trending belt of Upper Devonian to Mississippian "black clastics" has been outlined during a recent mapping program by the Geological Survey of Canada. This unit unconformably overijes Ordovician to Devonian interbedded shale and carbonate and is overlain by a thrust sheet of Ordovician to Silurian limestone, dolomite and orange weathering siltstone.

This belt of black clastics stretches from Braid Creek, on map sheet $94 \mathrm{~L}-1$, through Gataga Lakes to the Kwadacha River, a distance of raughly 50 km . Three distinct units comprising the Upper Devonian section and various facies changes occurring within individual units are apparent throughout the length of this belt.

A narrow sinuous isolated exposure of Upper Devonian "black ciastics" south of the Kwadacha River, that also unconformably overlies Road River black shale and chert, is host for barite-pyrite-lead-zinc mineralization on the CIRQUE Group.

The Gunsteel Formation, the sentral unit of the black clastic succession, host to several barite deposits and the potentially economic barite hosted massive sulptide deposit at Driftpile Creek is also the economically interesting potential host for the CIRQUE Group mineralization.

ORTHOPHOTO BASE MAP

The base map covering the area of interest on the CIRQUE Group was undertaken by McElhanney Surveying and Engineering Ltd. of Vancouver, 8. C. Roughly $\mathbf{1 2 , 0 0 0}$ acres or 194 hectares was outlined as the area of interest. Existing

Federal Government aerial photography flown at an average scaie of $1: 30,000$ in 1948 was aerotriangulated in a Wild A8 autagraph and adjusted to the best available ground control. This ground control was derived from the existing $1: 250,000$ scale map of N.T.S. sheet $94-F_{\text {. }}$

The contour compilation was done directiy at a mapping scale of 1:5000 with a 20 meter contour interval. In addition to the contours several spot elevations were plotted. The contour compilation was drafted by the scribing technique and one clear contour overlay was reproduced. An orthophoto negative was produced from the existing photography and photo-mechanically enlarged to a scale of 1:5000 using ground control from the aerotriangulation. The orthophoto mosaic was prepared using all the control points.

## LINE CUTTING

A total of 4.5 km of axe and chain-saw base line and 48 km of axe and machete cross lines were established on the CIRQUE Group during July. The base line trends at 303 degrees and has stations every 50 meters. Cross lines are spaced at 150 and 75 meters along the base line and also have 50 meter stations. All stations have been chained from the base line and have been corrected for 5 lope.

The hand cut grid will provide survey control for proposed soil sampling, electromagnetic surveys and geologic mapping in August.

## geochemical surveys

During early July, 1978, approximately 70 soil samples were taken along 4 roughly east-west trending lines within the boundary of claim, CIRQUE 11. All samples were taken with soil sample mattock from the " 8 " horizon at 60 meter interyals.

All samples were packaged in Kraft sample bags and sent to the Acate Analytical Laboratory in Burnaby, B. C. The samples were then dried, sieved to -80 mesh,
weighed to half a gram, digested in perchloric acid and analysed by atomic absorption for copper, lead and zinc. Several samples slightly anomalous in lead were analysed for silver by the same technique.

All sample results from the geochemical program are plotted on the accompanying 1:5000 "Geochemical Values Map" in parts per million.

Both copper and zinc values were very low and well below background. Sample numbers $1-373,374,399$ and 411 are slightly anomalous in lead and appear to outline a northwest trending lead-rich horizon.

Further detailed sampling and electromagnetic surveys are proposed to delineate a possible mineralized sulphide horizon underlying CIRQUE 11.

## CONCLUSIONS AND RECOMMENDATIONS

A hand cut grid, totalling 52.5 km , was established by July 17, 1978. An orthophoto mosaic and contour map provides us with excellent base maps for future soil sampling, electromagnetic surveys and geological mapping programs. Preliminary soil sampling on CIRQUE 11 appears to outline a northwest trending lead-rich horizon in black shales.

It is recommended that further closely spaced soil sampling and ground electronagnetic surveys be undertaken over the siightly anomalous lead response on CIRQUE 11.

Respectfuliy submitted,


WAYNE J. ROBERTS Geologist, CYPRUS ANVIL MINING CORPORATION.

## STATEMENT OF QUALIFICATIONS

I, WAYNE J. ROBERTS, geologist, with business address in Vancouver, British Columbia, and residential address in Coquitlam, British Columbia, hereby certify that:

1) I graduated from the University of British Columbia in 1968 with a BSC majoring in Geology;
2) From 1968 to the present I have been actively engaged as a geologist in mineral exploration in British Columbia and the Yukon Territory;
3) I am a fellow of the Geological Association of Canada;
4) I personally participated in the field work on the cirque GROUP and have interpreted all data resulting from this work.


## SALARIES AND WAGES

| W. Roberts | July $2,4,8,18$ | 4 days @ $\$ 100 /$ day | $\$ 400.00$ |
| :--- | :--- | :--- | :--- |
| D. Mcissac | June 30, July 2 | 2 days @ $\$ 40 /$ day | 80.00 |
| G. Melange | June 30 | 1 day @ $\$ 30 /$ day | 30.00 |ASSAYS AND GEOCHEMICAL ANAEYSIS

70 soil samples $0 \$ 2.45 /$ sample ..... 171.50
28 re-runs@ $\$ 0.35 /$ sample ..... 9.80
ORTHOPHOTO
contract price from McElhannay Engineering ..... $5,150.00$
LINE CUTIING - contract price from Eastem Associates
4.5 km of baseline © $\$ 200.00 / \mathrm{km}$900.00
48 km of cross lines and tie lines $\$ 150 / \mathrm{km}$ ..... 7,200.00
$8,100.00$
8ALANCE BROUGHT FORWARD ..... \$ 13,942.30
TRANSPORTAJION
Rotary Wing - Okanagan Helicopters
13.9 hours a $\$ 260 /$ hour ..... 3,614.00
Fixed Wing - B. C. Yukon Otter Watson Lake - Pretzel Lake 476 mi $\times \$ 1.80 / \mathrm{mj}$ ..... \$ 856.80
$476 \mathrm{mi} \times \$ 1.10 / \mathrm{mi}$ Cessna 185 Watson Lake - Pretzel Lake ..... 523.60- Morthern Thunderbird Airlines
Otter Fuel haul, 878 miles $0 \$ 1.75 / \mathrm{mi}$ ..... $1,537.00$
2 retum trips Mackenzie to Pretzel Lake 660 miles $\$ \$ 1.75$ ..... 1,155.00
Beaver 1 trip Mackenzie - Pretzel Lake ..... 462.00
TOTAL DIRECT EXPENOITURES ..... $\$ 22,089.70$

## AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, WAYNE J. ROBERTS, Geologist, Cyprus Anvil] Mining Corporation, of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief the Statement of costs in this report (GEOCHEMICAL ANO LINE CUTTING REPORT on the CIRQUE GROUP) is a true account of expenditures incurred from exploration on the CIRQUE property.







