

1973 AND PROPOSED 1974 EXPLORATION REPORT

PELLY RIVER MINES' PROPERTIES

ANVIL RANGE, YUKON TERRITORY

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By:

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S U M M A R Y

In 1973, thirty-three lines miles of Turam electromagnetic surveys were conducted on parts of the GALE, TIE, and JOE claims of Pelly River Mines Ltd. On the GALE claims, four conductor zones were identified and these are believed to represent "strike" extensions of phyllites which are host rocks to the Vangorda massive sulfide deposit. Anomaly "A" has coincident soil geochemical as well as airborne magnetometer conductor anomalies, while only one other Turam conductor has associated airborne magnetic and electromagnetic anomalies. Associated anomalies are not known with the other conductors. Turam work on the TIE and JOE claims showed no anomalous conductor zones.

Follow-up work was not done on this work in 1973. Assessment credits lost by Pelly River Mines Ltd. due to the lapse of the BOB and LAKE claims were regained by filing geophysical work on the DY and SUN claims on the GALE claims.

The cost of the 1973 work was \$12,054.32.

For 1974 gravity follow-up is proposed to check for potential mass associations with Turam conductors delineated in 1973. Also complete Turam coverage of the GALE claims is proposed.

The cost of 1974 work is estimated at \$23,262.80, including \$12,000 drilling contingency.

1973 EXPLORATION REPORT

Exploration work on the Pelly River Mines' claims consisted of Turam electromagnetic coverage of part of the GALE, JOE and TIE claim groups. The costs of the geophysical surveys on Anvil Mining Corporation Limited's SUN and DY claims were used to regain assessment credits for the GALE claims which were lost due to the inadvertent lapse of the BOB and LAKE claims (which were then re-staked as the GALE claims). The cost of the 1973 exploration work on the Pelly River Mines' claims was \$12,054.32.

TURAM SURVEYS:

Thirty-three line miles of Turam electromagnetic surveys were conducted over parts of the GALE, JOE and TIE claim groups of Pelly River Mines Ltd. The two areas of limited exploration data include the GALE claims located to the southeast of Kerr-Addison's Vangorda claim block, and the JOE and TIE claims located to the northwest of that claim block. Both areas are in part located in creek valleys and have large areas of limited or no rock outcrop. The Turam results of the 1973 exploration are compiled of Figure I. Individual reports of the geophysical surveys are appended.

GALE Claim Survey:

The 22.7 miles of Turam surveys on the GALE claims were located to 1) test for strike extensions of conductor units between the Vangorda and Swim claim groups on which massive sulfide deposits are associated with graphitic rock units, and 2) provide exploration data for the Blind Creek basin.

Four broad zones of conductors, some consisting of multiple conductors, were found. One of these conductor bands may represent the northwestward continuation of the rock units hosting the Swim deposit and two may represent southeastward extensions of time rock units equivalent to those hosting the Vangorda sulfide deposit.

A significant observation that can be made by inspection of the Turam data on Figure I, when studied in conjunction with map FX 7306 of the 1973 Pelly River Mines' Exploration Report, is that the conductive graphitic and magnetic phyllite rock unit which in part hosts the Vangorda deposits, splits into two separate rock units on the GALE claims and apparently envelopes a greenstone lens.

The greenstone lens appears to be stratigraphically close to the same position as the Vangorda deposit. An implication regarding genetic relationship between the massive sulfide deposits and volcanics can be made from this.

Thus, the area for favourable rocks for further exploration has been increased on the GALE claims. If the phyllites hosting the Vangorda sulfide deposits in fact do split, a large area of "favourable" host rocks then may underlie outcropping amphibolite and related igneous volcanic(?) rock units on the GALE claims.

In addition to the conductive rock units which may be extensions of the Swim and Vangorda deposit host rocks, the other anomalies appear to be shallow conductors, possibly graphitic zones, within the phyllitic rock units. In several cases, outcrops of graphitic phyllite have been mapped near areas of the anomalous conductors. Follow-up exploration by gravity surveys and diamond drilling of selected targets is recommended because of the spatial relationship of some massive sulfide deposits to graphitic rock units in the district.

JOE and TIE Claim Survey:

The 10.3 line miles of Turam surveys on the JOE and TIE claims were conducted to provide exploration data in an area where only geological mapping and soil surveys had been conducted on the ground. The area is known to be underlain by phyllites along the western side of the survey area, calc-silicate and muscovite biotite schist (which host the Faro ore bodies) in the eastern part of the survey area.

In the area of the ground held by Pelly River Mines Ltd. there were virtually no conductor responses. In the Anvil district, the lack of response is typical of igneous rock and in part of phyllite. All responses are so extremely weak and uniform in the area of the Pelly River Mines' claims, and as anomalous conductor zones were not defined, no follow-up work is recommended in the area of the survey.

BUDGET:

Exploration costs on the Pelly River Mines' claims in 1973 were \$12,054.32. These costs are based on the cost of the contract work for the whole job and prorated to Pelly River Mines Ltd. as to the portion of the total mileage of the survey on Pelly River Mines' ground. A 10% overhead charge has been also included in this total to cover administrative expenses.

Two different contract rates were obtained for the GALE claims and for the JOE and TIE claims and, therefore, two different mileage costs are presented for the surveys. The itemized rates for the surveys are:

GALE Claims:

22.7 miles of survey @ \$320.94 \$ 7,285.33

JOE and TIE Claims: (September - October)

10.3 miles of survey @ \$356.61 3,673.14

Sub Total \$10,958.47

10% Overhead 1,095.85

Total \$12,054.32

Source of Funds - 1973 Exploration:

Pelly River Mines \$23,710 as outlined in a 1973 undated report by D. S. Jennings. The itemized costs were:

Linecutting (22 miles @ \$150) \$ 3,300
Turam E-M Survey (9.9 miles @ \$185) 1,820
Gravity Surveys (12.7 miles @ \$330) 4,690
Supervision & Interpretation 4,325
Transportation 825

Sub Total \$14,460

Contingency Drilling 8,750

Total \$23,710

To date estimated \$12,054.32 has been spent on the modified program, leaving a surplus of \$11,655.68. Also, the above funds were appropriated for the GALE claims, but monies were diverted to do electrical surveys on the JOE and TIE claims when no direct drilling targets were defined in 1973.

The distribution of the costs to Pelly River Mines' partners for 1973 is:

Anvil Mining Corporation Ltd. (57.1%) \$ 6,883.01
Rose-Creek - Vangorda Syndicate (28.6%) 3,447.54
Cyprus Mines Corporation Ltd. (8.6%) 1,036.67
Dynasty Explorations Ltd. (5.7%) 687.10

Total \$12,054.32

CLAIM STATUS:

As per the 1972-1973 arrangement, the Pelly River Mines' claims anniversary dates were re-established to the dates as they would have been prior to the lapse of the BOB and LAKE claim groups which were then restaked as the GALE group. The status of the claims to date is shown in Appendix I. Expenditures on the GALE claims for which the Pelly River Mines' partners are being invoiced also have been applied towards assessment credits on Pelly River Mines' held claims.

The expiry dates of the JOE claims and related fractions are varied, with two claims due in 1976, three in 1977, two in 1978 and five in 1979.

The TIE mineral claims and related fractional mineral claims all have common expiry date of July 1, 1975.

The LO mineral claims have expiry dates in 1978 and 1979.

One of the BILL claims (No. 16, Grant No. 85598) has an expiry date of July 1, 1975 and all other BILL claims have an expiry date of July 1, 1979.

PROPOSED 1974 EXPLORATION

INTRODUCTION:

The 1973 Turam electromagnetic survey, in combination with previous surface geological mapping and other exploration data, suggests that amphibolite and other igneous rock units may be intercalated within mineralized phyllites on the GALE claims. Stratigraphically, the igneous rock sections may be in or near the same horizon as the sulfide mineralization of Vangorda deposit. The conductive and magnetic phyllite unit, which in part hosts the Vangorda sulfide deposit, splits into two separate units in the area of the GALE claims and appears to envelop a greenstone lens. The two split phyllite units apparently extend across the GALE claims. The northern arm of this extension strikes into the zone of anomalously high base metal bedrock geochemistry on the DY claims where rotary drill cuttings from holes 71-197, 71-198, 71-199 and diamond drill hole 71-205 samples contained up to 6000 ppm combined Pb and Zn. These base metal bedrock anomalies, although to the north and off Pelly River Mines' claims, indicates that base metal mineralization may extend across, or be present in, the phyllite unit on the GALE claims. A full investigation of this claim group is recommended.

Two exploration programs on Pelly River Mines' claims are proposed: 1) gravity follow-up of conductors on GALE claims and 2) extended Turam survey and follow-up to cover the rest of the GALE claims.

In 1974, follow-up gravity surveys on the GALE claims will evaluate Turam detected conductors for possible associated mass concentrations. Coinciding conductor and gravity anomalies will be evaluated by diamond drilling.

Additional Turam surveys are proposed for the GALE claims at the west end and to the north of the base line of the 1973 survey. This survey will test the extent and distribution of rock units hosting the Vangorda sulfide deposits to the east into an area where anomalous high bedrock geochemical anomalies were discovered by drilling in 1971 and 1972.

Follow-up work is not recommended on the JOE and TIE claims in areas of 1973 Turam surveys.

In 1974 selected grid points and claim location line points will be surveyed and tied to appropriate land survey points to allow the correct placing of the exploration data on base maps.

GALE CLAIMS FOLLOW-UP:

The 1973 Turam electromagnetic survey on the GALE claims detected four zones of conductors which will be further examined for possible associated mass concentrations by gravity surveys. The eleven miles of gravity surveys are distributed to cover all the known conductor zones. Significant coincident gravity, conductor, and other anomalies will be evaluated by drilling.

Two areas of coincident geophysical anomalies over phyllites, both on the GALE claims, are present on the geophysics compilations. Both appear to be on southeast strike extensions of the mineralized phyllites on Kerr-Addison's Vangorda claim group. One not only has nearly coincident airborne magnetic and electromagnetic anomalies on the Lockwood survey, but also associated lead and zinc soil geochemical anomalies, and a Turam anomaly. A strong correlation and continuity exists between this zone of anomalies and anomalies which are closely associated with the sulfide mineralization at the Vangorda deposit. The second anomaly is one of coincident airborne magnetic and electromagnetic anomaly on the Lockwood survey and a Turam anomaly where results from the Turam survey suggest underlying phyllites. These phyllites are possibly the southeastern arm of the split phyllite unit from the Vangorda deposit.

Both zones of anomalous geophysical and geochemical anomalies have limited extent and, therefore, the tonnage potential appears to be small. Gravity profiling of these anomalies will indicate any associated anomalous mass concentrations. Diamond drill testing will examine the cause of these anomalies.

1974 TURAM SURVEYS:

The proposed 9.2 mile 1974 Turam surveys are to complete coverage of the GALE claims. The exploration of the GALE claims is important especially now that the 1973 work shows that host rocks from the Vangorda deposit strike across the northern extension of the claim group and anomalous base metal values were obtained in these rock units in previous drill holes on the DY claims located to the east of the GALE claims. This shows that mineralization may exist at depth in this phyllite unit since massive sulfides of the Vangorda deposit are located to the west of the GALE claims and highly anomalous lead and zinc content is found in the drill holes on the DY claims to the east of the GALE claims.

Available exploration information on the GALE and adjacent claims is shown on Figure I.

BUDGET:

Costs of the 1974 exploration include line cutting and geophysics with a contingency budget to allow for diamond drill testing of selected anomalies. A provision is made in these budgets to provide for survey ties of the grids and other selected points to the previously established land survey. This control survey will allow a proper positioning of various survey grids and anomalies on the 1" = 1000' base maps which we have not been able to do before.

Gravity Follow-Up on 1973 Turam Survey:

| | |
|---|----------------------|
| Lines to be Repicketed (7 miles @ \$60/mile) = | \$ 420.00 |
| Lines to be Cut (4 miles @ \$130/mile) = | <u>520.00</u> |
| | \$ 940.00 |
| Gravity Survey (11 miles @ \$350/mile) = | <u>3,850.00</u> |
| | Subtotal \$ 4,790.00 |
| Contingency Drilling (two 400 foot holes @ \$15/foot) = | <u>12,000.00</u> |
| | Subtotal \$16,790.00 |

1974 Turam:

The scale of distances for a Turam survey of the remainder of the GALE claims is 9.2 miles.

Using detailed costs from 1973 year end Turam surveys indicates that the combined linecutting and electromagnetic survey costs will be about \$365.00 per mile, or \$3,358.00.

The Total Pelly River Mines' Budget for 1974 is estimated as:

Fixed Costs

| | | |
|-----------|-----------------|-------------|
| Gravity | \$4,790.00 | |
| Turam | 3,358.00 | |
| Surveying | <u>1,000.00</u> | |
| | | \$ 9,148.00 |

Contingency Costs

| | | |
|---|--------------------|----------------------|
| Diamond Drilling Two 400 foot holes @ \$15/foot | <u>\$12,000.00</u> | |
| | | Subtotal \$21,148.00 |
| Overhead (10% of above) | | <u>2,114.80</u> |
| | Total | \$23,262.80 |

The split to the individual Pelly River Mines' partners is:

| | | |
|-------------------------------|---------|-----------------|
| Anvil | (57.1%) | \$13,283.06 |
| Rose Creek-Vangorda Syndicate | (28.6%) | 6,653.16 |
| Cyprus | (8.6%) | 2,000.60 |
| Dynasty | (5.7%) | <u>1,325.98</u> |
| | | \$23,262.80 |

GEOPHYSICAL AND GEOCHEMICAL COMPILATION,
 PELLY RIVER MINES LIMITED CLAIM GROUPS



- LEGEND**
- Ground Magnetic Survey - Wedge Lake Anomaly 900 Gauss
 - Airborne Magnetic Survey Anomalies (Lockwood 1966) 3000
 - Airborne Electromagnetic Survey Anomalies (Lockwood 1964-1965)
 - Mean Flight Line Spacing 1000 Ft.
 - Mean Terrain Clearance 200 Ft.
 - The contours represent amplitude of in phase response of the residual field expressed in parts per million of the primary. The frequency of the primary current is 4000 cycles per second.
 - Torom Anomaly 5 uSALS
 - Residual Gravity Anomalies (Various Contractors) 5 uSALS
 - Geochemical Values Contoured At - Cu - 116 p.p.m.
Pb - 132 p.p.m.
Zn - 336 p.p.m.
 - Proposed Geophysical Grid 1973
 - Proposed Geophysical Grid 1974
 - Interpreted contact from Torom Survey
 - Torom Survey Conductors
 - Claim Group Outline Approx.

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