# 5724

na antes

REPORT ON EXPLORATION COMPLETED EUREKA & ERIC GROUPS OF CLAIMS, REVELSTOKE MINING DIVISION, BRITISH COLUMBIA.

SITUATED 20 MILES NORTH OF REVELSTOKE, ON LA FORME CREEK.

51°N LAT. 118° W LONG. #572-4

SUBMITTED BY: F. HOLCAPEK, P.ENG. OWNER: LEMANS RESOURCES LTD. (N.P.L.) WORK CONDUCTED BY: AGILIS ENCIMEERING / LTD.

82m/=



# TABLE OF CONTENTS

Page

1-00	INTRODUCTION	
	1-10 Cwnership and Title	
2-00	HISTORY	
3-00	GECGRAPHY	
	3-10 Location and Access	
	3-20 Topography, Vegetation and Climate 2	
4-00	GECLOGY	
	4-10 Stratigraphy	
	4-20 Structural Setting	1016
	4-30 Economic Geology	States
	4-40 Local Geology	
5-00	GEOCHEMICAL SURVEY	
	5-10 Results	STATE -
6-00	DISCUSSION	10
7-00	RECOMMENDATIONS	C. C. C. C.

## APPENDIX

Total Heavy Metal Testing Procedure.

# ILLUSTRATIONS

# | Geology and Sample location: Scale 1" = 500'

11 J Location Map.

Department of

Mines and Petroleum Resources

ASSESSMENT REPORT

NO 5724 MAP

# REPORT ON EXPLORATIONS COMPLETED on the EUREKA AND ERIC GROUP OF CLAIMS for LEMANS RESCURCES LTD. (NPL) REVELSTCKE MINING DIVISION, BRITISH COLUMBIA

## 1-00 INTRODUCTION:

During October 1975, the writer in company of J. Holcapek completed an exploration program consisting of reconnaissance mapping, prospecting and silt and water sampling using the total heavy metal kit on the Eureka and Eric Claim Group.

The purpose of this report is to evaluate the results and make recommendations.

#### 1-10 Ownership and Title:

The property consists of 9 reverted crown granted mineral claims applied for by D. Reinke as agent for Mr. R.H.D. Philp. The claims form two individual groups, 3,000 feet apart.

#### Eureka Group:

Claim Name:	Record Date:	Record No .:	Lot No .:
Flora Bell	Nov. 6, 1975	11515	9121
Grandview	**	11516	9122
Morning Star	11	11517	9123
Eureka		11518	9124
Eastern Star	"	11519	9125
Eric Group:			
Eric # 2	Nov. 6, 1975	11520	15617
A&E6Fr.	"	11521	15618
Eric # 4	**	11522	15619
Eric # 8	11	11523	15634

## 2-00 HISTORY:

The first mining activities within the Revelstoke district date back to the 1890's.

Following the discovery of lead-zinc-silver mineralization during 1897, numerous mineral claims were located on La Forme Creek.

The Mastodon Group and Adair Group, or Eureka Group on La Forme Creek were located during this period.

Extansive work consisting of trenching, shaft sinking and driving adits was completed on the Mastodon prior to 1918. Underground exploration was under progress on the Adair Claims, during the same period on the western extension of the Mastodon Showings. The Mastodon Mine was worked intermittently till 1960. Approximately 15,532 tons of ore were milled grading 0.20 cz of silver per ton, 0.5% lead, and 9.5% zinc.

Since 1918 very little exploration or development work took place in the area. The claims were crown granted in 1910. Portions of the Mastodon Claims and the Adair Claims reverted to the crown in 1974.

Mr. D. Reinke, as agent for Mr. R.H.D. Fhilp, on behalf of associates, applied for the title, which was issued on November 10, 1974.

#### 3-00 GEOGRAPHY:

#### 3-10 Location and Access:

The property lies 20 miles north of Revelstoke on La Forme Creek. Access is via Big Bend Highway to the mouth of La Forme Creek. From there a rough road leads 4 miles upstream to the Mastodon Property (Eric Group). Eureka Group, or the old Adair Group lies approximately 3,000 feet to the west.

#### 3-20 Topography, Vegetation and Climate:

The property lies within the Selkirk Mountains at an elevation of 4,600 to 5,000 feet. The terrain is rugged with steep slopes towards La Forme Creek.

The slopes are heavily timbered with hemlock, red cedar, spruce and minor white pine. Underbrush consisting of alder, devil's club and fern grow along valleys.

The area due to the high surrounding mountains and icefields has cool rainy summers. Thunderstorms are frequent during the summer months. The first snow fall can be expected in late September on higher elevations and usually stays till May.

## 4-00 GEOLOGY:

The area has been mapped by Mr. J.O. Wheeler, Geological Survey of Canada and the results have been published as Map 12 - 1964, Paper 64-32, at a scale of 1 inch = 4 miles.

The stratigraphic section has been taken from this publication, but generalized.

4-10 Stratigraphy:

Post Lower Cambrian: Granitic Intrusions.

Lower Cambrian and Later: Lardeau Group: Slates, phyllites, quartzites and schists.

Cambrian - Lower Cambrian: Badshot Formation: Limestones, dolomites, phyllips, quartzite.

Hamill Group: Quartzite, phyllite, limestone, schists and greenstone.

Windermere:

Horsethief Creek Group: Slates, phyllites and schists.

#### 4-20 Structural Setting:

Rock units in the area are strongly deformed by folding. Three major fold trends have been recognized in the area, namely westerly north-easterly and north-westerly. Foliation parallel to axial planes is common.

Folds vary from similar in the more incompetent, to concentric in the competent thick bedded rock units. Flow folds are associated with carbonate rocks. Normal faulting, shear zones, and thrust faulting create a complex geological picture.

#### 4-30 Economic Geology:

The economic minerals found in the area are lead, zinc, silver and copper. The mineralization occurs in veins and pods associated with faulting and shear zones or to a lesser extent as replacement of limestone. The Badshot Limestone appears to be the most favourable host.

The Mastodon Mine produced 15,332 tons of one grading 0.2 oz/ton of silver, 0.5% lead and 9.5% zinc.

Lead-zinc-silver-copper veins have been explored prior to 1918 on the Eureka Claims. Several adits and open cuts have been reported.

## 4-40 Local Geology:

During the course of the reconnaissance mapping program an attent has been made to relocate the old trenches and adits reported in government publication and also to relocate the surveyed boundaries of the crown granted claims. The attent failed in both aspects. Heavy growth covering the claims made this impossible.

The main object of the mapping program was to locate the limestone unit - Badshot Formation, normally the host of the mineralization and to clarify the stratigraphy of the rock units.

Ground control was obtained by using topographic maps and tying geological information into creeks, and by pace and compass traverses.

The Hamill Group Schists, phyllites and greenstones have been found outcropping along the southern and central parts of the claims. In general they consist of biotite mica schist, chlorite schist and chloritic phyllites. The unit strikes north-westerly and has variable dips from  $50^{\circ}$ E to  $30^{\circ}$ E.

The rock units are strongly foliated and show well developed cleavage where folding is indicated.

Several small scale folds have been observed showing minor granulation parallel to the fold axis. The fold axis plunge gently to steeply in a north-westerly direction.

The greenstone is normally massive, dark green in colour and trends parallel to the schists. Cleavage and poorly developed foliation has been observed.

Shearing is common within the Hamill Group and is usually expressed as talcose alteration zones except within the greenstone, where brecciation has been observed.

The shearing is most abundant along the contact with the Badshot Formation. The limestone is of variable colour, from light to blueish to dark and can vary from coarse chrystalline to a shaley limestone. Float of quartz – calcite veinlets cutting limestone and showing minor sulfide mineralization has been found on the Eureka Claims but has not been located in place.

-4-

-5-

North of the limestone unit dark grey, foliated phyllite is the major rock unit outcropping. The distribution of this unit suggests folding.

In general it was found that the structural setting is complex, and detailed geological mapping at a scale of 1 inch = 200 feet, using a 200 x 100 foot grid for ground control, will have to be completed before structural interpretation can be attempted.

## 5-00 GEOCHEMICAL SURVEY:

The geochemical survey completed consisted of taking water and silt samples from creeks originating or crossing the claims. The samples were tested on the spot by use of the "Total Heavy Metal Kit". A sheet outlining the procedure is appended. The only change in the procedure was made in respect to testing water samples.

The water sample was taken and the dithizone solution was added directly in 5 ml steps till a negative reaction, - green colour, was obtained. A total of 42 water and silt samples were taken.

## 5-10 Results:

Eric Claim Group: From the samples taken on this group none of the silts can be classified as anomalous. Only 2 out of 12 samples gave a slightly positive, - purple colour reaction for the silt samples and none of the water samples were anomalous. The presence of limestone at the head waters of the creeks would change the acidity of the water to alkaline and hence precipitation of zinc ions from the creek waters would occur, or if zinc mineralization should exist down stream from the limestone, it would not go into solution.

Eureka Group: A total of 30 water and silt samples were taken and none were found to be anomalous. The same consideration as for the Eric Group holds true.

## 6-00 DISCUSSION:

Mineralization has been found during the early part of the century in vicinity of the claim group. Several underground workings have been reported but not relocated by the recently completed program. The negative results of the geochemical program does not preclude the presence of sulfide mineralization, since changes in the acidity of creek water would reduce the solubility of metal ions.

Several floats of quartz vein material bearing minor sulfides have been found on the Eureka Claim Group.

The favourable Badshot Limestone has been found outcropping on the property and hence more detailed work will be required, to completely evaluate both claim groups.

## 7-00 RECOMMENDATIONS:

The following work program is recommended for both claim groups:

- 1. Locate all old workings, if possible.
- 2. Relocate surveyed boundary lines.
- 3. Establish cut grid on a 200 x 200 foot basis.
- 4. Soil geochemical survey over the limestone area and along contacts.
- 5. Detailed geological mapping with special attention to the structural setting.
- Trenching of showings found and reopening of old underground workings.
- 7. Detailed mapping and sampling of underground workings.
- Geophysical surveys if applicable and or diamond drilling, if warranted.

Vancouver, B.C. November 1975



-6-

# CERTIFICATION

I, Ferdinand Holcapek of 92, 10842 - 152 nd Street, Surrey, British Columbia, do hereby certify that:

- 1. I am a graduate of the University of British Columbia, with a Bachelor of Science Degree in Geology, 1969.
- 2. Since graduation I have been engaged in mining exploration in British Columbia, Yukon Territory, Northwest Territories, Quebec, Nevada, Arizona, Mexico and Australia.
- 3. I am a registered member, in good standing, of the Association of Professional Engineers of British Columbia.
- 4. I am a Consulting Geologist.

Vancouver, B.C. November 1975 Signed:

lolcapek Con

AGILIS ENGINEERING LTD. CONSULTING ENGINEERS & GEOLOGISTS 107-325 HOWE STREET, VANCOUVER, B.C. V6C 127

212 Brooksbank North Vancouver, B. C.

#### HEAVY METALS IN STREAM SEDIMENTS



Dilute 1 part 0.01% dithizone stock solution with 4 parts clean Benzene.

Note 1: Both 0.01% and 0.002% Dithizone solutions should be kept in dark containers. (e.g. Plastic bottles wrapped in aluminum foil.)

#### **PROCEDURE:**

- 1. Measure one scoopful of sample, leveled with spatula, and tap into marked test tube.
- 2. Add Bloom Buffer solution to 5 ml. mark.
- 3. Add 1 ml. of 0.002% Dithizone in Benzene, bringing level to 6 ml. mark.
- 4. Insert stopper and shake 50 times.
- 5. Allow Dithizone solution to collect at surface of liquid and observe color. If green, record 0; if blue, record 1; if red, proceed with step 6.
- 6. Add 1 ml. more of 0.002% Dithizone solution, bringing the level to 7 ml. mark and shake 15 times. If color is blue, record 2; if purple or red, repeat the shakeout adding Dithizone solution in increments of 3 mls, 5 mls until bluegrey end point is reached. Record total volume of Dithizone solution needed to reach blue-grey end point.
- Note 2: One ml. of the 0.002% Dithizone solution at the blue-grey end point is roughly equivalent to 2 parts per million exchangeable heavy metals (as Zinc). Total heavy metal content in samples may be as much as 20 times greater.
- Note 3: As the Bloom buffer contains ammonium hydroxide, this solution should be kept well capped.

Re: Geological Reconnaissance an Total heavy metal geochemic	nd al Survey
Personnel:	5
F. Holcapek, P. Eng. office 3 days \$150.00/day F. Holcapek, P. Eng. field 7 days \$150.00/day J. Holcapek, helper, field 7 days \$45.00/day R. Shnay, drafting, office 10 hours \$8.50/hour	\$450.00 1,050.00 315.00 85.00
Disbursements:	1,900.00
Truck rental, mileage 1,200 miles, 18¢/mile \$356.00 Motel 50.40 Gasoline 52.48 Groceries, meals, etc. 87.02 Engineering supplies 55.00	
20% Overhead on disbursements <u>600.90</u> <u>120.09</u>	•
120.33	\$2,620.99

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declar	ed before me at the	City	
of	V an conver		in the
Province of	British Columbia, this	6	,
day of	have ber	1975'	, A.D.

Frederica Shnay

A Commissioner for taking Affidavits for British Columbia or A Notary Public in and for the Province of British Columba.

SUB-MINING RECORDER





