

824821

REPORT

ON

PHASE 1 EXPLORATION

OF

THE VAULT MINERAL CLAIM
OKANAGAN FALLS AREA
OSOYOOS, M.D.

FOR

SEVEN MILE HIGH RESOURCES INC.
SUITE 208 - 347 LEON AVE.
KELOWNA, B.C.

BY

A.D. WILMOT, P.Eng.

KELOWNA, B.C.

MAY 17, 1985

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Summary and Conclusions	1
Survey Grid	2
Geological Mapping	2
Geochemical Survey	3
VLF-EM Survey	4
Magnetometer Survey	6
Statement of Disbursements	7
Recommendations	8
Certificate - A.D. Wilmot, P.Eng.	9

ILLUSTRATIONS IN POCKET

<u>Map No.</u>		<u>Scale</u>
V-85-1	Geology	1:4000
V-85-2	Geochemical Survey	1:4000
V-85-3	VLF-EM Ground Survey	1:4000
V-85-4	Magnetometer Survey	1:4000

INTRODUCTION

This report is supplementary to my report of November 21st, 1984 and covers the procedures and results of the initial phase of exploration on the Vault Claims as was recommended therein.

SUMMARY AND CONCLUSIONS

A second zone of hydrothermal alteration with a high degree of leaching, silicification and kaolinization, similar to the discovery zone explored by Riocanex and Dome, was discovered in the course of geologic mapping. This zone which is on M.C. Vault 4 is approximately 1 km. south of the discovery zone. The alteration and silicification extends over a width of 50 m. and has been traced along strike for a 1000 m. to the East and South, apparently around the nose of a north plunging anticline. The dip of this structure is from 40°N to 35°E. Mineralization consists of less than 1% of finely disseminated pyrite in silicious tuff and in dark blue veinlets of chalcedony.

Geochemical anomalies for arsenic, mercury and antimony overlie the mineralized zone around the nose of the fold.

This newly discovered zone is a prime target for the percussion drilling of the second phase of exploration along with some fill-in drilling on the discovery zone.

SURVEY GRID

Twenty-four man days were spent on locating a control grid covering the greater part of Mineral Claims Vault #1 and Vault #4. Two flagged base lines totalling 3.2 km. in length were located on Sections 0 South and 10 South. From the 10S B/L 34.5 km. of North-South cross lines were turned off at 100 m. intervals with flagged stations placed on these lines at 25 m. intervals.

The grid was established by means of compass and toplite belt-chains.

GEOLOGICAL MAPPING

This work was done by geologists Murray Morrison and assistant Brian Callaghan and is recorded on geologic map V-85-1, which covers an area of 2 square km. over Mineral Claims Vault No.1 and Vault No.4.

Of particular interest is a belt of silicified rhyodacite tuff, of the lower MARAMA FORMATION (map symbol 2d), which has a width of 50 m. and is exposed in outcrops over a length of 1000 m. The surface trace of this belt, which is in close proximity to a foot-wall fault, appears to follow around the nose of a north-east plunging anticline. At the West end of the belt the strike is SE and the dip 45° NE while at the East end the strike is SW and the dip 35° SE.

The tuff has been highly altered by leaching, silicification and kaolinization. The oxidized surface is sparsely mineralized with finely disseminated pyrite, which may be expected to increase below the zone of oxidization.

This belt of porous tuff lies conformably below the impervious rhyodacite flows of the Upper Marama Formation (map symbol 3) which acted as a dam for the mineralizing hydrothermal solutions.

GEOCHEMICAL SURVEY

Sixteen man days were spent collecting 381 soil samples at 50 m. intervals along 18.6 km. of grid lines on Mineral Claims Vault No.1 and No. 4.

The samples were taken from the "C" and "B" soil horizons with approximately 80% taken from the "C" horizon.

The samples were placed in numbered kraft paper bags and shipped to Chemex Labs in North Vancouver, B.C. At Chemex, the samples were oven-dried at 30°C, then sieved through an ASTM - 80 mesh screen with over-sized ingredients discarded. Analyses for Hg was done by a Varian Spectrophotometer after digestion of a 1 gm. subsample of the -80 mesh material in nitric and hydrochloric acid and reduction of the Hg to the elemental state by stannous sulphate. For Sb analyses, a 2 gm. subsample of the -80 mesh material was digested with concentrated hydrochloric acid with Fe in the resultant solution reduced to Fe+2 state and Sb complexed with I-, followed by extraction of the Sb complex with TOPO MIKB and analysed by atomic absorption. Analyses for As was done by flameless atomic absorption after digestion of a 1 gm. subsample of -80 mesh material in a mixture of perchloric and nitric acid to strong fumes of perchloric acid, dilution of the digested solution to volume and reduction with K1 and conversion to arsene with NaBH₄.

RESULTS

Analytical results of the soil samples for the elements As, Hg and Sb are plotted on drawing V-85-2 with anomalous values of these elements contoured. Anomalous levels for the soil samples were taken at the 95 percentile. They are as follows: As - 15 ppm; Hg - 60 ppb; Sb - 1.4 ppm.

Contouring shows 3 distinct areas of anomalous levels of 2 or more of the trace elements. The 2 most significant of these anomalies, lying as they do over a favourable geological setting, are located as follows:

- | | | |
|-------------|-------------|--|
| Anomaly (1) | As & Sb | B/L 10S to 11.5S
2.5W to 1W |
| | As alone | 2.5W to 2E |
| Anomaly (2) | As, Hg & Sb | 9S to 12.5S
4.5E to 5.5E |
| | As alone | 2E to 6E |
| Anomaly (3) | As, Hg & Sb | An isolated anomaly
centered at 19S, 3E |
| | As alone | 19S to 22S & 3E |

This anomaly could indicate the South projection of the mineralized zone re-emerging from under the Upper Marama Rhyodacite flow (Geologic Map symbol "3")

VLF-EM 16 GROUND SURVEY

A VLF-EM 16 instrument manufactured by Geonics Limited was used to conduct the survey which took 16 man days and covered 34.5 km. of grid line.

Readings were taken at each 25 m. grid station on both the Annapolis and Seattle transmitters. The angle of tilt and the quadrature were recorded at all stations. The Annapolis signal was received at 110° Azimuth, so that all readings on this station were taken at right angles or 20° Azimuth. The Seattle signal was received at 225° Azimuth so that readings were taken at 135° Azimuth.

Geological mapping on the property indicates that the Annapolis VLF data were most useful for identifying mineralized fault structures, so the in-phase readings only were Fraser Filtered and presented in contour form on Map V-85-3.

The Fraser filtering technique has had widespread use in handling VLF-EM data for over 10 years. By means of simple mathematical operations the tilt data can be transformed into contour form and the effects of noise and topography can be filtered out. By averaging readings from pairs of stations and taking differences between pairs separated by the appropriate distance, values may be plotted and contoured in plan that transform cross-overs into peaks, while a low-pass smoothing operator reduces noise.

The results and significance of the VLF survey have not yet been fully appraised.

References: Fraser, D.C. 1969
Contouring of VLF-EM Data, Geophysics
Vol. 34, No.6, December, 1969.

MAGNETOMETER SURVEY

Magnetometer readings were taken at 25 m. intervals over 34.5 km. of grid lines. The magnetometer employed was a Geometrics G816 with an accuracy of ± 5 gammas as used. The survey took 15 man days to complete in the field.

Grid line magnetometer readings were taken after starting from a B/L station. A loop was made down a grid line from this station and a return up to the same station on the next grid line over, where a correction was made for diurnal variation. To traverse a loop usually takes from 90 to 120 minutes.

The results of this survey were plotted and contoured on the Magnetometer Survey Map No. V-85-4 on a scale 1:4000.

The magnetometer readings over the area are generally of low profile, but interpretation of the results were incomplete at the time of writing.

DISBURSEMENTS

The cost of the first phase of exploration on the Vault Claims is tabled below.

Licences:	\$ 1,554
Supplies:	266
Salaries:	
Senior Geologist	<u>9,300</u>
Assistant Geologist	<u>4,050</u>
Labour	<u>7,400</u>
Accommodation/Board	<u>2,450</u>
Equipment Rental	<u>2,016</u>
Geochemical Assays	<u>4,927</u>
* Vehicle Expenses	<u>--</u>
* Head Office Expense	<u>--</u>
Consulting Fees	<u>1,974</u>
Total Disbursements	<u><u>\$33,937</u></u>

* Included in administration costs.

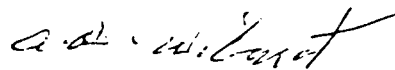
RECOMMENDATIONS

With the satisfactory completion of the initial programme of exploration on the Vault Claims, the recommendation, in my report of November 1984, for work outlined under Phase II should proceed.

This programme consists of a 1000 m. of percussion drilling, which, apart from a couple of fill-in holes on initial discovery, would be directed for the further exploration of the newly discovered zone of mineralization on Mineral Claim Vault 4.

The cost of this work was estimated at \$31,368.00.

Respectfully submitted,



A.D. Wilmot, P.Eng.

Kelowna, B.C.

May 19, 1985

CERTIFICATE

I, Ashley D. Wilmot of Kelowna, B.C.

Certify that

I graduated from Queen's University in 1936 with a Bachelor of Science Degree in Mining and Metallurgy.


I am a life member of the B.C. Professional Engineers, the Canadian Institute of Mining and Metallurgy and the B.C. and Yukon Chamber of Mines.

I am the author of this report which is based on my examination of the property together with data from exploration reports on the property by Riocanex and Dome Exploration Ltd. and on my general knowledge of the area gained while resident engineer at Dusty Mac Mines.

I have no direct or indirect interest in Seven Mile High Resources nor do I expect to receive any.

Permission is hereby granted to use this report to satisfy the requirements of the Vancouver Stock Exchange and the B.C. Securities Commission.

Kelowna, B.C.
May 19, 1985


A.D. Wilmot, P.Eng.