

822682

REPORT
ON THE PHASE I
EXPLORATION PROGRAM

ON

THE DARLIN CLAIMS

ST MARY'S LAKE AREA, KIMBERLEY
BRITISH COLUMBIA

Fort Steele Mining Division
NTS 82 F/9E

Latitude 49 deg. 35'
Longitude 116 deg. 08'

for

Chapleau Resources Ltd.
Ste 605 - 375 Howe St.
Vancouver, B.C.
V6B 1N2

Barkhor Resources Inc.
202 -224 W Esplanade
North Vancouver B.C.
V7M 3H7

by

L.G. Stephenson

November, 1991

DARLIN - STEPHENSON

INDEX

1.0 Summary	1
2.0 Introduction	2
3.0 Location, Claims and Access	2
4.0 Previous work	3
5.0 Geology	
5.1 Regional	4
5.2 Property	4
6.0 Geophysics	4
7.0 Mineralization	6
8.0 Current Work Program	6
9.0 Conclusions	7
10.0 Recommendations	8
11.0 Budget	9
Author's Qualifications	10
Appendix I	11
MAPS	
Map 1 - Claim Location Map	3
Map 2 - Geology and Drill Location Map.	5

1.0 SUMMARY

This report summarizes the initial Phase I work done on the 68 two post Darlin Claims in the Fort Steele Mining Division, 12 kilometres south of Cominco's Sullivan Mine at Kimberley, British Columbia by Kokanee Explorations Ltd. on behalf of Barkhor Resources Inc. and Chapleau Resources Ltd.

Although the base metal discoveries which lead to the commencement of mining at the Sullivan mine were located in the latter part of the 19th Century, little work has been recorded on the area of these claims 12 kilometres to the south. Some regional work had identified favourable stratigraphy and showings during previous exploration periods. Kokanee explored the property in 1991.

The claims lie within the central portion of the Purcell Anticlinorium, which consists of sedimentary argillites and quartzites and related intrusions of gabbro sills and dikes of the Middle and Lower Aldridge formations. The Pre-Cambrian Hellroaring Stock intrudes this rock assemblage to the southwest of the property and a major structural break (St. Mary's Fault) has juxtaposed younger Pre-Cambrian to this rock formation to the south of the property.

A core drill program of over 4,500 feet in 6 holes confirmed the sulphides found over 70 - 100 metres of stratigraphy are a continuation of those found in outcrop 1 kilometre along strike off the property to the east and continuing for over 6 kilometres of strike length and down dip on this property and are related to the geochemical and initial VLF geophysical anomalies. Two lines of Max Min I geophysical surveying identified three stratiform anomalies also related to sulphides. The mineralization encountered was found in discreet beds varying from 10 cm to over 1 metre in thickness consisting mainly of pyrrhotite occurrences of galena and sphalerite and minor chalcopyrite.

The following conclusions can be made. A significant amount of bedded sulphide layers can be found on the Darlin Property with base metals and thicknesses that suggests a nearby source. The stratigraphy and geologic environment is similar to that which hosts the nearby Sedex type Sullivan deposit with additional untested zones and targets along strike and at depth.

It is my recommendation that the Second phase of the project be proceeded with to continue the evaluation of the property. A program of geophysics and drilling is recommended with a total expenditure of \$150,000.

2.0 INTRODUCTION

This report summarizes the initial Phase I work done on the Darlin Claims in the Fort Steele Mining Division, 12 kilometres south of Cominco's Sullivan Mine at Kimberley, British Columbia. The work involved geophysics, geological mapping and core drilling during the Month of October 1991. Current work is being carried out by Kokanee Explorations Ltd. on behalf of Barkhor Resources Inc. who are earning a 50% joint venture interest in the claims from Chapleau Resources Ltd. Kokanee Explorations Ltd. has provided expertise and operatorship to initially develop the property and in that regard retains a 60% back in right by providing senior financing.

This report reviews all the available data to guide the continuing exploration program.

3.0 LOCATION, CLAIMS AND ACCESS

The property, between 1,000 and 2,000 metres A. S.L. is located south of the St Mary's River in south eastern British Columbia. Access is readily available off well maintained logging roads, which leads to Kimberley, British Columbia (Map 1).

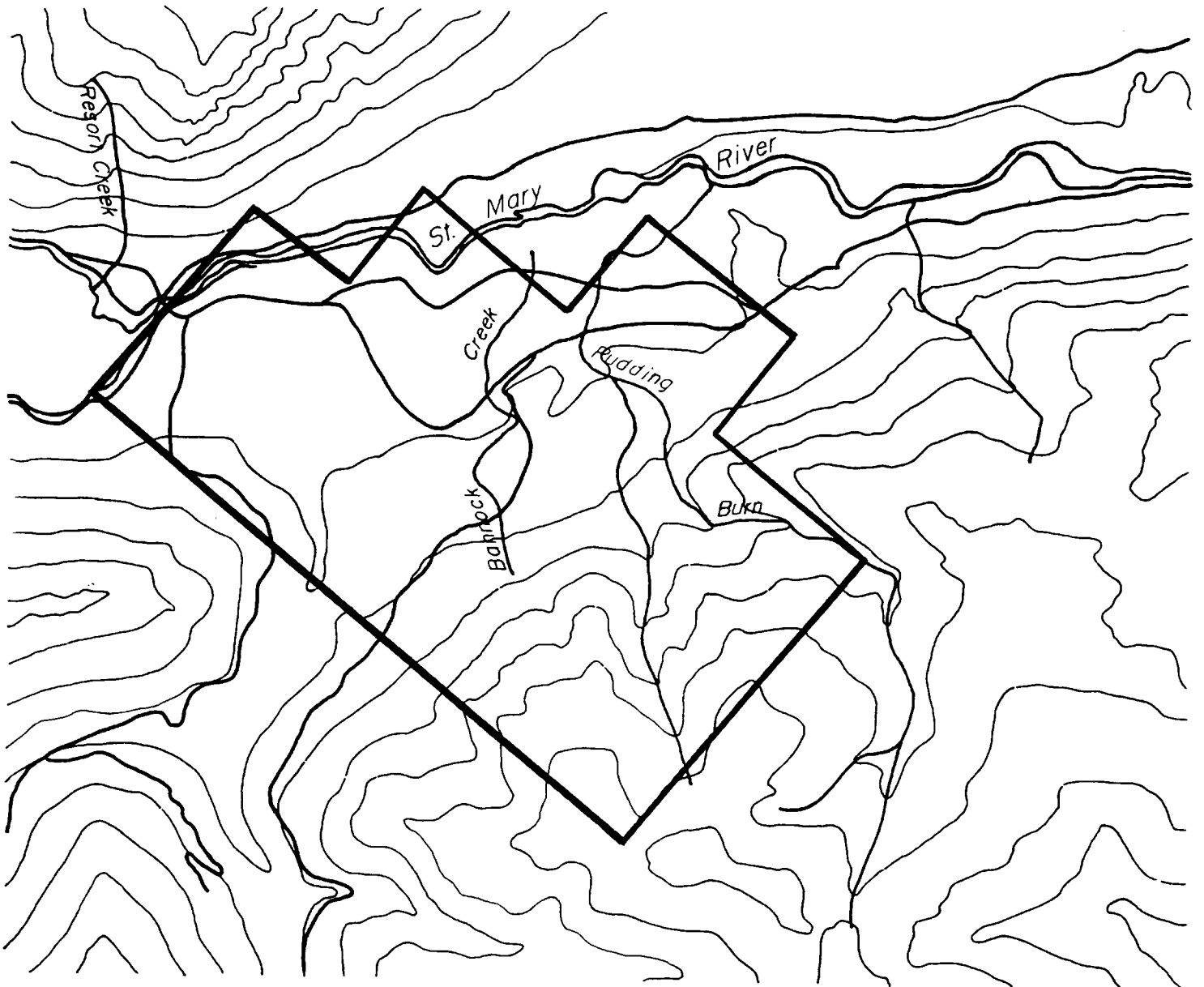
The property consists of 68 two post claims (Darlin 1 -68) staked by local prospectors and optioned to Chapleau Resources Ltd. All claims are in good standing according to the regulatory statutes. These claims are listed in Appendix I outlined on Map 1.

4.0 PREVIOUS WORK

Although the base metal discoveries which lead to the commencement of mining at the Sullivan mine were located in the latter part of the 19th Century, little work has been recorded on the area of these claims 12 kilometres to the south.

Some regional work had identified favourable stratigraphy north and west of the claims during previous exploration periods. Some drilling was reported in these areas by Cominco in the late 1970's and early 1980's and extensive workings? on the massive sulphide vein on the "Boy Scout" Property, 5 kilometres to the southwest in the 1950's. No serious work was undertaken on this property until this most recent program.

Kokanee carried out geological and geochemical work in the summer of 1991 on behalf of Chapleau.



NTS. 82F/9E

**CHAPLEAU RESOURCES
DARLIN PROPERTY**

CLAIM LOCATION MAP

Scale: 1:50 000

Date: August, 1991



3



5.0 GEOLOGY

5.1 Regional

The claims lie within the central portion of the Purcell Anticlinorium, which consists of sedimentary argillites and quartzites and related intrusions of gabbro sills and dikes of the Middle and Lower Aldridge formations. The Pre-Cambrian Hellroaring Stock intrudes this rock assemblage to the southwest of the property and a major structural break (St. Mary's Fault) has juxtaposed younger Pre-Cambrian to this rock formation to the south of the property.

The Sullivan, North Star and related Mines are located in the same rock formations 12 kilometres to the northeast.

5.2 Property (Map 2)

Mapping has identified the sediments and intrusions related to the Aldridge formation that host the Sullivan. Higher grade metamorphism related to the Hellroaring stock complicates the identification but drilling results have confirmed the geology. As well, the drilling confirmed the presence of pegmatitic sills and dikes seen in outcrop. Although continuous, their importance appears relatively minor.

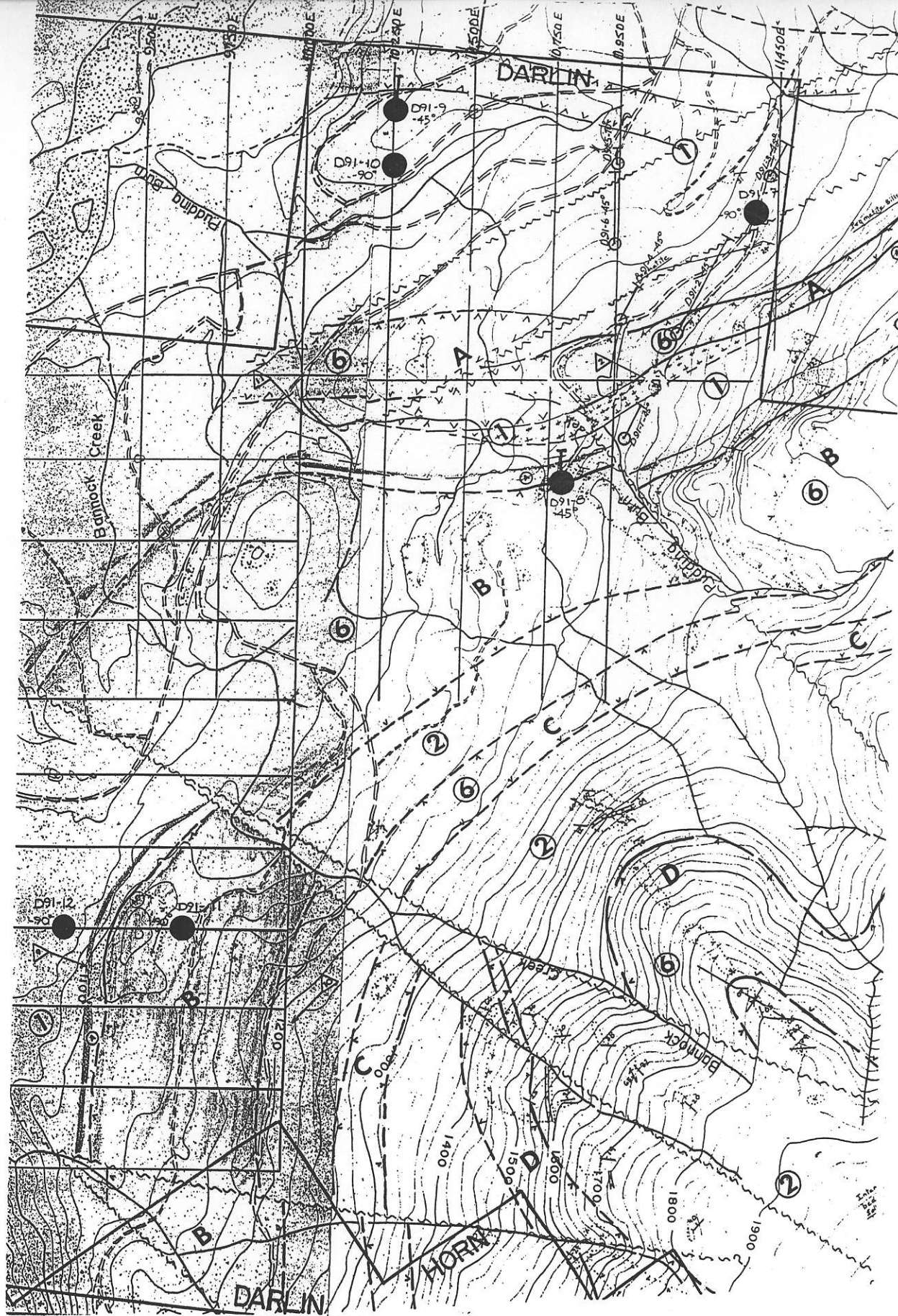
The property has been mapped in sufficient detail to identify that the mineralized sulphide beds intersected in the drilling are related to those found in the initial geological mapping. This has confirmed that the geochemical and initial VLF geophysical anomalies are definitely related to the known sulphide occurrences and continue to suggest a potential strike length of the zone of interest in excess of 6 kilometres.

From the drilling some co-relation of the gabbro sills appears to be possible confirming the stratigraphic nature of the mineralization. The direct co-relation of the sulphide beds between drill holes has been made on a tentative basis since no significant "marker" horizons have been identified. Spatial relationships and association with the gabbros, appears to be relatively useful in establishing a tentative co-relation of the mineralized beds.

Additional reconnaissance prospecting and geological mapping will be required to complete the understanding of the area surrounding the main zones of mineralization.

6.0 GEOPHYSICS (See Appendix II)

Two lines (Map 2) of Max Min I geophysical surveying identified three stratiform anomalies that were investigated by drilling. As well the geophysical results have been used to correlate the geology between drilling and surface mapping results.



Drill hole Location ○
Proposed Drill Hole ●

Chapleau Resources/
 Barkhor Resources
GEOLOGY AND DRILL HOLE LOCATION
MAP

The association of geophysics and the intersected sulphides suggests that additional geophysics, including down hole surveying would be quite advantageous. Surface geophysical surveying over the remainder of the claims is recommended.

7.0 MINERALIZATION

The mineralization encountered in the drilling is quite significant in that it is found in discreet beds varying from 10 cm to over 1 metre in thickness. Although consisting mainly of pyrrhotite occurrences of galena and sphalerite and minor chalcopyrite were noted. The sulphide beds mostly had a massive and disseminated component and from the tentative co-relation shows an increasing thickness to the south. Graded beds and bedding tops have not been positively identified to date.

8.0 CURRENT WORK PROGRAM

The current drill program has consisted of over 4,500 feet of core drilling in a total of 6 holes. This drilling confirmed the sulphides found on Kokanee's adjacent property extend onto the Darlin Property and extended the confirmed strike of the mineralized horizon by over 1 kilometre. As well this drilling has confirmed that the zone of sulphides beds is found over 70 - 100 metres of stratigraphy.

Of particular significance, this drilling program has demonstrated that the potential of continuing the mineralized zone along the over 6 kilometres of strike length on the Darlin property and down dip (to the south) is excellent.

The drill hole location is roughly plotted on Map 2. All holes encountered metamorphosed argillites and quartzites of the Lower and Middle Aldridge formation and the related gabbro sills.

Drill hole D91-1 tested the southern most conductor found by the limited geophysical survey. Several small bands of massive sulphides and a large pegmatite sill(?) were intersected and the hole terminated in a gabbro sill which has been identified in surface outcrops. Only minor assay values were encountered.

Drill hole D91-1 tested the southern most conductor found by the limited geophysical survey. Several small bands of massive sulphides and a large pegmatite sill(?) were intersected and the hole terminated in a gabbro sill which has been identified in surface outcrops. Only minor assay values were encountered.

Drill hole D91-2 tested the conductor co-related with the sulphide band found on Kokanee's adjacent property and the surface geochem. Several significant beds of massive sulphides over a 70 metre interval were intersected including 142.6m - 143.1m 0.14% lead and 195.3m - 195.6m 0.67% zinc. These zones confirm that the surface geochem and geophysics is definitively related to beds of massive

sulphides.

Drill hole D91-3 tested the northern most and strongest conductor found by the limited geophysical survey. Again several small beds of massive sulphides and a granopheric fragmental at the top of a gabbro sill were intersected including 67.5m - 67.7m 0.26% zinc. A small graphitic zone was intersected beneath this gabbro sill. Drill hole D91-4 drilled 200 metres to the west of D91-2 tested the western projection of that zone. Some small beds of sulphides were intersected but the hole terminated prematurely due to caving.

Drill hole D91-5 and 6 drilled 400 metres to the west of D91-3 tested the western projection of that geophysical zone. Hole D91-5 encountered gossan in the overburden and some minor sulphide beds before intersecting the same granopheric fragmental gabbro sill. Similarly, a minor graphitic zone was encountered beneath the sill. Hole D91-6, beneath D91-5, intersected the sulphide beds although displaced somewhat by a fault that was also encountered in the hole. Tentative correlation of the sulphides beds in these two holes suggests a thickening of them to the south (in hole D91-6).

9.0 CONCLUSIONS

Upon review of the available data and the results of the current exploration program, the following conclusions can be made.

- 1.) This current drill program has confirmed that a significant amount of bedded sulphide layers can be found on the Darlin Property. These beds, in my opinion, represent a distal phase of a sulphide depositional event that 12 kilometres to the northeast deposited the mineralized zones in the Sullivan - North Star area.
- 2.) The base metals in and the thickness of the sulphide beds suggests that the source of the sulphides could be located on the property. This source represents a target where the sulphides would be thickest and remains untested.
- 3.) The stratigraphy and geologic environment has been confirmed to be similar to that which hosts one of the largest base metal mines in the world and in that regards is one of the most potential target areas for Sedex type deposits.
- 4.) The full economic potential of the property has yet to be fully developed, given that this current work covers only the northeast part of the property and additional zones and targets along strike and at depth remain untested.

In my opinion, this property has excellent continuing exploration potential that warrants investigation.

10.0 RECOMMENDATIONS

It is my recommendation that the Second phase of the project be proceeded with to continue the evaluation of the property. In that regard the following program is recommended.

1.) To build on the initial success of the geophysical surveying and to further the evaluation of the property, surface geophysics along the projected strike of the favourable stratigraphic horizon should be carried out. In conjunction with that down hole geophysics to develop a third dimension picture of the stratigraphy is recommended.

2.) Drilling an additional 7-10 holes to test the western strike extensions of the known mineralized stratigraphy and to further develop the subsurface geology is warranted. Additional targets will be developed from the geophysical exploration work which will also require drill testing.

A total expenditure of \$150,000 is recommended to carry this investigation.

11.0 BUDGET

1. Surveying, grid establishment	\$ 5,000
2. Geophysics (UTEM, surface & down hole)	\$ 25,000
3. Road and drill site preparation	\$ 3,000
4. Core Diamond drilling (2,000 metres)	\$ 90,000
5. Supervision and reporting, etal.	\$ 7,000
6. Contingency and Administration	\$ 20,000
	=====
<u>TOTAL EXPENDITURES</u>	\$ 150,000

STATEMENT OF QUALIFICATIONS

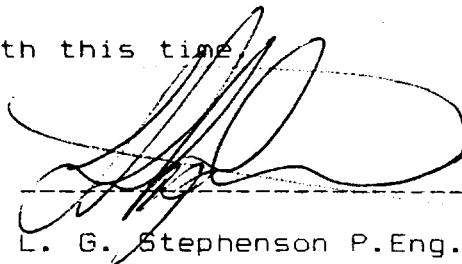
The following outlines the qualifications of the author of this report.

1. Graduate of Carleton University 1975 Bachelor of Science Degree in Geology. Graduate of York University 1985 Masters of Business Administration.
2. Registered as a Professional Engineer for the Province of Ontario (1981) and is currently a member in good standing.
3. Has had over 24 years experience in the field of mining exploration.

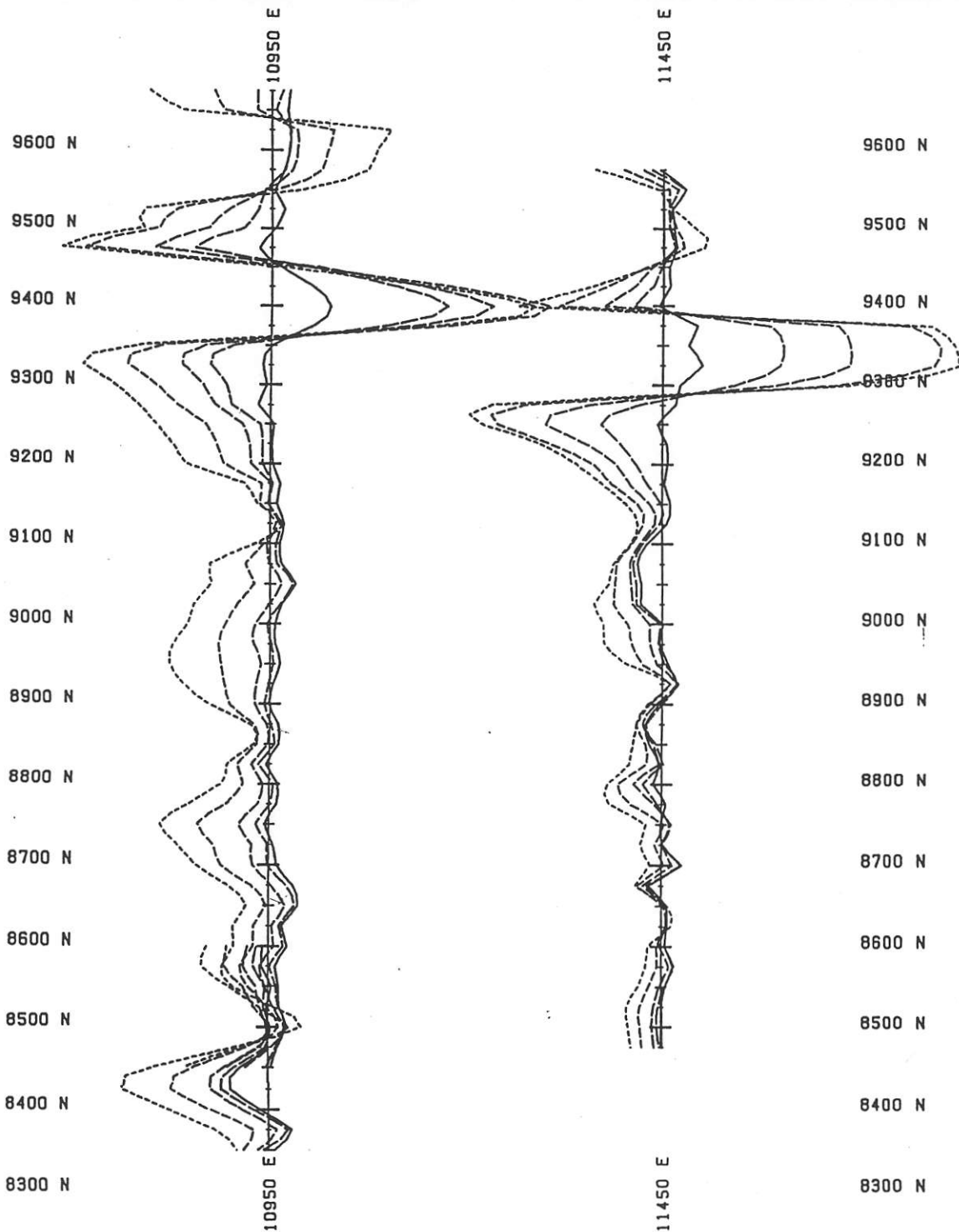
With respects to this report ;

1. I have examined the available data including reviewing the current work and inspecting the core. I am well acquainted with the area and all aspects of the exploration program. I have conferred with the project geologist and made various field inspections during the program.
2. This report represents, in my opinion, the best interpretation of the data ath this time.

Dated at: Cranbrook,
British Columbia
November 15, 1991

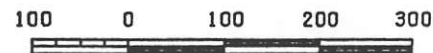


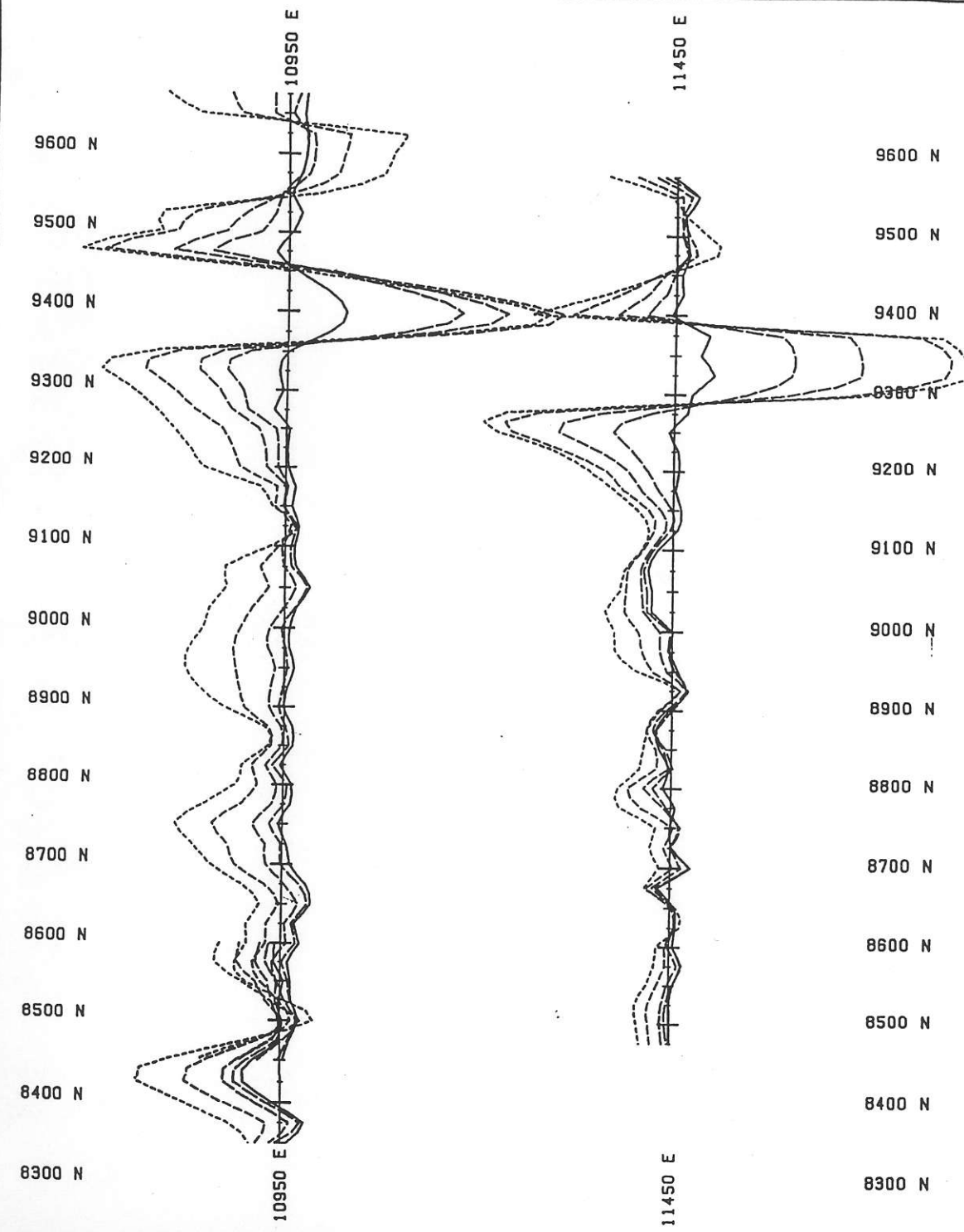
L. G. Stephenson P.Eng.



MAX-MIN 1-9 HORIZONTAL LOOP
 SOLID LINE 220 HZ
 DASHED 4.1 - 880 HZ
 3.1 - 1760 HZ
 2.1 - 3520 HZ
 1.1 - 7060 HZ
 POSITIVE TO LEFT
 SCALE 5 % / CM

KOKANEE EXPLORATION LTD.
 DARLIN PROPERTY
 HORIZONTAL LOOP SURVEY
 IN PHASE COMPONENT





MAX-MIN 1-9 HORIZONTAL LOOP
 SOLID LINE 220 HZ
 DASHED 4.1 - 880 HZ
 3.1 - 1760 HZ
 2.1 - 3520 HZ
 1.1 - 7060 HZ
 POSITIVE TO LEFT
 SCALE 5 % / CM

KOKANEE EXPLORATION LTD.
 DARLIN PROPERTY
 HORIZONTAL LOOP SURVEY
 IN PHASE COMPONENT



S.J.V. CONSULTANTS LTD.