

LOG NO:	DEC 1 8 1992	RD.
ACTION:		
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Ground Magnetic  
Survey Results

on the

Nordik Claim Group  
Cariboo M.D.  
NTS Map 93A/12E  
52° 35' North Latitude  
121° 35' West Longitude

Mount Polley Area  
Likely, BC

for

BIG VALLEY RESOURCES INC.  
P.O. Box 4210  
Williams Lake, BC  
V2G 3V2

by

J.E. Wallis, P.Eng.  
K&M Consultants  
Williams Lake, BC

December 1992

*J.E. Wallis*

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

22,684

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TRANS # _____

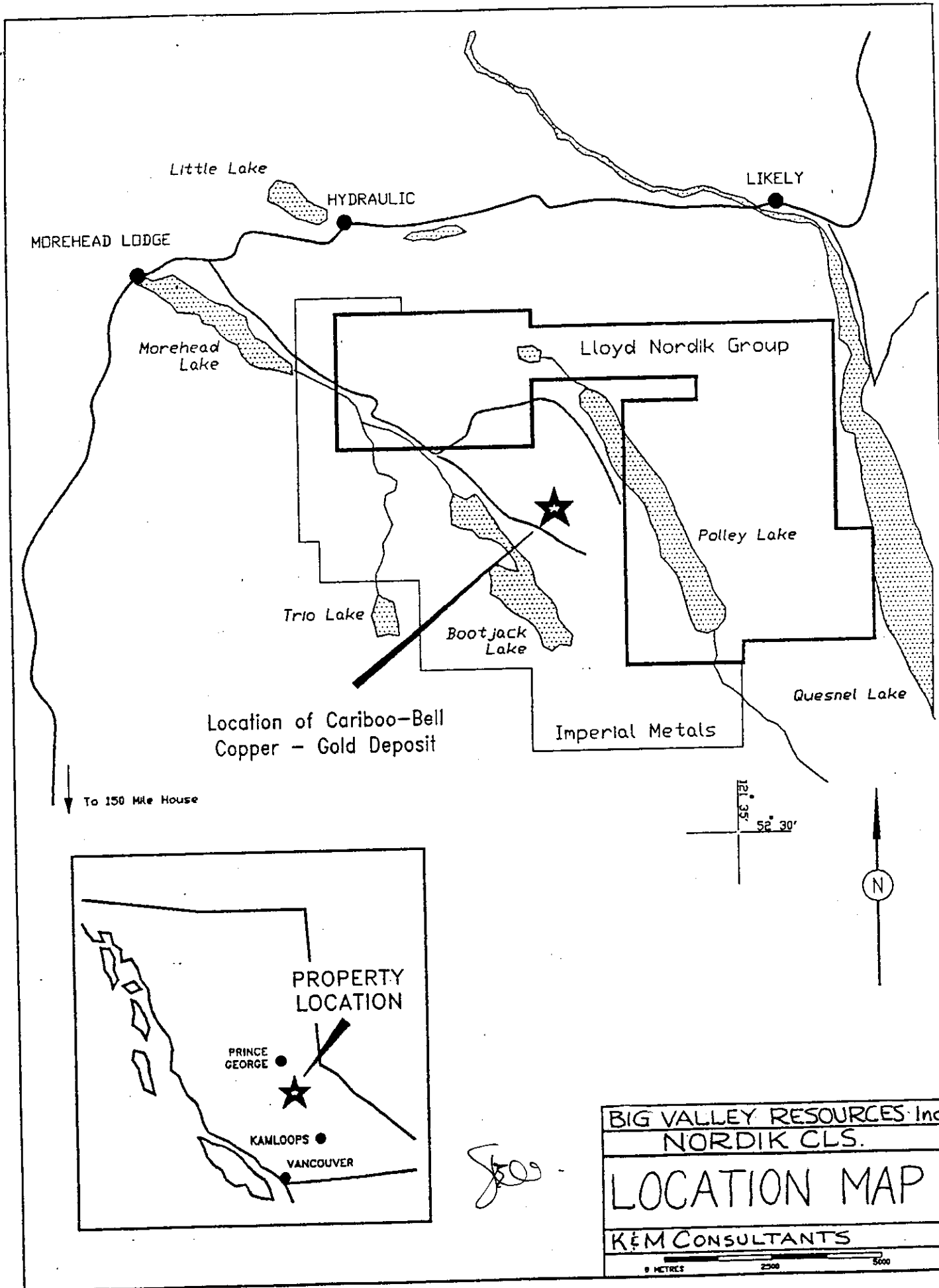
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## APPENDICE'S

Appendix A - 1992 Expenditures - Nordik Claims



Little Lake

HYDRAULIC

LIKELY

MOREHEAD LODGE

Morehead Lake

Lloyd Nordik Group

Polley Lake

Trio Lake

Bootjack Lake

Quesnel Lake

Location of Cariboo-Bell  
Copper - Gold Deposit

Imperial Metals

To 150 Mile House

121° 35'  
52° 30'

N

PROPERTY  
LOCATION

PRINCE  
GEORGE

KAMLOOPS

VANCOUVER

BIG VALLEY RESOURCES Inc.  
NORDIK CLS.

LOCATION MAP

KEM CONSULTANTS

0 METRES 2500 5000

*J. 200*

## INTRODUCTION

K&M Consultants were contracted by Big Valley Resources Inc. to provide a preliminary geologic evaluation of the Lloyd and Nordik claims adjoining the Mount Polley deposit on the north and east sides.

Field work commenced on October 1, 1992 when the writer in the company of Mr. Lloyd Tattersall of Big Valley Resources Inc. visited the property on a familiarization tour. After reviewing all of the available data on the Mount Polley deposit and examining available government airborne magnetic maps, it became obvious that the Mount Polley deposit has an excellent magnetic signature. The airborne magnetic map shows that the Mount Polley anomaly extends north westerly onto the Lloyd claims and that another strong magnetic anomaly exists on the Nordik claims on the east side of Polley Lake. Both of these areas were targeted for future exploration with the anomaly on the east side of Polley Lake scheduled as a priority for the following reasons: 1) the strength and size of the anomaly, 2) the anomaly is contained within the claim block, and 3) assessment work is due on the claims in November of this year.

Exploration between October 1 and November 10, 1992 consisted of 10 days of geological traverses, 39.1 kilometers of line grid and 39.1 kilometers of ground magnetometer survey.

## LOCATION AND ACCESS

The Nordik claims are located approximately 65 kilometers north-east of Williams Lake in south central British Columbia.

Williams Lake is serviced by twice-daily commuter aircraft from Vancouver, BC. Best access is via Hwy. 97 easterly from Williams Lake to 150 Mile House and then northerly via good all-weather road to Likely, a small town at the northern tip of Quesnel Lake. From Likely, the Hydraulic Road or Horsefly Road provides access to Polley Lake. An irregular network of haul roads built to facilitate logging operations in the area, provides reasonable access to most of the claim area from Polley Lake.

## TOPOGRAPHY

Relief is gentle in the Polley Lake region, averaging less than 175 meters. Most of the area is heavily covered with jackpine, spruce, cedar and fir timber. Small localized clearcuts are dense with tag alder undergrowth and difficult to travel.

Outcrops of the underlying rock formations are sparse, and mostly limited to haul road cuts and a few of the sharper upland ridges.

## PROPERTY

The Nordik 1-5 mineral claims are recorded on Map Sheet 93A/12E. Geographical coordinates are approximately 52° 35' north latitude and 121° 35' west longitude. Property details are as follows:

Claim Name	No. Units	Record No.	Due Date	Ownership
Nordik 1	20	8891	Nov. 10/92	Big Valley Resources Inc.
Nordik 2	20	8892	Nov. 10/92	Big Valley Resources Inc.
Nordik 3	20	8893	Nov. 10/92	Big Valley Resources Inc.
Nordik 4	16	8894	Nov. 10/92	Big Valley Resources Inc.
Nordik 5	18	8895	Nov. 10/92	Big Valley Resources Inc.
Nordik 6	14	6888	June 25/93	Big Valley Resources Inc.

## LOCAL GEOLOGY

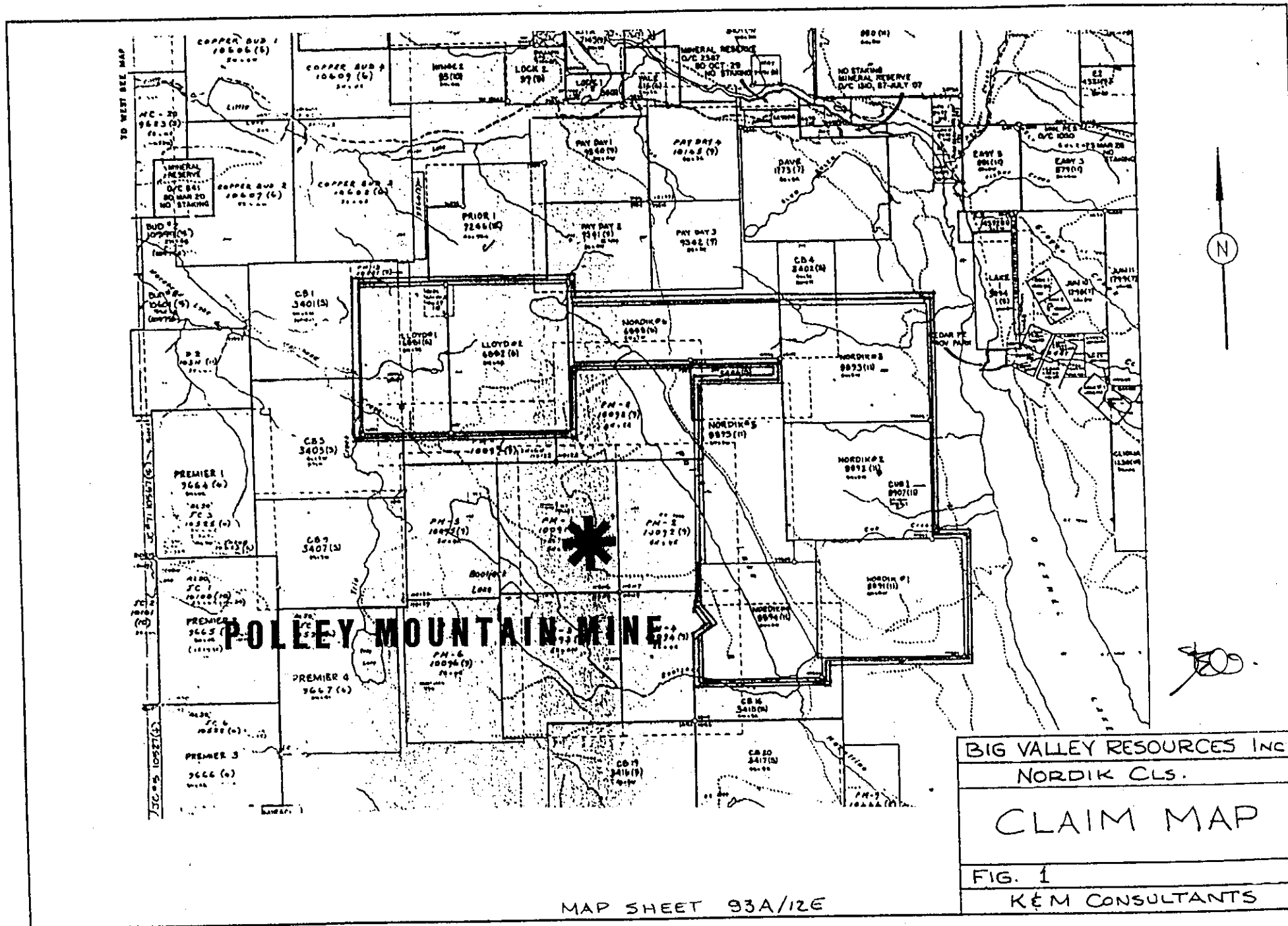
The property is located within the Quesnel Trough, a Mesozoic tectonic feature occurring between the Omineca Crystalline Belt to the east and the oceanic-deposited rocks of the Cache Creek group to the west. The rocks of the Quesnel Trough are dominantly volcanics and volcanoclastics. Locally, these volcanics have been intruded by the Mount Polley syenite stock.

## ECONOMIC GEOLOGY

The adjoining Mount Polley or Cariboo Bell deposit is a porphyry copper-gold deposit hosted in a dyke complex. Ore zones are distributed over relatively wide areas and are commonly associated with breccia pipes or intrusive breccias. Metasomatism of the wall rock is extensive and complex, and intrusive sequences are very difficult to interpret. This dyke complex probably represents a portion of the upper level of the Mount Polley stock.

The deposit also exhibits a very distinctive zonally arranged alteration facies. The alteration facies are as follows:

- 1) Inner zone - associated with copper-gold mineralization. Orthoclase, biotite (epidote), albite



TO WEST BEE MAP

N

**POLLEY MOUNTAIN MINE**

BIG VALLEY RESOURCES INC.  
 NORDIK CLS.  
 CLAIM MAP  
 FIG. 1  
 KEM CONSULTANTS

MAP SHEET 93A/12E

- 2) Intermediate zone - zeolites, epidote, albite, (orthoclase)
- 3) Outer zone - albite, epidote, chlorite, calcite

### AIRBORNE MAGNETIC SURVEYS

The Hydraulic Map Sheet was magnetically surveyed by the Geophysics Division, Geological Survey of Canada in the summer of 1961. The results are published as Geophysics Paper 1533G.

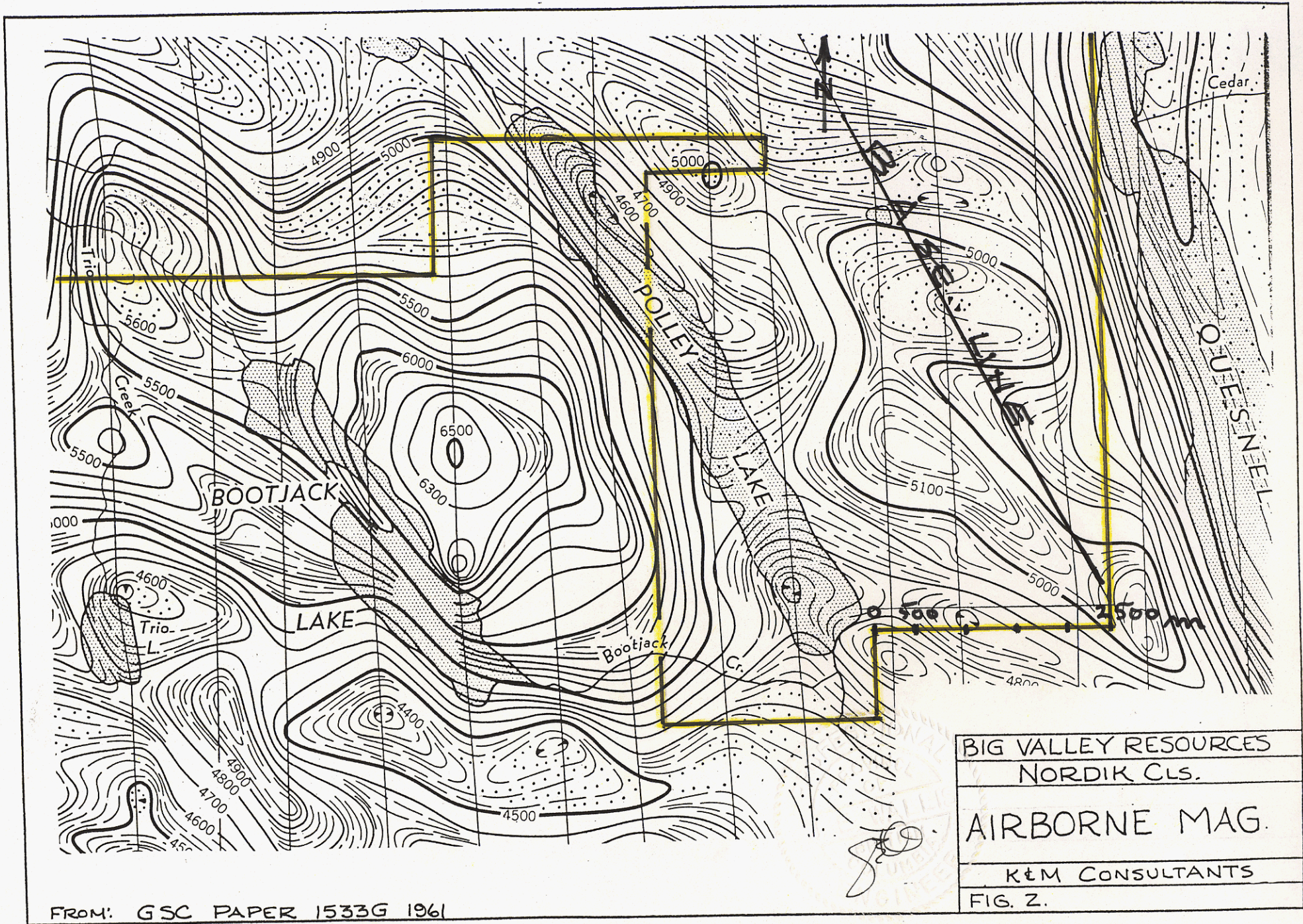
Examination of the airborne magnetic survey results shows that the Mount Polley or Cariboo Bell deposit has a very distinct magnetic signature. The magnetic anomaly appears to readily define the boundaries of the syenite stock (Figure 2) which hosts the Cariboo Bell copper-gold deposit.

### 1992 EXPLORATION

In late September of 1992 a decision was made to concentrate exploration activity on the Nordik claim blocks on the east side of Polley Lake. Although outcrop in the area is sparse, 10 days of geological traverses were conducted over the Nordik 1, 4, and 5 claim groups in an effort to define the general bedrock geology. These claim blocks cover a magnetic anomaly disclosed on the airborne magnetic survey of the Hydraulic Map Sheet.

### GEOLOGY

Although geological traversing was unable to accurately map the bedrock geology, sufficient outcrops were located along the edge of the more prominent topographical features to determine that bedrock consists of a suite of lower Triassic - Upper Jurassic basaltic flows. For the most part, bedrock underlying the north-west trending airborne magnetic anomaly consists of polymictic basaltic breccia and agglomerates. Near the outer edges of the anomaly most bedrock exposures consist of dark green to black amygdaloidal basalt and basalt breccia. Considerable narrow quartz and calcite stringers were noted in bedrock samples along the baseline between lines 9 North and 12 North near the headwaters of Cub Creek.



FROM: GSC PAPER 1533G 1961

BIG VALLEY RESOURCES
NORDIK CLS.
AIRBORNE MAG.
K&M CONSULTANTS
FIG. 2.



## GROUND MAGNETIC SURVEY

A line grid was established to cover the airborne magnetic anomaly indicated on the Nordik claims. This consisted of a baseline bearing N 28° W, of which 900 meters is south of the Polley Lake forestry access road and 4200 meters north of the road (see Figure 3). Crosslines varying in length from 500 meters to 1750 meters were then cut, flagged and marked at 50 meter intervals. The line grid totals 39.1 kilometers.

This line grid was then magnetically surveyed utilizing an MP-2 portable precession proton magnetometer leased from Scintrex of Vancouver, BC. Anomalous results varying from 59,000 to 60,000 gammas are plotted and shown on Figure 3 - Composite Magnetic-Geology Map appended to this report.

## CONCLUSION

The ground magnetic survey completed on the Nordik claims has verified the magnetic anomaly outlined by the Geological Survey of Canada in the 1961 airborne magnetic survey of the Hydraulic Map Sheet.

The anomalous area appears to be underlain by polymitic basaltic brecciated rocks similar to those immediately overlying the nearby Cariboo Bell copper-gold deposit. This suggests that the anomaly is reflecting the presence of higher than normal concentration of magnetic minerals in the underlying formation. The long narrow 60000 gamma anomaly just west of the baseline between lines 11N and 15N suggests a shear zone or dyke system.

It is also of interest to note that the strongest anomaly is near the headwaters of Cub Creek. The gravels of Cub Creek have been long known to carry fine placer gold values. There is a strong possibility that these gold values may have been eroded from the bedrock source of this anomaly.

## RECOMMENDATIONS

The logging access road to the landing located near the baseline between lines 8N and 9N should be extended along the baseline to L14N. Because bedrock is relatively shallow near the southern end of the 60,000 gamma anomaly, this will provide an excellent opportunity to trench and map the bedrock geology. Mapping and sampling of the trenches should provide sufficient information to permit logical collaring of 2 to 3 diamond drill holes to test the anomaly.

Cost estimates are as follows:

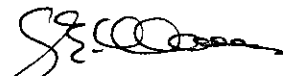
Construct 1.5 kilometers access trail	
30 hrs. dozer @ \$100/hr . . . . .	\$ 3,000
Trenching, 30 hrs dozer @ \$100/hr . . . . .	3,000
Diamond drilling	
1 000 ft. NQ drilling @ \$22/ft . . . . .	22,000
Assays . . . . .	1,500
Engineering	
Geological mapping, sampling and Report . . . .	5,000
Vehicle rentals . . . . .	2,000
Mobilization and demobilization . . . . .	7,000
Accommodation	
40 mandays @ \$60/manday . . . . .	<u>2,400</u>
Sub-total	\$ 45,900
Contingency	<u>6,100</u>
Total	\$52,000

## CERTIFICATE

I, James E. Wallis, of 708-1155 West Pender Street, Vancouver, BC, do hereby certify that:

- 1) I am a mining engineer registered with the Association of Professional Engineers of BC.
- 2) I am a graduate of the Hailebury School of Mines, 1958, the University of Alaska with a B.Sc. in Mining Engineering 1965, and Queen's University with a M.Sc. (Eng.) in mine evaluation (1967).
- 3) I have practised my profession continuously since 1958.
- 4) The foregoing report is based on
  - a) A study of available company and government reports
  - b) My personal knowledge of the area resulting from work in the area since 1990 and personal supervision of the work covered in this report.
- 5) I have not directly or indirectly received, nor do I expect to receive any direct or indirect interest in any property or securities of Big Valley Resources, Inc.
- 6) I consent to the inclusion of this report or any portion thereof in a Prospectus or Statement of Material Facts.

Dated this 7th day of December 1992, in the City of Williams Lake, Province of British Columbia.

  
J.E. Wallis, P.Eng.

**BIBLIOGRAPHY**

Bailey, David-Gerard; The Geology of the Moorehead Lake Area, South Central British Columbia 1978.

Geological Survey of Canada; Geophysics Paper 1533G Hydraulic Map Sheet, B.C. 1961

## Appendix A

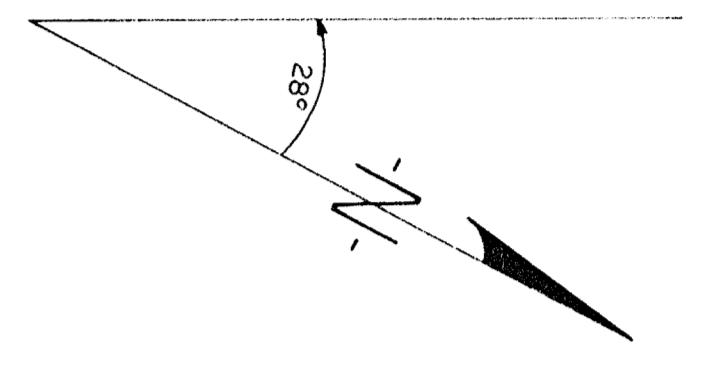
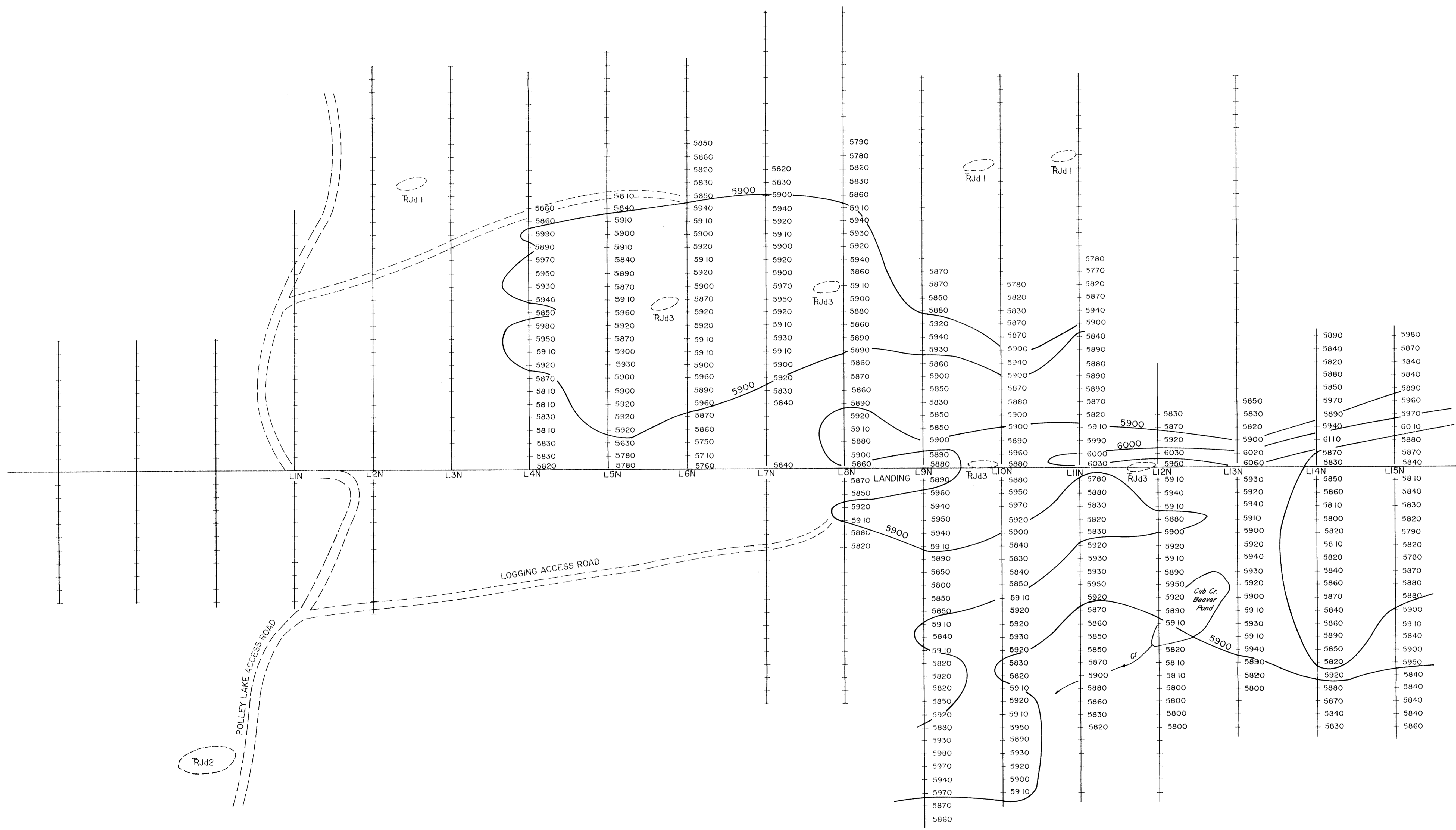
1992 Expenditures - Nordik Claims

**1992 EXPENDITURES - NORDIK CLAIMS**

**PRELIMINARY GEOLOGIC MAPPING AND MAGNETOMETER SURVEY**

Line grid 33.25 kms @ \$300/km . . . . .	\$ 9,975.00
Geological . . . . .	5,000.00
Magnetometer survey 33.25 kms @ \$150/km . . . .	4,987.50
Accommodation and Meals	
90 mandays @ \$50/manday	4,500.00
Vehicle rental . . . . .	1,500.00
Final report . . . . .	<u>3,000.00</u>
Total	\$ 28,962.50

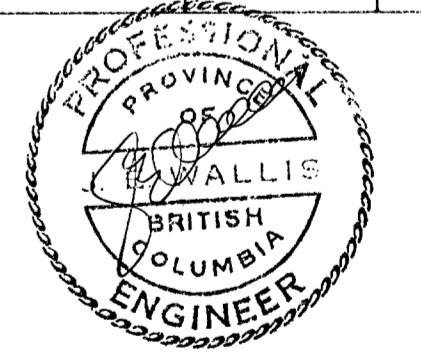
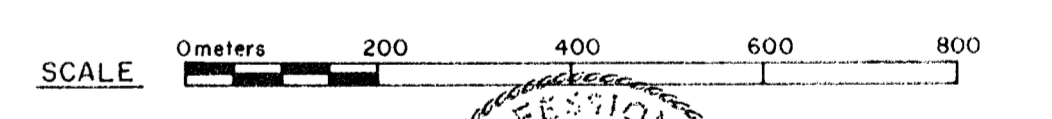
*J. J. O'Connell*



**LEGEND**

TRIASSIC AND JURASSIC

- Rjd BASALTIC BRECCIA, FLOWS, TUFFS, AND EPICLASTIC ROCKS
- Rjd1 andesitic crystal, lapilli tuff
- Rjd2 dark green to black amygdaloidal basalt and breccia
- Rjd3 polymictic basaltic breccia and agglomerate



**BIG VALLEY RESOURCES INC**

**NORDIK M.C.'S**

LIKELY, BRITISH COLUMBIA  
CARIBOO MINING DIVISION

COMPOSITE MAP

MAGNETIC SURVEY - GEOLOGY

K & M CONSULTANTS - WILLIAMS LAKE, B.C.

Nov 30/92

NOTE: SURVEY DATA UTILIZING MP-2 PORTABLE PROTON PRECESSION MAGNETOMETER.

DIURNAL VARIATIONS CORRECTED HOURLY FROM BASE STATIONS AT L2N 0100 AND L8N 0100

BASE VALUES IN gammas ie 5860 X 10

AR 22684