# NORTHWEST GEOLOGICAL CONSULTING LTD.

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REPORT ON THE CARIBOO RIVER
PLACER GOLD PROPERTIES
of
BIG VALLEY RESOURCES INC.
by
Uwe Schmidt, B.Sc., F.G.A.C.
Feb.22, 1987

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#### 1. SUMMARY AND RECOMMENDATIONS

Big Valley Resources Inc. owns two groups of placer leases near Likely, in the historic Cariboo placer gold district. One property, the Cariboo River placer leases, were actively explored in 1986. Three gravel types were outlined with an indicated mining life of about 3 years of seasonal operation.

The second property, the Cariboo Lake placer leases have recently been the subject of a study by the Geological Survey of Canada. This study outlined a previously unknown, buried Quaternary valley which has a high potential of containing gold-bearing fluvial gravels.

Two separate projects are recommended. On the Cariboo River leases, a program of reverse circulation drilling, bulk sampling and possible seismic work is recommended to further outline the richer, Lower and Upper channels. Also, the gravels underlying the blue-green clay horizon should be tested. There is no difference in appearance between these and the gold-bearing gravels. If these gravels are gold-bearing and economic, it would greatly increase reserves. This program is estimated to cost \$300,000.

On the Cariboo River leases, a program of seismic surveying, reverse circulation drilling and bulk sampling is recommended to explore the Quaternary buried valley. This program is estimated to cost \$100,000.

Respectfully submitted,

UWE SCHMIDT

ELLON

-Uwe/Schmidt, B.Sc., F.G.A.C

#### 2. INTRODUCTION

The writer was commissioned in May, 1986, by Big Valley Resources Inc. to summarize the work carried out to date on the company's Cariboo River placer mining property. The writer examined the property on May 2, 1986, and carried out a compass survey of the primary area of interest.

In January of 1987 the writer became aware of an independent study by Dr. J. Clague of the Geological Survey of Canada of the company's Cariboo Lake placer leases. In view of this report the writer has reassessed this property and recommends an aggressive exploration program.

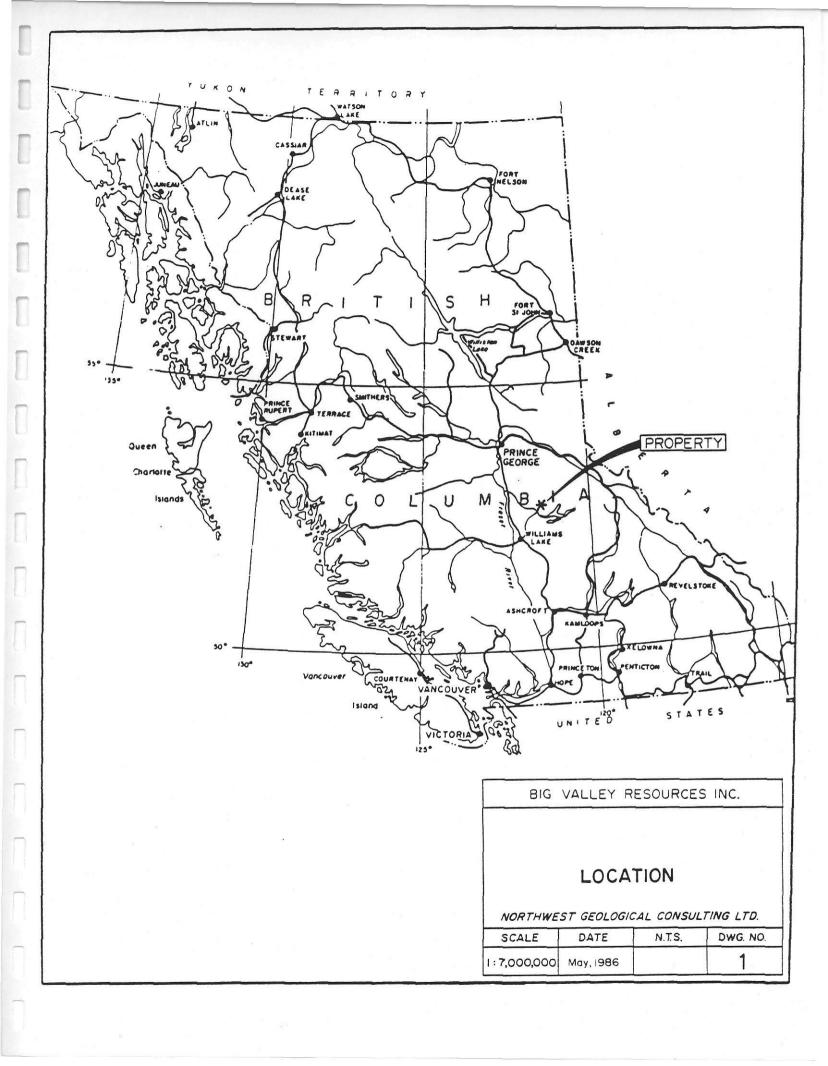
Big Valley Resources Inc. is a B.C. incorporated non-reporting company which holds two gold placer mining properties northeast of Likely, B.C.

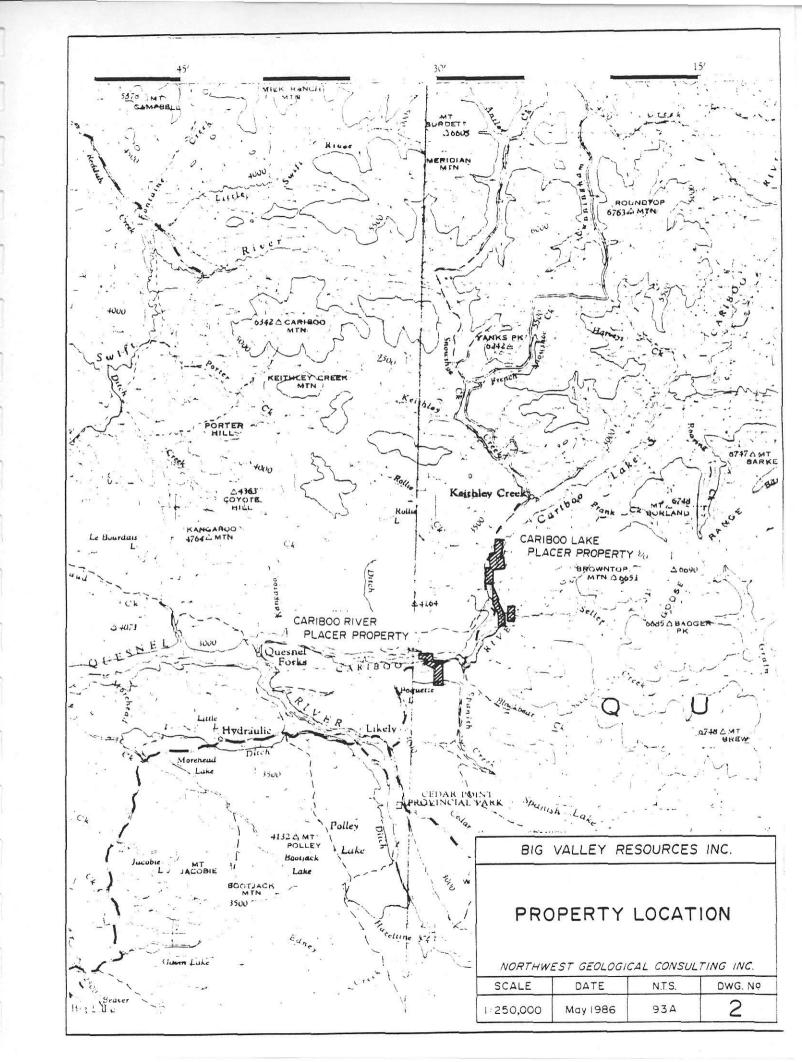
The placer leases are located in the historic Cariboo placer mining district which has produced over 2.5 million oz. of gold since the 1860's. A testing program on one of the properties commenced in late April 1986. Three gravel types occur on this property with a combined estimated 3 year mining reserve.

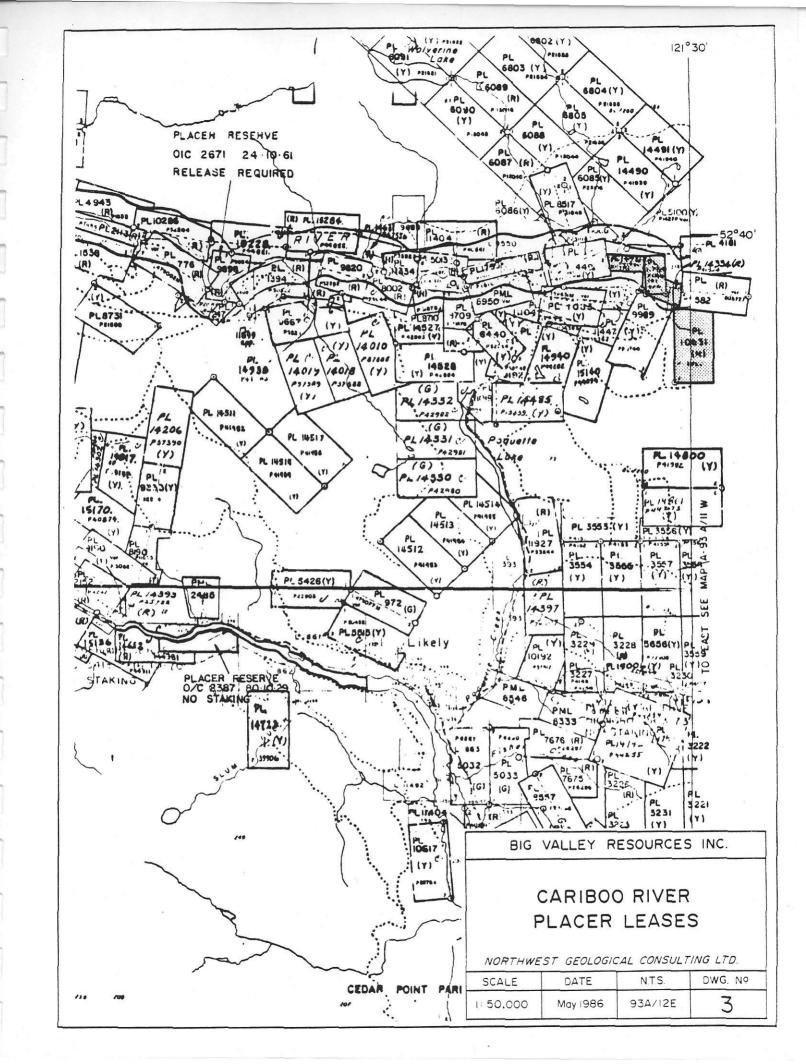
Further testing is required on this and a second property to extend the life of this operation. Big Valley Resources Inc. is operated by local area residents and employs 8 personnel on a rotating basis.

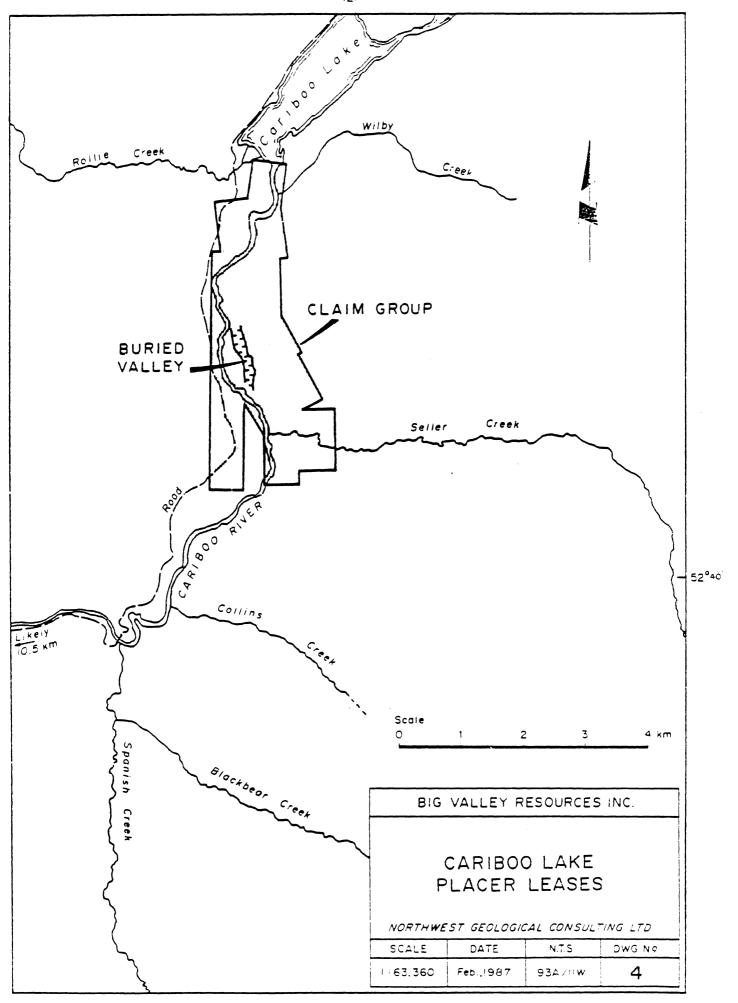
#### 3. PROPERTY, LOCATION AND ACCESS

Big Valley Resources Inc. owns two groups of placer leases in the Cariboo Mining Division. The Cariboo Lake and Cariboo River









properties are located 13 km and 6 km, respectively, northeast of Likely, B.C. The Likely area is 65 miles, by road, northeast of Williams Lake, B.C.

The lease numbers are as follows:

Cariboo Lake property	Cariboo River property
PL 14825 PL 8521	PL 14521 PL 14334
PL 8520	PL 10974
PL 8898	PL 10631
PL 8896	PL 20332
PL 8897	PL 20333
PL 11118	
PL 9520	

The company acquired all interest in these leases through purchase or staking. There are no work commitments related to the purchased leases.

Both properties are accessible by two-wheel drive vehicle via the Likely-Keithley road.

#### 4. REGIONAL GEOLOGY

The two properties lie at the boundary between the Quesnel Trough and Omineca Terrane. The Cariboo River property is underlain by medium grey lustrous phyllites of upper Triassic age.

The northern Cariboo Lake property is underlain by schists and gneisses of the Omineca Terrane. Bedrock geology has no direct bearing on the placer deposits but this major geologic boundary is associated with bedrock and placer gold occurrences on a regional scale.

#### 5. LOCAL GEOLOGY

The gold bearing gravels on the Cariboo River property can be divided into 3 varieties. These occur on a large bench on the

south shore of the Cariboo River.

The largest volume of gravel is a poorly sorted, sandy, cobble bearing, glaciofluvial deposit. Fine gold flakes occur uniformly throughout a 2 m to 6 m thickness. This area is labelled Lower Bench in fig 5.

The unit is horizontally stratified, poorly sorted, and lacks evidence of stream channel deposition. The base of the upper gravel is marked by a 2 - 3 metre thick blue-green clay horizon. Similar gravels occur below the clay to within 10 metres of bedrock. No test work has been carried out on gravels below the blue clay horizon.

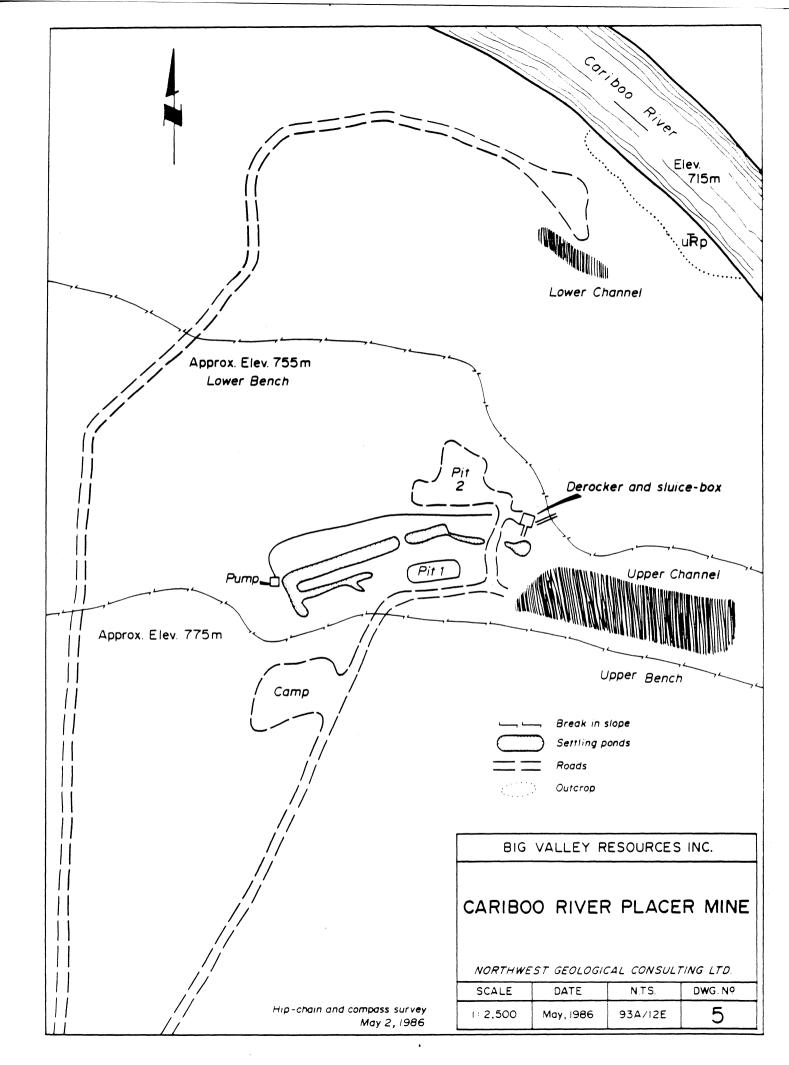
A coarse, red weathering, pre-glacial channel is exposed in the bottom 10 meters. This channel is made up predominantly from clasts of the local grey phyllite. Abundant pyrite and ferricrete cementation are two features which help distinguish this from glacial gravel deposits.

Limited production from this channel is reported by the previous operator to have yielded approximately \$10/yd at present gold prices, or about 0.02 oz/yd.

A coarse boulder and pebble bearing glaciofluvial channel was uncovered at the time of the writer's visit. This new channel is covered by a distinctive blue boulder clay till. Stripping of this channel is presently underway.

#### 6. CARIBOO RIVER PROPERTY

Big Valley commenced large scale testing of the Cariboo River bench gravels in late April 1986. Prior to this, test samples ranging from 0.75 to 76 cu. m. in size were run through a portable



sluice box.

At the time of the writer's visit, production scale testing of the upper glaciofluvial gravels was underway. The upper 2 to 3 metres were being processed at a rate of about 600 to 760 cu. m./day. The test plant is a combination Derocker and sluice box with a capacity of about 76 cu. m./hour.

The initial test work indicated gold concentrations of about \$2 to 3/yd., or 0.004 to 0.006 oz Au/yd. The larger scale test work was not complete at the time of examination but early recoveries indicate an average gold content in that range. It was apparent though that a considerable loss of the fine gold fraction occurs in the larger recovery plant. Modifications to the system are planned to reduce these losses.

A previously unknown high level channel was discovered during this time. This channel is higher grade and a single one yard sample from the upper channel is estimated to have returned in the order of \$10/yd or 0.02 oz/yd.

The writer surveyed the mine site and measured gravel thicknesses. From this a reserve of approximately 300,000 yards (230,000 cu. m.) was calculated for the upper gravels. Although the lower pre-glacial channel is poorly exposed, the dimensions of the area, indicate a 100,000 yard (76,500 cu. m.) potential reserve. The depth of the upper channel has not been determined. The long axis of the channel has been traced for about 200 metres. It appears likely that this area also has a potential in excess of 100,000 yards. Total reserves indicate a mining life of about 3 six month seasons.

#### 7. CARIBOO LAKE PROPERTY

A recently published report by Dr. J. Clague of the G.S.C. details the discovery of a previously unknown, buried Quaternary valley on the company's Cariboo Lake placer leases. The buried valley was defined by an airphoto study of the area. The Cariboo Lake channel is comparable in dimensions and geologic setting to the Bullion Mine, near Likely. The Bullion Mine produced 120,000 oz. of gold during periodic operation over 100 years.

The Cariboo Lake channel is about 1 km long and 150-200 m wide. A minimum fill of 40-50 metres is indicated by present topography.

Dr. Clague reports that there is a good possibility for the occurrence of gold-bearing fluvial gravels in this channel because:

- 1) It is similar to the Bullion channel, in dimensions and geologic setting.
- 2) The Cariboo River and its terraces are gold bearing up stream from the channel.
- 3) The channel is located 6 km downstream of Keithley Creek, the fourth richest placer stream in the Cariboo.

#### 8. BIBLIOGRAPHY

- Cockfield, W.E. and Walker, J.F., (1932) Summary Report, 1320, Geological Survey of Canada
- CLAGUE, J.J. (1987) A placer gold exploration target in the Cariboo district, B.C., in GSC Paper 87-1A, Part A.
- B.C. Ministry of Mines, Annual Report, 1902
- Poloni, J.R. (1985) Report on the Cariboo River Placer Claims, Big Valley Resources Inc., Unpublished Report.

# 9. ESTIMATE OF COST

### I CARIBOO RIVER PROPERTY

Mob / Demob\$	3,000		
Access Road Construction & Stripping\$	36,000		
Reverse Circulation Drilling			
8,000 ft. @ \$14.70/ft\$	117,600		
Bulk Sampling and Testing			
35,000 yd. @ \$2.50/yd\$	87,500		
Reflection Seismic Survey\$	20,000		
Supervision and Report\$	12,000		
<b>\$</b>	276,100		
Contingency \$	23,900		
TOTAL \$	300,000		

# I CARIBOO LAKE PROPERTY

Mob / Demob\$	2,000		
Access Road Construction\$	8,000		
Reverse Circulation Drilling			
2,500 ft. @ \$14.70/ft\$	36,750		
Bulk Sampling and Testing			
10,000 yd. @ \$2.50/yd\$	25,000		
Reflection Seismic Survey\$	16,000		
Supervision and Report\$	4,000		
\$	91,750		
Contingency \$	8,250		
TOTAL \$	100,000		

Appendix A

#### STATEMENT OF QUALIFICATIONS

I, Uwe Schmidt , of 656 Foresthill Place, Port Moody, B.C. do hereby declare:

- (1) I am a consulting geologist and controlling shareholder of Northwest Geological Consulting Ltd.
- (2) I am a 1971 graduate of the University of British Columbia with a B.Sc. degree in Geology.
- (3) I am a Fellow of the Geological Association of Canada.
- (4) I have practised my profession continuously since graduation.
- (5) I have managed various mineral exploration projects in the Yukon Territory, B.C., and Ontario over the past 15 years.
- (6) This report is based on my field examination of the property, and a study of available published and unpublished reports.

(7) I am a shareholder and director of Big Valley Resources Inc.

February 22, 1987 Port Moody, B.C Uwe Schmidt, B.Sc., F.G.A.C.

Appendix C



Photo 1 Cariboo River property camp



Photo 2 Lower bench, Cariboo River property

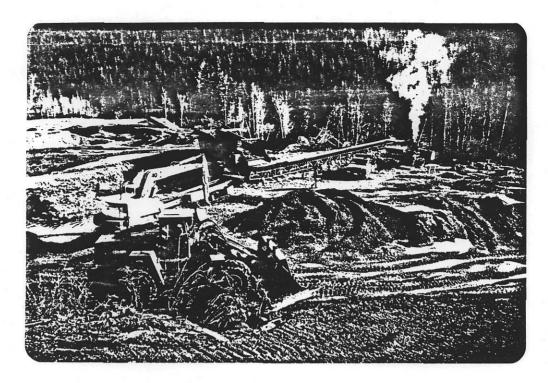


Photo 3 Derocker, sluice box, Cariboo River property

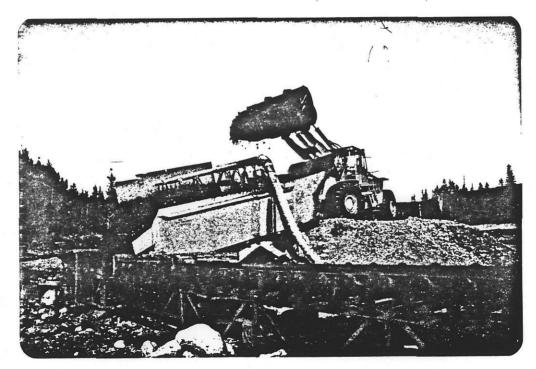


Photo 4 5 yard loader dumping into Derocker