

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORTS**

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VANCOUVER, B.C.

**REPORT OF WORK  
PROPERTY EXAMINATION  
ON THE  
BLUE MOUNTAIN PROJECT**

N.T.S. 92G/1W

LATITUDE 49° 14.5' N LONGITUDE 122° 25' W

NEW WESTMINSTER MINING DIVISION

Owner: Twentyfour K. Mines Ltd.

Operator: Twentyfour K. Mines Ltd.

Commodity: Gold

Author: B.K. Bowen, P. Eng.  
Geologist  
Surrey, B.C.

Date: February 20, 1996

**FILMED**

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**24,372**

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## 1.0

### SUMMARY

The Blue Mountain property, consisting of 16 two-post claims, is located 13 kilometres northwest of the city of Mission in the Lower Mainland, southwestern B.C. The property is 100% owned by Twentyfour K. Mines Ltd. of Vancouver, B.C.

Past mining activity in the area consisted of hand sorting of several reportedly high-grade, narrow gold-bearing quartz lodes which were accessed by either shafts or adits. Most activity took place in the late 1800's and early 1900's. In the early to mid 1990's, Twenty-four K. Mines Ltd. personnel carried out literature research and exhaustive field investigations which were successful in locating the more important past workings.

The fieldwork upon which this report is based was carried out on February 17 and 19, 1996. It consisted of the examination and limited sampling of past workings and a brief geological reconnaissance of the property.

The claims area is underlain mainly by dioritic to granodioritic intrusive rocks of the Coast Plutonic Complex. These rocks host a number of narrow gold-bearing quartz veins, faults and shear zones which strike north-northeast and dip vertically or steeply to the east.

A total of nine rock chip or grab samples were collected from five separate showings areas on the property. The samples were mainly of quartz vein material, with or without sulphides (pyrite, minor chalcopyrite), and were taken from vein or fault structures which have an average true width of about a metre or less. Three samples returned anomalous values of 195, 170 and 560 ppb Au. Although these values are low, they do indicate the widespread nature of structurally-controlled gold occurrences on the property.

## 2.0

### CONCLUSIONS

From the current work program, the following conclusions can be made:

- (1) The limited sampling which has been carried out to date is not sufficient to accurately determine the gold content of individual mineralized structures. Gold mineralization is reportedly coarse in habit and irregular in distribution; therefore a much greater number of samples is required to better quantify gold tenor;
- (2) The property mainly offers the potential to host narrow, high-grade gold-bearing quartz lodes. There is also the possibility that wider zones of potentially economic gold mineralization may be present at the loci of principal north-northeast vein/fault structures and transverse northwest structures.

**RECOMMENDATIONS**

The following work program is recommended for the Blue Mountain property:

- (1) Prepare a 1:5000 scale topographic base map for the property;
- (2) From the assay pulps of the 9 samples collected during the current work program, do 30 element ICP analyses in order to determine which "pathfinder" elements may be associated with gold mineralization;
- (3) Carry out a program of detailed geological mapping, prospecting and rock chip sampling in and adjacent to known workings and over the entire property; analyze all rock samples for gold and any useful "pathfinder" elements;
- (4) Carry out grid soil geochemistry over the entire property. Grid lines should be oriented east-west so that they traverse the northerly trending gold-bearing structures at approximate right angles. Line spacing should be 100 metres and distance between samples along the lines 25 metres. Analyze the soil samples for gold and any useful "pathfinder" elements;
- (5) On the same grid lines, carry out a VLF-EM geophysical survey in order to detect favourable structures which may be gold-bearing;
- (6) Compile all geological, geochemical, geophysical and prospecting data;
- (7) Backhoe trench the best coincident anomalies and/or mineral showings. Map and sample bedrock exposures;
- (8) Assuming (1) - (7) are successful in delineating drill targets, carry out a limited diamond drill test on one or two of the best targets.

## 4.0

## INTRODUCTION

## 4.1 Location and Access

The Blue Mountain property is located near Rolley Lake in the Mission District Municipality of the Lower Mainland, southwestern B.C. The property is 13 kilometres northwest of the city of Mission, is centered on co-ordinates 49° 14.5' N and 122° 25' W, and occupies a portion of NTS mapsheet 92G/1W (Figure 1).

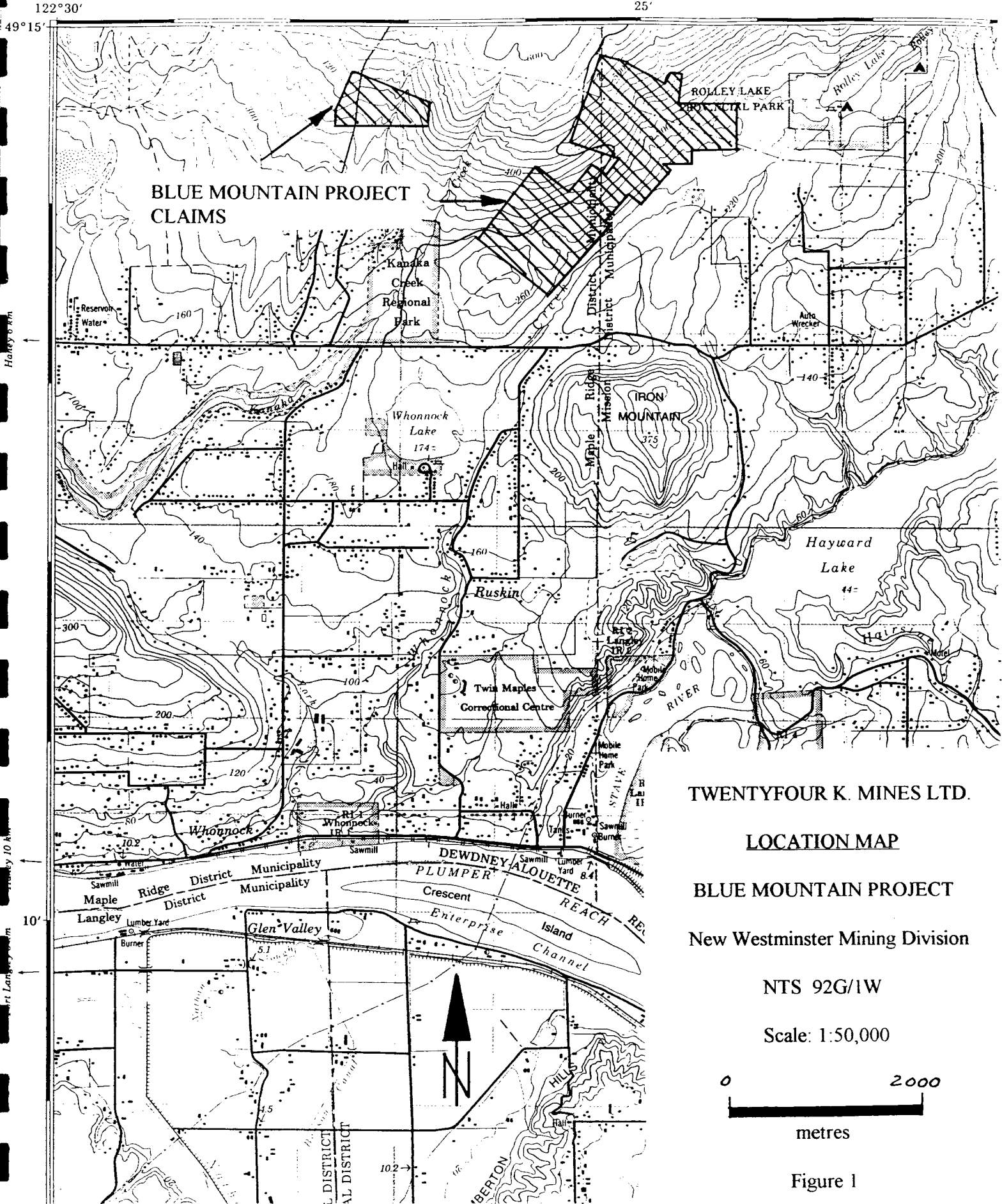
Access to the claims is from Dewdney Trunk Road via the Rolley Lake Road and a rough 4-wheel drive powerline access road which traverses the central portion of the claims.

## 4.2 Claims and Physiography

The Blue Mountain property consists of the following 2-post mineral claims, all of which are 100% owned by Twentyfour K. Mines Ltd. (see also Figure 2 - claim map):

<u>Claim Name</u>	<u>Tag no.</u>	<u>Completed Location Date</u>	<u>Current Expiry Date</u>
H & L	631300M	Apr 01, 1995	Apr 01, 1996
H & L II	624897M	Apr 01, 1995	Apr 01, 1996
H & L III	624898M	Apr 01, 1995	Apr 01, 1996
H & L IV	624899M	Apr 01, 1995	Apr 01, 1996
U 1	609525M	Apr 20, 1995	Apr 20, 1996
U 2	631201M	Apr 20, 1995	Apr 20, 1996
Blue	631273M	Oct 22, 1995	Oct 22, 1996
Blue 2	663963M	Oct 22, 1995	Oct 22, 1996
Blue 3	649208M	Nov 30, 1995	Nov 30, 1996
Blue 4	649209M	Nov 30, 1995	Nov 30, 1996
4 McClary 1	609517M	Jan 12, 1994	Jan 12, 1997
4 McClary 2	609513M	Jan 12, 1994	Jan 12, 1997
Walden 1*	663964M	Oct 24, 1995	Oct 24, 1996
Walden 2*	663965M	Oct 24, 1995	Oct 24, 1996
C. Miller 1*	649210M	Nov 17, 1995	Nov 17, 1996
C. Miller 2*	649211M	Nov 17, 1995	Nov 17, 1996

\* The Walden 1 and 2 and C. Miller 1 and 2 claims are not contiguous with the other claims listed above. They are, however, contiguous with one another and are located about 2 kilometres to the west on Kanaka Creek.



TWENTYFOUR K. MINES LTD.  
 LOCATION MAP

BLUE MOUNTAIN PROJECT  
 New Westminster Mining Division

NTS 92G/1W  
 Scale: 1:50,000

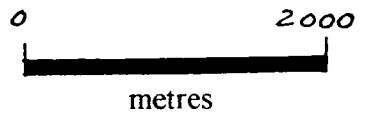
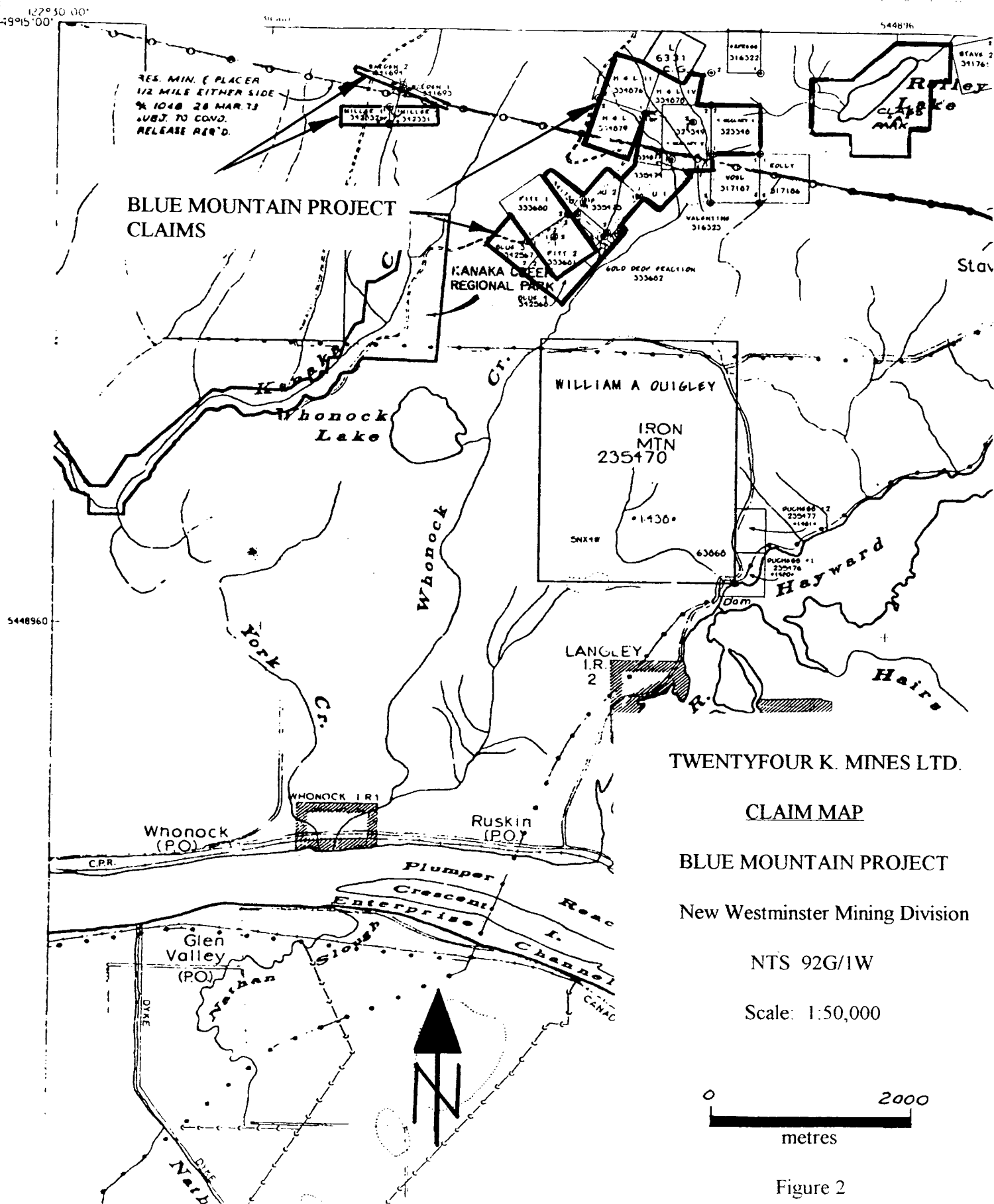


Figure 1



TWENTYFOUR K. MINES LTD.

CLAIM MAP

BLUE MOUNTAIN PROJECT

New Westminster Mining Division

NTS 92G/1W

Scale: 1:50,000



Figure 2



The property is situated on the southeast slope of Blue Mountain, is moderately drift covered and its vegetation is typical of a west coast rain forest. Elevations range from 200 to 600 metres. Whonnock Creek flows southwesterly from the central portion of the claim group.

#### **4.3 History and Development**

Past mining activity in the area consisted of hand sorting of several reportedly high-grade, narrow gold-bearing quartz lodes which were accessed by either shafts or adits. The ore was placed in canvas sacks and later shipped to Tacoma, Washington for refining. Most activity took place in the late 1800's and early 1900's.

In the early to mid 1990's, Twentyfour K. Mines Ltd. personnel carried out literature research and exhaustive field investigations which were successful in locating the more important past workings, including the Williams, Holmes-Larson and Independence workings and the Walden Mine. All but the Independence are currently covered by claims owned by Twentyfour K. Mines Ltd.

#### **4.4 Summary of Current Work**

The fieldwork upon which this report is based was carried out by the writer and prospectors Lars Brunback and Fred Forman on February 17 and 19, 1996. The writer is a consulting geological engineer who examined the property on behalf of HRC Development Corp. of Vancouver, B.C. Messrs. Brunback and Forman are principals in Twentyfour K. Mines Ltd.

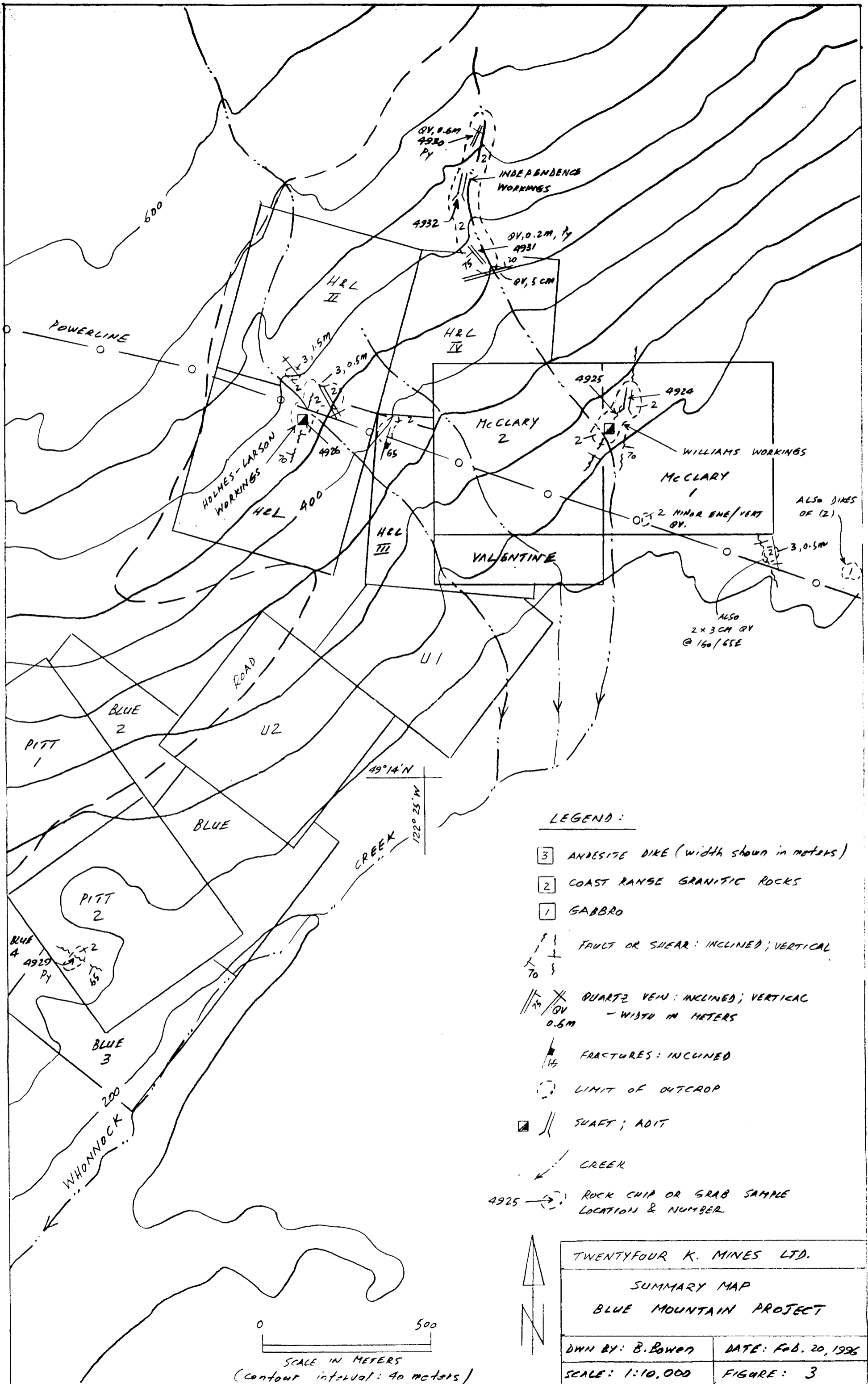
Work consisted of the examination and limited sampling of past workings and a brief geological reconnaissance of the property.

### **5.0 PROPERTY GEOLOGY**

The claims area is underlain mainly by coarse-grained intrusive rocks of the Coast Plutonic Complex (Figure 3). Compositional varieties include diorite, quartz diorite and granodiorite. Near the eastern limit of the claims, an outcrop of coarse-grained gabbro is cut by narrow dikes of diorite.

Plagioclase porphyry andesite dikes cut the intrusive rocks at several localities. The dikes are medium to dark green in colour, 0.5 - 1.5 metres in width and have a general attitude of northwest strike/vertical dip.

The dominant structural direction in the claims area is north-northeast strike and vertical to steeply inclined east dip. This direction is expressed as quartz veins, faults and shear zones and fracture sets. All principal past workings are along structures in this direction.



LEGEND:

- 3 ANDESITE DIKE (width shown in meters)
- 2 COAST RANGE GRANITIC ROCKS
- 1 GABBRO
- FAULT OR SLIP: INCLINED; VERTICAL
- QUARTZ VEIN: INCLINED; VERTICAL  
- WIDTH IN METERS
- FRACTURES: INCLINED
- LIMIT OF OUTCROP
- SHAFT; ADIT
- CREEK
- ROCK CHIP OR GRAB SAMPLE LOCATION & NUMBER

TWENTYFOUR K. MINES LTD.  
 SUMMARY MAP  
 BLUE MOUNTAIN PROJECT  
 DOWN BY: B. BOWEN      DATE: Feb. 20, 1996  
 SCALE: 1:10,000      FIGURE: 3

0 500  
 SCALE IN METERS  
 (contour interval: 40 meters)

### 6.1 Williams Workings

The Williams workings are on the east side of the main branch of Upper Whonnock Creek at elevation 290 metres. The main working is an adit driven north-northeasterly for a minimum of 100 metres along a one metre wide chloritic fault which contains minor quartz vein material and trends 006/70E. Wallrocks are diorite/quartz diorite. A 0.8 metre chip sample (#4924) was taken across the structure at a distance of about 40 metres in from the portal. This sample assayed < 5 ppb Au.

About 30 metres west and 20 metres south of the above portal, a second sub-parallel structure at 018/60E cuts dioritic rocks. A 1.0 metre chip sample (#4925) of rusty, moderately oxidized fault material assayed 195 ppb Au.

About 50 metres to the south of sample # 4925, on the east bank of Whonnock Creek, a water and debris-filled shaft has been sunk on a 1.0 metre wide shear zone that trends 028/vertical. Near the shaft is a large volume of dump material. It is assumed that lateral workings extend outwards from the shaft, probably northeasterly towards the location of sample # 4925. No sample was taken at this locality.

### 6.2 Holmes and Larson Workings

The Holmes and Larson workings are located about 900 metres west of the Williams workings, on the west bank of a tributary to Upper Whonnock Creek at elevation 450 metres. The main working is a flooded shaft of unknown depth which has been sunk on a 2.0 metre wide shear zone at 018/70W. The shear zone contains irregular bull quartz veins 0.1 - 0.5 metre wide. Wallrocks are dioritic. The one grab sample (#4926) collected is a composite of quartz vein material taken from both outcrop at the top of the shaft and from nearby dump material. It assayed 55 ppb Au.

### 6.3 Independence Workings

The Independence workings are located about 800 metres northwest of the Williams workings on the west bank of Upper Whonnock Creek at elevation 500 metres. The main working is an adit which was driven initially in a northwesterly direction for a distance of 8 metres, and then northeasterly, for an additional 25 metres.

The adit follows two principal vein sets, one at 120/80S and the other at 036/75E. Each vein set consists of several 3 - 8 centimetre wide quartz - minor pyrite veins across a total zone width of about 3.0 - 5.0 metres. Other irregular quartz veins are also present. Wallrocks again are dioritic. One grab sample (#4932) of quartz vein material from the 036/75E direction was taken. It assayed 560 ppb Au.

About 150 metres further upstream from the adit, on the west bank of the creek at elevation 525 metres, a 3 metre long crosscut driven westerly into a dioritic outcrop has exposed a 0.6 metre wide bull quartz vein which trends 026/vertical. A grab sample (#4930) of quartz vein material assayed < 5 ppb Au.

About 150 metres downstream from the adit, on the west bank of the creek at elevation 465 metres, a 0.2 metre wide rusty quartz vein containing 2-3% disseminated pyrite cuts dioritic wallrocks and trends 140/75S. A grab sample (#4931) of pyritic quartz vein material assayed 65 ppb Au.

#### 6.4 **Walden Mine**

The Walden Mine is located on the east bank of Kanaka Creek, at elevation 495 metres, and is about 2 kilometres west of the other workings described above. The main working is a water and debris-filled shaft of unknown depth which has been sunk on a 0.3 metre wide quartz vein trending 048/vertical.

Two samples were collected at this locality. Sample # 4927 is a composite grab of quartz vein material and dioritic wallrocks taken from outcrop at the collar of the shaft. The wallrocks contain pyrite and minor chalcopyrite on fractures. This sample assayed < 5 ppb Au. Sample # 4928 is a 0.3 metre chip which was taken across the above-mentioned quartz vein. It assayed 15 ppb Au.

The low values obtained in the above preliminary samples do not negate the gold-bearing potential of the Walden mine workings, given the fact that sorted ore is reported, in 1925, to have graded up to 2650 g/tonne Au (Assessment Report #14713, page 4).

#### 6.5 **Other Areas**

Another area of interest is on the Blue 3 claim in the southwest corner of the property. Here, dioritic rocks are cut by a narrow, rusty fault which trends 120/65S. For a distance of 1.0 - 1.5 metres out from the fault, the hangingwall rocks exhibit some pervasive silicification and locally heavy pyrite is associated with quartz veinlets. A selective grab sample (#4929) of the hangingwall rocks, which contains a pyrite bias, assayed 170 ppb Au.

7.0

**REFERENCES**

- Miller, C.A. "The Golden Mountains" - Chronicles of valley and coast mines;  
Fraser Valley Regional Library, 1973.
- Sookochoff, L. Geological and Geochemical Report on the Treasure Mountain Claim,  
BCDM Assessment Report # 14713, 1985.

**APPENDIX I**  
**CERTIFICATE OF ANALYSES**

003/003



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: HRC DEVELOPMENT CORP.

1920 . 1055 W. HASTINGS ST.  
VANCOUVER, BC  
V6E 2E9

Project : 24K  
Comments: ATTN:GEORGE NORMAN/WENDY MATHESON

Page Number :1  
Total Pages :1  
Certificate Date: 21-FEB-96  
Invoice No. :19612499  
P.O. Number :0101910  
Account :KZL

## CERTIFICATE OF ANALYSIS

A9612499

SAMPLE	PREP CODE		Au ppb RUSH									
4924	255	295	< 5									
4925	255	295	195									
4926	255	295	55									
4927	255	295	< 5									
4928	255	295	15									
4929	255	295	170									
4930	255	295	< 5									
4931	255	295	65									
4932	255	295	560									

CERTIFICATION:

CHEMEX LABS

604 984 0218

15:10

02/22/96

**APPENDIX II**  
**STATEMENT OF COSTS**



### STATEMENT OF COSTS

(1)	Salaries		\$	\$
	B. K. Bowen, P. Eng.	3.0 days @ \$300/day	900.00	
	L. Brunback, Prospector	1.0 days @ \$150/day	150.00	
	F. Forman, Prospector	2.0 days @ \$150/day	<u>300.00</u>	
			1350.00	1350.00
(2)	<b>4 x 4 Truck Rental</b>			
	Vehicle	2.0 days @ \$80/day	160.00	
	Gas		<u>30.00</u>	
			190.00	190.00
(3)	<b>Analytical</b>			
	Au fire assay	9 samples @ \$15/sample	135.00	135.00
(4)	<b>Miscellaneous</b>			
	Drafting supplies (mylar)		9.00	
	Topographic maps		21.00	
	Xeroxing & reproduction		<u>30.00</u>	
			60.00	<u>60.00</u>
				<b>Total: \$1735.00</b>

**APPENDIX III**  
**STATEMENT OF QUALIFICATIONS**

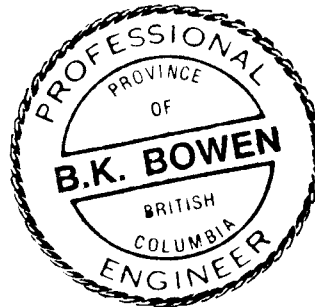
## STATEMENT OF QUALIFICATIONS

I, Brian K. Bowen, of Surrey, British Columbia do HEREBY CERTIFY THAT:

- (1) I am a Consulting Geological Engineer with an office at 12470 99A Avenue, Surrey, British Coloumbia, Telephone (604) 930-0177;
- (2) I am a graduate of the University of British Columbia with a B.A. Sc. degree in Geological Engineering (1970);
- (3) I am currently a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia;
- (4) This report is based on my personal knowledge of the Blue Mountain property gained during a field examination carried out on February 17 and 19, 1996;
- (5) I have no interest, nor do I expect to receive any interest, in Twentyfour K. Mines Ltd., the 100% owner of the Blue Mountain property;

Dated this twentieth day of February, 1996.

B. K. Bowen, P. Eng.  
Consulting Geologist



*B. K. Bowen*