

# 4546

92I/15E

SUMMARY REPORT

DOG CLAIMS

on the

CANNELL CREEK PROPERTY

for

BON-VAL MINES LTD. (N.P.L.)

KAMLOOPS M.D., B.C.

92I 14E

120° 50° NE

July 6, 1973  
Vancouver, B.C.

Laurence Sookochoff, P.Eng.  
Consulting Geologist

Department of Mines and Technical Resources ASSESSMENT REPORT NO. <u>4546</u> MAP .....
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## INTRODUCTION

The following summary report deals primarily with the results of a geochemical survey carried out in May 1973 in conjunction with a geological survey by the writer. The results of these surveys were correlated with geophysical surveys performed by Geotronics Surveys Ltd. during January and February of 1973.

## PROPERTY

The property is comprised of 30 contiguous mineral claims held by location. They are as follows:

<u>Claim Name</u>	<u>Record Number</u>	<u>Expiry Date</u>
Dog # 103-112 incl.	81006-15 incl.	June 9, 1975
Dog # 113-132 incl.	107383-402 incl.	March 20, 1974

## LOCATION AND ACCESS (50° 53'N 120° 34'W)

The claims are located on Cannell Creek, 24 miles northwest of Kamloops. Access to the property is by an all weather gravel road to Pass Lake thence to the claim group over a logging road.

## HISTORY

This property was previously known as the Allies Group on which extensive surface and underground work was done in the 1920's and 1930's. The extensive exploration work on

this property was a result of the discovery of large blocks of porphyry carrying gold bearing quartz stringers. The blocks were found to be float-upon some underground exploration.

Other similar areas in the immediate vicinity were explored by shafts and adits without locating the source of the high grade float.

Reported assays of two samples across stringers of five inches and eight inches have yielded 1.42 and 1.32 ounces of gold respectively.

In 1967 a portion of the Allies Group was staked as the Bob claims and were held by South Oak Mines Ltd. (NPL). Additional claims were staked adjacent to and surrounding the Bob claims and were known as the Dog group.

In 1969 cat trenching was carried out around the Old Allies workings.

In January and February 1973, Geotronics Surveys Ltd. performed a ground magnetic and VLF-EM Survey on the Dog Group.

In May 1973 a limited geochemical survey and some geological mapping was done.

## GEOLOGY

Underlying much of the Dog claims are rocks of the Carboniferous Cache Creek group which occur as a "window" within the Tertiary Volcanics. The Cache Creek rocks in this area are comprised of mainly serpentine with dykes of a light and a dark gray porphyry. The porphyry carries considerable quartz veins and stringers which are occasionally mineralized with chalcopyrite, bornite, galena and gold and more often pyrite.

Outcrops are limited on the property, however, the exposures that are present reveal a feldspar porphyry containing vari-oriented quartz stringers. Minor serpentine is present in these exposures which are mainly in the vicinity of the southwest workings and 2600 feet south of the main workings. The predominant fracture system strikes at between  $200^{\circ}$  and  $240^{\circ}$  and dips steeply.

## WORK TO DATE

### Sampling

Chip samples of quartz stringers taken during the work performed in the 1930's assayed 1.42 and 1.32 ounces gold over

five and eight inches respectively. These were taken from veins within the large blocks of porphyry float.

Grab samples taken from trench cuts to the south of the main workings assayed 0.68% Cu, 0.058 oz Au, 0.5802 oz Ag and 0.13 % Pb.

Grab samples from the main workings selected by Tough in 1973 assayed as follows:

	<u>% Cu</u>	<u>Ag oz/ton</u>	<u>Au oz/ton</u>
1.	0.67	0.58	0.058
2.	0.46	0.45	0.08
3.	1.30	1.63	0.23
4.	0.07	Tr.	0.07

The writer took grab and chip samples from the dumps and from outcrops.

The only visual mineralization in these samples was occasional pyrite. The assays ranged from Tr. to 0.05 oz Au.

#### MAGNETIC SURVEY

Mark, in his report on the magnetic survey of the Dog Group, concludes that broad magnetic lows appear to be reflecting the Cache Creek rocks and smaller magnetic lows within the broad lows correlate with zones of mineralization.

### VLF-EM SURVEY

The conductive zones as outlined by this survey may be either shear or fracture zones as well as magnetite-mineralized rocks. Some of these conductive zones have at least partial correlation with magnetic lows. Mark states that this correlation increases the probability of sulphide mineralization.

### GEOCHEMICAL SURVEYS

#### Copper

The results of this survey were very informative in that a definitive northwesterly trending anomaly, with values ranging from 20 to 57 p.p.m. within a background of 10 p.p.m., indicates the trend towards the source of the large blocks of float or subsurface bedrock mineralization. The anomaly covers the area of the main zone as well as being adjacent to the area of the northwest workings.

The magnetic survey indicates a series of magnetic lows within the copper geochemical anomaly.

A second copper anomaly trends southwesterly from below the main workings toward the southwest workings. There is also a magnetic low in the area of the southwest workings.

GOLD

The general anomalous zone as outlined by the gold values in p.p.b. correlates with the anomalous copper zone-with the gold anomaly to the northwest of the main zone bounding the copper anomaly to the north.

The main anomaly is centered on and south of the main workings and trending to the south and southwest to the southwest workings.

MERCURY

Selected samples over a localized area around the main workings were checked for mercury to determine the possible effect of a halo from the porphyry intrusions. This could have helped localize the area of interest. The results were inconclusive.

CONCLUSIONS

The Dog claims contain an area or zone of porphyry containing gold bearing quartz veins as well as galena, chalcopyrite and bornite in association with these veins.

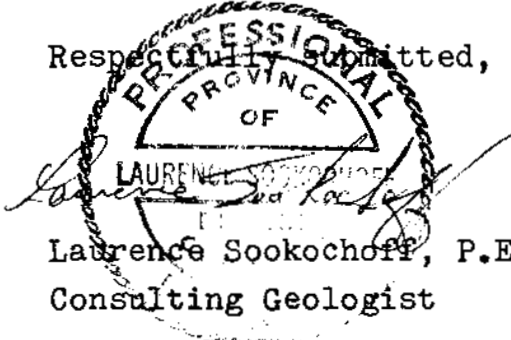
The prophyry and inclusive mineralization have only been found as large blocks of float within the overburden.



Excellent correlation from the magnetic, VLF-EM, and geochemical surveys has localized the area that requires additional exploration to locate the source of the mineralized blocks of float.

In addition, other anomalous areas of potential mineralization have been delineated and should be explored.

July 10, 1973  
Vancouver, B.C.

Respectfully submitted,  
  
Laurence Sookochoff, P.Eng.  
Consulting Geologist

## REFERENCES

- Mark, D.G. Geophysical Report on a Ground Magnetic and VLF-EM Survey and the Government Aero-magnetic Survey, Dog Claim Group  
January - February, 1973.
- Saleken, L.W. Preliminary Report, Dog Group Kamloops M.D., B.C. South Oak Mines Ltd. (NPL)  
February, 1970.
- Tough, T.R. Geological Report on the Cannell Creek Property for Bon-Val Mines Ltd. (NPL)  
April 2, 1973

GEOCHEMICAL REPORT  
on the  
CANNELL CREEK PROPERTY  
for  
BON-VAL MINES LTD. (N.P.L.)  
Kamloops M.D., B.C.  
92I 14E                      120° 50° NE

July 6, 1973  
Vancouver, B.C.

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## SUMMARY

In May 1973 a limited soil sampling program was carried out over a localized area of the Dog Group of claims situated 17 miles northwest of Kamloops, B.C. and owned by Bon-Val Mines Ltd. (NPL) of Vancouver, B.C.

The soil samples were picked up by personnel of Geotronics Surveys Ltd. Samples were taken from the B Horizon of a brown forest silty-loam soil. They were placed in conventional brown paper soil sample bags supplied by Bondar-Clegg of Vancouver, B.C. The samples were processed by Bondar-Clegg and Company Ltd. of Vancouver, B.C. A - 80 mesh fraction was used and the metals were extracted by: Cu - hot aqua regia; Au - fire assay and hot aqua regia; Hg - controlled aqua regia. The atomic absorption method was used for quantitative analysis.

An area of approximately 1600 by 3200 feet was covered within the Dog 103-108, 118, 120, 123, 124, 126 and 130 mineral claims. Samples were taken at 100 foot intervals on grid lines spaced at 200 feet.

The samples were analyzed for copper and gold content as these are the predominant minerals in the area. Periodic samples were also checked for mercury to determine a possible halo effect from the intrusive dykes.

## DISCUSSION OF RESULTS

### Copper

A northwesterly to westerly anomaly has been delineated. This anomaly is centered on the blocks of porphyry float carrying mineralized quartz veins and stringers and which are located

near the cabins and on the Dog 126 mineral claim.

From this point the anomaly trends westerly to and adjacent to the area of the northwest workings and to the southeast to the limits of the survey.

The anomaly, which contains values of up to 57 parts per million copper within a background of 10 ppm, reflects the mineralized float and in addition may indicate subsurface mineralization.

The trend of the anomaly may also reflect the source of the float as being in the vicinity of the workings at the western end of the zone.

A second anomaly trending southwest from below the mineralized float zone may indicate a second area of mineralization.

There are no outcrops within the anomalous zone, however, the anomaly is open to within 300 feet of the southwest workings where a basalt-porphry contact is exposed. This is also the area in which a 215 foot adit was driven encountering alternating serpentine and porphyry dykes containing low gold values.

Consequently the anomaly can be reflecting the trend of the mineral bearing porphyry dykes.

#### Gold

A series of more localized gold anomalies outline a general anomaly correlates well with the copper anomaly.

The gold bearing porphyry float near the cabins has been reflected in the geochem values. From this point west, the higher gold values of up to 385 p.p.b. within a background of less than 10 p.p.b., are adjacent to and just north of the copper anomaly. To the east and southwest there is a definitive correlation with the copper anomaly.

#### Mercury

The results of the mercury geochem are inconclusive at this stage.

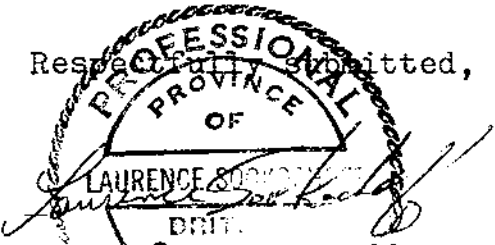
#### CONCLUSIONS AND RECOMMENDATIONS

The geochemical survey has been successful in outlining possible bed rock or either float mineralization. If the anomalies reflect blocks of mineralized float the

anomalies are indicative of the source of the float which in this case would be the higher elevations to the west and southwest.

The anomalies should be tested by diamond drilling with possibly the first hole across the zone in the vicinity of the trenching near the cabins. This hole should reveal the source of the mineralization.

July 6, 1973  
Vancouver, B.C.

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Laurence Sookochoff, P.Eng.  
Consulting Geologist



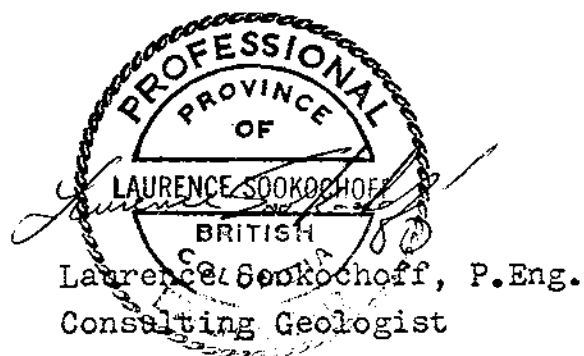
ENGINEER'S CERTIFICATE

I, LAURENCE SOOKOCHOFF, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

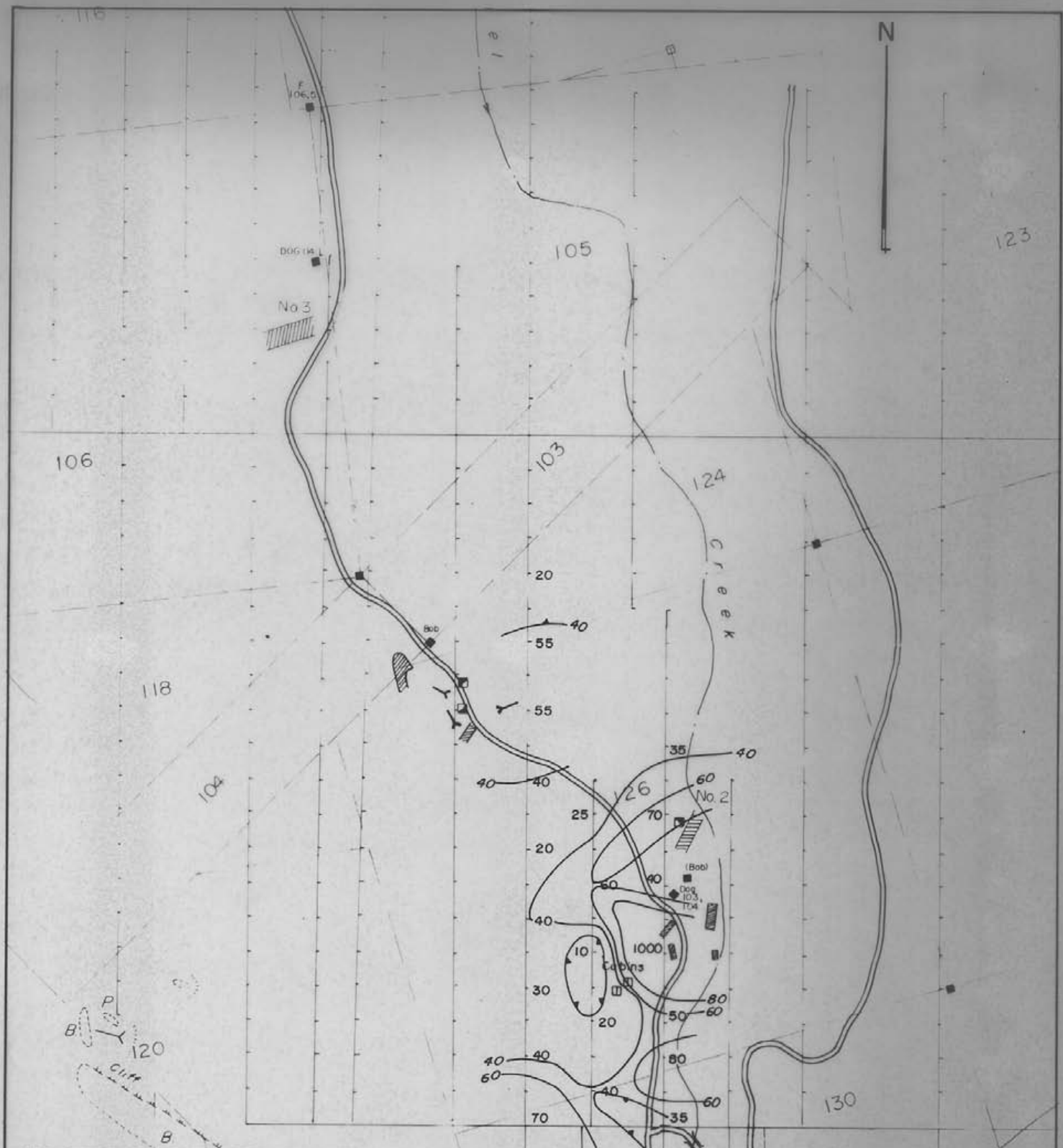
That I am a Consulting Geologist, with residence at 3812 16th Avenue, Vancouver, B.C.

I further certify:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising my profession for the past seven years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. I have no direct or indirect interest whatsoever in the property described herein, nor in the securities of Bon-Val Mines Ltd. (N.P.L.) and do not expect to receive any interest therein.



July 6, 1973  
Vancouver, B.C.



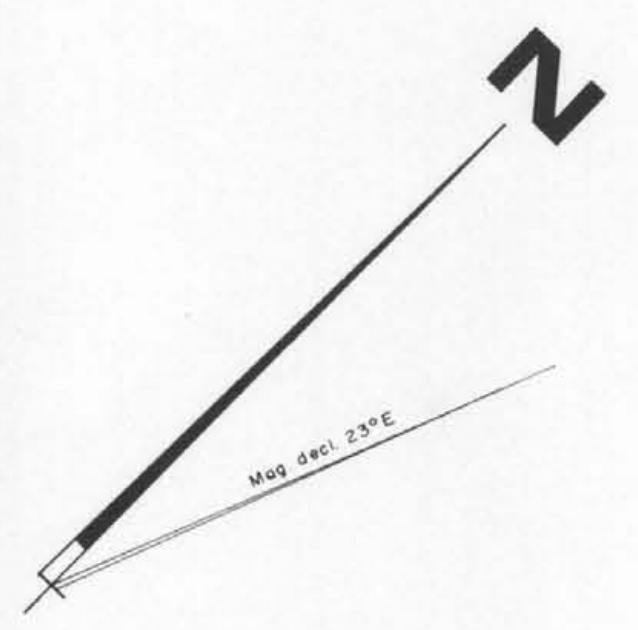
Department of  
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 ASSESSMENT REPORT  
 NO. **4546** MAP **#3**



MERCURY VALUES ARE IN ppb  
 CONTOURS 10, 20, 40, 60, 80 ppb

BON-VAL MINES LTD.  
 (N.P.L.)  
 DOG GROUP  
 SOIL GEOCHEMISTRY-Hg  
 KAMLOOPS M.D., B.C. June 1973





- LEGEND**
- Survey line
  - Claim line
  - Claim post (assumed, located)
  - Road
  - Creek
  - Adit
  - Trench
  - Shaft
  - Outcrop

**GEOLOGY**

- Basalt
- Porphyry

NOTE: VALUES ARE IN ppm (Cu)  
CONTOUR INTERVAL IS 20 ppm

**4546**

Department of  
Mines and Petroleum Resources  
**M1**  
ASSESSMENT REPORT  
NO. 4546 MAP #1

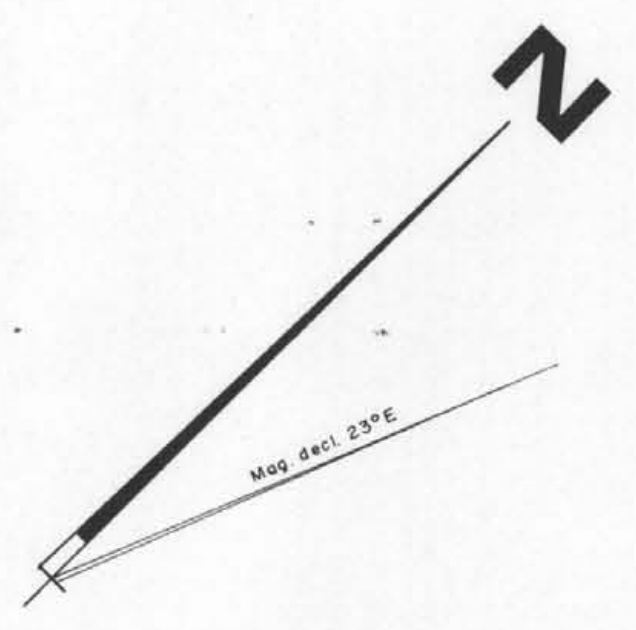


T. R. TOUGH & ASSOCIATES LTD.

**BON-VAL MINES LTD. (N.P.L.)**  
"DOG GROUP"  
KAMLOOPS M.D., B.C.  
SOIL GEOCHEMISTRY - Copper  
DATA & CONTOURS

PDT DRAFTING SERVICES	SCALE 1" = 400'	DATE JUNE 1973	JOB No. -	SHEET 1
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LEGEND

- Survey line
- Claim line
- Claim post (assumed, located)
- Road
- Creek
- Adit
- Trench
- Shaft
- Outcrop

GEOLOGY

- B.* Basalt
- P.* Porphyry

NOTE: VALUES ARE IN ppb. (Au)  
 CONTOURS: 15 ppb (SUB-ANOMALOUS)  
 40 ppb, 80 ppb, 150 ppb, 300 ppb (ANOMALOUS)

4546

M2

Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 4546 MAP #2



T.R. TOUGH & ASSOCIATES LTD.

**BON-VAL MINES LTD. (N.P.L.)**  
 "DOG GROUP"  
 KAMLOOPS M.D., B.C.

**SOIL GEOCHEMISTRY - Gold  
 DATA & CONTOURS**

PDT DRAFTING SERVICES	SCALE 1" = 400'	DATE JUNE 1973	JOB No.	SHEET 2
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