

DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE CAR CLAIM

LILLOOET MINING DIVISION

LAT. 50°44'N, LONG. 122°49'W

NTS: 92-J-10W

OWNER OF CLAIM: Du Pont of Canada Exploration Limited

OPERATOR: Du Pont of Canada Exploration Limited

|   |
|---|
| MINERAL RESOURCES BRANCH<br>ASSESSMENT REPORT<br><b>9232</b><br>NO. _____ |
|---|

Author: F. M. Smith

Date Submitted:

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Appendix A - Geochemical Analytical Procedure

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I INTRODUCTION(a) Location

The CAR claim is located approximately 5 km south of Bralorne, B.C. on the northeast slope of Noel Mountain. The claim centres at approximately 50°44.5'N latitude and 122°49'W longitude.

(b) Access

Access to the claim is most convenient by rotary wing aircraft from either Goldbridge, B.C. approximately 12 km north, or Bralorne, approximately 5 km north. A good all weather road passes 3 km north of the claim along the east side of Cadwallader Creek.

(c) Claim Definition

The CAR claim consists of 20 contiguous units with record numbers, tag numbers and record dates as listed below:

| <u>Claim(units)</u> | <u>Record No.</u> | <u>Tag No.</u> | <u>Record Date</u> |
|---------------------|-------------------|----------------|--------------------|
| CAR (20)            | 1370              | 62594          | June 11/80         |

The current owner and operator of the claim is Du Pont of Canada Exploration Limited. The claim was staked to facilitate work on an auriferous geochemical anomaly.

(d) Economic Assessment of the Property

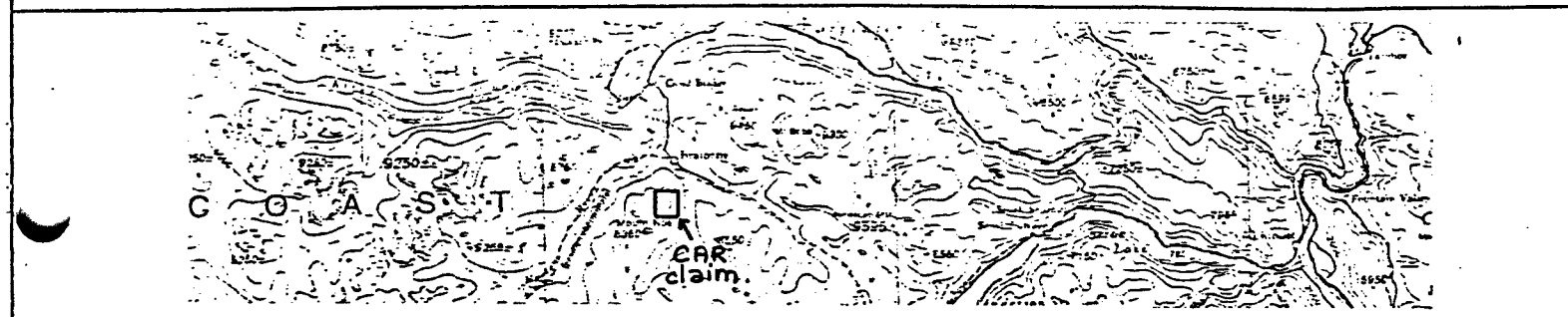
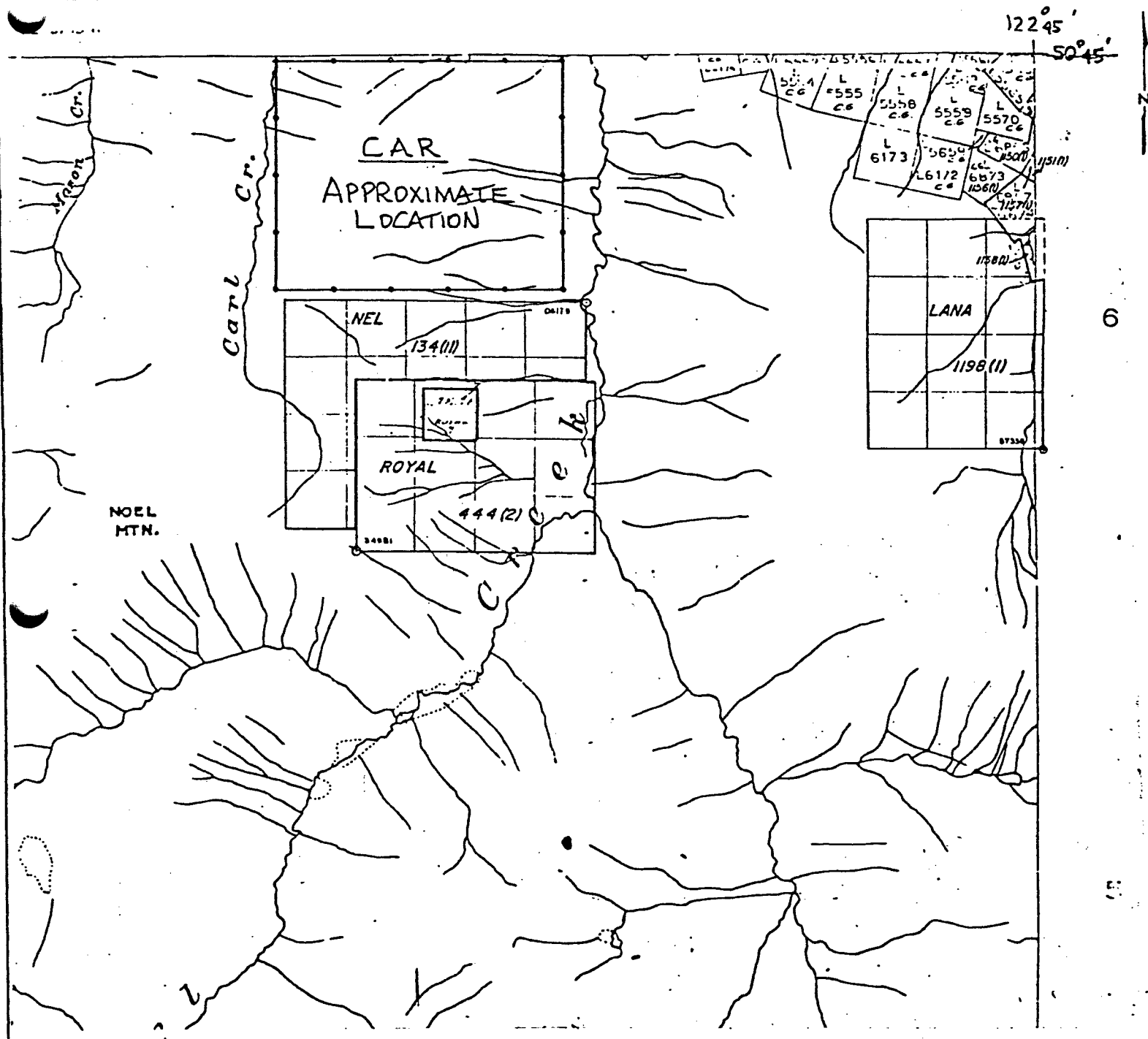
To the writers knowledge, there has been no previous extensive exploration on the property. No significant mineralization was noted during the course of the present investigation.

Figure 1 - Index Map

CAR Claim

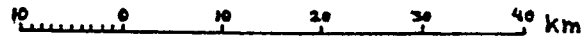
Lillooet M.D.

NTS: 92-J-10W



LOCATION MAP

Show nearest town and access road



(e) Summary of Work Performed

A total of 6 stream sediment samples and 5 rock samples were collected from the central part of the claim.

Geological mapping was done in the northwestern part of the claim using aerial photographs and topographic maps for control. Mapping was done at a scale of 1:10 000.

II GEOLOGY(a) Introduction

The CAR claim is located in the southwest part of the Intermontane Belt. According to published geologic maps the claim is underlain by Paleozoic ultrabasic rocks. The distribution of rock types is shown on Dwg. AR 80-227.

(b) Lithologyi) Serpentinite

This unit is medium green to brown with frequent white streaks. Outcrops are typically well weathered and well rounded. Moderate shearing and carbonatization have occurred. Schistosity planes are frequently coated with smeared serpentine minerals and quartz. Carbonate alteration consists of pervasive narrow calcite-magnesite stringers, which upon weathering leave open spaced fractures and a powdery white stain on outcrops. A single white quartz vein was noted cutting the serpentinite. Unfortunately no sample was taken for analysis.

ii) Phyllite

This rock is greenish-grey with medium grained buff mica on cleavage planes. Outcrops are usually rusty and sometimes exhibit a white carbonate stain. Disse-

minated pyrite is common, frequently amounting to 10% of the rock volume. Attitude of the phyllite could not be determined due to intense fracturing.

iii) Marble

Thin lenses of white-grey, crystalline marble occur within the phyllite. Several lenses were encountered and average 20-25 m long and 4 m wide. Upon weathering, the limestone forms ridges within the enclosing phyllite.

(c) Structure

From available data it was noted that the claim is cut by several south and southeast trending faults. Attitudes of lithologic units could not be determined due to intense fracturing. Fracturing is intense with at least 6 different sets and as many attitudes.

(d) Mineralization

Only disseminated pyrite was observed in the phyllitic rocks. Several samples from rusty weathering phyllite were sampled and returned the results shown on Dwg. AR 80-~~227~~. A quartz vein was observed cutting serpentinite, but was not sampled.

(e) Conclusions

The CAR claim is underlain by ultrabasic, phyllitic and minor recrystallized carbonate rocks. Weak carbonate alteration occurs in the serpentinite and phyllite. Disseminated pyrite occurs up to 10% in the phyllite. The serpentinite is cut by at least one quartz vein and is highly sheared and faulted.

Attitudes of lithologic units are indefinite as rocks are intensely fractured.

No mineralization of economic significance was noted during the present investigation.

### III GEOCHEMISTRY

#### (a) Sample Collection, Preparation and Analysis

A total of 6 stream sediment samples were collected at 100 m intervals. Samples were placed in numbered wet-strength sample envelopes. Collection sites were marked with a plastic flag bearing the identical number on the sample envelope. Specific data pertaining to the sample was recorded on special information tags.

A total of 5 rock samples were taken at random localities. Rocks were placed in plastic sample bags. Sample sites were identified with plastic flags bearing the identical number as the sample bag.

Stream sediment and rock samples were sent to Min-En Laboratories in North Vancouver for preparation and analysis. Stream sediment samples were oven dried and sieved to -80 mesh. The -80 mesh fraction was analyzed for Au, Cu, Pb, Zn, Cu and Ag according to the procedures outlined in Appendix A. Rock samples were crushed, split, pulverized and sieved to -80 mesh. The -80 mesh fraction was then analyzed for Au, Cu, Pb, Zn, Ag according to the procedures outlined in Appendix A.

#### (b) Results and Interpretation

Drawing AR 80-228 shows the sample locations, sample number and results of the stream sediment samples.

Stream sediment samples report background values for Au, ranging from <5 ppb to 25 ppb. Lead values range from 22 ppm to 33 ppm, all within background levels. Zinc values range from 45 ppm to 121 ppm with values above 65 ppm considered anomalous. Sample nos. 6752A and 6753A report values of 121 ppm and 100 ppm respectively. Copper values range from 31 ppm to 82 ppm with values above 60 ppm considered anomalous. Sample nos. 6752A and 6753A report values of 82 ppm and 70 ppm respectively. Silver values range from 0.3 ppm to 0.6 ppm, all within background values.

Rock samples report values for Au ranging from 5 ppb to 110 ppb, although 4 out of 5 samples contained 10 ppb Au or less. Sample no. 2716B reported 110 ppb Au. Lead values range from 8 ppm to 27 ppm, all within background levels. Zinc values range from 33 ppm to 200 ppm with values above 60 ppm considered anomalous. Sample nos. 2715B and 2716B report values of 140 ppm and 200 ppm respectively. Copper values range from 20 ppm to 400 ppm with values above 60 ppm considered anomalous. Sample no. 2716B reported a value of 400 ppm. Silver values range from 0.6 ppm to 2.3 ppm with values above 1.4 ppm considered anomalous. Sample nos. 2715B and 2716B report values of 2.3 ppm and 2.0 ppm respectively. Sample no. 2716B is anomalous in Au, Zn, Cu and Ag.

In conclusion, sampling results indicate the possibility for Au, Cu, Zn and Ag mineralization. Insufficient sampling has been done to delineate a probable source of the mineralization.

#### IV COST STATEMENT

##### (a) Wages

|                           | <u>Rate/<br/>day</u> | <u>Spec.<br/>dates</u> | <u>No.<br/>days</u> | <u>Cost</u> |
|---------------------------|----------------------|------------------------|---------------------|-------------|
| 1 jr. field<br>tech.      | \$ 43.42             | Aug.23/80              | 1                   | \$ 43.42    |
| 1 sr. field<br>geol.tech. | 57.18                | Aug.23/80              | 1                   | 57.18       |
|                           |                      |                        |                     | <hr/>       |
|                           |                      |                        |                     | \$ 100.60   |



(b) Room and Board

Per diem rate of \$38.15 - based on 2 person days: \$ 76.30

(c) Transportation

Helicopter:

Terr-Air charter ticket #1136 (0.55 hours @ \$426/hour), billed on invoice #513: \$ 234.30

Costs to and from project area during August, pertinent to the CAR claim, are split amongst claims that had work conducted upon.

Truck rental and fuel - \$1,339 split amongst 13 claims = \$ 100.00

\$ 334.30

(d) Analytical Services

Min-En Laboratories Invoice #7471

6 stream sediment - prep. (@ \$0.60 each) \$ 3.60

6 stream sediment - Au,Ag,Cu,Pb,Zn (@ \$8.25) 49.50

5 rock - prep. (@ \$2.00 each) 10.00

5 rock - Au,Ag,Cu,Pb,Zn (@ \$8.25 each) 41.25

\$ 104.35

(e) Report Preparation

|             | <u>Rate/</u><br><u>day</u> | <u>Spec.</u><br><u>dates</u> | <u>No.</u><br><u>days</u> |           |
|-------------|----------------------------|------------------------------|---------------------------|-----------|
| Drafting    | \$127.00                   | Apr.10/81                    | 1                         | \$ 127.00 |
| Typing      | 64.80                      | Apr.10/81                    | 1                         | 64.80     |
| Compilation | 141.04                     | Apr.10/81                    | 1                         | 141.04    |
|             |                            |                              |                           | \$ 332.84 |

(f) Miscellaneous

Room and board - pilot  
per diem rate of \$38.15 - based on 1 person day \$ 38.15

GRAND TOTAL \$ 986.54

V. STATEMENT OF QUALIFICATIONS

I, F. Marshall Smith, do hereby certify that:

1. I am a geologist residing at 6580 Mayflower Drive, Richmond, BC and employed by Du Pont of Canada Exploration Limited.
2. I am a graduate of University of Toronto with a B.Sc. in geology.
3. I am a registered Professional Engineer of the Province of British Columbia, Member of the Association of Exploration Geochemists and Fellow of the Geological Association of Canada.
4. I have practised my profession continuously for the last 13 years in Canada.
5. Between 1980 August 23 and 1981 January 30, I supervised/directed a field programme on the Car Claim on behalf of Du Pont of Canada Exploration Limited.



*MIN-EN Laboratories Ltd.**Specialists in Mineral Environments*Corner 15th Street and Bewicke  
705 WEST 15th STREET  
NORTH VANCOUVER, B.C.  
CANADAANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORKPROCEDURES FOR Mo, Cu, Cd, Pb, Mn, Ni, Ag, Zn, As, F

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with  $\text{HNO}_3$  and  $\text{HClO}_4$  mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the  $\text{CH}_2\text{H}_2$ -Air flame combination but the Molybdenum determination is carried out by  $\text{C}_2\text{H}_2$ - $\text{N}_2\text{O}$  gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzeit method using  $\text{Ag CS}_2\text{N} (\text{C}_2\text{H}_5)_2$  as a reagent. The detection limit obtained is 1. ppm.

Fluorine analysis is carried out on a 200 milligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soil samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is 10 ppm F.

APPENDIX A

*MIN-EN Laboratories Ltd.*

*Specialists in Mineral Environments*

Corner 15th Street and Bewicke

705 WEST 15th STREET

NORTH VANCOUVER, B.C.

CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURE FOR GOLD GEOCHEMICAL ANALYSIS.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

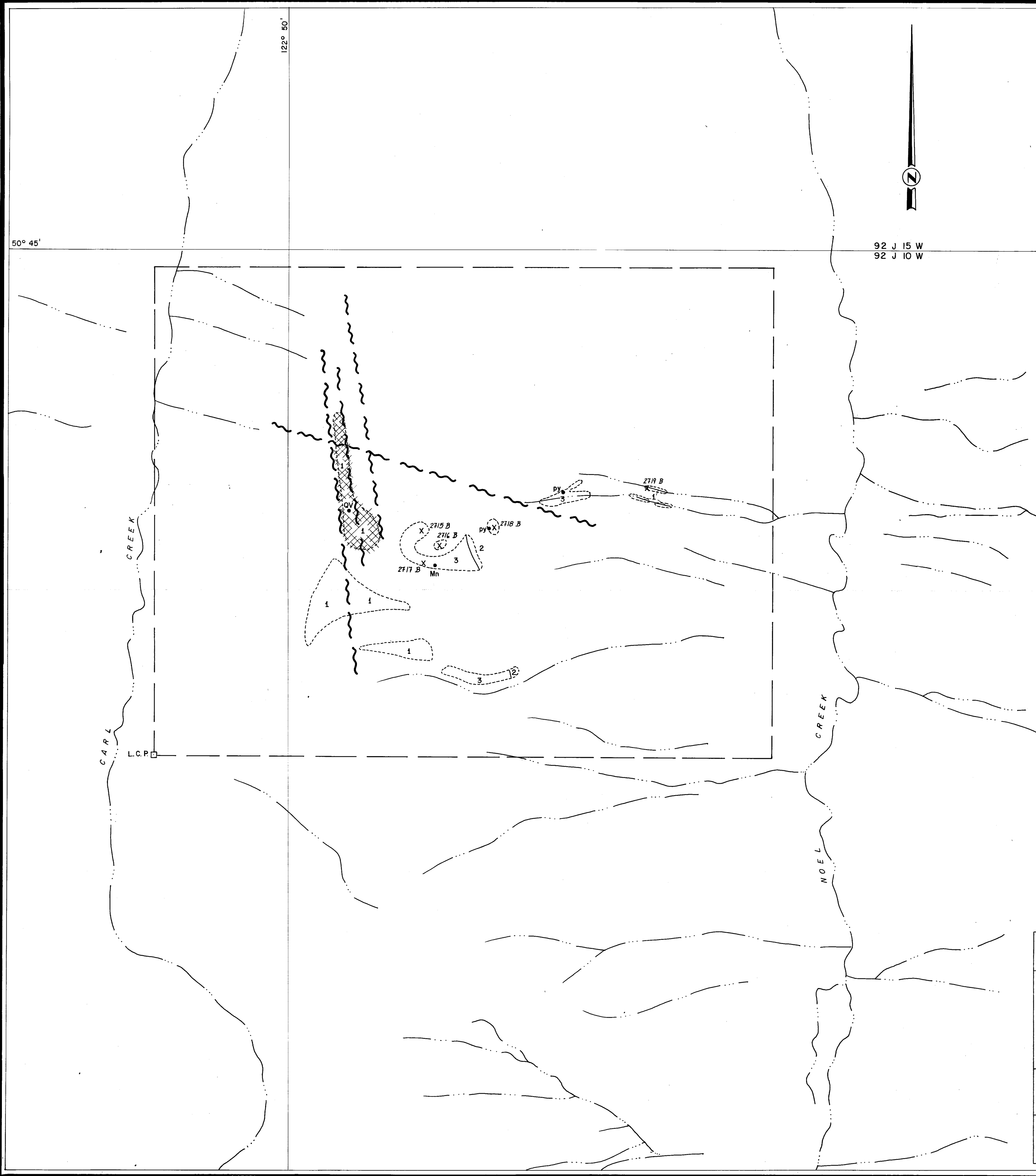
A suitable sample weight 5.0 or 10.0 grams are pre-treated with  $\text{HNO}_3$  and  $\text{HClO}_4$  mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.



**LEGEND**

- 3 PHYLITE
- 2 MARBLE
- 1 SERPENTINITE  
serpentinized dunite, peridotite, hornblende
- CARBONATE ALTERATION

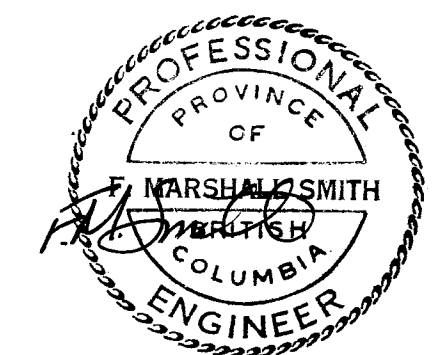
**SYMBOLS**

- OUTCROP
- GEOLOGIC CONTACT
- FAULT
- X 2715 B ROCK SAMPLE LOCATION & NUMBER
- MINERAL OR METAL OCCURRENCE
- Mn Manganese
- py Pyrite
- QV Quartz Vein
- CLAIM BOUNDARY & LEGAL CORNER POST

**ROCK SAMPLE RESULTS -80 MESH**

| Tag   | Au<br>P.P.B. | Pb<br>P.P.M. | Zn<br>P.P.M. | Cu<br>P.P.M. | Ag<br>P.P.M. |
|-------|--------------|--------------|--------------|--------------|--------------|
| 2715B | 5            | 27           | 140          | 52           | 2.3          |
| 2716B | 110          | 24           | 200          | 400          | 2.0          |
| 2717B | 10           | 8            | 54           | 44           | 0.6          |
| 2718B | 5            | 9            | 40           | 47           | 1.0          |
| 2719B | 5            | 19           | 33           | 20           | 0.9          |

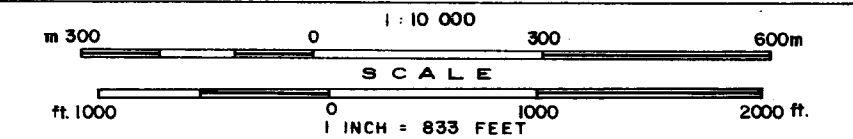
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**9232**  
NO.



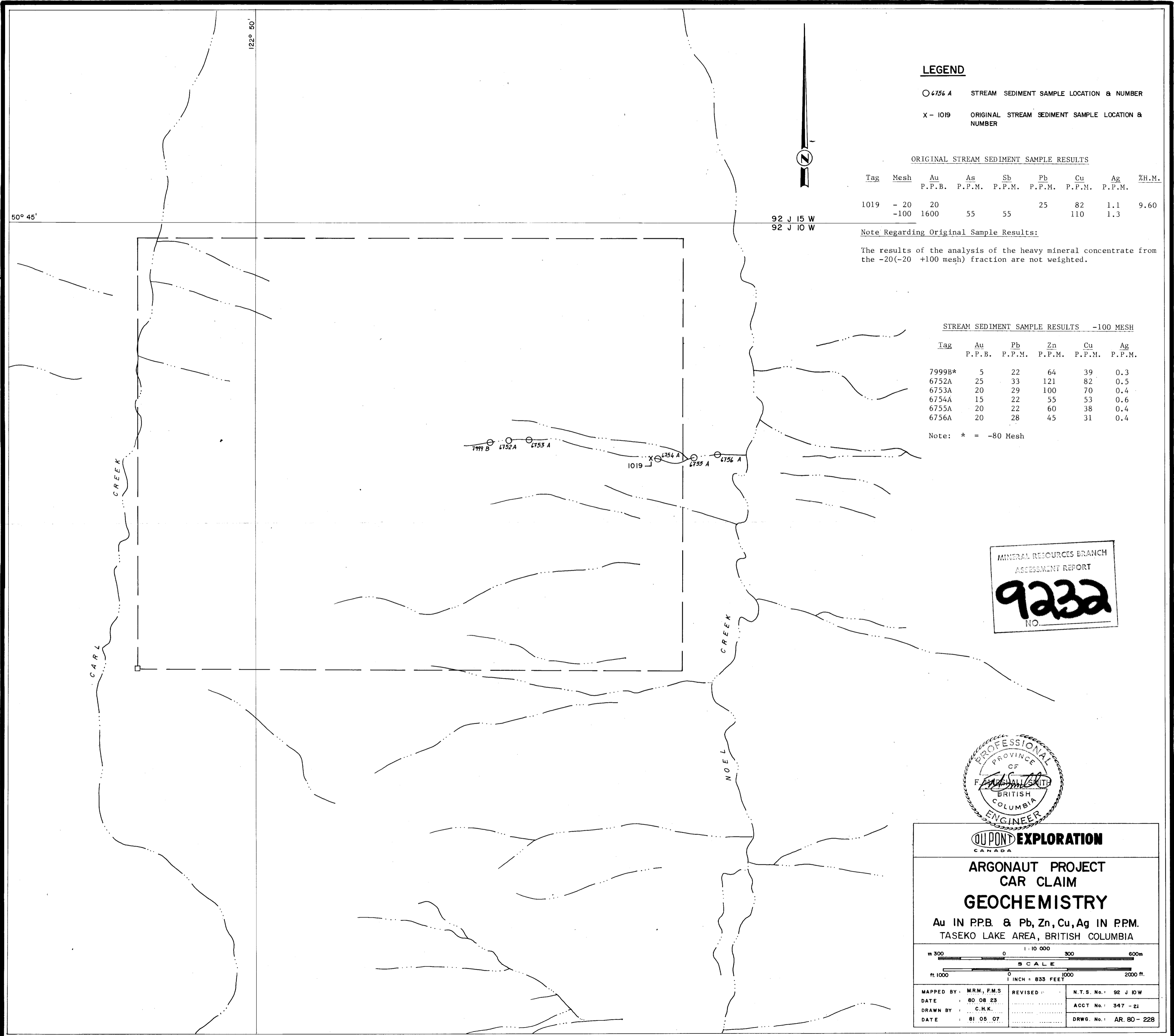
**DUPONT EXPLORATION**  
CANADA

**ARGONAUT PROJECT  
CAR CLAIM  
GEOLOGY**

TASEKO LAKE AREA, BRITISH COLUMBIA



|                           |          |                       |
|---------------------------|----------|-----------------------|
| MAPPED BY: M.R.M., F.M.S. | REVISED: | N.T.S. No.: 92 J 10 W |
| DATE: 80 08 23            |          | ACCT No.: 347 - 21    |
| DRAWN BY: C.H.K.          |          | DRWG. No.: AR. 80-227 |
| DATE: 81 05 07            |          |                       |



**LEGEND**

- 6756 A    STREAM SEDIMENT SAMPLE LOCATION & NUMBER
- X - 1019    ORIGINAL STREAM SEDIMENT SAMPLE LOCATION & NUMBER

ORIGINAL STREAM SEDIMENT SAMPLE RESULTS

| Tag  | Mesh | Au<br>P.P.B. | As<br>P.P.M. | Sb<br>P.P.M. | Pb<br>P.P.M. | Cu<br>P.P.M. | Ag<br>P.P.M. | %H.M. |
|------|------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| 1019 | - 20 | 20           |              |              | 25           | 82           | 1.1          | 9.60  |
|      | -100 | 1600         | 55           | 55           |              | 110          | 1.3          |       |

Note Regarding Original Sample Results:

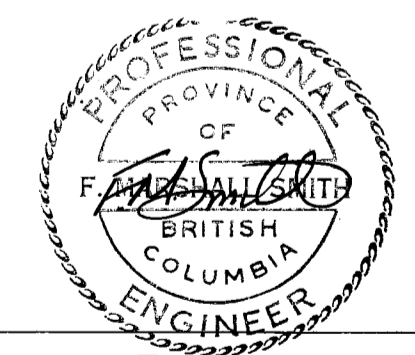
The results of the analysis of the heavy mineral concentrate from the -20(-20 +100 mesh) fraction are not weighted.

STREAM SEDIMENT SAMPLE RESULTS -100 MESH

| Tag    | Au<br>P.P.B. | Pb<br>P.P.M. | Zn<br>P.P.M. | Cu<br>P.P.M. | Ag<br>P.P.M. |
|--------|--------------|--------------|--------------|--------------|--------------|
| 7999B* | 5            | 22           | 64           | 39           | 0.3          |
| 6752A  | 25           | 33           | 121          | 82           | 0.5          |
| 6753A  | 20           | 29           | 100          | 70           | 0.4          |
| 6754A  | 15           | 22           | 55           | 53           | 0.6          |
| 6755A  | 20           | 22           | 60           | 38           | 0.4          |
| 6756A  | 20           | 28           | 45           | 31           | 0.4          |

Note: \* = -80 Mesh

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**9232**  
NO.



**DUPONT EXPLORATION**  
CANADA

**ARGONAUT PROJECT  
CAR CLAIM  
GEOCHEMISTRY**

Au IN PP.B. & Pb, Zn, Cu, Ag IN P.P.M.  
TASEKO LAKE AREA, BRITISH COLUMBIA

1:10 000  
SCALE  
1 INCH = 833 FEET

|                        |          |                       |
|------------------------|----------|-----------------------|
| MAPPED BY: MRM, F.M.S. | REVISED: | N.T.S. No.: 92 J 10 W |
| DATE: 80 08 23         |          | ACCT No.: 347 - 21    |
| DRAWN BY: C.H.K.       |          | DRWG. No.: AR. 80-228 |
| DATE: 81 05 07         |          |                       |