GEOCHEMICAL REPORT ON THE

AGUR-1 MINERAL CLAIM,

DESCHAMPS CREEK, B.C., OSOYOOS M.D.

Lat. 49° 34' N; Long. 119° 47' W

N.T.S. Map-Sheet 82E/12W

for

British Newfoundland Exploration Ltd.

by

R.R. Culbert, PhD., P.Eng.

D.G. Leighton & Associates Ltd.

31 May, 1978

MINERAL RECOURCES BRANCH
ASSESSMENT REPORT

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D. G. LEIGHTON & ASSOCIATES LTD.

GEOLOGICAL CONSULTANTS

8152 WEST 10TH AVENUE VANCOUVER, B.C. V6K 2K9

REPORT ON THE AGUR-1 CLAIM, DESCHAMPS CREEK, B.C.

#### INTRODUCTION

This report describes the results to date of exploration work on the AGUR-1 property. This work has consisted of geochemical sampling for uranium and molybdenum, prospecting and some geological mapping. Work was done at intervals, being part of a larger program involving both regional work and property follow-up in the Okanagan region. Conclusions and recommendations set forth are based on the work cited above.

#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

- The AGUR-1 claim consists of a twenty unit block located near Penticton
  in south central British Columbia.
- 2. The claim is underlain by granodiorite of probable Cretaceous age.
- Reconnaissance and follow-up geochemical sampling have indicated that
  the property coincides with a source of anomalous uranium and molybdenum
  values in stream waters and sediments.
- 4. Prospecting has resulted in the discovery of minor molybdenite mineralization in aplitic dikes which cut the granodiorite.
- Mineralization seen to date does not seem to explain adequately the anomalous geochemical values observed. Some additional prospecting and geochemical work is required.

Respectfully submitted,

R.R. Culbert,

Dick Enl

31 May, 1978

#### GENERAL DESCRIPTIONS

#### Location and Access

The AGUR-1 claim is located ten kilometers northwest of Penticton in south central British Columbia. The property can be reached via the Agur Lake road. Geodetic co-ordinates are 49° 34' north latitude; 119° 47' west longitude.

#### History

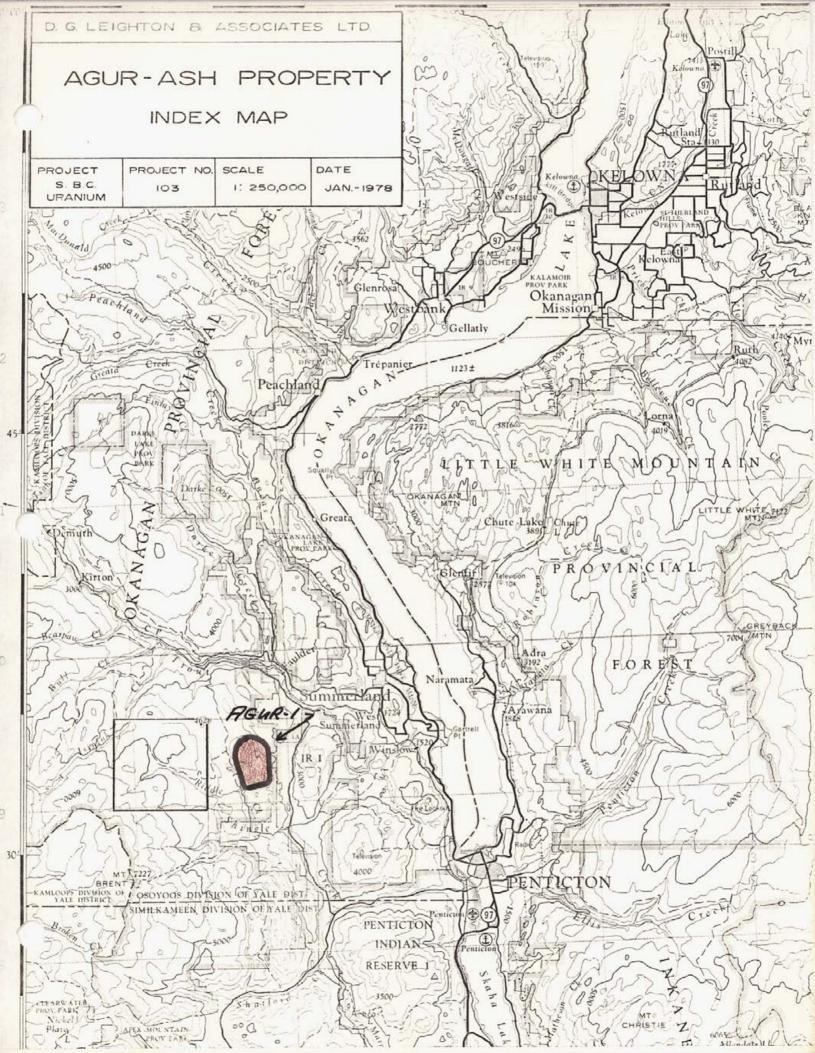
The AGUR-1 claim was originally staked to cover a stream sediment anomaly in uranium and molybdenum. Follow-up showed that high uranium values in waters and sediment were quite widespread and several molybdenum soil anomalies were encountered.

There is no record of previous uranium exploration work in the area covered by the AGUR-1 claim.

#### Claims

The AGUR-1 claim consists of one twenty unit block held in the name of British Newfoundland Exploration Ltd.

| Claim   | Units | Record No. | Record Date  |
|---------|-------|------------|--------------|
| AGUR- I | 20    | 288        | 26 May, 1977 |



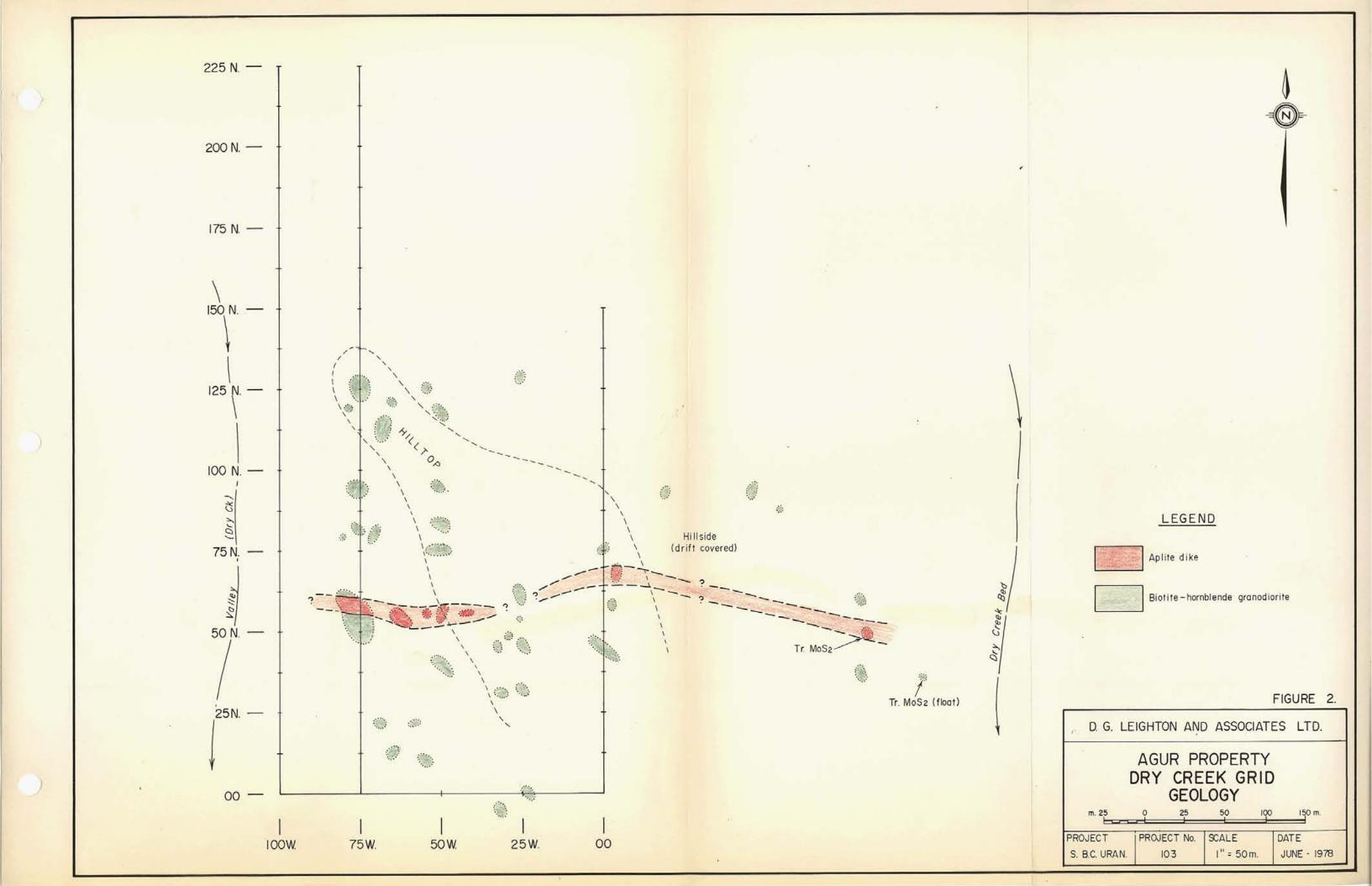
#### GEOLOGY

The AGUR-1 claim block is largely underlain by homogeneous equigranular coarse-grained biotite-hornblende granodiorite containing on average 25% quartz, 50% feldspar and 15 - 30% mafic minerals of which biotite and hornblende occur in approximately equal amounts. The granodiorite shows little alteration and is only weakly fractured.

In the Dry Creek area, traces of molybdenite occur as fine blebs and streaks in a moderately fractured, sugary-textured fine-grained aplite dike which cuts the granodiorite in an approximate east-west trend. Similar dikes occur in the vicinity, but no molybdenum mineralization was observed in them. The dikes are characterized by prominent pink weathering. Dike width varies from 3 m to 12 m, and a steep southerly dip is indicated. In the mineralized dike, molybdenite is associated with coarse-grained quartz-rich laminae, but no stockwork system or alteration envelopes were observed. The aplite has been moderately leached due to traces of disseminated pyrite within it.

#### GEOCHEMISTRY

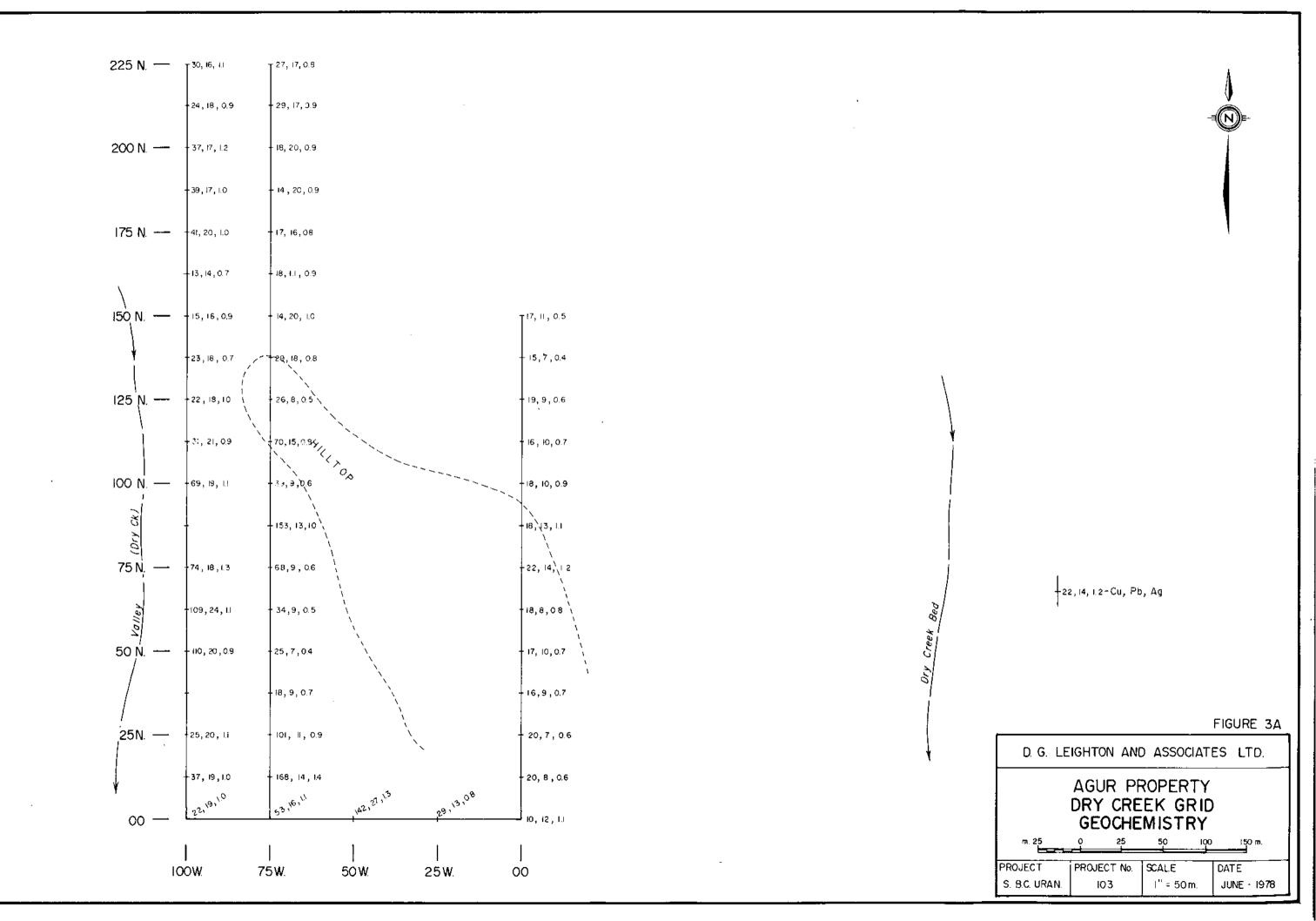
Both uranium and molybdenum are mobile in alkaline waters. These waters exist on the AGUR-1 claim and the uranium-molybdenum association is therefore in part likely to be an environmental one with anomalies produced where waters interact with organic materials. On the other hand, some of the uranium results (to 1,520 ppm) are extremely high, and minor molybdenum mineralization has been observed. Therefore the possibility of finding

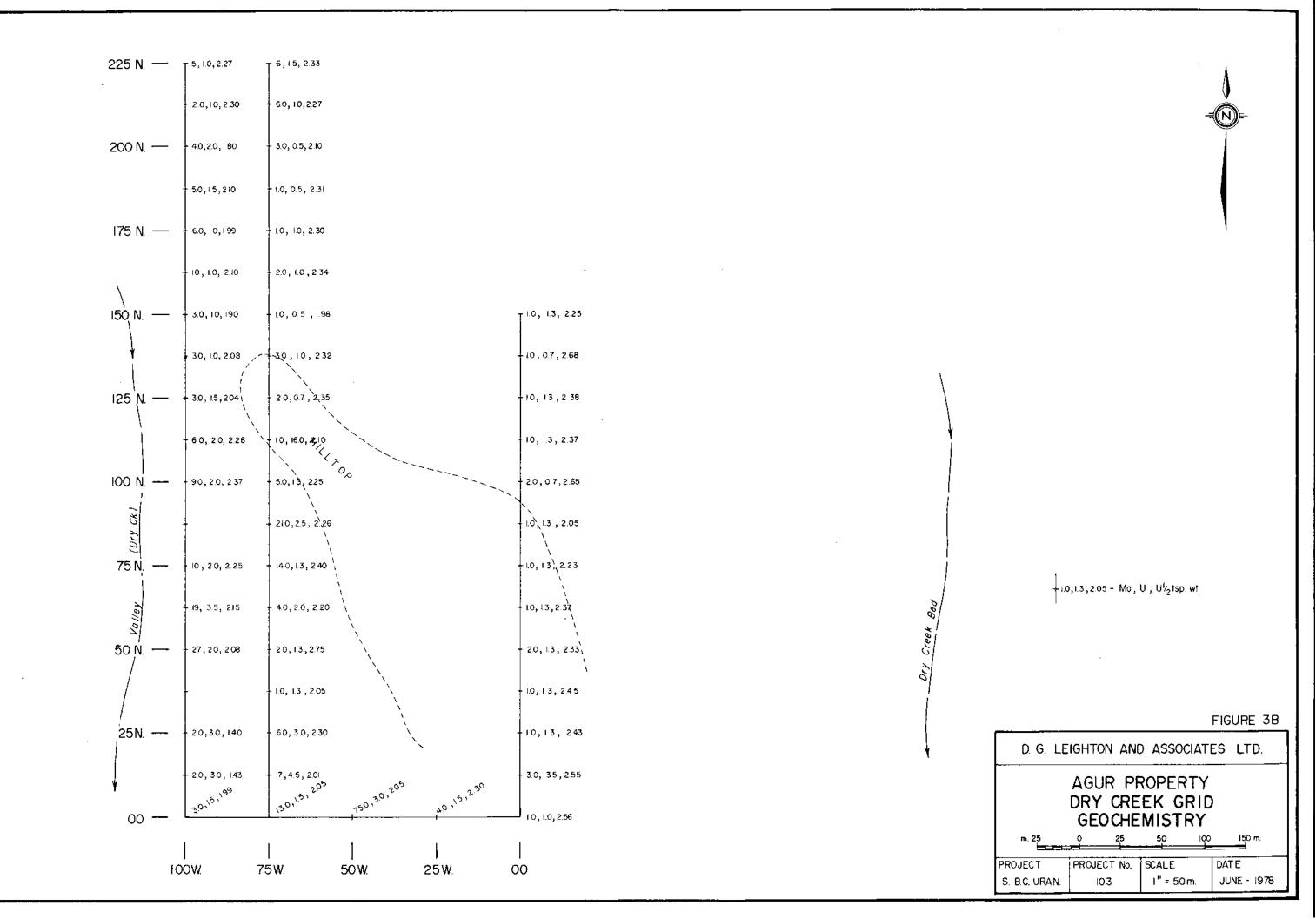


significant uranium and molybdenum mineralization - either separately, or together as at the Carmi deposit - is considered moderately good.

Low energy gamma spectrometry of silt samples showed that uranium was not accompanied by abnormal amounts of thorium. Furthermore, while the sedimentary uranium was far from being in equilibrium with its daughter products, the radium levels tended to be clearly above those usually associated with uranium anomalies resulting from alkaline water transport of uranium alone. The 1,520 ppm uranium anomaly, for example, had 19% of its daughter products. On the other hand, a large discrepancy between radium and Pb<sup>214</sup> content points to the sedimentary uranium being in an adsorbed or surficial form with a high radon escape ratio.

Results of geochemical sampling are shown on a 1 cm to 50 m map entitled AGUR-1 Claim - General Compilation (see pocket). Soil sampling results from the Dry Creek grid are given on a map following this page. The analytical procedure used is described in Appendix "A".





# BREAKDOWN OF COSTS - for assessment purposes (approximate only)

| Wages and salaries<br>Benefits (12% of salaries total)                  |       | \$1,860<br>223 | \$2,083 |
|---|-------|----------------|---------|
| Transportation - mainly truck rental                                    |       |                | 175     |
| Assay costs   |       |                | 730     |
| Meals and accommodation.  |       |                | 550     |
| Miscellaneous; includes geophysical equipment rental, compilation, etc. |       |                | 310     |
|   | Total |                | \$3,848 |

## PERSONNEL

| R.R. | Culbert  | geologist  |
|------|----------|------------|
| R.J. | Beaty    | geologist  |
| R.J. | Bilquist | prospector |
| ı D  | Allen    | prospector |

#### CERTIFICATION

I, R.R. Culbert, do hereby certify that:

- I am a practicing Professional Geological Engineer with offices at 3152 West 10th Avenue, Vancouver, B.C.
- I am a graduate of the University of British Columbia, BASc. (1964),
   PhD. (1971).
- I have practiced mining exploration for fifteen years, most of which were based in British Columbia.
- 4. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- I have personally visited the AGUR-1 claim and supervised exploration work carried out there.

Respectfully submitted,

R.R. Culbert, PhD,

R, R, CULBERT

BRITISH

31 May, 1978

# GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES LTD.

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 jaw crusher and pulverized by ceramic plated pulverizer.

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

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

Copper, lead, zinc, silver, cadmium, cobalt, nickel and manganese are analysed using the  $CH_2H_2$ -Air flame combination but the molybdenum determination is — carried out by  $C_2H_2$ - $N_2O$  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 Gutzit method using Ag  $CS_2$  N  $(C_2H_5)_2$  as a reagent. The detection limit obtained is 1. ppm.

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

## 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 Uranium Analysis:

Rock, soil and silt samples are dried at  $110^{\circ}$ C and then rocks are crushed and pulverized to -80 mesh.

Soils and silts are sieved and the minus 80 mesh fraction is retained for analysis.

1.000 g. sub-sample is weighed and digested for eight hours with  ${\rm HNO_3}$  and  ${\rm HClO_4}$ .

Then the uranium is separated chemically from other possible interfering ions as Mn, Fe, etc.

After preparation a suitable aliquote is taken and fluxed to form a 1.5 inch diameter discs in platinum dishes.

These salt discs then are compared and measured along with suitable standard with a Jarrell Ash Fluorometer.

The results are calculated accordingly to the sample aliquotes used from standard graphs.

