

ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL REPORT  
ALEXANDRIA PROPERTY  
VANCOUVER MINING DIVISION  
N.T.S. 92K/6W & 92K/11W

Co-ordinates: 50°29'51"North  
122°23'13"East

- Owner of Claims: - Alexandria Group  
by J.W. McLeod and W.P. Warshawski
- JB, COR, PAC, Alex  
by Robert J. Lacey
- Work done by: - G.A. Noel & Associates, Inc.  
for Corpac Minerals Ltd.

by

HAROLD M. JONES, P.Eng.

January 21, 1982

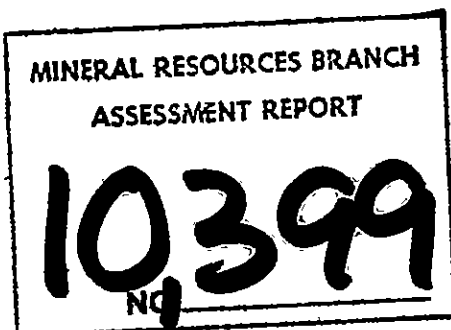


TABLE OF CONTENTS

|  | <u>Page</u> |
|--|-------------|
| SUMMARY .....                              | 1           |
| INTRODUCTION .....                         | 3           |
| Location and Access .....                  | 5           |
| Topography .....                           | 5           |
| Property and Title .....                   | 7           |
| History .....                              | 8           |
| FIELDWORK .....                            | 9           |
| 1. Geochemical Soil Surveys .....          | 10          |
| (a) Grid 1 .....                           | 10          |
| (b) Grid 2 .....                           | 10          |
| (c) Grid 3 .....                           | 10          |
| (d) Grid 4 .....                           | 10          |
| 2. Geological Mapping .....                | 11          |
| RESULTS .....                              | 12          |
| CONCLUSIONS .....                          | 17          |
| RECOMMENDATIONS .....                      | 19          |
| Cost Estimate .....                        | 19          |
| REFERENCES .....                           | 21          |
| CERTIFICATES .....                         | 22/23       |
| <br>                                       |             |
| APPENDIX I - Soil Analyses and Rock Assays |             |
| APPENDIX II - Statement of Costs           |             |

LIST OF ILLUSTRATIONS

|   |           |
|---|-----------|
| FIGURE 1 - Location Map .....             | 4         |
| FIGURE 2 - Claim Map .....                | 6         |
| FIGURE 3 - Geology Map .....              | In pocket |
| FIGURE 4 - Geochemical Map - Ag, Sb ..... | "         |
| FIGURE 5 -       "       " - Cu .....     | "         |
| FIGURE 6 -       "       " - Zn .....     | "         |
| FIGURE 7 -       "       " - As .....     | "         |

## SUMMARY

The Alexandria property, located on Phillips Arm 200 km northwest of Vancouver, B.C. was explored by a small field crew from G.A. Noel & Associates on behalf of Corpac Minerals Ltd. from May 24 - June 9, 1981.

Geochemical soil sampling and outcrop mapping traced the mineralized Doratha-Morton vein southeasterly along strike to the Enid-Julie adit, a distance of 1500 metres. Approximately one half of this vein is on ground under option to Corpac Minerals Ltd.

Prospecting and reconnaissance mapping located two quartz vein outcrops, 500m and 1000m respectively northwest along strike of the Doratha-Morton workings. These showings may be a part of the same vein, indicating it could continue on to the company's Cor claim.

Geochemical soil sampling on strike from the Alexandria mine returned scattered low values in silver, copper and arsenic on two small grids, the closest of which is approximately 1000m from the mine portal at tidewater. The sample results may indicate mineralized veins in the area, however, data is limited and results are considered inconclusive at this stage.

Samples of vein material returned, in most cases, very low values in gold and silver, However, is does not preclude the presence of small ore shoots with grades similar to that known at the Alexandria mine (0.306 oz/ton gold) or that mined at the Doratha-Morton (0.44 oz/ton gold).

A two-stage exploration program is recommended. Stage I, estimated to cost \$115,287 includes backhoe trenching and

sampling of the Enid-Julie vein, and extending the geochemical and geological surveys to cover the projected veins beyond the area examined in 1980 and 1981. Stage II, estimated to cost \$132,250, is for diamond drilling of areas of interest located from the 1980-81 work and Stage I proposed above. Because of access problems for backhoeing, Stage II drilling is not necessarily contingent on Stage I.

## INTRODUCTION

The Alexandria property, located on Phillips Arm 200km northwest of Vancouver, B.C., was acquired by Corpac Minerals Ltd. in 1980. The property was reviewed by G.A.Noel, P.Eng., and is described in his report dated July 7, 1980. In this report he recommended, as Stage I, a modest program to explore in the vicinity and along extensions of known veins.

In 1980, a small crew under the direction of G.A.Noel, P.Eng., spent from July 16-26 on the property conducting geological mapping and geochemical soil sampling as recommended in Stage I of his report. The results of this work indicated that the Enid-Julie vein could be traced intermittently for at least 700m along strike. (Noel, Oct. 1980). Due to time limitations, the entire Stage I was not completed.

In 1981, a small crew, once again under the supervision of G.A.Noel, P.Eng., spent from May 24-June 9 on the property completing the Stage I program.

Due to a lack of finances by Corpac Minerals Ltd., the field data was not compiled immediately following the completion of the field program. Also, due to the untimely death of G.A.Noel, P.Eng., the data compilation had to be made by the writer, who has not visited the property but is familiar with it from various discussions with the late G.A.Noel.

### Location and Access

The Alexandria group of claims is about 200 kilometres northwest of Vancouver and 55 kilometres north of Campbell River, on the west side of Phillips arm between Fanny Bay and Picton Point (Figure 1). The nearest settlement is the village of Thurlow on Shoal Bay at the north end of Thurlow Island about five kilometres to the south. The claims can be reached by water-taxi, aircraft on floats, or helicopter from Campbell River.

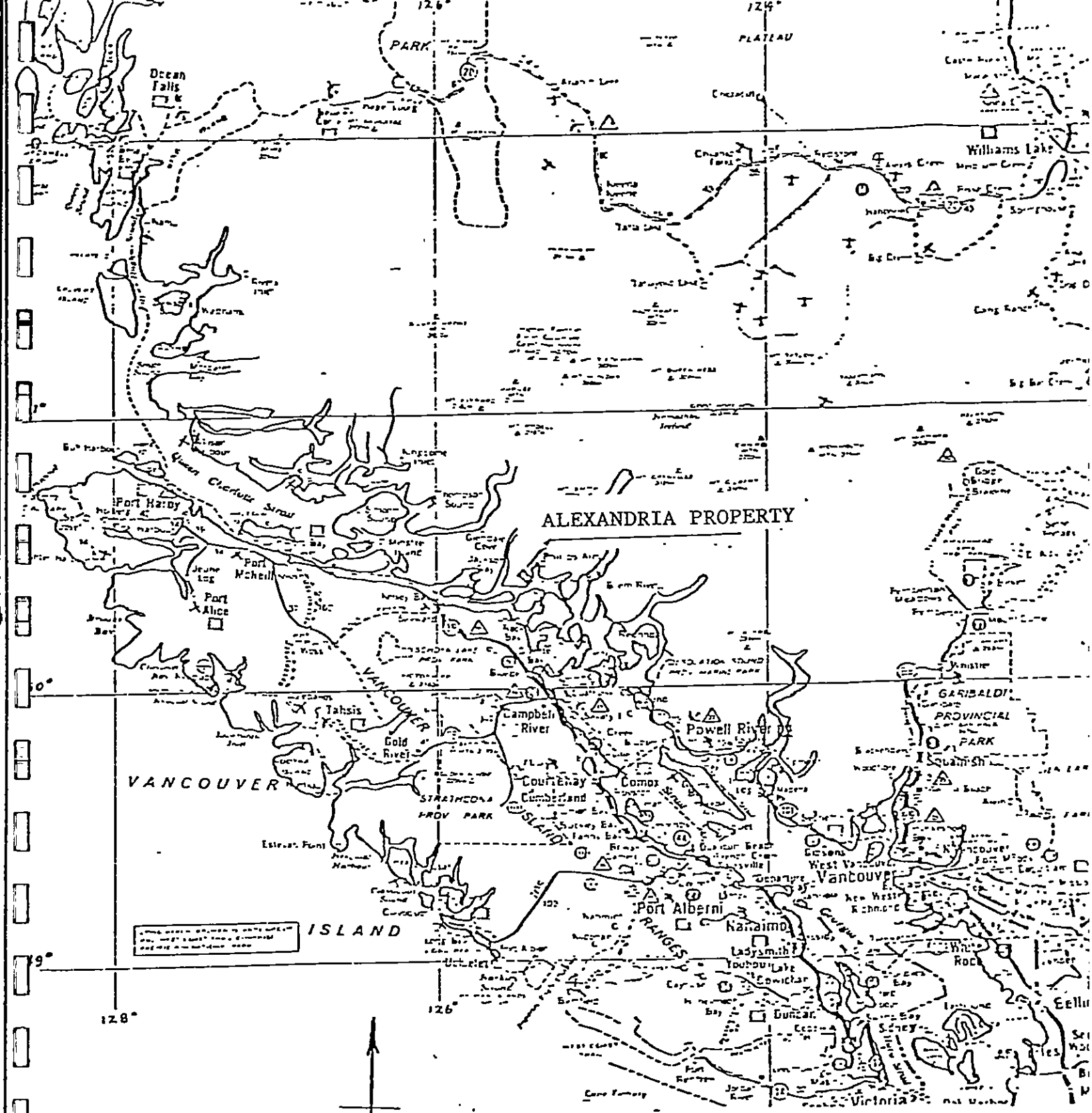
Logging roads, some now abandoned and in need of repair, lead from Picton Point to the northern edge of Alex claim. A minimum of bulldozer work is required to up-grade these roads for 4-wheel drive use.

### Topography

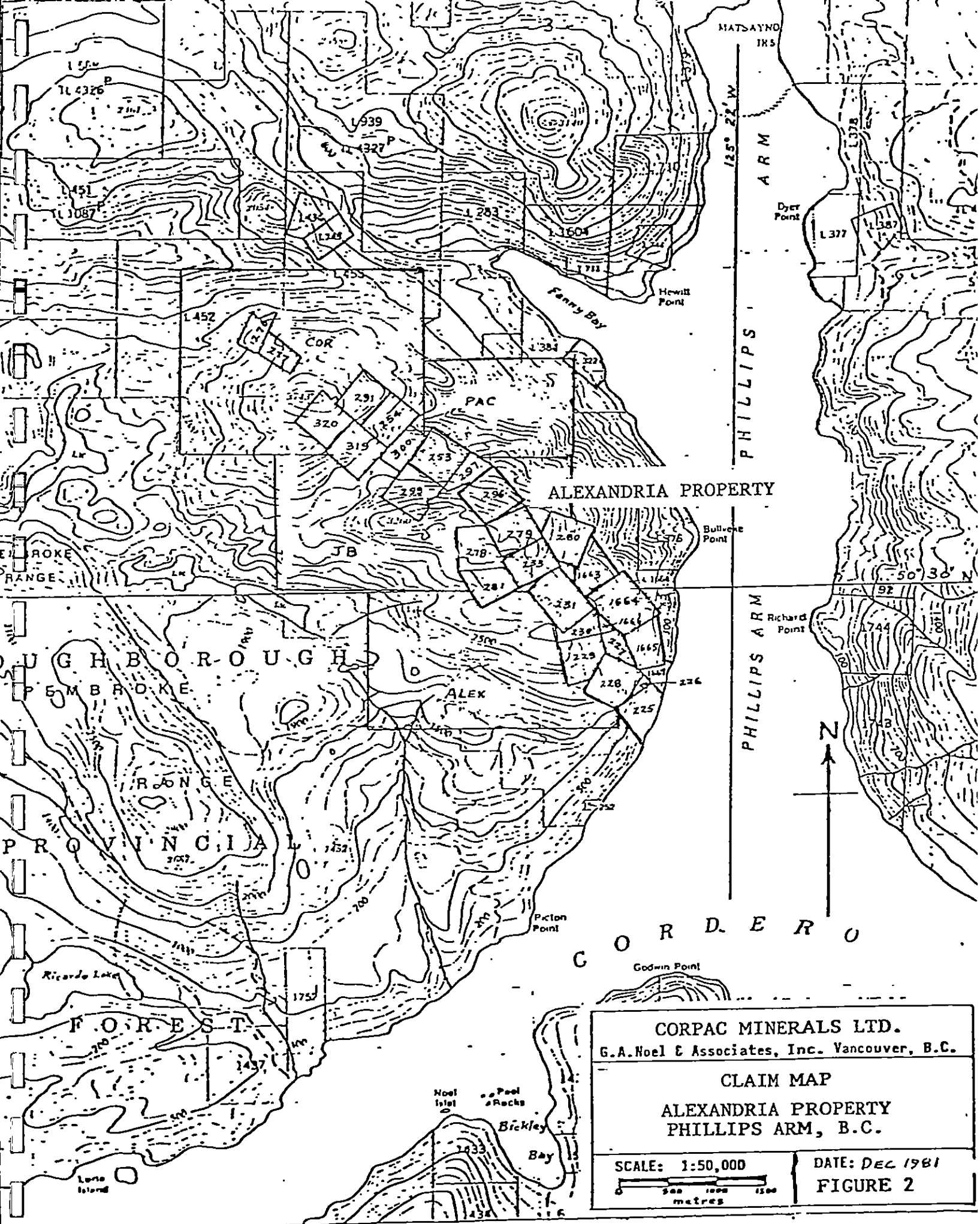
The Alexandria property lies along a northwest trending mountain ridge which is bordered by very steep slopes on all but the southwestern side.

The eastern end of the property is characterized by a series of cliffs extending from tidewater to approximately 750m elevation.

Elevations range from sea level at the main Alexandria mine workings on L.225 to 1120m on Cor claim.



|  |   |
|--|---|
| <b>CORPAC MINERALS LTD.</b><br>G.A.Noel & Associates, Inc. - Vancouver, B.C.   |   |
| <b>LOCATION MAP</b><br><b>ALEXANDRIA PROPERTY</b><br><b>PHILLIPS ARM, B.C.</b> |   |
| <b>SCALE: 1:2,500,00</b><br>20 10 0 10 20 Kilometers                           | <b>DATE: DEC. 1981</b><br><b>FIGURE 1</b> |



MATDAYNO 1K5

125° 22' W

PHILLIPS ARM

Dyer Point

L377

L387

Hewill Point

Fanny Bay

L452

COR

L283

L160

ALEXANDRIA PROPERTY

Bullvine Point

JB

ALEX

PHILLIPS ARM

Richard Point

L744

N

EL BROKE RANGE

OUGHBOROUGH

EMBROKE

PROVINCIAL

RANGE

FOREST

Ricardo Lake

C O R D E R O

Godwin Point

CORPAC MINERALS LTD.

G.A.Noel & Associates, Inc. Vancouver, B.C.

CLAIM MAP

ALEXANDRIA PROPERTY  
PHILLIPS ARM, B.C.

SCALE: 1:50,000

DATE: DEC 1981

0 500 1000 1500 metres

FIGURE 2

Noel Islet

Pool of Rocks

Bickley Bay

Bay

Lena Island



Property and Title

The property consists of 17 reverted Crown granted mineral claims and 4 located claims totalling 59 units (Figure 2).

The reverted Crown granted claims are owned by M.P. Warshawski and J.W. MacLeod and held under option by Corpac Minerals Ltd. They are grouped as the Alexandra Group in the Vancouver Mining Division.

The located claims were staked on behalf of Robert J. Lacey, Rycroft, Alberta by G.A. Noel & Associates. They were transferred to Mr. Lacey by a bill-of-sale dated May 26, 1982. This bill-of-sale was not recorded at the mining recorders office in Vancouver until January 19, 1982.

The reverted Crown grants are described as follows:

| <u>Claim</u>    | <u>Lot No.</u> | <u>Record No.</u> | <u>Area (acres)</u> | <u>Expiry Date</u> |
|-----------------|----------------|-------------------|---------------------|--------------------|
| Premier         | 1665           | 341               | 39.63               | Nov. 7, 1982       |
| Premier Fr.     | 1667           | 340               | 11.29               | "                  |
| Waterloo Fr.    | 226            | 340               | 5.55                | "                  |
| Gold Dust Fr.   | 1663           | 339               | 42.78               | "                  |
| Mary Rose       | 1664           | 338               | 50.79               | "                  |
| Jennie B        | 278            | 337               | 42.53               | "                  |
| Stella          | 281            | 336               | 25.60               | "                  |
| Emperor         | 227            | 335               | 46.25               | "                  |
| Highland Laddie | 228            | 55                | 45.90               | Nov. 6, 1982       |
| Duke            | 229            | 54                | 45.40               | "                  |
| Jubilee Fr.     | 230            | 53                | 16.33               | "                  |
| Duchess         | 231            | 52                | 51.65               | "                  |
| Julie           | 233            | 51                | 38.84               | "                  |
| Empress         | 279            | 50                | 44.90               | "                  |
| Comox           | 296            | 49                | 51.00               | "                  |
| Enid            | 280            | 47                | 46.25               | "                  |
| Alexandra       | 225            | 40                | 44.10               | "                  |

The located claims are described as follows:

| <u>Claim</u> | <u>No.of Units</u> | <u>Record No.</u> | <u>Expiry Date</u> |
|--------------|--------------------|-------------------|--------------------|
| Alex         | 15                 | 897(5)            | May 19, 1982       |
| JB           | 18                 | 898(5)            | "                  |
| PAC          | 6                  | 919(6)            | June 17, 1982      |
| COR          | 20                 | 920(6)            | "                  |

### History

The Alexandria mine area has been known since the late 1890's. Numerous old underground workings attest to this early exploration.

Most of the underground development work on the Alexandria property was done between 1898 and 1910. In 1932 the Alexandria claim was optioned by the Premier Gold Mining Company. The shaft was pumped out, and extensive drifting and cross-cutting were done in 1934 on the 100- and 200-foot levels (below sea-level). The No.2 level (50 feet above sea-level) and the No.1 level (at sea-level) were both extended to the northwest. Following this work, the Alexandria mine was inactive until 1939 when it was rehabilitated by the Alex Mining Company. The only recorded ore shipped from the Alexandria mine was a total of 48.8 tons for testing in 1896 and 1898. It graded 1.23 oz/ton gold. However, 10,000 tons of gold ore were mined and shipped from the Doratha Morton mine, about 3.5 kilometres northwest of the Alexandria mine, in 1898 and 1899. Additional development work was done on the Doratha Morton periodically between 1924 and 1936.

In October 1976, J.W.MacLeod did a geochemical soil survey over part of the Julie, Stella, Jennie B and Empress claims. The results of this survey were not sufficiently encouraging to warrant follow-up at that time.

In July 1980 and May-June 1981, G.A. Noel and Associates conducted geological mapping, geochemical soil sampling and vein and dump sampling on various parts of the property. This completed the Stage I work as recommended by Noel (1980).

#### FIELDWORK

The objective of the 1981 fieldwork was to explore the Enid-Julie vein, located in 1980, to the northwest and to try and ascertain its relation to the Doratha-Morton vein. The second objective was to investigate the nature and form of the Alexandria vein and try and locate its extension northwest of the old workings on the Alexandria claim (L.225).

The fieldwork was conducted between May 24 and June 9, 1981 by a small field crew under the supervision of G.A.Noel, P.Eng. Four grids were laid out to explore possible extensions of the Alexandria vein, the Enid-Julie vein and the Doratha-Morton vein. Geology was mapped in each grid area. Prospecting and reconnaissance geological mapping were also conducted.

Work was conducted from two camps to reduce the walking time to the various areas of interest. The first camp was used to cover the northwest half of the property and the second camp to cover the southeastern claims. All camp moves, including mobilization and demobilization, was by helicopter from Campbell River.

### Geochemical Soil Surveys

Four grids were laid out. They were numbered from southeast to northwest across the property, as grid 1 to grid 4. (See Figures 4, 5, 6, 7).

- (a) Grid 1 - it originates on Alex claim and extends onto lots 229, 230 and 231. Six lines were run totalling 1165 metres. A total of 59 samples were collected. This grid covers an area possibly underlain by a northwestern extension of the Alexandria vein.
  
- (b) Grid 2 - its is located entirely within Alex claim slightly south of L.281. Six lines were run totalling 1335 metres. A total of 91 samples were collected. This grid also covers an area possibly underlain by a northwestern extension of the Alexandria vein.
  
- (c) Grid 3 - it is located on L.296, L.297 and a thin fractional area now included in Pac claim. Samples in this area were taken to fill in areas not sampled in 1980. Seven lines were run totalling 775 metres. A total of 51 samples were collected. This grid covers the area containing the Enid-Julie vein.
  
- (d) Grid 4 - this is the largest grid and includes parts of L.253, L.254, L.297, L.299, L.300, L.319 and JB claim. While a larger part of this work was not on claims optioned by Corpac Minerals Ltd., it had to be done to trace the Doratha-Morton vein toward the company's property, and also give the geologist a better understanding as to the nature of this vein, the mineralization and its response to geochemical soil sampling.

Twenty-seven lines were run totalling 2520 metres. A total of 176 samples were collected.

The soil grids were laid out at various orientations (see Figs.4-7) using Silva compass and nylon rope chain for control. Line spacing was at 50 metres for grids 1, 2, and 4 but at 30m on grid 3. All samples were taken at 15m intervals along each line.

Samples was taken, using a mattock, from the B horizon at depths ranging from 5-50cm depending on the nature of the soil cover, i.e. thickness of moss, organic soil, etc. Most samples were collected at 25-30cm depths. All samples were placed in kraft soil bags upon which was written the co-ordinate of the sample location.

Upon completion of the project, all samples were delivered to Acme Analytical Laboratories Ltd., 852 East Hastings Street, Vancouver, B.C. They were analysed using the Inductivity Coupled Argon Plasma (ICP) method. Each sample is prepared as follows: the sample is dried at 60°C, then sieved at -80 mesh. A 0.5 gram portion of the sieved material is then digested with hot aqua regia for one hour and then diluted to 10ml. The diluted sampled is aspirated by ICP and the analytical results are printed by Telex in either percent or ppm.

### Geological Mapping

Geological mapping, on a scale of 1:2500 was conducted within all grid areas. Several reconnaissance traverses were also made and plotted on a scale of 1:5000.

A considerable amount of detail was done in the vicinity of the Doratha-Morton vein where numerous old workings show good exposures of the veins. Several underground workings were mapped and are shown in detail on Figure 3. Mapping was conducted both to the northwest and southeast of the workings, the objective of which was to trace the vein(s) along strike onto claims optioned by Corpac Minerals Ltd.

Underground workings of the Julie adit (Enid adit?) was mapped as was a detailed examination of the Alexandria vein at the main level portal at tidewater. These workings are also shown in detail on Fig.3. Due to flooding of this level, no attempt was made to explore the Alexandria mine.

A number of rock samples were taken from various exposures of the veins. Their locations and assay results are shown on Figure 3. The assays are also tabulated under "Results".

## RESULTS

From frequency distribution plots of the geochemical analyses the following levels of anomaly were selected:

|                      | <u>Ag(ppm)</u> | <u>Cu(ppm)</u> | <u>Zn(ppm)</u> | <u>As(ppm)</u> | <u>Sb(ppm)</u> |
|----------------------|----------------|----------------|----------------|----------------|----------------|
| possibly anomalous   | 0.5-1.0        | 30- 70         | 100-150        | 7-14           | 3              |
| probably anomalous   | 1.0-1.5        | 70-150         | 150-200        | 14-21          |                |
| definitely anomalous | > 1.5          | > 150          | > 200          | > 21           |                |

Since very few values for Sb were greater than 3 ppm, it was decided that any value greater than this could be considered as possibly anomalous or better.

Soil sampling and outcrop mapping on grid 4 was successful in tracing the Doratha-Morton vein 200m northwesterly from the main workings. Approximately 500m and 1000m further to the northwest, on L.319 and L.320, reconnaissance mapping located two aplitic quartz veins, each respectively 2.7m and 1.7m wide. Assays indicate them to be poorly mineralized. They are approximately along the northwesterly projected trend of the Doratha-Morton vein and may represent the continuation of it toward the Cor claim.

The vein was also traced by geochemistry and outcrop mapping for 400 metres to the southeast beyond L.299 and on to the JB claim. There is a weak, spotty, geochemical pattern for a further 200m to the southeast, indicating that the vein is probably present but very weakly mineralized.

Grid 3, which is a fill-in of the 1980 soil grid, covers the area immediately southeast of the above suggested poorly mineralized vein section. Within this grid is zone 150m long definitely anomalous in silver enclosed within a zone 300m long possibly anomalous in silver, indicating that a mineralized section of the vein is probably present. This anomalous area extends from the southeast end of L.296 to the Julie shaft which is located near the southeast corner of L.297.

Approximately 250m southeasterly of the Julie shaft is the Julie (Enid) adit, which follows the vein northwesterly for 90m.

From the above surveys it is apparent that the vein can be traced intermittently for approximately 200m northwest of the Doratha-Morton workings to the Julie (Enid) adit,

a strike length of 1700 metres. It is also apparent that the Julie vein is more than likely a part of the Doratha-Morton vein.

Outcrop mapping, greatly hindered by the lack of outcrop, found that the vein varies from 1.5 to 3.0 metres in width and from  $50^{\circ}$  to  $80^{\circ}$  in dip to the southwest. Mineralization consists of pyrite, chalcopyrite and sphalerite in streaks and bands in quartz. Assay data shows that values may vary from 0.005 to 4.0 oz/ton in gold and 0.5 to 15 oz/ton in silver.

The vein occurs in metasediments near their contact with a body of granodiorite and conforms fairly closely with the attitude of the metasediments. The metasediments include quartz-feldspar-gneiss, chlorite schist and hornblende-biotite gneiss. The latter unit grades into and out of granodiorite.

Andesite, andesitic tuff and schistose andesite occur in spotty outcrops to the southwest of the vein and are probably interbanded with the metasediments. Locally these rocks are tightly folded and contorted.

Recorded production from the Doratha-Morton mine totalled 10,000 tons grading 0.44 oz/ton in gold and 1.0 oz/ton in silver.

The Alexandria vein as exposed at sea level at the portal of the Alexandria mine on L.225 consists of a quartz vein 2m wide trending  $N40^{\circ}W$  and dipping  $80^{\circ}$  to the northeast. It is within a metasedimentary section, consisting of gneisses and schists which also contains two other quartz



veins; one 0.7m wide (No.2 vein), the other 1.0m (No.3 vein). (See Figures 3 & 5).

Since the mine is flooded it could not be examined. From the literature (see References) it is reported to consist of the following working:

| Workings                    | Elevation<br>(m) | Length (m) |           |       |
|-----------------------------|------------------|------------|-----------|-------|
|                             |                  | Drift      | Cross-cut | Shaft |
| <u>Alexandria</u> No.1 Adit | sea-level        | 162        | 113 )     | 81    |
| 100-Level                   | -30.5            | 168        | 49 )      |       |
| 200-Level                   | -61              | 61         | 64 )      |       |
| No.2 Adit                   | 12               | 256        | 119       |       |
| No.3 Adit                   | 91               | 18         | 21        |       |
| No.4 Adit                   | 130              | 12         | 52        |       |
| No.5 Adit                   | 76               | 100        | 76        |       |

From 1896-1898, three small shipments of ore were made from the Alexandria mine to the Tacoma smelter for testwork. These shipments totalled 48.8 tons grading 1.23 oz/ton gold.

The Alexandria mine has indicated and inferred reserves of 19,299 tons grading 0.306 oz/ton gold as indicated from the development work of Premier Gold Mining Company in 1933 and 1934. The fairly well-defined oreshoot extends along the main level and the 100-level, but does not extend up to the No.2 Adit nor down to the 200-level.

Due to the steepness of the topography, it was very difficult to prospect the extension of this vein to the northwest from the mine workings. For this reason, no work was carried out between tidewater and grid 1, approximately 1100m to the northwest of the workings.

Grid 1, and also grid 2, were planned to test the possible

extension of the Alexandria vein to the northwest. The coverage by these grids was somewhat restricted by cliffs to the northeast and east. Geochemical results of samples from both grids show weak, spotty, possibly anomalous values in silver, copper and arsenic plus one larger weak copper anomaly on grid 1 (see Figure 4). The geochemical values obtained from these grids may reflect an extension of the Alexandria vein but the data is too limited to permit conclusions at this time. If the Alexandria vein is within the areas covered by grids 1 and 2 its projection to the northwest places it approximately 850m southwest of the Doratha-Morton/Julie vein, indicating that at least two major veins are present on the claims.

The following is a tabulation of assays obtained from samples of vein material collected by G.A. Noel, P.Eng.

| Sample No. | (m)<br>Width | Assays       |              | Description   |
|------------|--------------|--------------|--------------|---|
|            |              | Au<br>oz/ton | Ag<br>oz/ton |   |
| 020751     | 0.6          | 0.021        | 0.06         | Doratha-Morton - chip across east end of cross-cut, 2300 level                  |
| 52         | grab         | 0.730        | 1.42         | Doratha-Morton dump - grab of vein material                                     |
| 53         | 2.7          | 0.001        | 0.01         | L.319 - chips across ) NW ext-<br>aplitic qtz.) ension of<br>vein ) Doratha-    |
| 54         | 1.7          | 0.001        | 0.01         | L.320 - " " " ) Morton vein?  |
| 55         | grab         | 0.001        | 0.02         | Cor claim - 150m NW of NW corner PAC claim grab of qtz. dio. with qtz. veinlets |
| 56         | grab         | 0.001        | 0.01         | JB claim - 300m NW of Camp A, qtz.rubble under tree roots                       |
| 57         | 2.5          | 0.005        | 0.02         | Doratha-Morton vein at 0+00B/L  |
| 58         | 2.0          | 0.047        | 0.16         | Vein, L.299 - near 4N,4W on grid  |
| 59         | 1.8          | 0.026        | 0.06         | Julie adit - at 67.8m: from portal, chips across vein                           |
| 60         | 1.8          | 0.015        | 0.02         | Julie adit - chips across face  |

| Sample No. | (m)<br>Width | Assays       |              | Description  |
|------------|--------------|--------------|--------------|--|
|            |              | Au<br>oz/ton | Ag<br>oz/ton |  |
| 020761     | 1.0          | 0.001        | 0.01         | Alexandria mine - at portal, chips across vein No.3.   |
| 62         | 0.7          | 0.001        | 0.01         | Alexandria mine - at portal, chips across vein No.2.   |
| 63         | 2.0          | 0.022        | 0.04         | Alexandria mine - chips across main vein inside portal |
| 64         | 2.0          | 0.120        | 0.32         | Alexandria mine - chips across main vein at portal     |

The following samples were taken by G.A. Noel in July, 1980.

| Sample No. | (m)<br>Width | Assays       |              |      |      | Description  |
|------------|--------------|--------------|--------------|------|------|--|
|            |              | Au<br>oz/ton | Ag<br>oz/ton | % Cu | % Zn |  |
| 001993     | grab         | 3.960        | 16.10        | 1.72 | 3.36 | Grabs, selected vein material, Julie adit dump.                          |
| 001994     | 0.8          | 0.01         | 0.17         | 0.01 | 0.05 | Julie adit. - @ 10m, chips across vein.                                  |
| 001995     | grab         | 0.096        | 0.21         | -    | -    | Julie shaft - grabs from dump of qtz. material                           |
| 001996     | 0.8          | 0.021        | 0.09         | -    | -    | Julie shaft - vein on SE wall  |
| 001997*    | 1.0          | 0.036        | 0.11         | -    | -    | Doratha-Morton - 2200 level, across qtz. vein                            |
| 001998*    | 1.2          | 0.011        | 0.04         | -    | -    | Doratha-Morton - 2200 levels - chips across qtz. vein at NW end of drift |

\*Location uncertain, may refer to 2300 level(?)

### CONCLUSIONS

It is concluded that the 1981 field program was successful in determining that the Enid-Julie vein is the southeastern

extension of the Doratha-Morton vein. Because the latter vein yielded a small tonnage of ore grading 0.44 oz/ton in gold and 1.0 oz/ton in silver the Enid-Julie segment of the vein must be considered as a possible host for other ore shoot(s) containing precious metals.

Reconnaissance work to the northwest of the Doratha-Morton workings found indications of quartz veining which could be the extension of the vein in this direction. Further exploring is warranted in this direction to trace the vein onto the Cor claim. The results of the search for the northwest extension of the Alexandria vein was not conclusive. Weak geochemical responses in the gridded areas could reflect mineralized veins. However, at this stage results here must be considered inconclusive. It is apparent, however, that the Alexandria vein is not an extension of the Julie-Enid and Doratha-Morton vein system, unless there is large horizontal displacement along a fault.

It is concluded that at least two mineralized veins are present on the Alexandria property. The Alexandria vein, as indicated by previous work, has an ore reserve indicated to be about 19,000 tons grading 0.306 oz/ton gold. The Doratha-Morton and Enid-Julie vein yielded 10,000 tons of ore grading 0.44 oz/ton gold from the Doratha-Morton part of the vein and shows evidence of mineralization on the Enid-Julie section of it. Further work is recommended to search for ore shoots within the defined sections of each vein as well as search for extensions of each vein.

## RECOMMENDATIONS

A program is recommended which includes detailed sampling of the Enid-Julie vein from the Julie (Enid) adit to the property boundary on L.296. Since exposure is limited, backhoe trenching is recommended. However, before this part of the program is started, a reconnaissance should be made on the ground to determine if this type of trenching is feasible. The rugged terrain could make trenching very difficult.

Further geochemical sampling and prospecting should also be conducted to explore for vein extensions beyond that work completed in 1981. Significant zones should then be tested by diamond drilling.

### Cost Estimate

Stage I - Geological mapping, geochemical soil surveying,  
trenching - time: 2 months

#### Wages and Salaries

|   |           |
|---|-----------|
| Geologist: 2 months @ \$300/day             | \$ 18,000 |
| Field Assistant: 4 @ \$120/day for 2 months | 28,800    |

#### Mobilization & Demobilization,

|                                   |       |
|-----------------------------------|-------|
| By barge from Campbell River, say | 6,000 |
|-----------------------------------|-------|

#### Backhoe

|  |        |
|--|--------|
| John Deere crawler type @ \$45/hr. or \$13,000/mo. | 26,000 |
|--|--------|

#### Camp

|  |       |
|--|-------|
| Tents, kitchen supplies, etc.            | 3,500 |
| Food @ \$15/man/day - 5 men for 2 months | 4,500 |
| Supply trips by air and/or water         | 2,000 |
| Radio communications @ \$800/mo          | 2,400 |

Vehicle

4x4 truck @ \$1,200/mo \$ 2,400

Samples & Assays

Geochemical assays, say 700 samples @ \$4.50/sample 3,150

Rock samples, say 100 samples @ \$15/sample 1,500

Report Preparation 2,000

Contingencies @ 15% \$ 100,250  
15,037

Total Stage I \$ 115,287

Stage II - Diamond Drilling

Diamond drilling is planned to test areas of interest located from work conducted in 1980-1981 and Stage I above. However, terrain may make it impractical or impossible to conduct backhoe trenching in the desired areas. For this reason, since outcrop is generally sparse, diamond drilling may be the only method of testing the areas. On this particular property, Stage II drilling is not necessarily dependent on Stage I recommended above.

Diamond drilling, say 1000 metres @ \$115/metre, all inclusive \$ 115,000

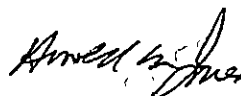
Contingencies @ \$15% 17,250

Total Stage II \$ 132,250

Total Program \$ 247,537

Note: If backhoe work is not practical due to terrain, these funds could be diverted into diamond drilling.

Respectfully submitted,



HAROLD M. JONES, P.Eng.

January 21, 1982

REFERENCES

- B.C. Minister of Mines Annual reports of 1921, 1925, 1929 and 1934.
- MacLeod, J.W. (1976): Geochemical Report, Enid-Julie Group, Nov.4, 1976.
- Noel, G.A. (1980): Summary Report on the Alexandria Mine, Phillips Arm, B.C. for Corpac Minerals Ltd.
- Noel, G.A. (1980): Geological and Geochemical Report, Alexandra Group, Vancouver Mining Division; Assessment Report.
- Noel, G.A. (1981): Private reports to Corpac Minerals Ltd. dated July 21, 1981; October 23, 1981 and November 20, 1981.
- Stevenson, J.S. (1947): Lode Gold Deposits, Southwestern B.C., B.C. Dept. of Mines Bulletin 20, Pt.IV.

CERTIFICATE

I, Gerald A. Noel, do hereby certify that:

1. I am a practising geological engineer with G.A. Noel & Associates, Inc., 622 - 510 West Hastings Street, Vancouver, B.C.
2. I am a graduate of the University of British Columbia and the University of Toronto and have been granted the degree of Master of Applied Science.
3. I have been practising my profession as a geological engineer for over 25 years.
4. I am a member of the Association of Professional Engineers of British Columbia. Registration No.4283.
5. The fieldwork on which this report is based was done under my supervision.
6. Neither I nor any member of my firm has directly or indirectly received or expects to receive any interest direct or indirect in the property or securities of Corpac Minerals Ltd.
7. Corpac Minerals Ltd. is hereby given permission to reproduce this report, or any part of it, for the purpose of a financial prospectus; provided, however, that no portion may be used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

G.A. NOEL, P.Eng.

Vancouver, B.C.



CERTIFICATE

I, Harold M. Jones, of the City of Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer with G.A. Noel & Associates, Inc., 622 - 510 West Hastings Street, Vancouver, B.C.
2. I am a graduate of the University of British Columbia in Geological Engineering, 1956.
3. I have been practising my profession as a geological engineer for 25 years.
4. I am a member of the Association of Professional Engineers of British Columbia, Registration No.4681.
5. I have not visited the Alexandria property but am familiar with the general geological setting having worked on and examined a number of properties along the coastal islands and inlets.
6. I have compiled the maps and report on the Alexandria property from notes and field sheets prepared by the late G.A. Noel, P.Eng.
7. I have no interest, nor do I expect to receive any interest, direct or indirect in the Alexandria property, nor in any securities of Corpac Minerals Ltd.
8. Corpac Minerals Ltd. is hereby given permission to reproduce this report, or any part of it, for financing purposes; provided, however, that no portion may be used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

DATED at VANCOUVER, B.C. this 21st day of January, 1982.



HAROLD M. JONES, P.Eng.

A P P E N D I X I

Soil Analyses and Rock Assays



To: G.A. Noel & Associates Inc.,  
622 - 510 W. Hastings St.,  
Vancouver, B.C.  
V6B 1L8

ACME ANALYTICAL LABORATORIES LTD.  
Assaying & Trace Analysis  
852 E. Hastings St., Vancouver, B.C. V6A 1R6  
Telephone: 253 - 3158

File No. 81-0485  
Type of Samples Rocks  
Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

| No. | Sample                 | Ag<br>oz/ton | Au<br>oz/ton | Cu% |  |  |  | No. |
|-----|------------------------|--------------|--------------|-----|--|--|--|-----|
|     | 020751                 | .06          | .021         | .01 |  |  |  | 1   |
| 2   | 020752                 | 1.42         | .730         | .01 |  |  |  | 2   |
|     | 020753                 | .01          | .001         | .01 |  |  |  | 3   |
|     | 020754                 | .01          | .001         |     |  |  |  | 4   |
| 5   | 020755                 | .02          | .001         |     |  |  |  | 5   |
|     | 020756                 | .01          | .001         |     |  |  |  | 6   |
| 7   | 020757                 | .02          | .005         |     |  |  |  | 7   |
| 8   | 020758                 | .16          | .047         |     |  |  |  | 8   |
|     | 020759                 | .06          | .026         | .01 |  |  |  | 9   |
| 10  | 020760                 | .02          | .015         | .01 |  |  |  | 10  |
| 11  | 020761                 | .01          | .001         |     |  |  |  | 11  |
| 12  | 020762                 | .01          | .001         |     |  |  |  | 12  |
| 13  | 020763                 | .04          | .022         |     |  |  |  | 13  |
| 14  | 020764                 | .32          | .170         |     |  |  |  | 14  |
| 15  | Grab From<br>Dump D/M1 | 13.10        | 4.250        | .08 |  |  |  | 15  |
| 16  |                        |              |              |     |  |  |  | 16  |
| 17  |                        |              |              |     |  |  |  | 17  |
| 18  |                        |              |              |     |  |  |  | 18  |
| 19  |                        |              |              |     |  |  |  | 19  |
| 20  |                        |              |              |     |  |  |  | 20  |

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DATE SAMPLES RECEIVED June 10, 1981

DATE REPORTS MAILED June 15, 1981

ASSAYER DEAN TOYE

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: G.A. Noel & Associates Inc.,  
622 - 510 W. Hastings St.,  
Vancouver, B.C.  
V6B 1L8

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone:253 - 3158

File No. 81-0486

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

| SAMPLE No. |    | Cu  | Zn  | Ag    | As | Sb |  |  |  |  |  |    |
|------------|----|-----|-----|-------|----|----|--|--|--|--|--|----|
| 0          | BL | 14  | 70  | .5    | 10 | 1  |  |  |  |  |  | 1  |
|            | 1S | 47  | 45  | 8.9   | 5  | 1  |  |  |  |  |  | 2  |
|            | 2  | 4   | 5   | .1    | 1  | 1  |  |  |  |  |  | 3  |
|            | 3  | 23  | 52  | .5    | 3  | 1  |  |  |  |  |  | 4  |
|            | 4S | 2   | 11  | .5    | 1  | 1  |  |  |  |  |  | 5  |
|            | 1N | 20  | 57  | .5    | 7  | 1  |  |  |  |  |  | 6  |
| 0          | 2N | 388 | 214 | 11.6  | 14 | 1  |  |  |  |  |  | 7  |
|            |    |     |     |       |    |    |  |  |  |  |  | 8  |
| 0+50E      | BL | 14  | 15  | 1.2   | 6  | 3  |  |  |  |  |  | 9  |
|            | 1S | 17  | 53  | 1.0   | 5  | 3  |  |  |  |  |  | 10 |
|            | 4S | 1   | 7   | .1    | 1  | 1  |  |  |  |  |  | 11 |
|            | 1N | 11  | 39  | .2    | 4  | 1  |  |  |  |  |  | 12 |
|            | 2  | 3   | 9   | .1    | 6  | 1  |  |  |  |  |  | 13 |
|            | 3  | 31  | 65  | .2    | 7  | 2  |  |  |  |  |  | 14 |
| 0+50E      | 4N | 5   | 9   | .1    | 2  | 1  |  |  |  |  |  | 15 |
|            |    |     |     |       |    |    |  |  |  |  |  | 16 |
| 0+50W      | BL | 60  | 38  | 4.0   | 2  | 1  |  |  |  |  |  | 17 |
|            | 1S | 1   | 6   | .2    | 1  | 1  |  |  |  |  |  | 18 |
|            | 4S | 7   | 24  | .1    | 4  | 1  |  |  |  |  |  | 19 |
|            | 1N | 919 | 336 | +54.0 | 6  | 1  |  |  |  |  |  | 20 |
| 0+50W      | 2N | 14  | 20  | .3    | 4  | 1  |  |  |  |  |  | 21 |
|            |    |     |     |       |    |    |  |  |  |  |  | 22 |
| 1 E        | BL | 29  | 35  | .7    | 5  | 2  |  |  |  |  |  | 23 |
|            | 1S | 20  | 50  | .1    | 4  | 1  |  |  |  |  |  | 24 |
|            | 3S | 1   | 2   | .1    | 1  | 1  |  |  |  |  |  | 25 |
|            | 2N | 11  | 16  | .2    | 7  | 1  |  |  |  |  |  | 26 |
| 1 E        | 4N | 7   | 12  | .2    | 5  | 1  |  |  |  |  |  | 27 |
|            |    |     |     |       |    |    |  |  |  |  |  | 28 |
| 1 W        | BL | 13  | 10  | .2    | 4  | 1  |  |  |  |  |  | 29 |
|            | 1S | 9   | 14  | .1    | 9  | 1  |  |  |  |  |  | 30 |
|            | 2  | 3   | 6   | .1    | 5  | 1  |  |  |  |  |  | 31 |
|            | 3  | 5   | 5   | .1    | 7  | 1  |  |  |  |  |  | 32 |
|            | 4S | 2   | 9   | .1    | 3  | 1  |  |  |  |  |  | 33 |
|            | 1N | 8   | 16  | .4    | 3  | 2  |  |  |  |  |  | 34 |
| 1 W        | 2N | 3   | 20  | .3    | 1  | 1  |  |  |  |  |  | 35 |
|            |    |     |     |       |    |    |  |  |  |  |  | 36 |
| 1+50E      | BL | 35  | 38  | 2.4   | 2  | 2  |  |  |  |  |  | 37 |
|            | 1S | 20  | 29  | .2    | 6  | 1  |  |  |  |  |  | 38 |
| 1+50E      | 2S | 8   | 22  | .1    | 3  | 1  |  |  |  |  |  | 39 |
|            |    |     |     |       |    |    |  |  |  |  |  | 40 |

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 10, 1981

DATE REPORTS MAILED June 16, 1981

ASSAYER

*ATO*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: G.A. Noel & Associates Inc.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253 - 3158

File No. 81-0486

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

| SAMPLE No. |    | Cu  | Zn | Ag  | As | Sb |  |  |     |    |
|------------|----|-----|----|-----|----|----|--|--|-----|----|
| 1+50E      | 3S | 6   | 8  | .1  | 5  | 1  |  |  |     | 1  |
|            | 4S | 5   | 8  | .1  | 6  | 1  |  |  |     | 2  |
|            | 1N | 41  | 54 | 1.9 | 13 | 1  |  |  |     | 3  |
| 1+50E      | 2N | 9   | 10 | .7  | 5  | 1  |  |  |     | 4  |
|            |    |     |    |     |    |    |  |  |     | 5  |
| 1+50W      | BL | 4   | 12 | .1  | 4  | 1  |  |  |     | 6  |
|            | 1S | 104 | 48 | 8.2 | 23 | 1  |  |  |     | 7  |
|            | 2  | 4   | 4  | .1  | 4  | 1  |  |  |     | 8  |
|            | 3  | 21  | 9  | .8  | 15 | 1  |  |  |     | 9  |
|            | 4S | 7   | 21 | .1  | 8  | 1  |  |  |     | 10 |
|            | 1N | 11  | 30 | .2  | 6  | 1  |  |  |     | 11 |
| 1+50W      | 2N | 6   | 36 | .2  | 4  | 1  |  |  |     | 12 |
|            |    |     |    |     |    |    |  |  |     | 13 |
| 2 E        | BL | 35  | 73 | .4  | 2  | 1  |  |  |     | 14 |
|            | 1S | 8   | 7  | .1  | 7  | 1  |  |  |     | 15 |
|            | 2  | 2   | 6  | .1  | 3  | 1  |  |  |     | 16 |
|            | 3S | 5   | 9  | .1  | 5  | 1  |  |  |     | 17 |
|            | 1N | 27  | 38 | .7  | 4  | 3  |  |  |     | 18 |
|            | 2  | 25  | 56 | .4  | 6  | 1  |  |  |     | 19 |
|            | 3  | 21  | 40 | .4  | 4  | 1  |  |  |     | 20 |
| 2 E        | 4N | 54  | 99 | 1.2 | 8  | 2  |  |  |     | 21 |
|            |    |     |    |     |    |    |  |  |     | 22 |
| 2 W        | BL | 21  | 55 | 9.8 | 21 | 1  |  |  |     | 23 |
|            | 1S | 9   | 17 | .1  | 8  | 1  |  |  |     | 24 |
|            | 2  | 12  | 49 | .2  | 6  | 1  |  |  |     | 25 |
|            | 3  | 21  | 57 | 1.4 | 27 | 6  |  |  | org | 26 |
|            | 4S | 2   | 9  | .1  | 4  | 1  |  |  |     | 27 |
|            | 1N | 15  | 40 | .8  | 13 | 1  |  |  | org | 28 |
| 2 W        | 2N | 4   | 6  | .1  | 5  | 1  |  |  |     | 29 |
|            |    |     |    |     |    |    |  |  |     | 30 |
| 2+50E      | BL | 42  | 42 | 1.8 | 5  | 1  |  |  |     | 31 |
|            | 1S | 69  | 59 | 2.2 | 5  | 1  |  |  |     | 32 |
|            | 1N | 65  | 65 | 1.6 | 9  | 1  |  |  |     | 33 |
|            | 2  | 25  | 45 | .8  | 7  | 1  |  |  |     | 34 |
|            | 3  | 25  | 40 | 1.1 | 5  | 1  |  |  |     | 35 |
| 2+50E      | 4N | 4   | 10 | 1.0 | 4  | 1  |  |  |     | 36 |
|            |    |     |    |     |    |    |  |  |     | 37 |
|            |    |     |    |     |    |    |  |  |     | 38 |
|            |    |     |    |     |    |    |  |  |     | 39 |
|            |    |     |    |     |    |    |  |  |     | 40 |

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 10, 1981

DATE REPORTS MAILED June 16, 1981

ASSAYER DT

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: G.A. Noel & Associates Inc.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

File No. 81-0486

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

Table with columns: SAMPLE No., Cu, Zn, Ag, As, Sb, and numbered rows 1-40. Rows include sample identifiers like 2+50W, 3 E, 3 W, 3+50E, 3+50W, and 3+50W with corresponding chemical analysis values.

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 10, 1981

DATE REPORTS MAILED June 16, 1981

ASSAYER

[Signature]

DEAN TOYE, B.Sc.
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phone:253 - 3158

File No. 81-0486

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No. |   |    | Cu | Zn  | Ag | As | Sb |  |  |  |     |    |
|------------|---|----|----|-----|----|----|----|--|--|--|-----|----|
| 4          | E | BL | 23 | 14  | .1 | 5  | 1  |  |  |  |     | 1  |
|            |   | 1S | 67 | 187 | .4 | 4  | 1  |  |  |  |     | 2  |
|            |   | 3  | 6  | 7   | .1 | 3  | 1  |  |  |  |     | 3  |
|            |   | 4S | 11 | 18  | .1 | 4  | 1  |  |  |  |     | 4  |
|            |   | 1N | 28 | 38  | .2 | 5  | 1  |  |  |  |     | 5  |
|            |   | 2  | 30 | 43  | .5 | 4  | 1  |  |  |  |     | 6  |
|            |   | 3  | 18 | 41  | .1 | 6  | 1  |  |  |  |     | 7  |
| 4          | E | 4N | 1  | 8   | .1 | 1  | 1  |  |  |  |     | 8  |
|            |   |    |    |     |    |    |    |  |  |  |     | 9  |
| 4          | W | BL | 3  | 8   | .1 | 1  | 1  |  |  |  |     | 10 |
|            |   | 1S | 1  | 7   | .1 | 3  | 1  |  |  |  |     | 11 |
|            |   | 2  | 1  | 7   | .1 | 2  | 1  |  |  |  |     | 12 |
|            |   | 3  | 1  | 7   | .1 | 5  | 1  |  |  |  |     | 13 |
|            |   | 4S | 1  | 4   | .1 | 1  | 1  |  |  |  |     | 14 |
|            |   | 1N | 2  | 14  | .3 | 1  | 1  |  |  |  | org | 15 |
| 4          | W | 2N | 1  | 6   | .1 | 1  | 1  |  |  |  |     | 16 |
|            |   |    |    |     |    |    |    |  |  |  |     | 17 |
| 4+50E      |   | BL | 15 | 22  | .2 | 3  | 1  |  |  |  |     | 18 |
|            |   | 1S | 15 | 33  | .1 | 4  | 1  |  |  |  |     | 19 |
|            |   | 2S | 7  | 16  | .1 | 2  | 1  |  |  |  |     | 20 |
|            |   | 3S | 2  | 19  | .1 | 2  | 1  |  |  |  |     | 21 |
|            |   | 1N | 38 | 96  | .2 | 4  | 1  |  |  |  |     | 22 |
|            |   | 2  | 13 | 25  | .1 | 5  | 1  |  |  |  |     | 23 |
|            |   | 3  | 1  | 6   | .1 | 2  | 1  |  |  |  |     | 24 |
| 4+50E      |   | 4N | 16 | 38  | .5 | 5  | 1  |  |  |  |     | 25 |
|            |   |    |    |     |    |    |    |  |  |  |     | 26 |
| 4+50W      |   | BL | 1  | 7   | .1 | 1  | 1  |  |  |  |     | 27 |
|            |   | 1S | 3  | 10  | .1 | 2  | 1  |  |  |  |     | 28 |
|            |   | 2  | 1  | 4   | .1 | 1  | 1  |  |  |  |     | 29 |
|            |   | 4S | 1  | 8   | .1 | 2  | 1  |  |  |  |     | 30 |
|            |   | 1N | 1  | 3   | .1 | 1  | 1  |  |  |  |     | 31 |
| 4+50W      |   | 2N | 1  | 5   | .1 | 2  | 1  |  |  |  |     | 32 |
|            |   |    |    |     |    |    |    |  |  |  |     | 33 |
| 5          | E | BL | 4  | 9   | .1 | 1  | 1  |  |  |  |     | 34 |
|            |   | 1S | 22 | 36  | .4 | 7  | 2  |  |  |  |     | 35 |
|            |   | 3  | 3  | 57  | .2 | 9  | 1  |  |  |  |     | 36 |
| 5          | E | 4S | 1  | 7   | .1 | 3  | 1  |  |  |  |     | 37 |
|            |   |    |    |     |    |    |    |  |  |  |     | 38 |
|            |   |    |    |     |    |    |    |  |  |  |     | 39 |
|            |   |    |    |     |    |    |    |  |  |  |     | 40 |

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 10, 1981

DATE REPORTS MAILED June 16, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: G.A. Noel & Associates,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

File No. 81-0486

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No. | Cu | Zn | Ag | As | Sb |  |  |  |  |    |
|------------|----|----|----|----|----|--|--|--|--|----|
| 5E 1 N     | 16 | 21 | .1 | 7  | 1  |  |  |  |  | 1  |
| 2          | 11 | 24 | .1 | 1  | 1  |  |  |  |  | 2  |
| 3          | 2  | 12 | .1 | 2  | 1  |  |  |  |  | 3  |
| 5E 4 N     | 12 | 23 | .1 | 4  | 1  |  |  |  |  | 4  |
|            |    |    |    |    |    |  |  |  |  | 5  |
| 5W BL      | 4  | 24 | .1 | 4  | 1  |  |  |  |  | 6  |
| 1 S        | 11 | 6  | .1 | 2  | 1  |  |  |  |  | 7  |
| 2          | 2  | 10 | .1 | 3  | 1  |  |  |  |  | 8  |
| 3          | 1  | 5  | .1 | 2  | 1  |  |  |  |  | 9  |
| 4 S        | 1  | 7  | .1 | 3  | 1  |  |  |  |  | 10 |
| 1 N        | 1  | 9  | .1 | 3  | 1  |  |  |  |  | 11 |
| 5W 2 N     | 1  | 14 | .1 | 5  | 1  |  |  |  |  | 12 |
|            |    |    |    |    |    |  |  |  |  | 13 |
| 5+50E BL   | 27 | 40 | .3 | 9  | 1  |  |  |  |  | 14 |
| 1 S        | 23 | 25 | .5 | 7  | 2  |  |  |  |  | 15 |
| 2          | 5  | 8  | .1 | 4  | 1  |  |  |  |  | 16 |
| 3          | 8  | 10 | .1 | 3  | 1  |  |  |  |  | 17 |
| 4 S        | 11 | 6  | .1 | 3  | 1  |  |  |  |  | 18 |
| 1 N        | 1  | 6  | .1 | 1  | 1  |  |  |  |  | 19 |
| 2          | 6  | 7  | .1 | 4  | 1  |  |  |  |  | 20 |
| 3          | 15 | 15 | .2 | 2  | 1  |  |  |  |  | 21 |
| 5+50E 4 N  | 10 | 14 | .1 | 4  | 1  |  |  |  |  | 22 |
|            |    |    |    |    |    |  |  |  |  | 23 |
| 5+50W BL   | 1  | 6  | .1 | 2  | 1  |  |  |  |  | 24 |
| 1 S        | 2  | 5  | .1 | 2  | 1  |  |  |  |  | 25 |
| 2          | 36 | 6  | .1 | 2  | 1  |  |  |  |  | 26 |
| 3          | 1  | 4  | .1 | 4  | 1  |  |  |  |  | 27 |
| 4 S        | 4  | 12 | .1 | 3  | 1  |  |  |  |  | 28 |
| 1 N        | 12 | 36 | .1 | 3  | 1  |  |  |  |  | 29 |
| 5+50W 2 N  | 3  | 15 | .1 | 5  | 1  |  |  |  |  | 30 |
|            |    |    |    |    |    |  |  |  |  | 31 |
| 6 E BL     | 26 | 25 | .9 | 6  | 2  |  |  |  |  | 32 |
| 1 S        | 21 | 38 | .4 | 6  | 1  |  |  |  |  | 33 |
| 2          | 15 | 7  | .1 | 4  | 1  |  |  |  |  | 34 |
| 3 org.     | 7  | 5  | .1 | 1  | 1  |  |  |  |  | 35 |
| 4 S        | 1  | 4  | .1 | 2  | 1  |  |  |  |  | 36 |
| 1 N        | 9  | 10 | .1 | 5  | 1  |  |  |  |  | 37 |
| 6 E 2 N    | 6  | 12 | .1 | 3  | 1  |  |  |  |  | 38 |
|            |    |    |    |    |    |  |  |  |  | 39 |
|            |    |    |    |    |    |  |  |  |  | 40 |

All reports are the confidential property of clients  
All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 10, 1981

DATE REPORTS MAILED June 16, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: G.A. Noel & Associates,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

81-0486

File No. \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

### GEOCHEMICAL ASSAY CERTIFICATE

| SAMPLE No. |       | Cu | Zn | Ag | As | Sb |  |  |  |  |    |
|------------|-------|----|----|----|----|----|--|--|--|--|----|
| 6          | E 3 N | 11 | 13 | .1 | 3  | 1  |  |  |  |  | 1  |
| 6          | E 4 N | 13 | 14 | .1 | 1  | 1  |  |  |  |  | 2  |
|            |       |    |    |    |    |    |  |  |  |  | 3  |
| 6          | W BL  | 3  | 13 | .1 | 3  | 1  |  |  |  |  | 4  |
|            | 1 S   | 1  | 3  | .1 | 2  | 1  |  |  |  |  | 5  |
|            | 3     | 1  | 4  | .1 | 2  | 1  |  |  |  |  | 6  |
|            | 4 S   | 3  | 4  | .1 | 3  | 1  |  |  |  |  | 7  |
|            | 1 N   | 1  | 4  | .1 | 2  | 1  |  |  |  |  | 8  |
| 6          | W 2 N | 1  | 4  | .1 | 3  | 1  |  |  |  |  | 9  |
|            |       |    |    |    |    |    |  |  |  |  | 10 |
| A0+50 W    | BL    | 34 | 11 | .8 | 4  | 1  |  |  |  |  | 11 |
|            | 1 S   | 6  | 7  | .1 | 2  | 1  |  |  |  |  | 12 |
|            | 3     | 22 | 20 | .2 | 2  | 3  |  |  |  |  | 13 |
|            | 4 S   | 35 | 34 | .1 | 2  | 1  |  |  |  |  | 14 |
|            | 1 N   | 20 | 20 | .1 | 1  | 5  |  |  |  |  | 15 |
|            | 2     | 17 | 18 | .1 | 1  | 2  |  |  |  |  | 16 |
|            | 3     | 4  | 6  | .1 | 2  | 1  |  |  |  |  | 17 |
|            | 4     | 1  | 3  | .1 | 4  | 1  |  |  |  |  | 18 |
|            | 5     | 12 | 23 | .1 | 3  | 3  |  |  |  |  | 19 |
|            | 6     | 7  | 13 | .1 | 3  | 3  |  |  |  |  | 20 |
|            | 7     | 22 | 10 | .1 | 1  | 1  |  |  |  |  | 21 |
|            | 8     | 11 | 4  | .1 | 1  | 1  |  |  |  |  | 22 |
|            | 9     | 6  | 7  | .1 | 4  | 1  |  |  |  |  | 23 |
| A0+50 W    | 10 N  | 23 | 14 | .1 | 4  | 1  |  |  |  |  | 24 |
|            |       |    |    |    |    |    |  |  |  |  | 25 |
| A1         | W BL  | 13 | 19 | .1 | 1  | 2  |  |  |  |  | 26 |
|            | 1 S   | 9  | 8  | .1 | 2  | 1  |  |  |  |  | 27 |
|            | 2     | 11 | 11 | .2 | 2  | 3  |  |  |  |  | 28 |
|            | 3     | 2  | 4  | .1 | 1  | 1  |  |  |  |  | 29 |
|            | 4 S   | 7  | 13 | .1 | 6  | 1  |  |  |  |  | 30 |
|            | 1 N   | 14 | 19 | .1 | 1  | 1  |  |  |  |  | 31 |
|            | 2     | 3  | 6  | .1 | 2  | 1  |  |  |  |  | 32 |
|            | 3     | 8  | 20 | .1 | 4  | 1  |  |  |  |  | 33 |
|            | 4     | 14 | 23 | .1 | 3  | 1  |  |  |  |  | 34 |
|            | 5     | 2  | 12 | .1 | 1  | 1  |  |  |  |  | 35 |
|            | 6     | 3  | 6  | .1 | 1  | 1  |  |  |  |  | 36 |
|            | 7     | 16 | 19 | .1 | 7  | 1  |  |  |  |  | 37 |
| A1         | W 8 N | 8  | 7  | .1 | 4  | 1  |  |  |  |  | 38 |
|            |       |    |    |    |    |    |  |  |  |  | 39 |
|            |       |    |    |    |    |    |  |  |  |  | 40 |

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CERTIFIED B.C. ASSAYER











A P P E N D I X    I I

Statement of Costs

## STATEMENT OF COSTS

### Wages and Salaries

|  |                 |              |
|--|-----------------|--------------|
| G.A. Noel, P.Eng. - consulting geologist |                 |              |
| May 22 - June 12:                        |                 |              |
| 21 days @ \$300/day                      | \$6,300.00      |              |
| M. MacKillop - field assistant           |                 |              |
| May 22-31, June 1-10:                    |                 |              |
| 19½ days @ \$150/day                     | 2,925.00        |              |
| A. Ferries - field assistant             |                 |              |
| May 23-31, June 1-10:                    |                 |              |
| 18½ days @ \$150/day                     | 2,220.00        |              |
| A. Noel - geological assistant           |                 |              |
| May 28 - June 19:                        |                 |              |
| 18 days @ \$90/day                       | <u>1,620.00</u> | \$ 13,065.00 |

### Transportation

|  |              |          |
|--|--------------|----------|
| Helicopter: from Campbell River -      |              |          |
| 3 trips                                | \$1,521.13   |          |
| Truck rental - including fuel & ferry  | 260.42       |          |
| Air fare - Vancouver/Campbell River    | 169.70       |          |
| Air charter - Campbell River/Shoal Bay |              |          |
| @ \$200/trip                           | 400.00       |          |
| Taxis, etc.                            | <u>27.00</u> | 2,378.25 |

### Camp

|           |               |        |
|-----------|---------------|--------|
| Equipment | \$ 257.53     |        |
| Food      | <u>615.27</u> | 872.80 |

### Assays

1,724.21

### Report and Map Preparation

|                                 |               |                     |
|---------------------------------|---------------|---------------------|
| Report preparation:             |               |                     |
| G.A. Noel - 2 days @ \$300/day  | \$ 600.00     |                     |
| H.M. Jones - 6 days @ \$300/day | 1,800.00      |                     |
| Drafting                        | 400.00        |                     |
| Reproductions                   | 150.00        |                     |
| Secretarial, copies, etc.       | <u>250.00</u> | <u>3,200.00</u>     |
|                                 |               | \$ <u>21,240.26</u> |

*H. Jones*



DISTRIBUTION OF COSTS

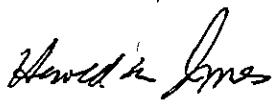
|  |                  |
|--|------------------|
| Total costs for exploration on the Alexandra and Alex Groups,<br>including report and maps | \$21,240.26      |
| less 50% of helicopter costs   | <u>\$ 760.57</u> |
|  | \$20,479.57      |

Costs were distributed as follows:

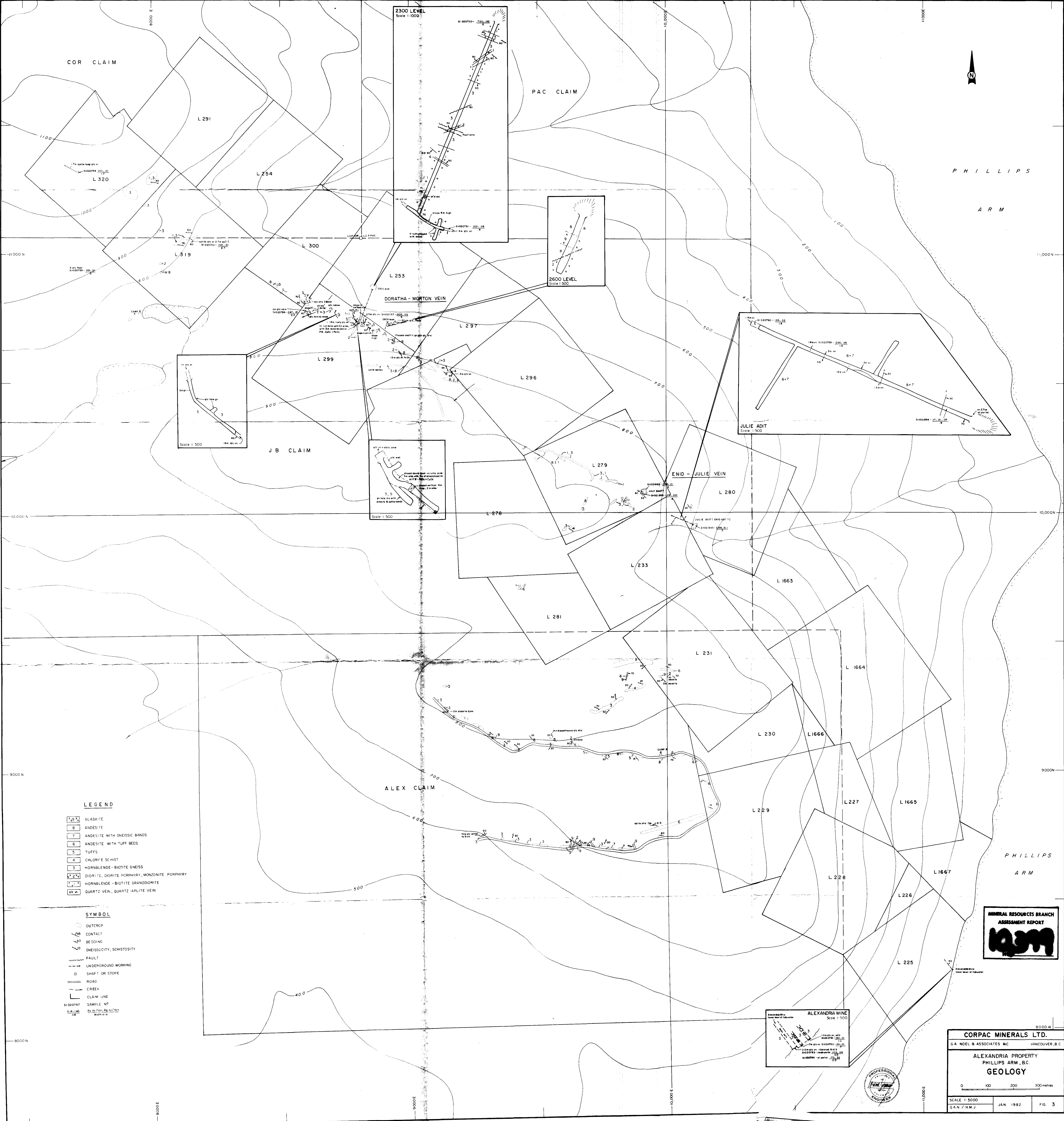
|                        | <u>TOTAL COSTS</u> | <u>AMOUNT APPLIED<br/>AS ASSESSMENT WORK</u> |
|------------------------|--------------------|--|
| Alexandra Group        | \$8,397.09         | \$6,800.00                                   |
| Alex Group             | \$6,693.00         | \$5,900.00                                   |
| *Doratha-Morton Claims | \$5,119.69         | _____  |

\* As mentioned in the report, work was also conducted on the Doratha-Morton Claims. This work was necessary to enable tracing the vein structure onto Corpac Claims, also to give a better understanding of the geology. The portion of the costs distributed to the Doratha-Morton Claims was deducted from the total and not used as assessment work.

February 22nd, 1982

  
HAROLD M. JONES, P. Eng.

PHILLIPS  
ARM

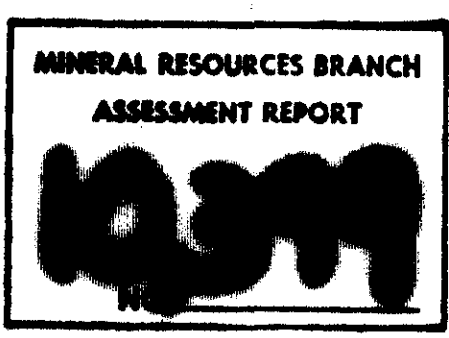


**LEGEND**

- 1 ALASKITE
- 8 ANDESITE
- 7 ANDESITE WITH GNEISSIC BANDS
- 6 ANDESITE WITH TUFF BEDS
- 5 TUFFS
- 4 CHLORITE SCHIST
- 3 HORNBLende - BIOTITE GNEISS
- 2 DIORITE, DIORITE PORPHYRY, MONZONITE PORPHYRY
- 1 HORNBLende - BIOTITE GRANODIORITE
- 11 QUARTZ VEIN, QUARTZ-APLITE VEIN

**SYMBOL**

- OUTCROP
- CONTACT
- BEDDING
- GNEISSOCITY, SCHISTOSITY
- FAULT
- UNDERGROUND WORKING
- SHAFT OR STOPE
- ROAD
- CREEK
- CLAIM LINE
- S-020757 SAMPLE NP
- S-020758 SAMPLE NP
- S-020759 SAMPLE NP
- S-020760 SAMPLE NP
- S-020761 SAMPLE NP
- S-020762 SAMPLE NP
- S-020763 SAMPLE NP
- S-020764 SAMPLE NP
- S-020765 SAMPLE NP
- S-020766 SAMPLE NP
- S-020767 SAMPLE NP
- S-020768 SAMPLE NP
- S-020769 SAMPLE NP
- S-020770 SAMPLE NP
- S-020771 SAMPLE NP
- S-020772 SAMPLE NP
- S-020773 SAMPLE NP
- S-020774 SAMPLE NP
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- S-020779 SAMPLE NP
- S-020780 SAMPLE NP
- S-020781 SAMPLE NP
- S-020782 SAMPLE NP
- S-020783 SAMPLE NP
- S-020784 SAMPLE NP
- S-020785 SAMPLE NP
- S-020786 SAMPLE NP
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- S-020789 SAMPLE NP
- S-020790 SAMPLE NP
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- S-020793 SAMPLE NP
- S-020794 SAMPLE NP
- S-020795 SAMPLE NP
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- S-020797 SAMPLE NP
- S-020798 SAMPLE NP
- S-020799 SAMPLE NP
- S-020800 SAMPLE NP



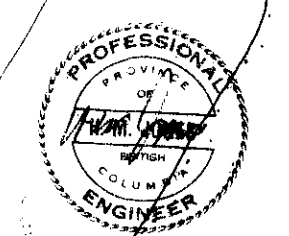
**ALEXANDRIA MINE**  
Scale 1:500

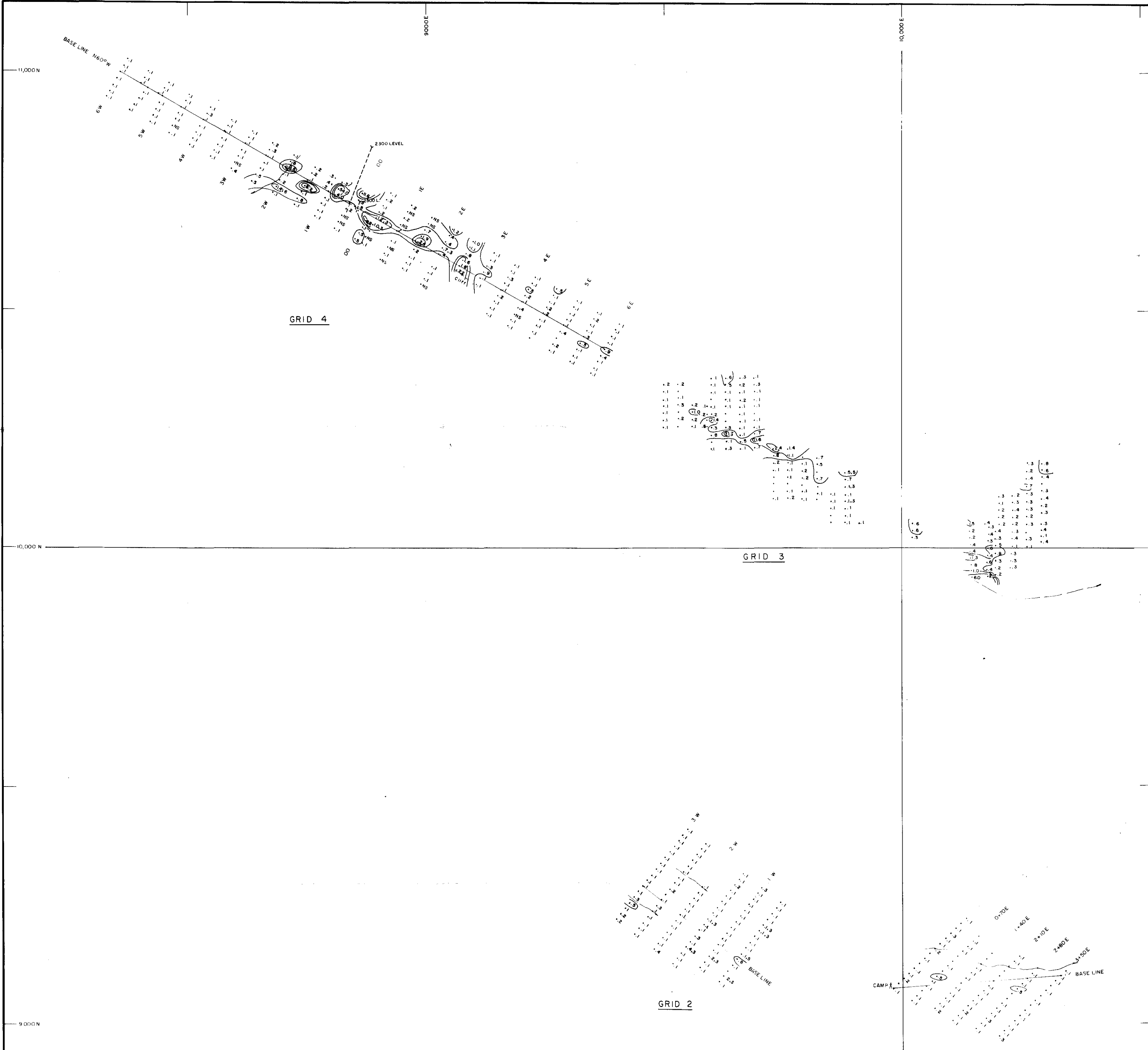
**CORPAC MINERALS LTD.**  
G.A. NOEL & ASSOCIATES INC. VANCOUVER, B.C.

**ALEXANDRIA PROPERTY  
PHILLIPS ARM, B.C.  
GEOLOGY**

0 100 200 300 metres

SCALE 1:5000 JAN 1982 FIG. 3  
G.A.N./H.M.J.





GRID 4

GRID 3

GRID 2

GRID 1

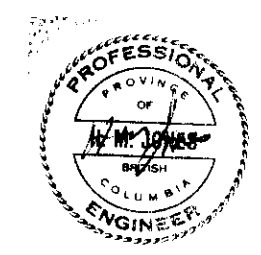
**LEGEND**

|        |               |                    |
|--------|---------------|--------------------|
| SILVER | 0.5 - 1.0 ppm | POSSIBLY ANOMALOUS |
|        | 1.0 - 1.5 "   | PROBABLY "         |
|        | > 1.5 "       | DEFINITELY "       |

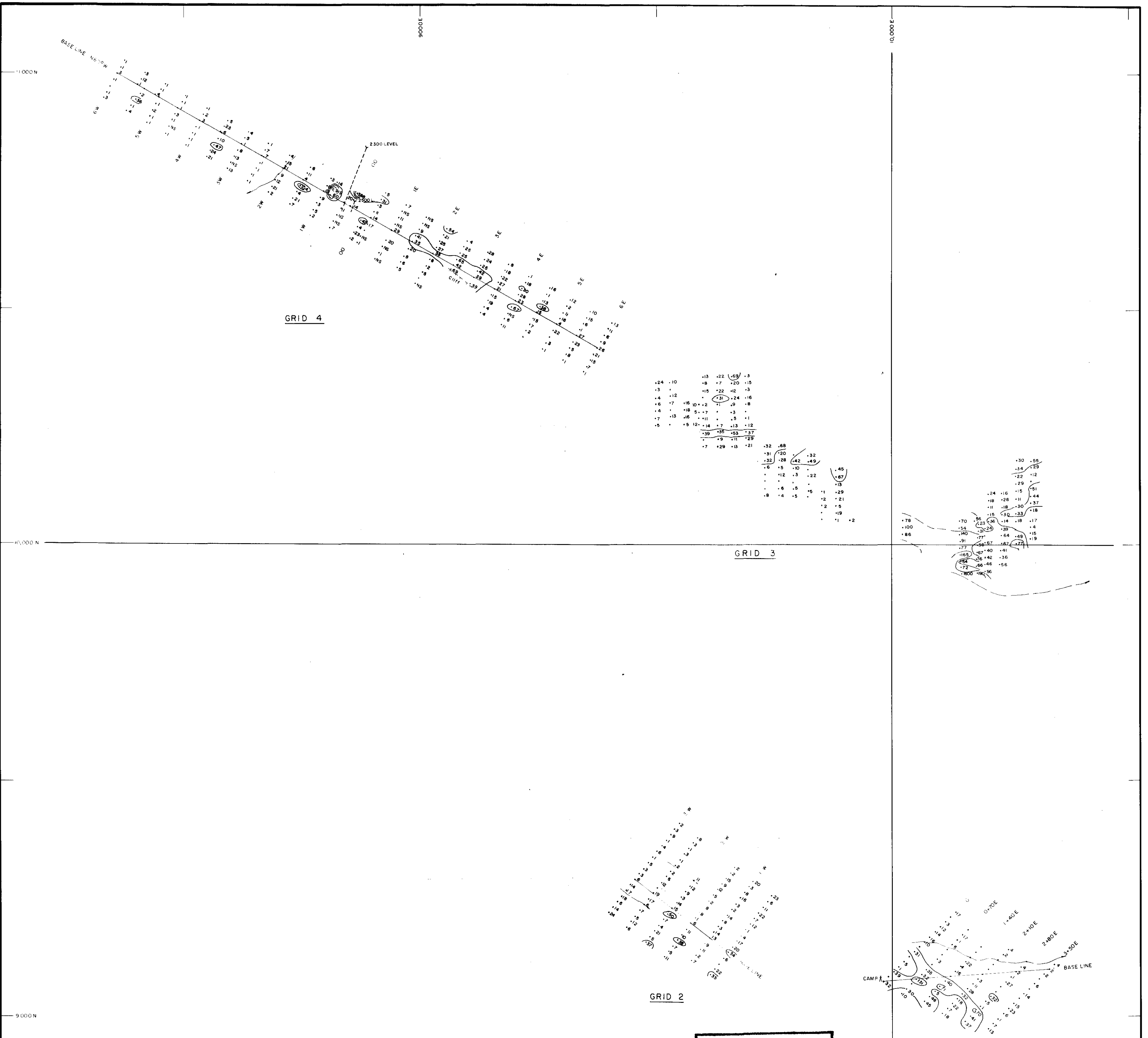
.1, 3 Ag, Sb

NOTE: Sb also plotted, but only those with values of 3 or > 3 ppm.

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,399**



|   |           |                 |
|---|-----------|-----------------|
| <b>CORPAC MINERALS LTD.</b>               |           |                 |
| G. A. NOEL & ASSOCIATES INC.              |           | VANCOUVER, B.C. |
| ALEXANDRIA PROPERTY<br>PHILLIPS ARM, B.C. |           |                 |
| <b>SOIL GEOCHEMISTRY<br/>SILVER</b>       |           |                 |
| 0 100 200 300metres                       |           |                 |
| SCALE 1:5000                              | JAN. 1982 | FIG. 4          |
| GAN / H.M.J.                              |           |                 |



GRID 4

GRID 3

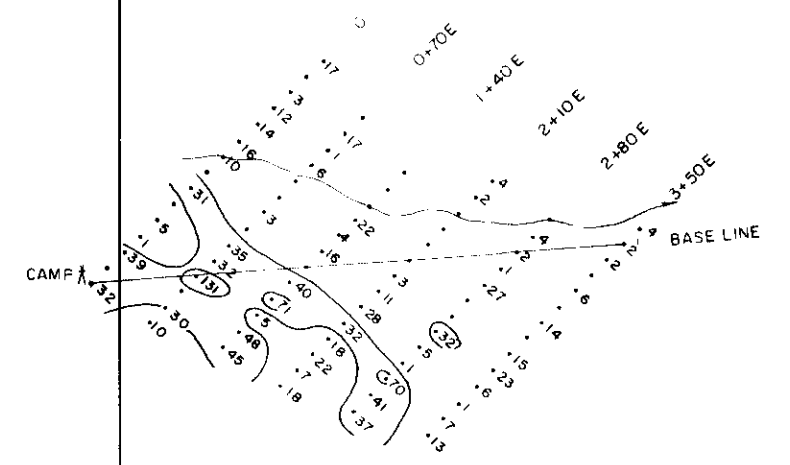
GRID 2

GRID 1

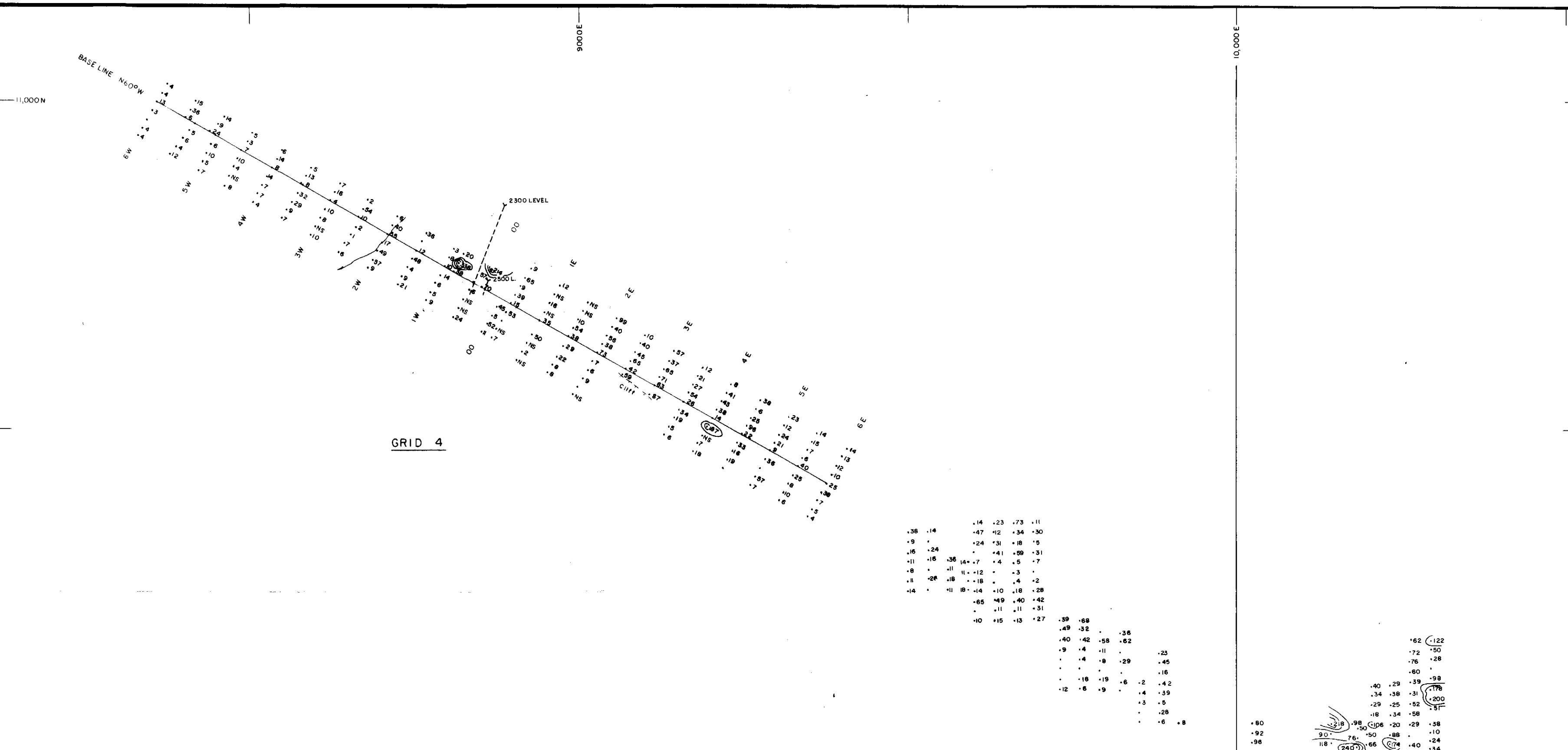
LEGEND

- 30-70 ppm POSSIBLY ANOMALOUS
- 70-150 .. PROBABLY ..
- >150 .. DEFINITELY ..

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,399**  
NO.

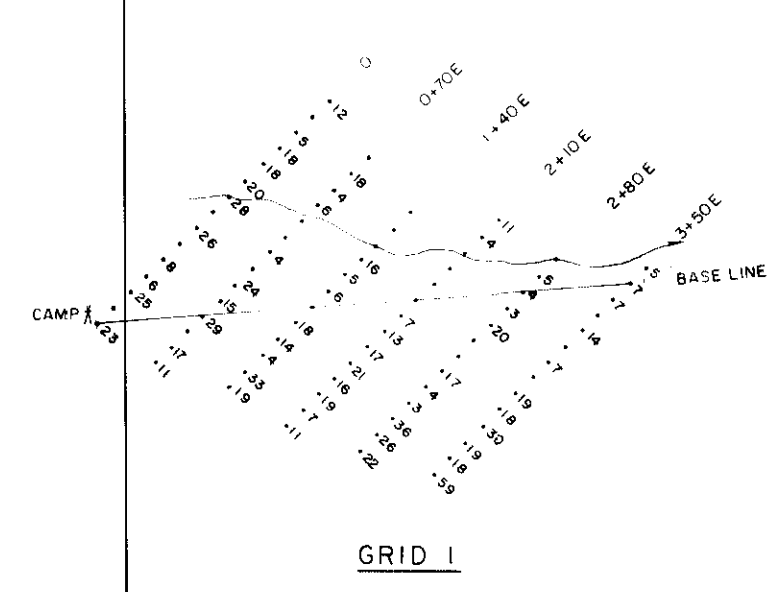
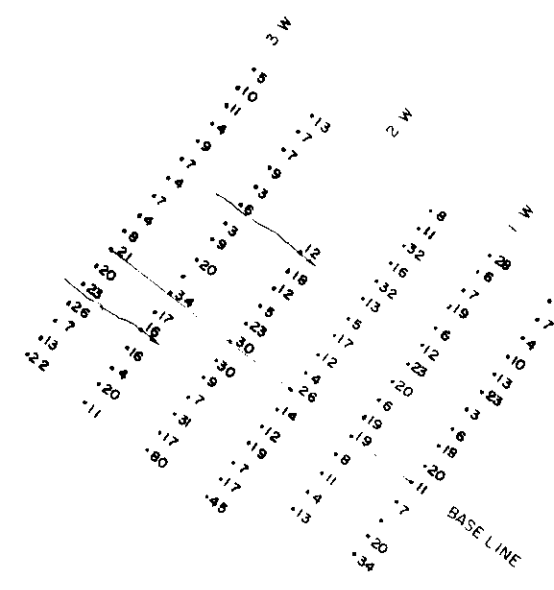
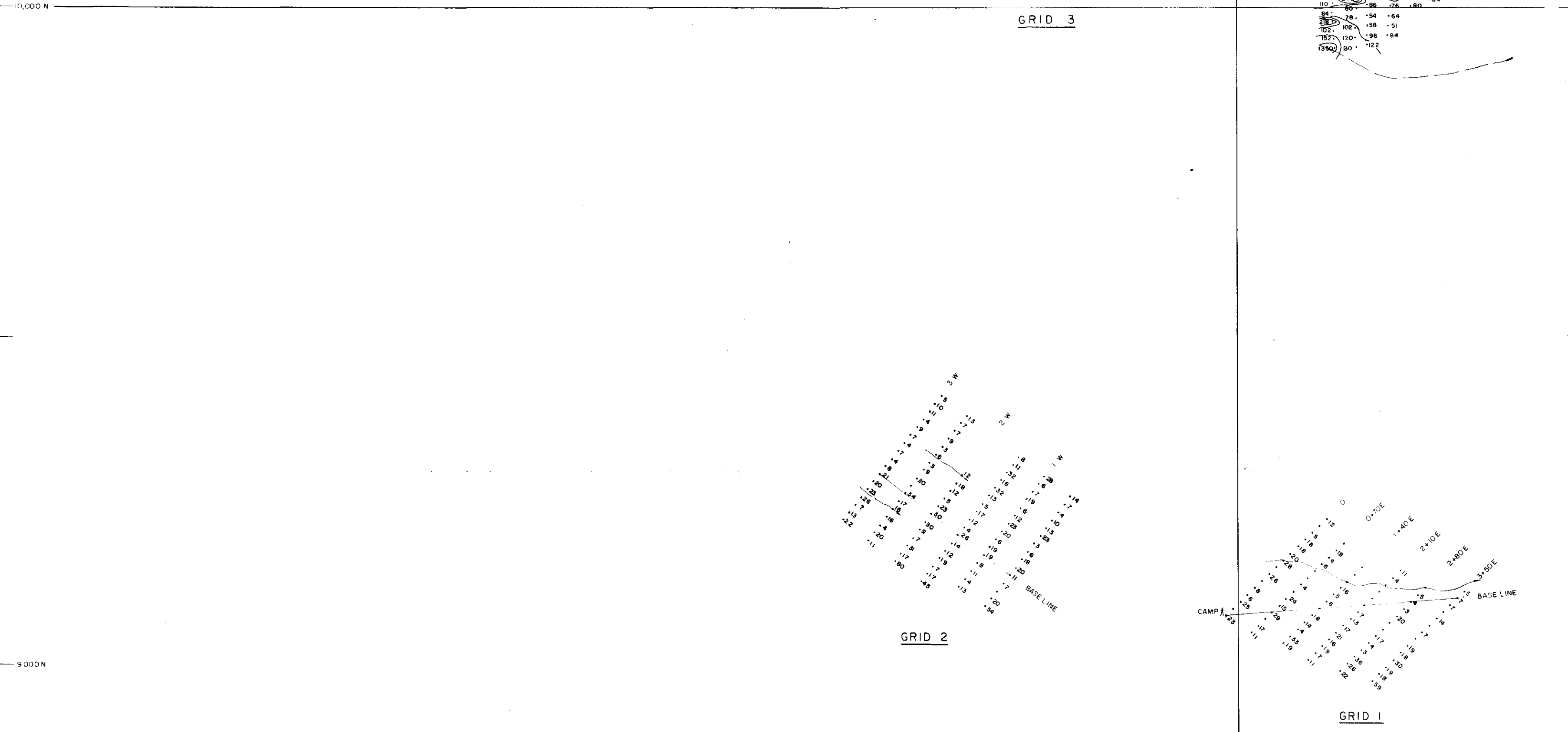


|   |           |                 |
|---|-----------|-----------------|
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| G. A. NOEL & ASSOCIATES INC.              |           | VANCOUVER, B.C. |
| ALEXANDRIA PROPERTY<br>PHILLIPS ARM, B.C. |           |                 |
| <b>SOIL GEOCHEMISTRY<br/>COPPER</b>       |           |                 |
|   |           |                 |
| SCALE 1:5000                              | JAN. 1982 | FIG. 5          |
| G. A. N. / H. M. J.                       |           |                 |



|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 38 | 14 | 14 | 23 | 73 | 11 |
| 9  |    | 47 | 12 | 34 | 30 |
| 16 | 24 |    | 24 | 31 | 18 |
| 11 | 16 | 36 | 14 | 7  | 4  |
| 8  |    | 11 | 12 |    | 3  |
| 18 | 26 | 18 | 18 |    | 4  |
| 14 |    | 11 | 18 | 14 | 10 |
|    |    |    |    |    | 18 |
|    |    |    |    |    | 28 |
|    |    |    |    |    | 42 |
|    |    |    |    |    | 31 |
|    |    |    |    |    | 27 |
|    |    |    |    |    | 36 |
|    |    |    |    |    | 23 |
|    |    |    |    |    | 45 |
|    |    |    |    |    | 16 |
|    |    |    |    |    | 42 |
|    |    |    |    |    | 39 |
|    |    |    |    |    | 5  |
|    |    |    |    |    | 28 |
|    |    |    |    |    | 8  |

|     |     |
|-----|-----|
| 62  | 122 |
| 72  | 50  |
| 76  | 28  |
| 60  |     |
| 39  | 98  |
| 40  | 29  |
| 34  | 38  |
| 29  | 25  |
| 16  | 34  |
| 18  | 58  |
| 90  | 76  |
| 118 | 50  |
| 110 | 66  |
| 81  | 78  |
| 102 | 102 |
| 152 | 120 |
| 150 | 122 |



**LEGEND**

100 - 150 ppm POSSIBLY ANOMALOUS

150 - 200 " PROBABLY "

>200 " DEFINITELY "

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10399**



**CORPAC MINERALS LTD.**  
G.A. NOEL & ASSOCIATES INC. VANCOUVER, B.C.

ALEXANDRIA PROPERTY  
PHILLIPS ARM, B.C.

**SOIL GEOCHEMISTRY  
ZINC**

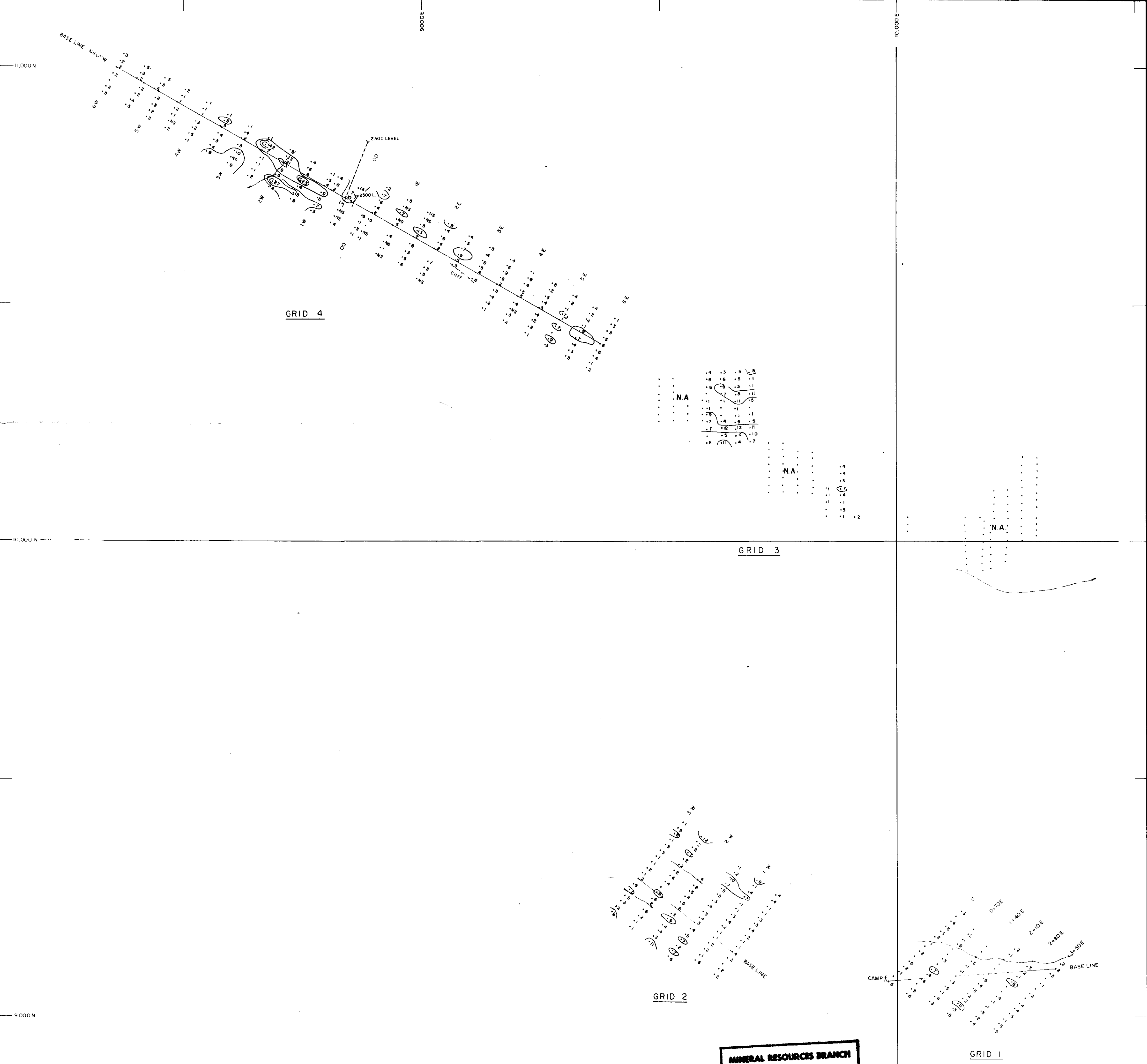
0 100 200 300metres

SCALE 1:5000

JAN. 1982

FIG. 6





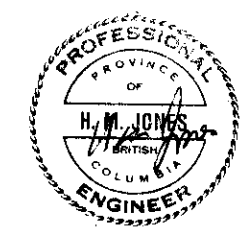
|    |     |     |     |
|----|-----|-----|-----|
| .4 | .3  | .5  | .8  |
| .6 | .6  | .6  | .1  |
| .8 | .8  | .3  | .1  |
| .7 | .7  | .8  | .11 |
| .1 | .1  | .11 | .5  |
| .1 | .1  | .1  | .1  |
| .1 | .1  | .1  | .1  |
| .7 | .4  | .1  | .5  |
| .7 | .12 | .12 | .11 |
| .5 | .5  | .4  | .10 |
| .5 | .11 | .4  | .7  |

**LEGEND**

- 7 - 14 ppm POSSIBLY ANOMALOUS
- 14 - 21 .. PROBABLY ..
- >21 .. DEFINITELY ..

N.A. - Not assayed for As

**MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT**  
**10,399**



|   |                 |
|---|-----------------|
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| ALEXANDRIA PROPERTY<br>PHILLIPS ARM, B.C. |                 |
| <b>SOIL GEOCHEMISTRY<br/>ARSENIC</b>      |                 |
|   |                 |
| SCALE 1:5000                              | JAN. 1982       |
| GAN / H.M.J.                              | FIG. 7          |