84-#209 #12299

GEOCHEMICAL REPORT

ON

SONORA GROUP

NANAIMO MINING DIVISION

50°25'N

125°20'W

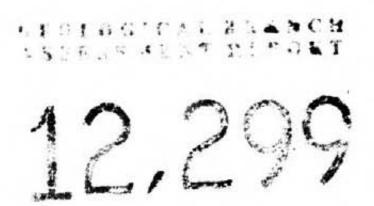
92K/6W

by

J.W. MacLeod, P.Eng.

Vancouver, B.C.

April 11, 1984



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#### REPORT ON

#### SONORA GROUP

#### INRODUCTION:

The following report has been prepared to fulfill the requirements of the Mineral Act with regard to the application of a geochemical survey for assessement credit.

#### SUMMARY:

The Sonora Group of reverted crown grants was acquired by M.P. Warshawski and the writer on April 20, 1983. Geological indications here are similar to the Alexandria 8 km to the northwest. Therefore a reconnaissance program to locate and prospect the diorite-sediment contact was carried out between Feb.23 and Feb.27, 1984.

No significant gold indications were obtained by the field work.

One isolated sample gave a 67 p.p.m. Mo assay and 80 p.p.m. Co.

## PROPERTY:

The property is made up of the following reverted crown grants:

| NAME           | C.G.NO. | RECORD NO. | DATE           |
|----------------|---------|------------|----------------|
| Bobby Burns    | 201 A   | 1403       | April 20, 1983 |
| Hetty Green    | 202 A   | 1404       | : 10%          |
| Daniel Webster | 203 A   | 1405       |                |
| Bully Boy      | 324 A   |            |                |
| Queen Bee      | 345     | 1406       | 100            |

## LOCATION & ACCESS:

The property is located on the northwest end of Sonora Island 100 km northwest of Vancouver.

Access is by boat from Rock Bay on Vancouver Island or float plane from Campbell River 25 km to the south. Accommodation is available at the Shoal Bay Lodge on East Thurlow Island 5 km to the northwest of the property.

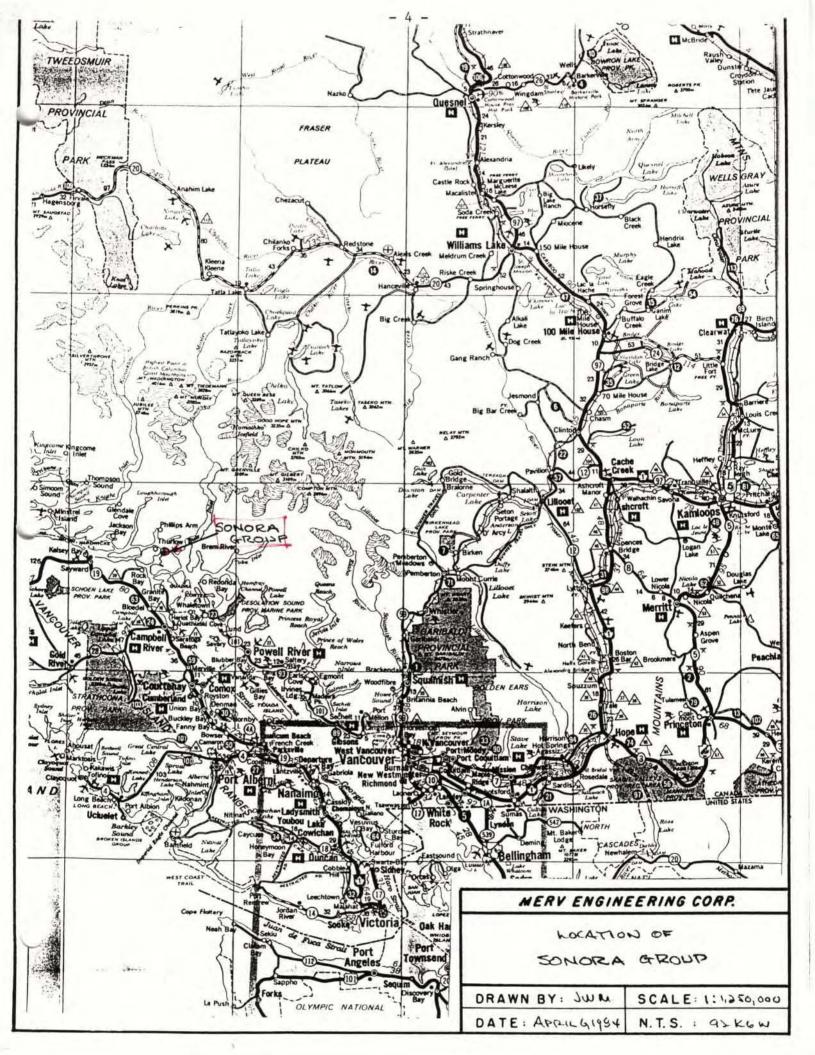
## HISTORY:

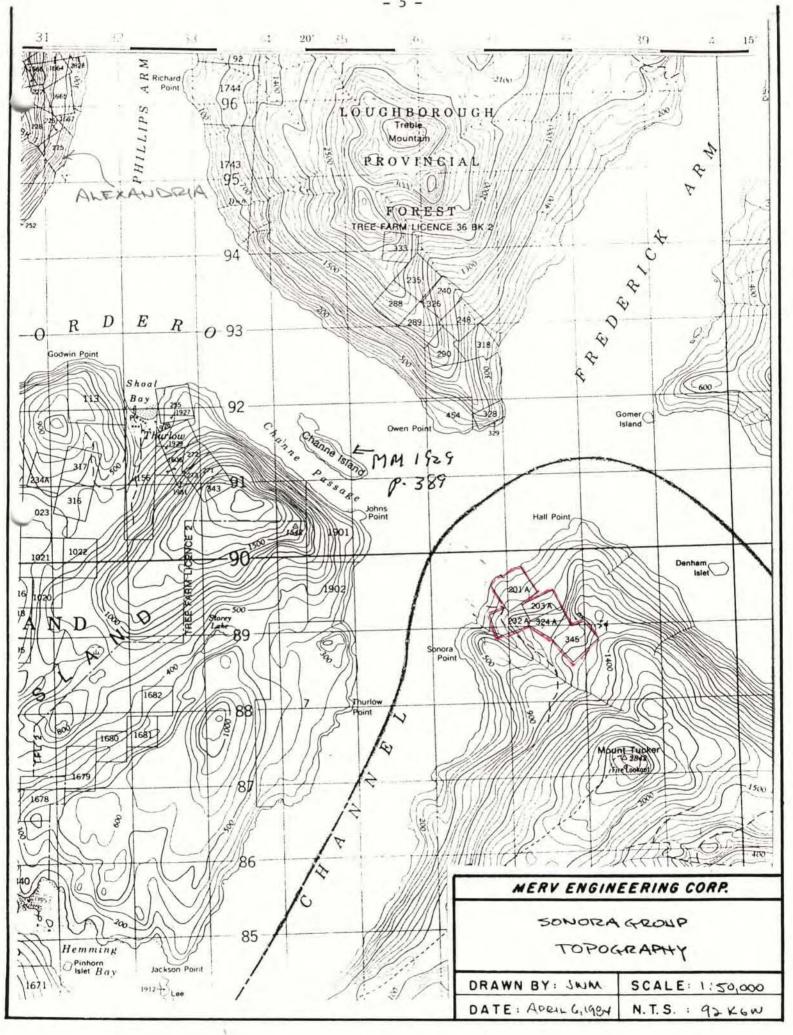
The only recorded work on the Sonora property is in the 1929
Minister of Mines Report. At that time the ground was held by Sonora
Gold Mines which company drove two short adits at sea level and another
at 300 feet. Also a couple of shafts 60 feet deep were sunk.

#### GENERAL:

Most of the claim area has recently been clear logged with good roads close to the highest elevation at about 300 meters. Heavily willow covered roads attest to earlier logging.

Rock exposure is 100% on the shoreline but above this only the logging roads reveal the nature of the geology.





#### GEOLOGY:

Available geology indicates the northwest end of Sonora Island to be underlain by a roof pendant of metamorphosed sediments. The sediment-diorite contact is shown along a well defined northwest trending linear occupied by a creek. Reconnaissance shows this contact to be farther northeast, trending through the central part of the group. This is established by the two adits on the shore, one is in sheared diorite and the other in quartzitic sediments.

The sediments trend northwest and dip 50-80° to the southeast on the property but to the northeast the dip is to the northeast suggesting an anticlinal structure. Between the divergent dips are a number of small exposures of white weathering granite or pulaskite probably implaced along the anticlinal axis.

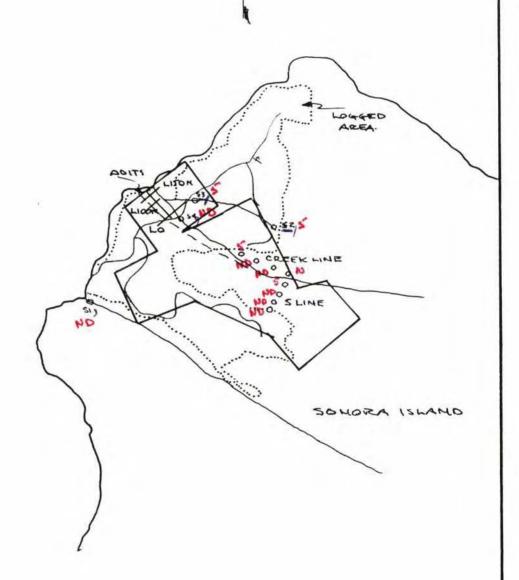
## MINERAL OCCURRENCE:

The 1929 report suggest the presence of gold values up to \$200 per ton but of 4 rock samples taken; one from each adit, one from a pit on a 1.0 meter vein close to the start of line S, and another of silicified material at 75 NE on line O, none showed any value in gold or silver.

The Alexandria gold occurence, located 8 km northwest of the Sonora Group is the most promising prospect in this area. Here auriferous veins are found in the schistose sediments close to the diorite contact. This is the same contact and projects on strike with that on the Sonora Group.

CHANNE

THURLOW 13



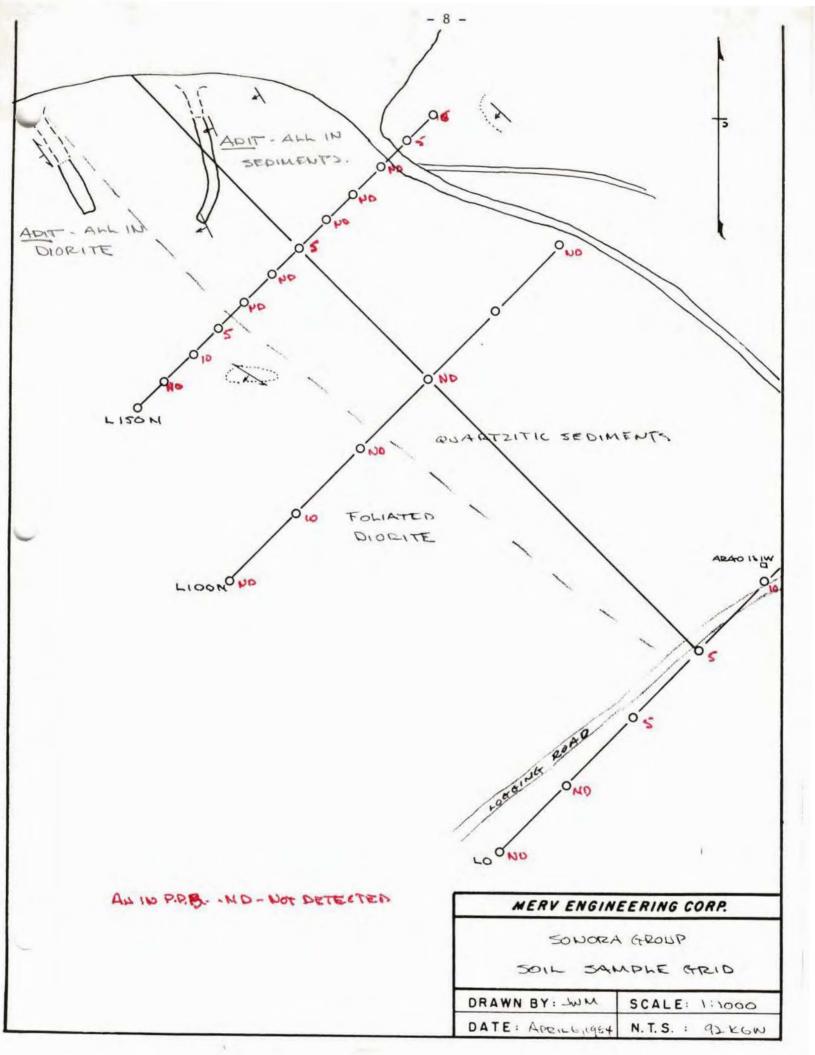
AU IN P.RM. (N.D. - NOT DETECTED)

from airphoto.

## MERV ENGINEERING CORP.

SONORA GROUP LOCATION of SOIL+ SILT SAMPLES

| DRAWN BY: JWM     | SCALE: 1: 22000 AP |
|-------------------|--------------------|
| DATE: APRIL 61484 |                    |



## GEOCHEMISTRY:

Four lines were run which crossed the favourable contact area but no anomalous values in gold or silver were obtained from the 32 soils taken from the B horizon.

Four silt samples were also taken (see the air photo map) but none of these indicate the presence of precious metals.

One sample, 0 on line S assayed 67 p.p.m. Mo and 80 p.p.m. Co. This sample is at the SW end of Line S shown on the air photo base map.

#### CONCLUSIONS & RECOMMENDATIONS:

Geology similar to that hosting the Alexandria gold zone exists on the Sonora Group which should be examined by close spaced sampling along the diorite-sedimentary contact.

Respectfully Submitted

Juha Lad

J.W. MacLeod, P.Eng.

Vancouver, B.C. April 11, 1984

## APPENDIX I

ANALYTICAL PROCEDURES

VANGEOCHEM LAB LTD. 1521 Pemberton Ave. North Vancouvelr, B.C. V7P 2S

TO: Tenajon Silver Mines

#1450 - 625 Howe Street Vancouver, B.C. V6C 2T6

FROM: Vangeochem Lab Ltd.

1521 Pemberton Ave.

North Vancouver, B.C. V7P 2S3

SUBJECT: Analytical procedure used to determine elements in hot

acid soluble by Induction Couple Plasma Spectrometer

(ICP) analysis.

## 1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4" x 6" Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.
- (b) The dried soil and silt samples were sifted by hand using a 8" diameter 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80mesh fraction was transferred into a new bag for analysis later.
- (c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then out in a new bap for later analysis.

#### 2. Method of Dipestion

- (a) 0.500 gram of -80 mesh sample was used.
- (b) Samples were digested in a hot water bath with conc. HNO3 and conc. HCl acids.
- (c) The digested samples were diluted to a fixed volume and shaken well.

## 3. Method\_of\_Analysis

The ICP analyses elements were determined by using Jarrel Ash, model 885. Direct reading emission spectrograph of a inductive coupled plasma excitation source. All major matrix and trace elements are interelement corrected to trace elements. All data is entered into Apple II plus, stored on floopy disks, and printed by Epson 100.

 The analyses were supervised by Mr. Dean Toye and Mr. Conway Chun of Vangeochem Lab Ltd. and their staff.

Conway Chun

VANGEOCHEM LAB LTD.

VANGEOCHEM LAB LTD. 1521 Pemberton Ave. North Vancouver. B.C. V7P 293

TO: Tenajon Silver Corp.

1450 - 625 Howe Street Vancouver, B.C. V6C 2T

FROM: Vangoechem Lab Ltd. 1521 Pemberton Ave.

North Vancouver, B.C. V7P 2S3

SUBJECT: Analytical procedure used to determine Aqua Regia

soluble gold in peochemical samples

For 1983 Analytic Reports

## 1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4" x 6" Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.
- (b) The dried soil and silt samples were sifted by hand using a 8" diameter 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80mesh fraction was transferred into a new bag for analysis later.
- (c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

#### 2. Method of Digestion

- (a) 5.00 10.00 grams of the minus 80-mesh samples were used. Samples were weighed out by using a top-loading balance into beakers.
- (b) 20 ml of Aqua Regia (3:1 HCl : HN03) were used to digest the samples over a hot plate vigorously.
- (c) The digested samples were filtered and the washed pulps were discarded and the filtrate was reduced to about 5 ml.

- (d) The Au comples ions were extracted into diisobutyl ketone and thiourea medium. (Anion exchange liquids "Aliquot 336").
- (e) Separate Funnels were used to separate the organic layer.

## 3. Method of Detection

The gold analyses were detected by using a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. A hydrogen lamp was used to correct any background interferences. The gold values in parts per billion were calculated by comparing them with a set of gold standards.

4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and his laboratory staff.

> Eddie Tang VANGEOCHEM LAB LTD.

# APPENDIX II

GEOCHEMICAL RESULTS

## VANGEOCHEM LAB LIMITED

DETECTION LIKET

1.

PREPARED FOR: MR. JIM MACLEOD

1521 Pemberton Sysmus 5.5 V73 957

 North Vencouver B.C.
 V75 293
 : -- = not analyses

 (604) 986-5211 Telex: 84-352578
 : is ≈ insufficient sample

| (504) 985-5211 Telex: 84 | -352578           | : 15 = insufficient sample |
|--------------------------|-------------------|----------------------------|
| REPORT NUMBER: 84-69-392 | JGB NUMBER: 84835 | 248E 1 0F 2                |
| SAMPLE #                 | Fig.              |                            |
|                          | 020               |                            |
| EL 108N                  | nd                |                            |
| BL 154A                  | 5                 |                            |
| <b>8</b> _6              | 5                 |                            |
| #LØ SØNE                 | :₹                |                            |
| ₩.@ 75¥E                 | 5                 |                            |
| 3/681 80/E               | ne.               |                            |
| 3L8 125VE                | no                |                            |
| PLR 150WE                | 76                |                            |
| L0 25NE                  | 5                 |                            |
| L8 255k                  | ec.               |                            |
| .a 50SW                  | 90                |                            |
| L® 759N                  | TIC.              |                            |
| CREEK LINE &             | 19                |                            |
| CREEK LINE 189N          | nd                |                            |
| CREEK LINE 200%          | no                |                            |
| CREEK LINE 275Y          | 5                 |                            |
| ARGO IV                  | M - SI            |                            |
| S LINE 0                 | nd                |                            |
| S LINE 065               | ric'              |                            |
| 9 LINE 100               | nd                |                            |
| S LINE 140K              | 2                 |                            |
| LANDING CREEK            | 5 = 52            |                            |
| SHAW CREEK #1            | 5 - 50            |                            |
| SHAW CREEK #2            | 76 2.44           |                            |
| 100% 255x                | 10                |                            |
| 1869 5885                | 7.0               |                            |
| 1884 505H                | 16                |                            |
| 1940 75NE                | 5                 |                            |
| 180x 755W                | ng                |                            |
| PL 1584 1854             | 60                |                            |
| 150N 10NE                | 16                |                            |
| 150N 20NE                | 75                |                            |
| 1504 2054                | 700               |                            |
| 156N 36NE                | nd                |                            |
| 1564 368M                | 2                 |                            |
| 1564 354E                | 5<br>5            |                            |
| 152N +2NE                | 5                 |                            |
| 158Y 405A                |                   |                            |
| 150N 58NE                | 10                |                            |
|                          |                   |                            |

VANGEOCHEM LAB LIMITED

PREPARED FOR: MR. 11M MACLEOD

1521 Pemberton Avenue

NOTES: nc = none detected : --- = not analysed

North Vancouver B.C. V7P 253

(604) 988-5211 Telex: 04-352578

: is = insufficient sample

REPORT VUMBER: 84-69-862 JOB MUMBER: 84835

PAGE 2 DF 2

SAMP\_E 4

She

202

150N 50SW

DETECTION LIMIT

5

#### ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HMO3 TO H20 AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS MITH MATER. THIS LEACH IS PARTIAL FOR: Ca,P,Mg,A1,Ti,La,Ma,K,M,Ba,Si,Sr,Cr AND B. AU DETECTION 3 ppm.

SAMPLE TYPE - SOLUTION

|  |              |           |           | JI        | M M       | ACLE      | DD        | FRO       | JEC       | T #     | SUL       | nito     | N FI      | ROM       | VAN       | GEDO      | HEM       | JU        | E # | B4-  | -035 | FI        | LE :      | # 84    | -034      | 40      |          |         |         |      | PAGE     |
|--|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|------|------|-----------|-----------|---------|-----------|---------|----------|---------|---------|------|----------|
| SAMP   | PLE 1        | No<br>pps | Cu<br>pp# | Pb<br>pp= | In<br>pp• | Ag<br>pp∎ | Ni<br>ppe | Co<br>pps | Mn<br>pp= | Fe<br>1 | As<br>pps | U<br>ppa | Au<br>ppa | Th<br>pps | Sr<br>pp: | Cd<br>pp= | Sb<br>pps | Bi<br>pp= | . A | Ca   | P    | La<br>ppa | Cr<br>pp= | Mg<br>2 | Ba<br>pps | Ti<br>1 | B<br>ppe | Al<br>I | Na<br>I | K    | N<br>ppe |
| BL I   | 00N          |           | 15        | 29        | 36        | . 3       | 14        | 6         | 360       | 3.80    | 13        | 2        | ND        | 2         | 13        | 1         | 2         | 2         | 127 | .17  | .04  | 4         | 39        | .28     | 31        | .45     | 4        | 2.60    | .01     | .04  | 2        |
| BL I   |              | 4         | 20        | 14        | 24        | .2        | 16        | 7         |           | 3.83    | 12        | 2        | ND        | 2         | 11        | 1         | 2         | 2         | 82  | .17  | .03  | 3         | 59        | .17     | 19        | . 29    | 5        | 4.24    | .01     | . 01 | 2        |
| #LO  |              | 2         | 14        | 9         | 33        | . 3       | 9         | 3         |           | 3.18    | 12        | 2        | ND        | 2         | 8         | 1         | 2         | 2         | 74  | .12  | .03  | 3         | 25        | . 29    | 37        | .19     |          | 5.30    | .01     | .02  | 2        |
|  | SONE         | 1         | 82        | 13        | 48        | . 6       | 20        | 10        |           | 4.03    | 12        | 2        | ND        | 3         | 24        | 1         | 2         | 2         | 107 | . 29 | .03  | 5         | 32        | .77     | 176       | .28     |          | 5.95    | .03     | .13  | 2        |
|  | 75NE         | 1         | 13        | 10        | 23        | .4        | 7         | 4         |           | 2.71    | 7         | 2        | ND        | 2         | 17        | 1         | 2         | 2         | 70  | -16  | .04  | 5         | 20        | .17     | 47        | .10     |          | 2.98    | .01     | .02  | 2        |
| 410  | 100NE        | 3         | 30        | 17        | 149       | .4        | 39        | 14        | 588       | 4.57    | 14        | 2        | ND        | 2         | 11        | 1         | 2         | 2         | 93  | . 22 | .10  | 4         | 63        | .47     | 52        | .24     | 5        | 5.60    | .01     | .05  | 2        |
| 19L0   | 125NE        | 2         | 29        | 13        | 75        | . 3       | 27        | 9         | 385       | 3.91    | 6         | 2        | ND        | 2         | 9         | 1         | 2         | 2         | 78  | .15  | .09  | 4         | 42        | .48     | 46        | .20     | 5        | 6.57    | .02     | . 05 | 2        |
| -8L0   | 150HE        | 1         | 17        | 12        | 39        | . 2       | 11        | 6         | 282       | 3.59    | 9         | 2        | ND        | 2         | 10        | 1         | 2         | 2         | 80  | .13  | .05  | 5         | 30        | .37     | 33        | .17     | 4        | 5.05    | .02     | . 05 | 2        |
| LO :   | 25NE         | 3         | 19        | 11        | 25        | .3        | 9         | 3         | 127       | 4.26    | 13        | 2        | ND        | 2         | 10        | 1         | 2         | 2         | 112 | .12  | .03  | 4         | . 27      | .23     | 38        | .25     | 2        | 4.14    | .01     | .02  | 2        |
| LO :   |              | 4         | 10        | 8         | 19        | .3        | 7         | 2         | 131       | 2.28    | 6         | 2        | ND        | 2         | 14        | 1         | 2         | 2         | 62  | .21  | .05  | 5         | 21        | .24     | 25        | .11     | 2        | 3.19    | .01     | .02  | 2        |
| L9   | 50SW         | 9         | 19        | 9         | 18        | .3        | 6         | 9         | 1512      | 2.26    | 2         | 2        | ND        | 2         | 17        | 1         | 2         | 2         | 56  | .24  | .05  | 8         | 16        | .16     | 46        | .07     | 5        | 1.93    | .01     | .02  | 2        |
| LO T   | 755W         | 9         | 29        | 12        | 39        | .3        | 9         | 6         | 236       | 3.62    | 12        | 2        | ND        | 2         | 9         | 1         | 2         | 2         | 89  | .13  | .03  | 5         | 25        | .31     | 40        | .24     | 3        | 4.20    | .01     | .04  | 2        |
| CREA   | EK LINE 0    | 1         | 7         | 12        | 23        | .3        | 3         | 1         | 68        | .16     | 4         | 2        | NO        | 2         | 21        | 1         | 2         | 2         | 3   | .61  | .07  | 2         | 2         | .05     | 32        | .01     | 5        | .26     | .01     | .04  | 2        |
|  | EK LINE 100M | 3         | 27        | 25        | 47        | .3        | 17        | 8         | 416       | 3.04    | 8         | 2        | ND        | 2         | 12        | 1         | 2         | 2         | 78  | . 20 | .05  | 4         | 31        | .55     | 33        | .14     | 3        | 2.23    | .02     | .05  | 2        |
|  | EK LINE 200M | 1         | 21        | 7         | 22        | .3        | 7         | 2         |           | 2.71    | 2         | 2        | ND        | 2         | 10        | 1         | 2         | 2         | 69  | .11  | .05  | 3         | 24        | . 24    | 26        | .15     |          | 4.25    | .01     | .02  | 2        |
| CRE  | EK LINE 275N | 7         | 37        | 18        | 119       | .3        | 33        | 15        | 1240      | 3.67    | 10        | 2        | ND        | 2         | 27        | 1         | 2         | 2         | 77  | .67  | .05  | 5         | 39        | .80     | 95        | .16     | 3        | 3.54    | .02     | .09  | 2        |
| ARE  | O IV         | .2        | 43        | 11        | 77        | .3        | 26        | 11        | 671       | 3.75    | 16        | 2        | NO        | 2         | 28        | 1         | 2         | 2         | 93  | .56  | .07  | 5         | 36        | .84     | 88        | .18     | 4        | 2.55    | . 05    | .14  | 2        |
| SL   | INE 0        | 67        | 15        | 24        | 122       | .1        | 8         | 80        | 7608      | 8.48    | 10        | 2        | ND        | 2         | 16        | 1         | 2         | 2         | 146 | .27  | .09  | 3         | 11        | .14     | 85        | .08     | 3        | 4.26    | .01     | .02  | 2        |
|  | INE 065      | 2         | 5         | 14        | 14        | .3        | 3         | 2         |           | 1.30    | Ь         | 2        | ND        | 2         | 16        | 1         | 2         | 2         | 39  | .15  | .02  | 3         | 6         | .11     | 28        | .07     | 2        |         | .01     | .04  | 2        |
|  | INE 100      | 2         | 5         | 9         |           | .2        | 2         | 3         |           | 1.59    | 3         | 2        | ND        | 2         | 10        | 1         | 2         | 2         | 56  | .16  | .02  | 2         | 6         | .13     | 16        | .11     | 2        |         | .02     | .01  | 2        |
| 510  |              | 25        | 170       | 48        | 95        | 12.0      | 712       | 14        | 622       | 3.74    | 14        | 2        | ND        | 3         | 27        | 1         | 11        | 2         | 54  | 1.76 | .69  | 6         | 107       | .62     | 65        | .06     | 30       | 1.08    | .04     | . 24 | 2        |
| S L  | INE 140M     | 8         | 36        | 20        | 100       | .5        | 29        | 17        | 1769      | 3.70    | 10        | 2        | ND        | 2         | 24        | 1         | 2         | 2         | 77  | .82  | . 05 | 5         | 36        | .53     | 62        | .11     | 5        | 2.88    | .01     | .04  | 2        |
| LAN  | DING CREEK   | 1         | 49        | 10        | 90        | .3        | 23        | 14        | 700       | 3.94    | 5         | 2        | ND        | 2         | 45        | 1         | 2         | 2         | 87  | .55  | .05  | 4         | 41        | 1.36    | 96        | .16     | 5        | 3.08    | . 05    | . 13 | 2        |
| SHA  | W CREEK #1   | 1         | 32        | 11        | 106       | . 3       | 17        | 7         | 286       | 2.31    | 5         | 2        | ND        | 2         | 24        | 1         | 2         | 2         | 57  | . 66 | .06  | 6         | 22        | :59     | 66        | .16     | 5        | 2.27    | .03     | .09  | 2        |
| The state of the s | W CREEK #2   | 1         | 24        | 9         | 82        | .3        | 24        | 9         |           | 2.68    | 4         | 2        | ND        | 2         | 20        | 1         | 2         | 2         | 63  | .63  | .05  | 5         | 25        | . 65    | 84        | .14     |          | 2.05    | .03     | .13  | 2        |
| 100  | N 255N       | 4         | 25        | 15        | 41        | .7        | 9         | 12        | 583       | 4.35    | 10        | 2        | ND        | 2         | 9         | 1         | 2         | 2         | 108 | .12  | .05  | 6         | 28        | . 25    | 40        | .24     | 3        | 4.22    | .01     | .04  | 2        |
| 100  | N SONE       | 1         | 36        | 5         | 51        | .4        | 16        | 9         | 326       | 3.32    | 9         | 2        | MD        | 2         | 17        | 1         | 3         | 2         | 84  | . 27 | .03  | 5         | 32        | .72     | 182       | .25     | 2        | 4.29    | .03     | .14  | 2        |
| 100  | N 505W       | 3         | 16        | 4         | 42        | .3        | 7         | 6         | 742       | 3.16    | 6         | 2        | ND        | 2         | 7         | 1         | 2         | 2         | 75  | .10  | .05  | 4         | 20        | .17     | 27        | .16     | 3        | 3.44    | .01     | .02  | 2        |
| 100  | N 75NE       | 3         | 20        | 15        | 28        | .1        | 8         | 5         | 460       | 3.19    | 12        | 2        | ND        | 2         | 7         | 1         | 2         | 2         | 72  | .10  | .06  | 5         | 21        | .21     | 26        | .16     | 3        | 3.33    | .01     | .04  | 2        |
| 100  | N 755W       | 2         | 9         | 9         | 34        | .3        | 9         | 4         | 1028      | 5.19    | 4         | 2        | ND        | 2         | 8         | 1         | 2         | 2         | 108 | .12  | .05  | 4         | 23        | .14     | 27        | .33     | 2        | 1.84    | .01     | .02  | 2        |
| BL   | 150N 10SN    | 2         | 9         | 10        | 16        | .3        | 6         | 1         |           | 3.98    | 4         | 2        | ND        | 2         | 1         | 1         | 2         | 2         | 97  | .09  | .03  | 2         | 21        | .11     | 19        | . 26    |          | 3.63    | .01     | .01  | 2        |
| 150  | N IONE       | 11        | 19        | 13        | 41        | .4        | 14        | 6         | 271       | 5.42    | 11        | 2        | ND        | 2         | 10        | 1         | 2         | 2         | 173 | .19  | .04  | 5         | 37        | .23     | 27        | . 34    | 2        | 2.88    | .01     | .04  | 2        |
| 150  | N ZONE       | 1         | 13        | 6         | 35        | .3        | 11        | 5         | 175       | 3.16    | 11        | 2        | ND        | 2         | 11        | 1         | 2         | 2         | 72  | .17  | .03  | 5         | 20        | . 33    | 30        | .17     | 2        | 2.77    | .02     | .04  | 2        |
| 150  | N 205W       | 2         | 12        | 12        | 20        | .4        | 7         | 2         | 159       | 3.48    | 8         | 2        | ND        | 2         | 11        | 1         | 2         | 2         | 96  | . 14 | .03  | 3         | 20        | .14     | 29        | . 24    | 2        | 3.22    | .01     | .01  | 2        |
| 150  | N SONE       | 3         | 15        | 11        | 38        | .3        | 11        | 7         | 385       | 4.84    | 7         | 2        | NO        | 2         | 19        | 1         | 2         | 2         | 103 | . 29 | .03  | 7         | 22        | .39     | 63        | .26     | 3        | 1.67    | .02     | .06  | 2        |
|  | N 305W       | 2         | 10        | 9         | 11        | .4        | 5         | 1         | 100       |         | 6         | 2        | NO        | 2         | 10        | 1         | 2         | 2         | 133 | .09  | .02  | 3         | 18        | .05     | 25        | .33     |          | .71     |         | .01  | 2        |
| 150  | N 35NE       | 2         | 37        | 15        | 96        | .4        | 22        | 9         | 573       | 3.23    | 14        | 2        | ND        | 2         | 26        | 1         | 4         | 2         | 78  | .53  | .05  | 5         | 30        | .80     | 137       | .19     | 3        | 2.85    | . 05    | .18  | 2        |
| 150  | N 40NE       | 4         | 57        | 13        | 56        | . 3       | 21        | 71        | 817       | 3.63    | 9         | 2        | NO.       | 2         | 30        | 1         | 2         | 2         | 95  | . 38 | .05  | 12        | 23        | . 45    | 33        | .18     | 4        | 4.07    | .05     | .04  | 2        |
|  | N 40SH       | 3         | 21        | 8         | 37        | .5        | 9         | 4         | 473       | 3.62    | 10        | 2        | ND        | 2         | 10        | 1         | 2         | 2         | 109 | .14  | .03  | 5         | 23        | .20     | 54        | . 25    | 2        | 2.76    | .01     | .04  | 2        |
| 150  | 7007         |           |           |           |           |           |           |           |           |         |           |          |           |           |           |           |           |           |     |      |      |           |           |         |           |         |          |         |         |      |          |
|  | N SONE       | 9         | 27        | 11        | 67        | .4        | 21        | 1         | 119       | 4.01    | 9         | 2        | ND        | 2         | 9         | 1         | 2         | 2         | 122 | .14  | .04  | 3         | 31        | .21     | 15        | .18     | 2        | 2.16    | .01     | .02  | 2        |

|                |           |           | J         | MM        | ACLE      | EDD       | PRO       | DJEC      | CT #    | SOL       | UTI      | ON F      | ROM       | VAN       | GEO       | CHEM      | J         | DB #     | # 84-   | -035 | F         | ILE       | # 84    | 4-03      | 40      |          |         |         |        | PAGE     | 2 |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|---|
| SAMPLE #       | Mo<br>pp∎ | Cu<br>pp= | Pb<br>pp∎ | In<br>pp• | Ag<br>pps | Ni<br>ppa | Co<br>ppe | Mn<br>ppe | Fe<br>1 | As<br>pps | 0<br>pp∎ | Au<br>pps | Th<br>pps | Sr<br>pps | Cd<br>ppm | Sb<br>ppe | Bi<br>ppm | y<br>pp= | Ca<br>Z | P    | La<br>pps | Cr<br>pps | Mg<br>Z | Ba<br>ppe | Ti<br>1 | B<br>ppe | Al<br>I | Na<br>I | K<br>1 | N<br>pps |   |
| 150N 50SW      | 1         | 21        | 12        | 26        | .2        | 6         | 4         | 380       | 3.38    | 13        | 2        | ND        | 2         | 8         | 1         | 2         | 2         | 94       | .10     | . 09 | 2         | 21        | .17     | 49        | . 18    | 5        | 1.79    | .01     | .03    | 2        |   |
| NO NUMBER ROCK | 16        | 62        | 7         | 78        | . 4       | 49        | 7         | 230       | 2.24    | 12        | 2        | KD        | 2         | 31        | 1         | 2         | 2         | 52       | 3.93    | .05  | 3         | 195       | .30     | 39        | .12     | 3        | .91     | .08     | .07    | 2        |   |
| 68248 ROCK     | 5         | 32        | 6         | 37        | .1        | 24        | 3         | 91        | 1.09    | 8         | 2        | ND        | 2         | 27        | 1         | 2         | 2         | 33       | .82     | . 05 | 8         | 141       | .13     | 206       | .08     | 3        | .61     | .03     | .03    | 2        |   |
| 68249 ROCK     | 3         | 5         | 6         | 2         | .1        | 9         | 1         | 46        | .93     | 3         | 2        | ND        | 2         | 3         | 1         | 2         | 2         | 4        | .04     | .01  | 2         | 282       | .02     | 188       | .01     | 2        | . 20    | .03     | .11    | 2        |   |
| 68251 ROCK     | 10        | 36        | 9         | 51        | .4        | 62        | 10        | 339       | 2.00    | 4         | 2        | ND        | 2         | 14        | 1         | 5         | 2         | . 68     | .33     | .01  | 3         | 234       | 1.12    | 86        | .11     | 3        | 1.39    | .06     | . 29   | 2        |   |
| AR252 ROCK     | 4         | 9         | 13        | 14        | 2         | 14        |           | 404       | 1.23    |           |          | ND        | 2         | RA        | ,         | 2         | 2         | 10       | 7 75    | 02   | 2         | 184       | 45      | 140       | 01      | 7        | 7.4     | 01      | 14     | ,        |   |

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VANGEDCHEM LAB LIMITED

PREPARED FOR: MR. JIM MACLEOD

1521 Pemberton Avenue

NOTES: nd = none detected

North Vancouver B.C. V7P 2S3

: -- = not analysed

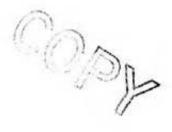
(604) 986-5211 Telex: 04-352578

: is = insufficient sample

REPORT NUMBER: 84-69-002 (A) JOB NUMBER: 84035

PAGE 1 DF 1

| SAMPLE #         | Aq<br>oz/st | Au<br>oz/st |
|------------------|-------------|-------------|
| NO NUMBER (Rock) | (.01        | (.005       |
| 58248 (Rock)     | (.01        | (.005       |
| 68249 (Rock)     | (.01        | (.005       |
| 58251 (Rock)     | (.01        | (.005       |
| 68252 (Rock)     | (.01        | (.005       |



DETECTION LIMIT 1 Troy oz/short ton = 34.28 pcm

. 0.

.005

siched:

com = carts per million

APPENDIX III

EXPENDITURE

BY MACLEDO + WARSHAWSKI FEB 23-27 # Frs. 11.00 7.10 14.75 17.00 49.85 18.00 Ferry 18.00 36.10 anfore 75.33 74.00 149.33 Shoul Bay Lodge accomplation, meets 185.00 20.60 10.10 meals 10.50 40.00 austrian mutet 480.70

ASSESS'MENT REPORT 354 KM @ 60 PFR Km = 212.40 MILEAGE 36-00 FEARY 149.33 AIR FARE ACCOMODATION, MEALS+ 185.00 BORT RENTAL SHOAL BAY MEALS

MOTEL CAMPBELL RIVER

40.00

\$0.60

# EXPENDITURE

# SONORA GROUP

| Assaying      |              |                 |   | 585.00 |
|---------------|--------------|-----------------|---|--------|
| Accommodation | & Travel Exp | ense            |   | 480.70 |
| J. MacLeod    | - report     | 2 days @ 150.00 | = | 300.00 |
| J. MacLeod    | - Feb.23-27  | 4 days @ 150.00 | - | 600.00 |
| M. Warshawski | - Feb.23-27  | 4 days @ 150.00 | - | 600.00 |

# APPENDIX IV ENGINEERS CERTIFICATE

#### CERTIFICATE

I, James W. MacLeod, of 1220 Arbutus Street, in the city of Vancouver, in the Province of British Columbia.

## DO HEREBY CERTIFY:

- That I am a Consulting Engineer, with a business address at #1450-625 Howe St., in the City of Vancouver, in the Province of British Columbia.
- That I am a graduate of the University of Alberta with a degree of B.Sc. in Mining Engineering.
- That I have actively practiced my profession in mineral exploration since graduation in 1946.
- That I am a registered Professional Engineer in the Province of British Columbia.
- That I carried out the field work, assisted by M. Warshawski, covered by this report on the Sonora Group between February 23&27, 1984.

J.W. MacLeod, B.Sc., P.Eng.

Dated at the City of Vancouver, Province of British Columbia, this 11th day of April 1984.