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| Nicola Mining Divis | ion | U < NTS | 92I 8W |
| February 28, 1991 Vancouver, B.C. | | ff Consult Sookochof | |

TABLE OF CONTENTS

| INTRODUCTION 1. | |
|-------------------------|--|
| SUMMARY 1. | |
| PROPERTY 2. | |
| LOCATION AND ACCESS 2. | |
| PHYSIOGRAPHY 3. | |
| WATER AND POWER | |
| HISTORY 3. | |
| GEOLOGY 4. | |
| MINERALIZATION | |
| 1990 WORK PROGRAM 7. | |
| Geochemical Survey 7. | |
| Structural Analysis 8. | |
| CONCLUSIONS 8. | |
| RECOMMENDATIONS | |
| SELECTED REFERENCES 10. | |
| CERTIFICATE 11. | |
| STATEMENT OF COSTS 12. | |

APPENDICES

Appendix I Assay Certificates Appendix II Maps and Data from 1988 Report on the CIG 100 Claim Appendix III Structural Analysis Report by D. Chapman

ILLUSTRATIONS

| Figure 1 | Location Map |
|----------|-------------------|
| Figure 2 | Claim & Index Map |
| Figure 3 | Geology |
| Figure 4 | Gold Geochemistry |

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Geochemical & Geological Report

for

XTC Resources Ltd.

on the

CIG 100 Claim

INTRODUCTION

An exploration program consisting of a geochemical survey and a structural analysis on the property was completed on the CIG mineral claim during the period of July 1987 to February 1988. The localized geochemical survey was initiated as a result of the delineation of a northeasterly trending zone of anomalous gold-silver soil and rock sample values in previous exploration.

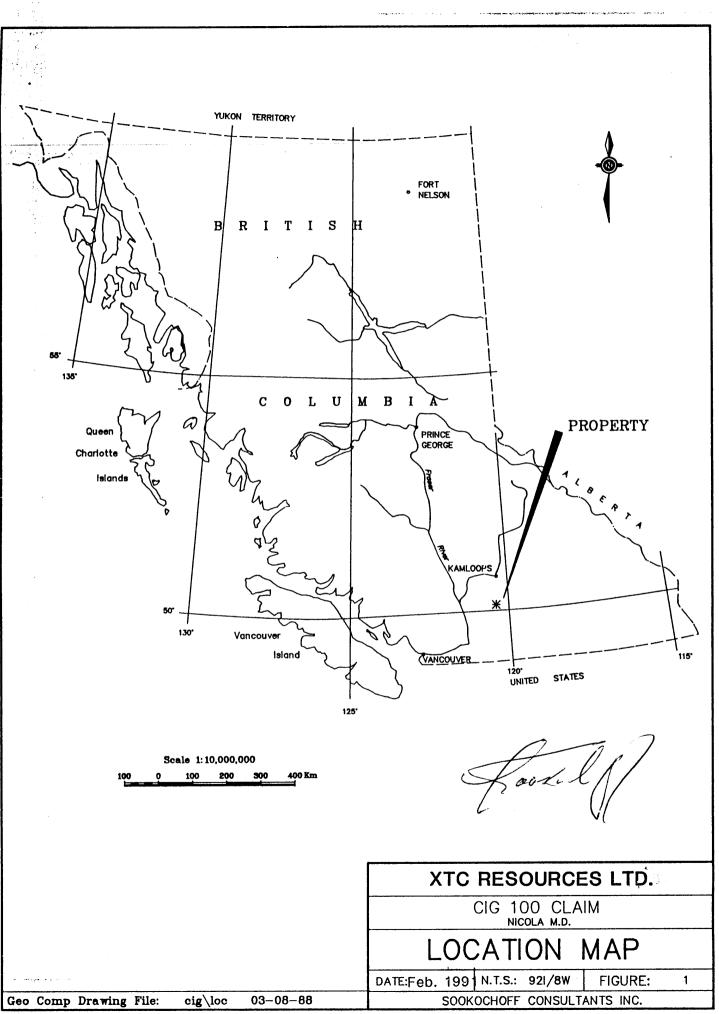
Information for this report was obtained from sources as cited under Selected References and from the writers' supervision and the compilation of results from the exploration program as reported on herein.

SUMMARY

XTC Resources Ltd. owns a 20 unit claim block four km southeast of the historic Stump Lake Mining Camp where production to 1931 reportedly amounted to 77,605 tons averaging a recovered grade of .109 oz Au/ton, 3.26 oz Ag/ton, 1.42% Pb and 0.24% Zn.

The mineralized quartz veins at Stump Lake occur in association with northerly trending structures hosted by shear zones within greenstones of the Nicola volcanics. The veins, which were explored to a depth of 275 meters and along a strike length of 600 meters, are of irregular width with an alteration zone of up to "15 feet wide". Mineralization in the veins appears to increase along variable trends of the structure.

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On the CIG 100 mineral claim, initial exploration work resulted in the delineation of a northeasterly trending zone of anomalous gold values in the northwest sector of the property where pits and trenches expose barren to lightly mineralized quartz veins. Subsequent exploration resulted in the delineation of a correlative anomalous geochemical geophysical northeasterly trending zone in the south-central portion of the claim. The results included assays of up to .690 Au/ton and 18.22 oz Ag/ton from mineralized quartz vein float material in the area and the delineation of a 200 by 40 meter subanomalous gold zone with soil geochem values of up to 1089 ppb Au.

The 1990 localized geochemical survey over the south central zone was successful in confirming and extending the zone to the northeast. As a result, the zone has been delineated by geophysical and geochemical surveys for 600 meters and is open ended along strike.

PROPERTY

The property consists of one located 20 unit mineral claim. Particulars are as follows:

| <u>Claim Name</u> | Record No. | <u>Expiry Date</u> |
|-------------------|------------|--------------------|
| CIG 100 | 1361 | March 8, 1992 |

The claim overtakes a two unit claim within the northwest corner. As a result the effective area of the CIG 100 claim is approximately 450 hectares.

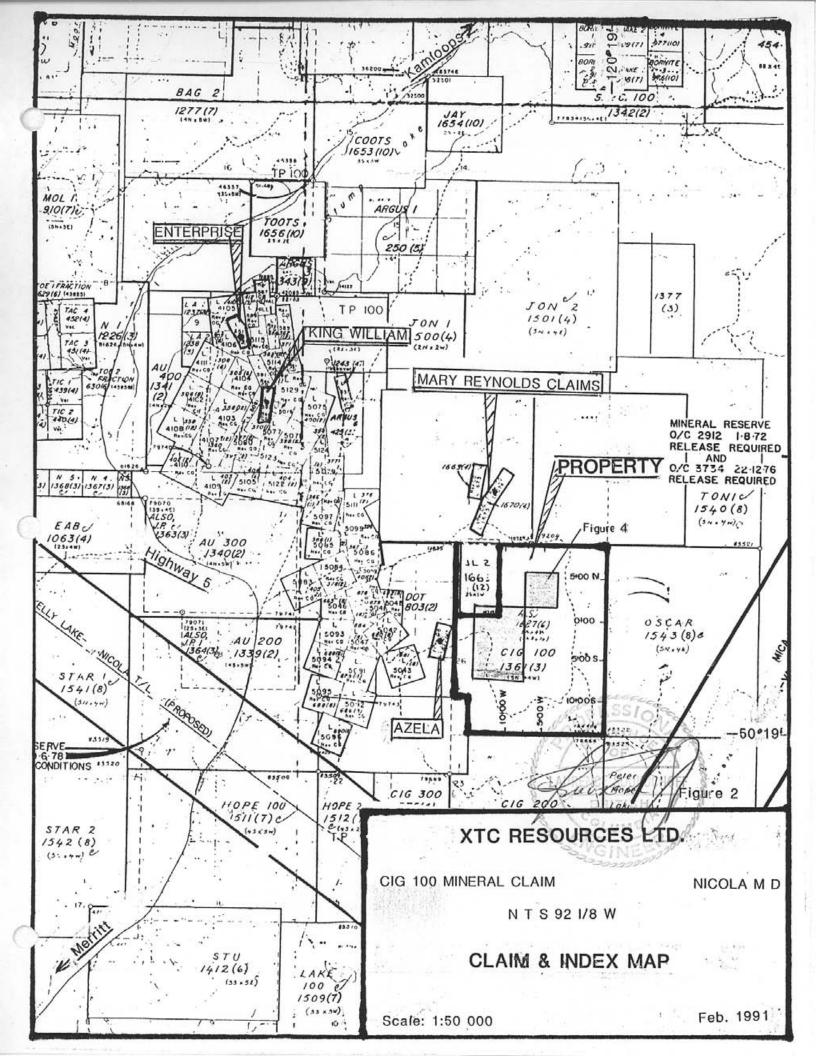
Any legal aspects pertaining to the claim group is beyond the scope of this report.

LOCATION AND ACCESS

The property is located adjacent and northwest of Peter Hope Lake forty km northwest of Merritt in southwest British Columbia and within five km of Mineral Hill where the major development and production from the Stump Lake Mining Camp occurred.

Access is provided by the Merritt-Kamloops Highway No. 5 to within three km of the property. The Peter Hope Lake road, which junctions off to the east within three km south of Stump Lake provides access to locations on the property.

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PHYSIOGRAPHY

- 3 -

The property is situated at the western edge of the Douglas Plateau which is within the physiographic area designated as the Interior Plateau of British Columbia. Gentle to moderate slopes prevail, with relief in the order of some 200 meters from Peter Hope Creek Valley (to 1060 meters) which bisects the central portion of the claim.

WATER AND POWER

Sufficient water for all phases of the exploration program could be available from Peter Hope Lake northeast to Peter Hope Lake in the southwest. In addition to tributaries of Peter Hope Creek, other water courses are indicated draining the property.

HISTORY

The history of the immediate area stems from the mineral deposits at Mineral Hill adjacent to Stump Lake and some five km west of the northwestern portion of the CIG 100 claim. Mineralization on Mineral Hill was discovered in 1882 with exploration and development consisting of shafts on the Joshua, Tribal Cain and King William claims in addition to shafts on the Enterprise and Planet claims completed prior to 1890.

Exploration and development on Mineral Hill was sporadic to 1929 when a mill was built and operated to 1931. From 1939 to 1942 operations were suspended for some mine development and the rebuilding of the mill.

Since 1942 limited exploration was carried out on the various properties of the area with the most recent performed by Celebrity Energy Corporation who acquired under agreement most of the reverted crown granted claims of the mining camp.

Production from the Stump Lake camp during the period from 1916 to 1944 and from the Enterprise, King William, Tribal Cain and Joshua Veins is reported as 77,605 tons of ore mined yielding 8,494 ounces of gold, 252,939 ounces of silver, 40,822 pounds of copper, 2,206,555 pounds of lead and 367,869 pounds of zinc or a recovered grade of 0.109 oz Au/ton, 3.26 oz Ag/ton, 0.026% Cu, 1.42% Pb and 0.24% Zn. Other properties in closer proximity to the CIG 100 claim on which exploration was completed include the Mary Reynolds and the Azela within one km east and north. The Mary Reynolds or the Jean Group was one of the early claims staked in the Stump Lake area and produced a small amount of gold-silver ore. The workings include a "96 foot" deep shaft with a "240 foot" long adit level in addition to numerous other workings exploring a vein system with general characteristics similar to the other Stump Lake deposits.

The Azela is within the Johannesburg camp situated "about 16,000 feet" southeast of the Enterprise Mine and within 100 meters west of the CIG 100 claim. The main showing is a shaft reportedly "78 feet" deep with open cuts and other workings within the claim.

Previous exploration work on the CIG 100 claim included that of Aarn Exploration and Development Co. Ltd. when "250 feet" of trenches and two "miles" of road were completed. In 1985 Time Square Energy and Resources Ltd. (name change to New Hombre Resources Ltd.) completed localized geological, geophysical and geochemical surveys on the CIG 100 claim.

In 1987 New Hombre Resources Ltd. completed geochemical, geophysical and geological surveys on the CIG claim. From the results of the exploration program, a 600 meter long open ended gold geochem anomalous zone with mineralized quartz float material assaying up to 0.69 oz Au/ton and 18.22 oz Ag/ton was delineated.

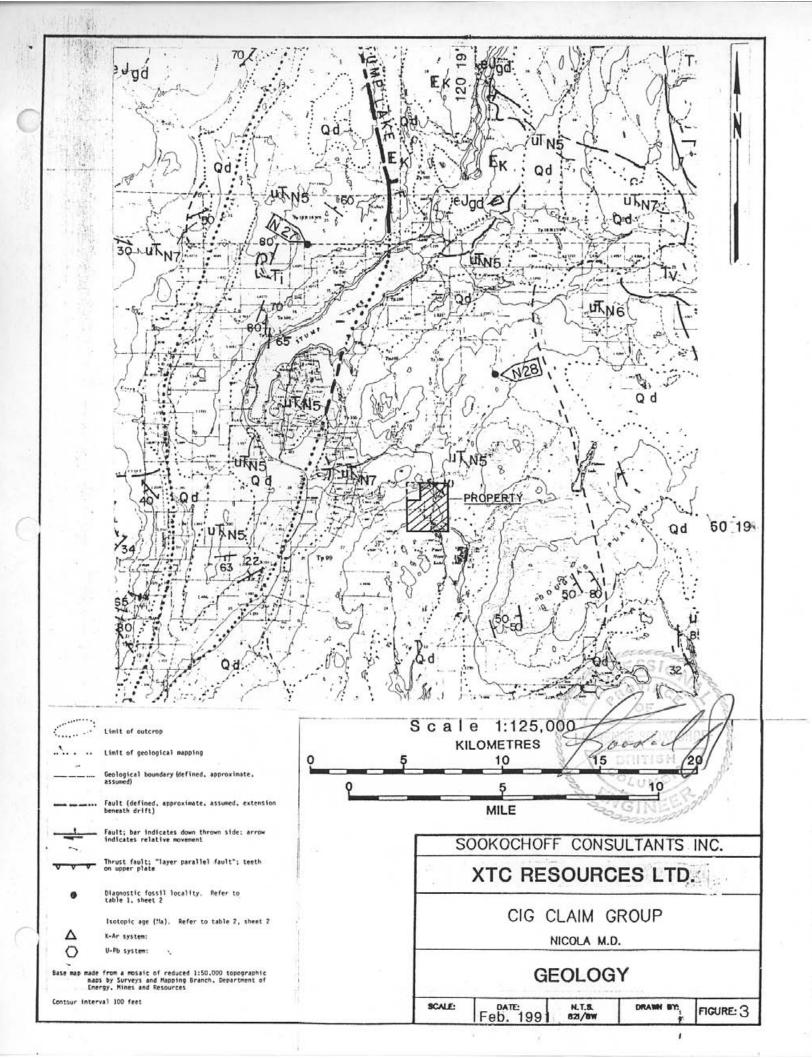
The 1990 exploration program of a localized geochemical survey and a structural analysis of the claim is the subject of this report. The work was performed under the company's name change - XTC Resources Ltd.

GEOLOGY

The regional geology of the area as mapped by W.E. Cockfield and published as map 886 A in G.S.C. Memoir 249 (1947) indicates that the Stump Lake area is underlain by an assemblage of Upper Triassic volcanic flows, pyroclastics and sedimentary units termed the Nicola Group.

In a northerly trending contact with the Nicola the Carboniferous and Permean Cache Creek Group is indicated as occurring at Plateau Lake five km east of the CIG 100 claim. The Cache Creek rocks are shown to rarely outcrop as windows within the Nicola.

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In a later geological map published by the GSC from the geological mapping completed by Monger (1980-82) and McMillan (1969-75 and 77-80) of the B.C. Ministry of Energy, Mines and Resources with supplemental information, the location of the Cache Creek rocks is shown as the Nicola Group. The Nicola Group consists of argillite, siltstone, volcanic sandstone and local intercalated tuff. The formation to the west of the contact and underlying the CIG claim is indicated as consisting of predominantly 100 volcanics with interbedded argillite. The volcanics consist of augite porphyry and augite-plagioclase porphyry, volcaniclastic breccia and tuff.

The area is dominated by Tertiary faults with the major north northeast trending Quilchena-Stump Lake fault system defining in part the eastern limit of the Nicola batholith with the Nicola Group. The fault trends through the northeastern portion of Stump Lake, centrally through the Stump Lake camp and two km west of the CIG 100 claim. The major northwest trending Cherry Creek Fault 20 km north of Stump Lake truncates the Quilchena fault system. Secondary or associated structures in the area trend northerly to northwesterly.

In the Stump Lake area and specifically within the area of Mineral Hill where the major development and production was carried out the rocks consist of greenstone of the Nicola Group. The greenstone is an andesitic rock usually fine grained; locally it is coarser-grained and is dioritic to diabasic in texture. Occasional bands of tuff and breccia are included in the formation. The tuff is extremely fine-grained, banded and the breccia contains andesitic fragments up to 10 cm in diameter similar in composition to the matrix. The greenstones strike 40° to 60° east and dips nearly vertical in the vicinity of the workings. Porphyritic to fine-grained hornblende-andesitic dykes, up to two and one-half meters wide occur in the area. Quartz filled fractures and shear zones strike northerly and dip easterly.

On the Enterprise, quartz vein system stoping was primarily carried out below the 150 foot level with a shaft to the "900 foot" level. The vein is commonly under two feet wide, strikes from 350° and 015° and dips easterly from 40° to 80° with considerable pinching and swelling.

The King William vein does not differ greatly from the Enterprise vein off which it forms a branch, however it does reach a width of "nine feet". It joins the Enterprise vein at lower levels and has been drifted out south from its intersection with the Enterprise vein on each of the levels except the 800 foot.

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The Joshua mine is developed by a shaft to a depth 755 feet on the dip with the 320 foot drift level continued for "2,160 feet" from the portal to intersect the Joshua vein. The vein follows a fracture and shear zone striking nearly north and dipping 60° east. Below the 400 foot level the dip is stated to be towards the west.

The Planet shaft is about "2,800 feet" southwest of the Enterprise workings. The vein strikes 10° east and dips steeply easterly and is composed of a band of quartz "eight to 18 inches" wide.

At the Azela the occurrence consists of a shear zone six to eight feet wide striking north 015° east and dipping 55° south. Two pits show a vein zone striking north 40° west with a steep northeast dip. In one pit the zone is "three feet" wide with "14 inches" of heavily oxidized country rock carrying bunches of quartz. The cuts show only scanty sulphides.

The Mary Reynolds vein zones strike northeast and dip steeply southwest to northwest. The veins have been traced over "900 feet" by cuts and drill holes. The zones range up to "six feet" wide and carry veins and stringers of quartz mineralized with pyrite, chalcopyrite, galena, zinc blende and tetrahedrite. A fracture zone up to "five feet" wide with, stringers of quartz and calcite, strikes north 40° E and dips 85° southeast.

On the CIG 100 claim, Vollo (1983) states that from air photo interpretation and field examination the flows of the Nicola volcanic rocks strike about N 20°E and dip steeply. In addition minor zones of acid rocks, quartz veining and quartz carbonate alteration were noted.

Kuran (1985) states that the CIG 100 claim is underlain by "vary from volcanic rocks which dark green biotite-hornblende porphyritic flows to pale green, pitted weathering, porphyritic flows with biotite and hornblende phenocrysts altered to chlorite. Two main directions of jointing in the volcanics strike north-northeast to north-northwest and dip vertically."

J. Paxton (1987) reports that the chloritized hornblende-biotite porphyry (Unit 2) appears to be an epidotized facies of dark green biotite-hornblende (Unit 1). In addition several zones of pyroclastic breccia were noted. At several locations quartz vein float was noted.

- 6 -

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MINERALIZATION

Mineralization on Mineral Hill of the Stump Lake camp is essentially associated with quartz veins which occur as quartz fillings in shear and fracture zones. The principal quartz veins strike from north 45° west to north 25° east and dip between 45° easterly and vertical.

The quartz is white and vitreous and is mineralized irregularly with sulphides which include pyrite, galena, sphalerite, tetrahedrite, chalcopyrite and bornite. The sulphides occur in segregations, thin seams and disseminations which usually make up a low proportion of the veins. Gold and silver values are rudely proportional to the amount of sulphides in any one vein.

On the CIG 100 claim mineralization consists of variable[°] of sulphides within quartz veins. Samples of wall rock with low to moderate carbonate and/or ankerite and/or silica alteration ranged from background to 39 ppb Au. The quartz vein samples ranged from background values in gold to 1650 ppb Au in Trench II of Zone I to .690 oz Au/ton and 14.64 oz Ag/ton at Zone II. The higher grade gold values were contained in quartz with light to moderate degrees of pyrite, chalcopyrite and argentite occurring as blebs, pockets and clusters.

1990 WORK PROGRAM

Geochemical Survey

Soil samples were collected along former and between grid stations at and to the northeast of the south-central correlative geochemical and geophysical northeasterly trending anomaly.

Samples were selected from the B horizon of the brown to brownish-grey sandy-silted forest soil at a depth of commonly 30 centimetres. The soil was placed in a brown wet-strength paper bag with the grid coordinates marked thereon and a flagged grid station was located at the sample site. A total of 39 samples were collected and analysed.

All samples were tested by Acme Laboratories of Vancouver, B.C. The testing procedure is first to thoroughly dry the sample. Then 500 grams of material is digested with 3 ml. of 3:1:3 HCL to HNO3 to H2O at 90° more or less for one hour. The sample is diluted to 10 mls. with water. The sample was then analysed by I.C.P. for 30 elements. Gold analysis is by AA from a 10 gram sample.

- 7 -

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Due to the minimal amount of samples, a statistical analysis of the samples was not performed. However, the previous geochem parameters from a much larger population were utilized for comparative purposes. These statistical parameters for gold were as follows:

Background Threshold8.0 ppbSubanomalous Threshold20.0 ppbAnomalous Threshold45.0 ppb

The gold geochem results were plotted on a map with the gold geochem results from the 1987 survey. The 1990 gold geochem results returned values of up to 1440 ppb Au at a station from which an anomalous value of 56 ppb Au was obtained in the 1987 geochem survey. However, at an adjacent station 25 meters distant a 1990 geochem value of 180 ppb Au was obtained where a 1987 geochem result returned 600 ppb Au. Both values at the same station are anomalous albeit to varying degrees indicating that low order anomalies may be indicative of increased values. As the reverse may also occur, averaging the values to determine a more reliable value may be in order.

The northeasterly trending anomalous and sub anomalous south-central zone was in part confirmed and indicated to extend to the northeast.

Structural Analysis

The report by D. Chapman on the structural analysis of the CIG 100 claim is appended. Of three anomalous areas delineated, Chapman states that anomaly #3 " may be the best target for prospecting." Portions of the south-central zone correlate with anomaly #3 thereby providing additional confirmation to the favourability of this zone as a structural control to mineralization.

CONCLUSIONS

The 1990 localized geochem survey covering portions of the previous survey area and the northeasterly extension of the anomalous zone was successful in that the zone was indicated to extend to the east and northeast. The limits to the zone were extended 25 meters to the east on line 4+00 S, 50 meters to the east on line 3+50 S and remains open to the east on line 3+00 S and east and northeast on line 2+50 S.

Based on the 1987 survey, the zone remains open to the southeast of line 7+00 S.

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- 8 -

This prime correlative anomalous zone as indicated from the former and recent geophysical, geochemical and geological (structural) results, appears to reflect a substantial structure hosting significant gold-silver mineralization. The favorable structural- mineral relationship in this geological environment could target a potential productive mineral zone comparable to the productive deposits of the proximal Stump Lake camp.

RECOMMENDATIONS

The recommendations as set out in the writer's March 1988 report on the CIG 100 claim are valid for the continuation of exploration. The recommendations with some additions are for:

1) A diamond drill program to test the indicated gold-silver bearing structure of the northwest zone (Zone 1).

2) A Ronka EM survey should be completed over the trenched area of Zone I and along the northeast extensions of the south-central zone (Zone II) to the eastern boundary of the claim.

3) A detailed geochemical survey should also be completed along the projected strike extensions of Zone II). Anomalous areas should be detailed by a Ronka VLF survey to select a prime target area for test drilling.

> Respectfully submitted SOOKOCHOFF CONSULTANTS INC.

vorcol

Laurence Sockochoff, P.Eng.

February 28, 1991 Vancouver, B.C.

_Sookochoff Consultants Inc.

- 9 -

- 10 -SELECTED REFERENCES COCKFIELD, W.E. - Geology and Mineral Deposits of Nicola Map Area, Memoir 249, G.S.C. 1961. B.C. MINISTER OF MINES REPORTS - 1936 p D14-D23 GEOLOGICAL SURVEY OF CANADA - Bedrock Geology of Ashcroft (92I) map area, Open File 980 KURAN, V. - Assessment Report on the CIG 100 claim for TimeSquare Energy Resources Ltd. April 27, 1986. Assessment Report 14785. MOORE, J.M. et al - Nicola Lake Region Geology and Mineral Deposits, B.C. Ministry of Energy, Mines and Petroleum Resources, Open File 1990-29 PAXTON, J. - Notes on the Geology of the CIG 100 claim, July 18, 1987 - Notes on the Geology of the CIG 100 claim, September 14, 1987. RAYNER, G.H. - A Report on the Stump Lake Property for Celebrity Energy Corporation, April 14, 1983. RICHARDSON, P.W. - Report on the Stump Lake Property for Goldbrae Developments Ltd., July 11, 1985. SOOKOCHOFF, L. - Geological, Geophysical & Geochemical Report on the CIG 100 Claim for New Hombre Resources Ltd., March 11, 1988. Assessment Report 17489. VOLLO, N.B. - Report on the CIG 100 claim for Times Square Energy Resources Ltd., 1984.

_Sookochoff Consultants Inc...

- 11 -

CERTIFICATE

I, Laurence Sookochoff, of the city of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with offices at Suite 1027, The Standard Building, 510 West Hastings Street, Vancouver B.C., V6B 1L8.

I further certify that:

- 1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
- 2. I have been practising my profession for the past twenty five years.
- 3. I am registered with and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
- 4. Information for the accompanying report was obtained from sources as cited under Selected References and from the supervision of the exploration program and work performed on the CIG 100 claim.
- 5. I have no direct, indirect nor contingent interest in the property described herein, or in the securities of XTC Resources Ltd., nor do I expect to receive any.

Doloc

Laurence Sookochoff, P.Eng.

February 28 1991 Vancouver, B.C.

Sookochoff Consultants Inc.

XTC RESOURCES LTD. CIG 100 Claim - Greenwood Mining Division Statement of Costs

The field work on the CIG 100 Claim was carried out from October 01, 1990 to November 15, 1990. The value of the work was as follows:

Geochemical Survey

| L. Sookochoff October 17-18 1990 | | |
|-------------------------------------|------|---------------|
| 2 man days @ \$375. | \$ | 750.00 |
| Room, board, car rental & gas, | | |
| field supplies (2 days) | | 315.00 |
| Assays | | 399.00 |
| Compilation & draughting | | 275.00 |
| Report | | <u>500.00</u> |
| | \$ 2 | 2,239.00 |
| | - | |

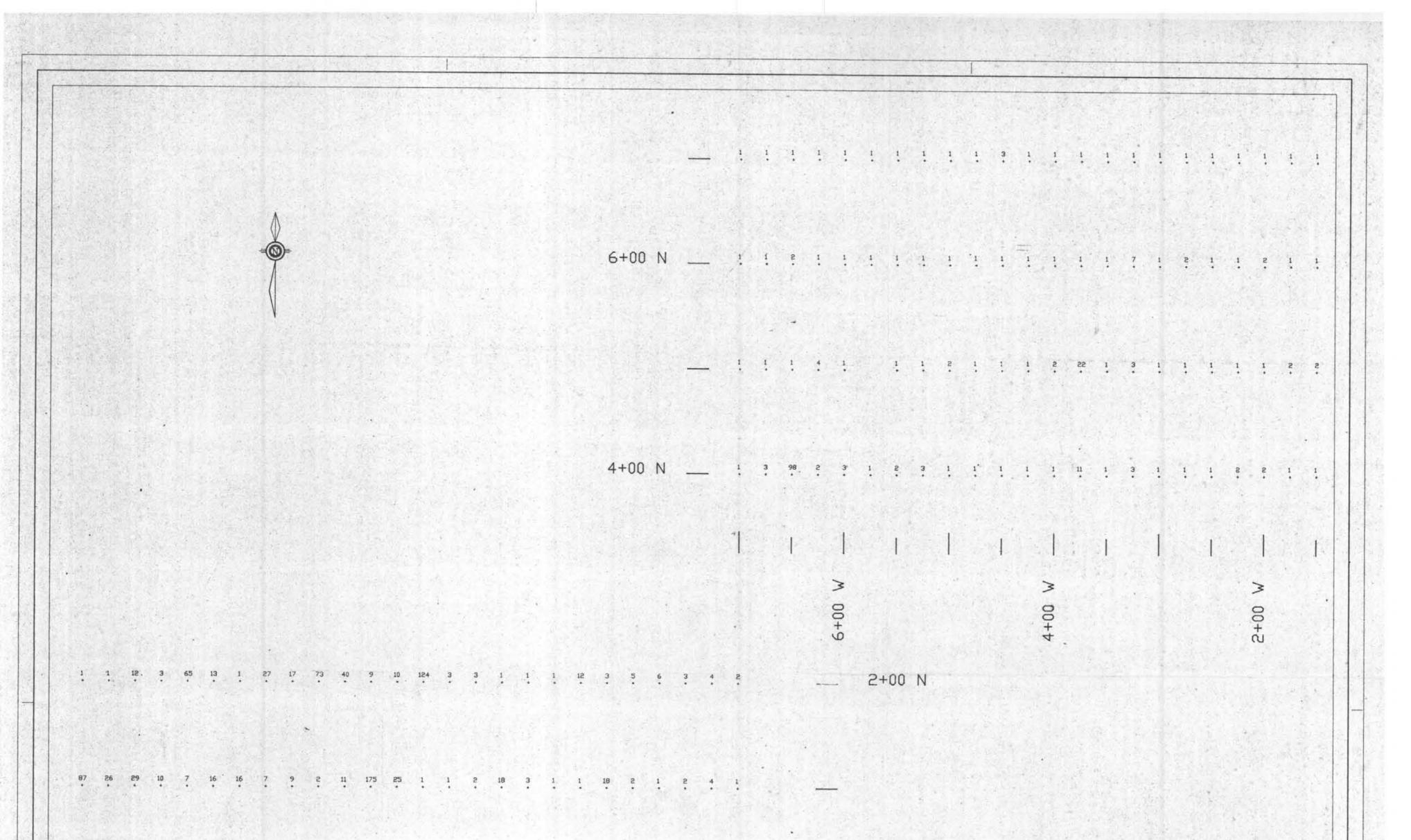
Structural Analysis

Sookochoff Consultants Inc.

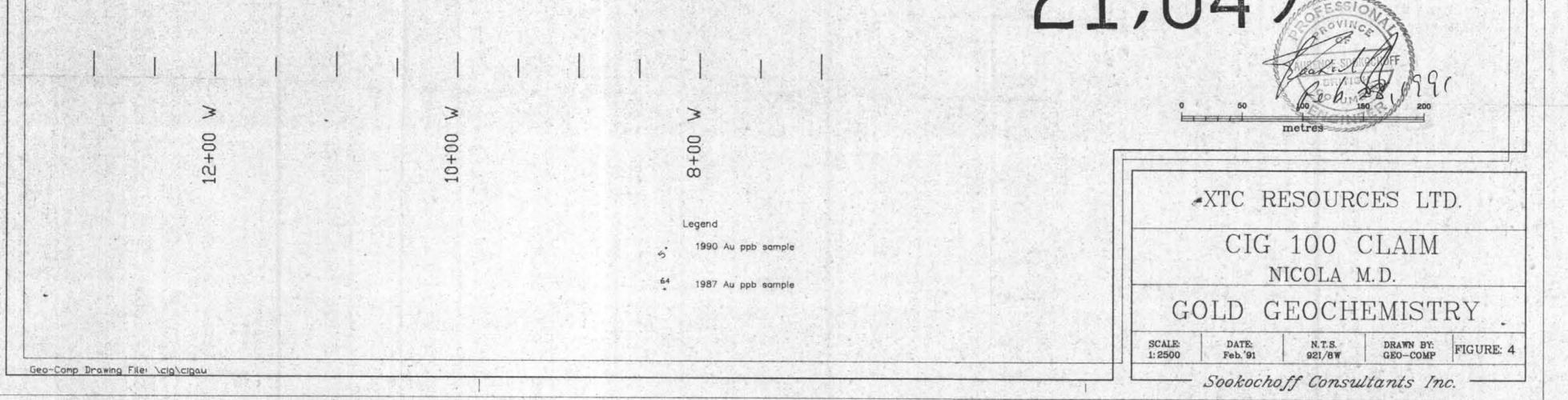
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| s. | 1 | 1. | 1 | 1. | 1 | 1 | 1. | ۶. | 1 | : | 1. | 1 | | 6 • | .1. • | | | | | | 1 | 1. | .0-0 | 310 | • | | | | · * · | | 4+ | 00 S | | 4505 7750W 52 19 107 .4 15 4505 750W 59 22 103 .7 30 4505 725W 2 5 42 .1 3 4505 700W 56 11 122 .4 28 4505 675W 50 5 98 .4 16 |
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Appendix I

ASSAY CERTIFICATES

Sookochoff Consultants Inc._

ACME AN /TICAL LABORATORIES LTD.

GEOCHEMICAL ANALYSIS CERTIFICATE

Sookochoff Consultants Inc. PROJECT CIG 100 File # 90-5691 Page 1

| 603 - 51 | U W. | Hastings | St., | Vancouver | BC | V6B | 168 |
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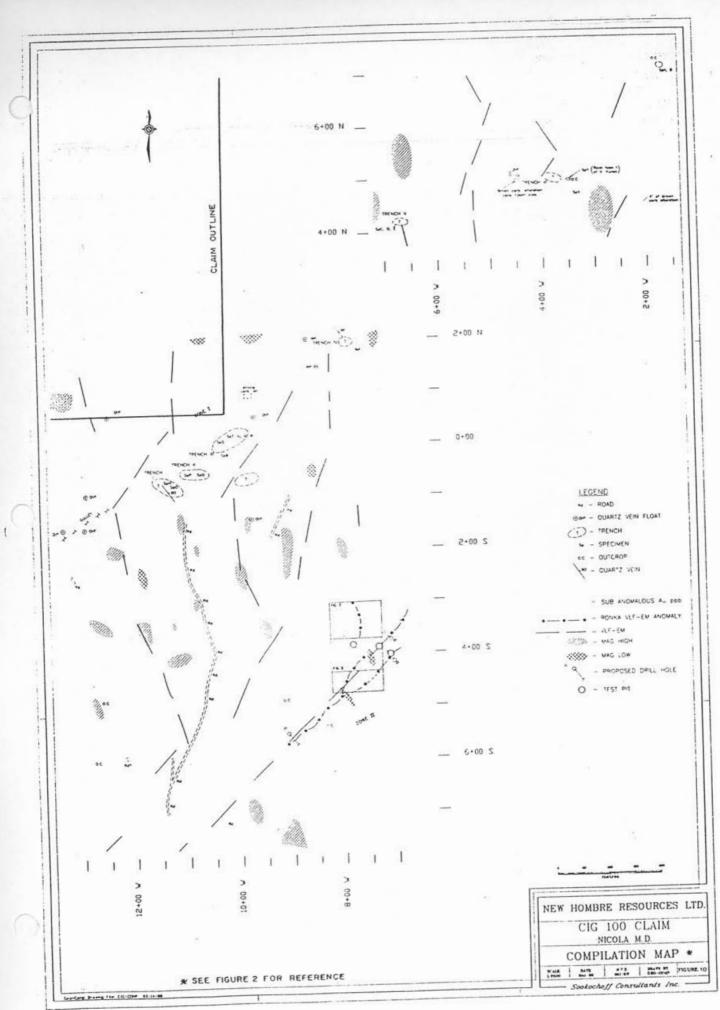
| SAMPLE# | Мо | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | U | Au | Th | Sr | Cd | Sb | Bi | ۷ | Ca | ́Р | La | Cr | Mg | Ba | TI | B AL | Na | K W | Au* |
|-----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|------|-----|-----|-----|---|----------|-----|-----|------|-----|------|---------|-----|--------|-------|
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| R 4+005 6+00W | 2 | 64 | 7 | 29 | .1 | 22 | 8 | 463 | 1.92 | 3 | 5 | ND | 1 | 717 | .2 | 2 | 2 | 61 | | | 2 | 34 | .74 | 30 | 15 | 3 1.81 | .02 | .05 1 | ៍ទី |
| R 4+50S 7+50W | 1 | 64 | 3 | 53 | .1 | 38 | 22 | 579 | 3.32 | 6 | 5 | ND | 1 | 106 | .2 | 2 | 2 | | | .131 | 2 | | 2.17 | | | 2 2.26 | | | ŝ |
| R 4+50S 6+85W | 1 | 100 | 4 | 47 | .1 | 30 | 16 | 481 | 2.43 | 5 | 5 | NÐ | 1 | 126 | .2 | 2 | 2 | | | .130 | 3 | 75 | - | 108 | .22 | 2 2.02 | | .67 1 | é 1 |
| R2 4+505 6+80W | 1 | 88 | 5 | 94 | .2 | 28 | 16 | 686 | 4.49 | 7 | 5 | ND | 2 | 165 | .5 | 3 | 2 | | 1.30 | | 6 | | 1.89 | 200 | .26 | 2 2.94 | | | 10 |
| R 4+50\$ 6+40W | 1 | 142 | 3 | 73 | 1.1 | 45 | 23 | 929 | 5.10 | 11 | 5 | ND | 1 | 185 | .6 | 2 | 2 | 128 | 3.16 | .123 | 3 | 104 | 3.18 | 56 | 17 | 2 3.35 | .03 | .74 1 | 1 |
| STANDARD C/AU-R | 18 | 57 | 42 | 131 | 7.0 | 73 | 31 | 1054 | 3.97 | 45 | 18 | 7 | 39 | 55 | 19.7 | 15 | 19 | 58 | .46 | .095 | 39 | 60 | .90 | 183 | .07 | 31 1.90 | .06 | .14 11 | 490 |

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: P1 ROCK P2 TO P3 SOIL AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPKE.

Sookochoff Consultants Inc. PROJECT CIG 100 FILE # 90-5691

| Page | 2 |
|------|---|
|------|---|

| SAMPLE# | Mo ppm | Cu ppm | Pb ppm | 2n ppm | Ag | Ni ppm | Co ppm | Mn ppm | Fe % | As ppm | U ppm | Au ppm | Th ppm | Sr ppm | Cd ppm | Sb ppm | ві ppm | V meje | Ca % | P % | La ppm | Cr ppm | Mg % | Ва ррт | TÎ X | B ppm | Al % | Nia % | K X p | - - | Au* ppb |
|--|------------------|------------------------------|----------------------------|--------------------------------|------------------------------|----------------------------|----------------|----------------------------------|----------------------|-----------------------------|-----------------------|----------------------------|----------------------------|-------------------------------|------------------------------|-----------------------------|-----------------------|----------------------------|-------------------|--------------------------------------|-----------------------|----------------------------|-----------------------------------|---------------------------------|---------------------------------|---------------|--------------------------------------|---------------------------------|---------------------------------|--------------------|-----------------------------|
| 2+50S 9+00W 2+50S 8+75W 2+50S 8+50W 2+50S 8+25W 2+50S 8+25W 2+50S 8+00W | 1 1 1 1 | 36 58 32 36 25 | 8 13 10 8 | 85 88 68 68 68 | .2 .4 .5 .2 | 19 23 16 20 13 | 11 9 | 1403 773 808 648 603 | 2.85 2.39 2.69 | 7 13 14 7 7 | 5 5 5 5 5 | ND ND ND ND | 2 2 2 2 2 2 | 63 60 49 43 41 | .2 .2 .2 .2 | 2 2 2 2 2 | 2 2 2 2 2 | 40 51 45 48 40 | .64 .47 .37 | .044 .060 .025 .029 .040 | 5 8 6 7 5 | 37 40 32 35 29 | .53 .59 .49 .55 .44 | 293 196 151 139 125 | .11 .11 .12 .13 .11 | 9 3 6 | 1.70 1.70 1.50 1.71 1.35 | .03 .03 .04 .04 .04 | .32 .37 .23 .23 .25 | 1 1 1 | 9 18 21 18 11 |
| 2+505 7+75W 2+505 7+50W 2+505 7+25W 2+505 7+25W 2+505 7+00W 2+505 6+75W | 1 1 1 1 | 26 44 45 32 45 | 9 12 5 7 10 | 70 77 73 59 57 | .2 .3 .2 .3 .4 | 14 19 21 18 16 | 11 10 10 | 596 913 787 807 421 | 2.62 2.95 2.63 | 5 8 13 8 13 | 5 5 5 5 5 | ND ND ND ND | 2 3 2 2 2 | 38 43 50 36 47 | .2 .2 .2 .2 | 2 2 2 2 2 | 2 2 2 2 2 | 38 46 52 47 40 | .36 .53 .32 | .049 .033 .048 .040 .038 | 4 7 6 6 | 27 32 35 32 28 | .43 .54 .61 .53 .50 | 140 163 197 152 111 | .11 .13 .14 .13 .11 | 4 6 4 | 1.66 1.98 2.17 2.00 1.61 | .03 .03 .03 .03 .04 | .23 .28 .38 .25 .24 | 1 1 1 1 | 22 21 13 15 9 |
| 2+50S 6+50W 2+50S 6+25W 2+50S 6+00W 3+00S 6+75W 3+00S 6+50W | 1 1 1 1 | 476 316 85 47 41 | 10 6 5 14 10 | 107 72 47 99 166 | .7 .8 .4 .4 .4 | 13 11 12 18 15 | 5 7 9 | 116 340 425 990 1589 | 1.27 1.63 2.34 | 7 16 11 15 12 | 5 5 5 5 5 | ND ND ND ND | 1 1 2 1 | 112 390 493 50 62 | 1.3 1.3 .4 .3 .6 | 2 2 2 2 2 | 2 2 2 2 2 | 24 | | .122 | 6 5 4 6 4 | | .97 1.69 1.79 .53 .52 | 92 117 119 189 241 | .05 .05 .06 .11 .08 | 17 20 4 | 1.18 1.16 1.22 1.94 1.77 | .06 .10 .09 .03 .03 | .16 .21 .42 .28 .21 | 1 1 1 1 | 14 6 9 12 29 |
| 3+00S 6+25W 3+00S 6+00W 3+50S 7+75W 3+50S 7+50W 3+50S 7+25W | 1 1 1 1 | 47 29 26 28 37 | 12 18 9 21 201 | 159 135 49 103 423 | .1 .4 .3 .7 4.4 | 18 13 14 14 24 | 7 8 | 716 721 398 717 685 | 1.89 2.27 | 13 16 12 8 46 | 5 5 5 5 5 | ND ND ND ND | 1 1 2 2 2 | 60 37 38 46 38 | .3 .3 .2 .2 2.1 | 2 2 2 2 7 | 2 2 2 2 2 | 47 34 48 38 41 | .35 .33 .46 | .039 .056 .031 .046 .047 | 5 3 6 5 5 | 35 19 34 26 32 | .76 .40 .42 .38 .57 | 98 139 90 168 113 | .11 .09 .12 .11 .08 | 7 3 5 | 1.83 1.72 1.38 1.58 1.98 | .04 .03 .04 .03 .03 | .27 .18 .21 .27 .19 | 1.11 | 44 16 39 12 180 |
| 3+50S 7+00W 3+50S 6+75W 3+50S 6+50W 3+50S 6+25W 3+50S 6+20W | 1 1 1 1 | 118 28 89 34 29 | 523 18 16 10 8 | 872 137 93 71 86 | 32.8 .4 .9 .4 .2 | 25 15 22 15 15 | 8 12 8 | 764 674 841 547 826 | 2.01 3.14 2.19 | 141 13 33 12 13 | 5 5 5 5 5 | 2 ND ND ND ND | 2 1 1 2 1 | 45 39 62 43 45 | 7.5 .4 .3 .2 .2 | 20 2 2 2 2 2 | 2 2 2 2 2 | 37 38 55 41 43 | .39 .84 .42 | .076 .051 .056 .048 .050 | 5 3 6 4 4 | 24 25 38 29 31 | .44 .52 .84 .49 .50 | 141 149 150 124 161 | .08 .10 .11 .11 .11 | 4 6 7 | 1.66 1.81 1.86 1.74 1.67 | .03 .03 .03 .03 .02 | .20 .19 .37 .26 .22 | 1 1 1 1 1 | 440 48 24 6 4 |
| 4+00s 6+75w 4+00s 6+50w 4+00s 6+25w 4+00s 6+25w 4+00s 6+00w 4+50s 9+00w | 1 1 1 1 | 27 45 35 27 23 | 14 10 11 6 | 120 143 67 62 75 | .3 .3 .3 .1 .1 | 15 18 17 16 15 | 10 9 9 | 901 951 438 492 489 | 2.33 2.66 2.19 | 14 18 12 16 10 | 5 5 5 5 5 | ND ND ND ND ND | 1 1 2 1 2 | 42 48 41 37 29 | .3 .4 .2 .2 | 2 2 2 2 2 2 | 2 2 2 2 2 | 36 41 49 38 38 | .44 .38 .36 | .054 .103 .029 .042 .051 | 5 5 6 4 5 | 28 31 38 34 26 | .42 .54 .51 .49 .40 | 185 198 120 91 132 | .11 .10 .14 .12 .12 | 6 4 3 | 1.73 1.86 1.90 1.93 2.09 | .03 .03 .03 .03 .03 | .24 .26 .29 .14 .22 | 1 | 15 3 5 1 1 |
| 4+50s 8+75W 4+50s 8+50W 4+50s 8+25W 4+50s 8+25W 4+50s 8+00W 4+50s 7+75W | 1 1 1 1 | 31 28 24 33 32 | 8 9 8 16 19 | 94 54 57 106 107 | .2 .1 .2 .5 .4 | 18 16 13 17 18 | 8 8 8 | 840 688 656 550 753 | 2.37 2.11 2.30 | 13 21 13 19 15 | 5 5 5 5 5 | ND ND ND ND | 1 1 2 1 2 | 53 41 47 44 35 | .2 .2 .3 .3 | 2 2 2 2 2 | 2 2 2 2 2 | 42 44 39 43 48 | .40 .48 .41 | .044 .035 .043 .072 .035 | 6 7 5 5 6 | 29 32 28 27 32 | .44 .44 .45 .47 .47 | 204 145 135 139 130 | .11 .12 .11 .11 .13 | 4 5 6 | 1.71 1.75 1.50 1.84 1.78 | .03 .04 .03 .03 .03 | .27 .25 .29 .21 .24 | 1 1 1 1 | 4 3 10 3 1 |
| 4+50s 7+50W STANDARD C/AU-S | 1 18 | 59 57 | 22 40 | 103 131 | .7 6.7 | 20 73 | | 301 1052 | 2.78 3.96 | 30 41 | 5 20 | ND 7 | 1 39 | 42 53 | .5 19.7 | 2 14 | 2 22 | 54 57 | | .063 | 5 38 | 38 58 | .62 .89 | 102 182 | . 12 . 07 | | 1.74 1.89 | .03 .06 | .20 .14 | 1 11 | 3 55 |



i

Sookochoff Consultants Inc. PROJECT CIG 100 FILE # 90-5691

.

| SAMPLE# | Mo ppm | Cu ppm | Pb ppm | Zn ppm | Ag ppm | Ni ppm | Co ppm | Mn ppm | Fe % | As ppm | U mqq | | th ppm | | Cd ppm | Sb ppm | Bi ppm | V ppm | Ca % | P % | La ppm | Cr ppm | Mg % | Ba ppm | Ti X | B ppm | A1 X | Nð X | к % | ۲ ۱۹۹۹ | Au* ppb |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|----|-----------|----|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|-----------|------------|
| 4+505 7+25W | 1 | 2 | 5 | 42 | .1 | 4 | 4 | 474 1 | .69 | 3 | 5 | ND | 2 | 81 | .4 | 3 | 2 | 29 | .64 | .066 | 6 | 25 | .58 | 116 | . 11 | 3 | .92 | .03 | .21 | | 6 |
| 4+50\$ 7+00W | 1 | 56 | 11 | 122 | .4 | 21 | 11 | 648 2 | 2.52 | 28 | 5 | ND | 2 | 49 | 1.5 | 4 | 2 | 49 | .42 | .052 | 6 | 36 | .71 | 126 | .12 | 42 | .01 | .03 | . 19 | 3 | 4 |
| 4+50s 6+75W | 1 | 50 | 5 | 98 | .4 | 22 | 11 | 783 2 | 2.42 | 16 | 5 | ND | 1 | 50 | 1.0 | 5 | 2 | 41 | .41 | .059 | 5 | 34 | .67 | 168 | .11 | 62 | .28 | .03 | .30 | · 1 | 5 |

Appendix II

MAPS AND SAMPLE DATA FROM 1988 REPORT ON THE CIG 100 CLAIM

.Sookochoff Consultants Inc._

$$S-1$$
Au ppb
$$X S_{-1}A$$

$$V Organic Layer 5cm.$$

$$X S_{-1}A$$

$$Clay with rock
$$V = A$$

$$S-1B$$

$$S-1B$$

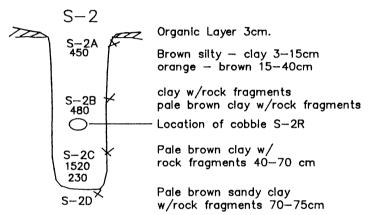
$$S = 10$$

$$S$$$$

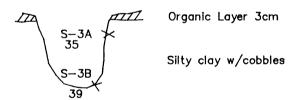
جاي يعتمي بهوا داريد

ji -

Sample Depths S-1A 10cm, S-1B 30cm, S-1C 70cm

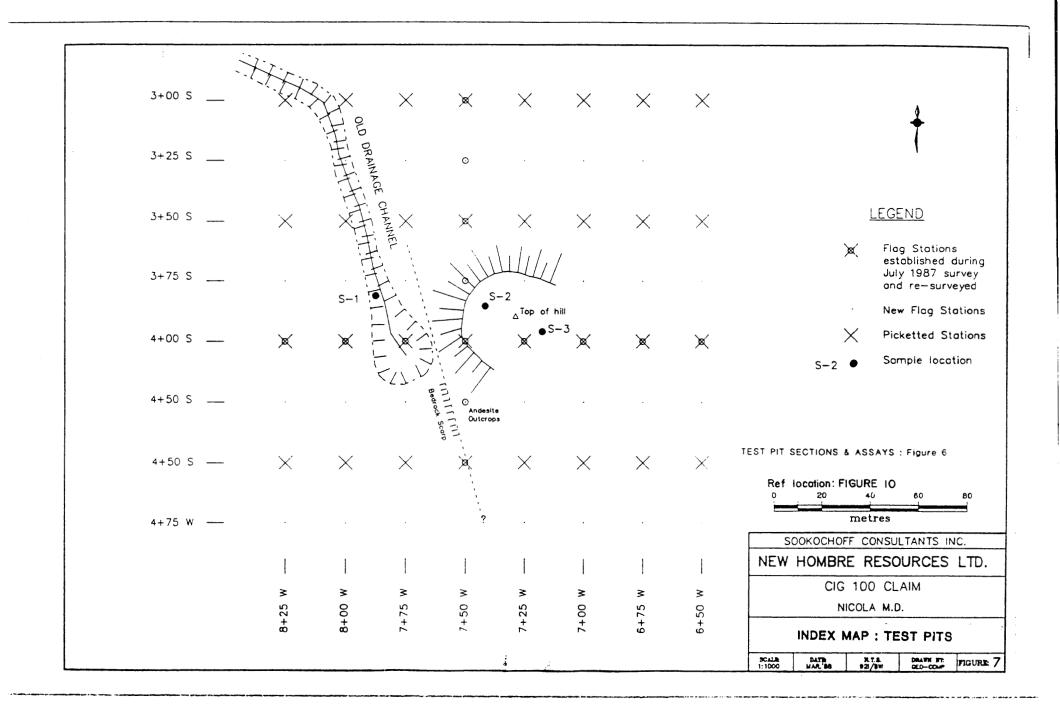


Sample Depths: S-2A 5cm, S-2B 30cm, S-2C 50cm, S-2D 75cm



Sample Depths: S-3A 5cm, S-3B 30cm

| | NEW HOMBRE RESOURCES LTD. |] |
|-------------------------|--|---|
| | CIG 100 CLAIM NICOLA M.D. | |
| | TEST PIT SECTIONS & ASSAYS | |
| | DATE: MAR.'88 N.T.S.: 921/8W FIGURE: 6 | 1 |
| File: cig\samp 03-08-88 | SOOKOCHOFF CONSULTANTS INC. | 7 |



| | | C: Nicola | IG 10 | le I 0 Cla ing Di | | on | | |
|-------------------|--------------|--------------|----------|--------------------------|------------|------------------|------------|----|
| ROCK | SPECIME | 15 - c | ollec | ted by | уJ. | Paxton | , P.Eng. | |
| | S | ample | | iptic 1987 | on Sh | eet | | |
| SPECIMEN | LOCATION | | REMARKS | | | | AU/PPB | |
| А | | | | tion - | | sample 5 Rock | 7 | |
| В | | | 11 | 11 | 11 | 11 | 2 | |
| c | Trench | V | 11 | Ħ | н | 11 | 9 | |
| D | " | • | " | 11 | 11 | n | 2 | |
| E | н | | 8 | 11 | 11 | | 3 | |
| F | Thereb | 1 177 | 0 | | | 220/00 | J | |
| r | Trench | τv | | | | 330/90 | | |
| - | <u> </u> | | | | | cm wide | | |
| G | 3+85S, | 7+68W | stai | der o: ned q anoma | tz. a | | 16850 | |
| н | tt | | | 41101 | 41 Y 11 | 11 | 2600 | |
| J1,J2 | | 71750 | | | | | | |
| | - | | vein | S | | - | . 139120;4 | |
| K | 4+20S, | 7+80W | | vein e of j | | outcrop. :e | . 4 | |
| \mathbf{L} | 11 | | 11 | 11 | - 11 | 11 | 1 | |
| M | 11 | | | vein | | ice | 3 | |
| N | Trench | т | Quar | | | | 1 | |
| 0 | " | Т | Quar | | | | 32 | |
| | (In sea a sh | - T | | | | | | |
| P | Trench | ΤT | | | | ill rocl | | |
| Q | | | | | | lphides | | |
| R | Trench | III | | blend gree | | les. | 39 | |
| S | 11 | | Qtz. | cal. | no a | iltn. | 8 | |
| \mathbf{T} | 81 | | | ; lt. | | | 9 | |
| U | 11 | | | tz cal | | | 7 | |
| v | 11 | | | | | ndes. | 1 | |
| W | н | | Carb | onate site | | | 3 | |
| х | 5+0.03 | 4+350 | | | a1+4 | ration | 8 | |
| Ŷ | Trench | | | | | typ. I? | | |
| | mençn | VI | V. K | uran i | XUCK | cyp. I: | 2 | |
| <u>Sept. 1987</u> | 0.050 | | a | | | | | - |
| F9022 | 3+855, | /+08₩ | | | | | 23800ppb | |
| F9023 | | | less | ру. | 446. | Tbbw Vð | 6200ppb | AU |
| | | | | | | | | |
| | | | | | | | | |

Sookochoff Consultants Inc.

Appendix III STRUCTURAL REPORT - D. CHAPMAN _Sookochoff Consultants Inc._ J.C. EXPLORATIONS INC. #706 - 5932 Patterson Ave. Burnaby, B.C. V5H 4B4

January 1991

To: Mr. L. Sookochoff, P.Eng. Sookochoff Consultants Inc.

Dear Sir,

At your request I have completed an empirical analysis (Frature Density Survey) of Fault/Fracture systems annotated to an overlay of BC Aerial Photograph 30 BC 86043 : 284. The photogeophysical study covers the Cig 100 Claim located southeast of Stump Lake, Nicola M.D., B.C.

PURPOSE OF SURVEY

The main objective of the survey is to determine and define by empiric methods, zones of preferred vertical shearing within the area indicated by the directions of principal stress acting within the underlying rock columns, and to determine the stress differential of the induced Pu or deformation stress at the boundary surface of the crustal block.

In the zones defined analytically by this method, the probability that deep seated faults have occured is considered by empiric means relative to changes laterally in fault/fracture joint systems, seen as isotatic traces visible in the aerial photo. These deeper seated faults are the likely conduits for mineralizers emenating from basement.

Various movements within and along these zones create stockworks, vein and breccia structures which often host economic ore deposits. The zones that have been indicated by the shear/tension probability map are considered to be prime geological and geophysical targets for further exploration.

METHOD OF SURVEY

The tectonic survey of the photos is a quantitative analysis, based on the theories of rock mechanics and simple stress analysis of the strain induced rock pressures in the underlying crustal block examined.

The stress/strain model considered is an infinite series of parallel and adjacent rock columns which in total represent a semi-infinite elastic solid. The tangential (shear) stress at the boundary surface is the sum of the increments of the standard state or steady stress acting throughout the block and the variable or alternating stress component produced by deformation. Axial stress acting throughout the semi-infinite elastic block resolves into a pressure gradient normal to the boundary surface.

The resultant surface tension created by these forces across the boundary surface creates the visible phenomena of linear fault/fracture joint systems apparent as isostatic traces. These traces can be annotated to an overlay of the aerial photograph and then organized and translated to empirical data of relative stress coefficients for analysis.

OBSERVATIONS

A structure interpretation shown in Fig 3, of the visible strain features seen in the aerial photographs (see Fig 1), has indicated a deep seated fault zone strikes northerly through the property as shown in Fig.4.

Anomaly #1 lies within this northerly fault zone along which considerable deformation has occured resulting in the Pressure Ridge to the east of this tectonic zone, and is the dominant feature of this survey.

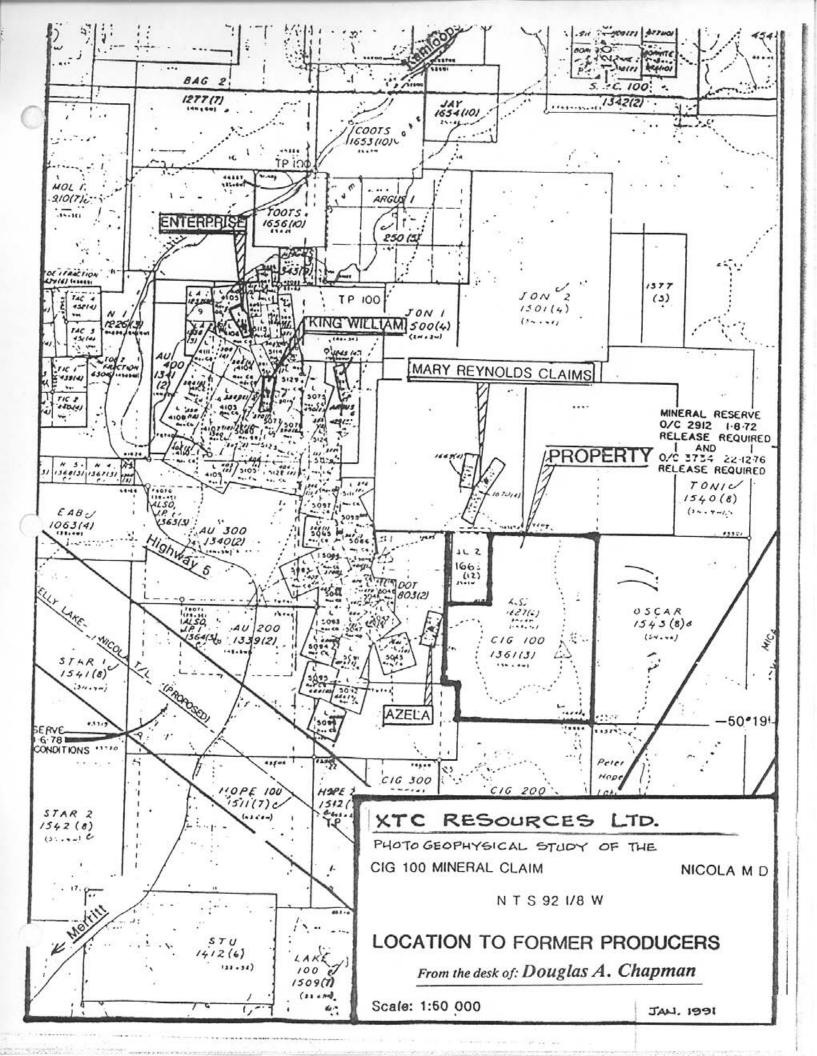
Anomaly #2 is a tensile fault in which the shears may have occured along and across the tension/shear zone containing anomalies #1 and #3 which runs north - northwest through the claims. Normal fault movements across this antithetic structure are the probable physical geographic control for the chain of lakes paralleling the zone in a easterly direction.

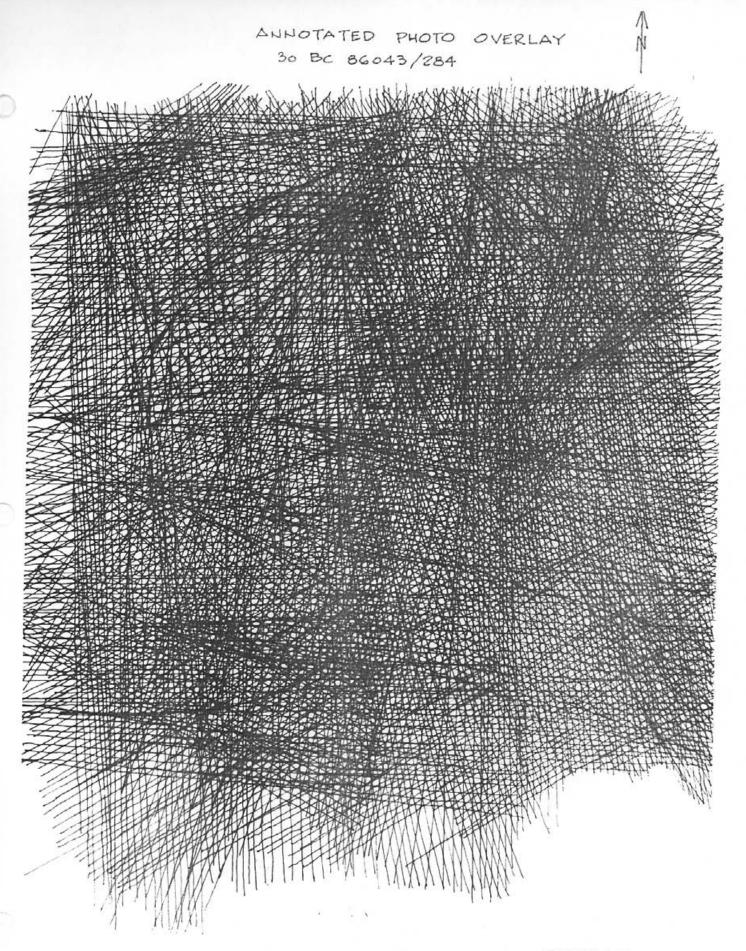
Anomaly #3 lies at the intersection of these conjugate tectonic movements and may well be the best target for further prospecting.

Prospecting traverses along and across the anomalies should be carried out in the field to check for attendant mineralization. The maps are produced for further field investigation and exploration. They are useful for the geologist for geochemical and/or geophysical correlations of any existing surface work programs.

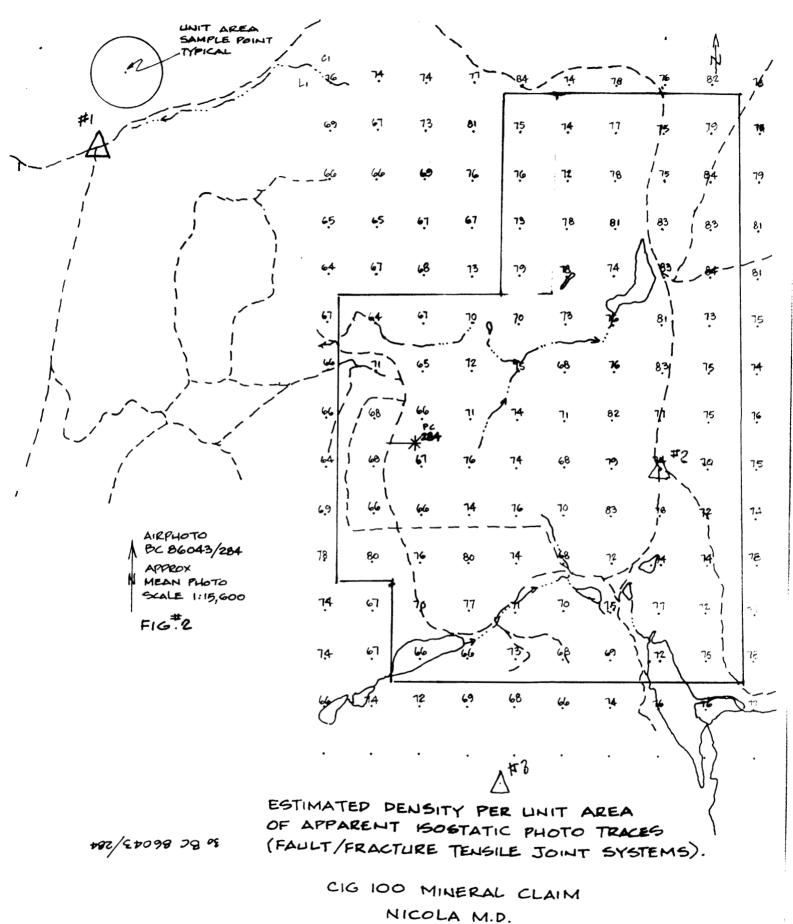
Respectfully submitted

hatman apman

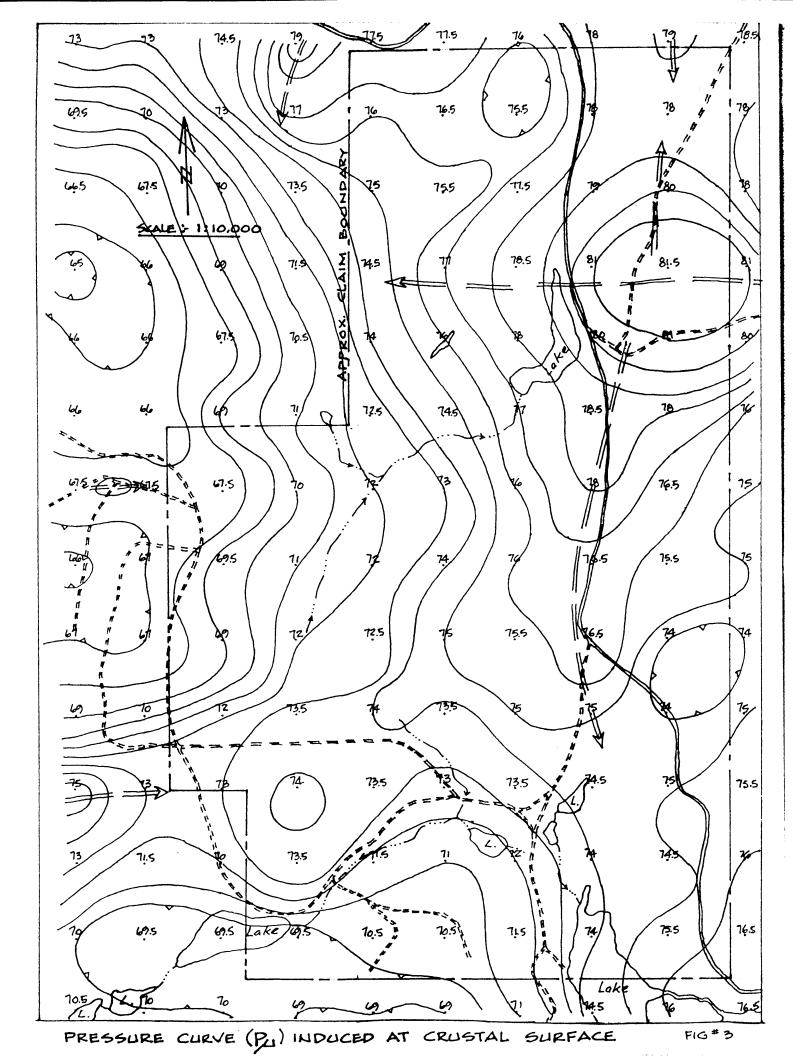


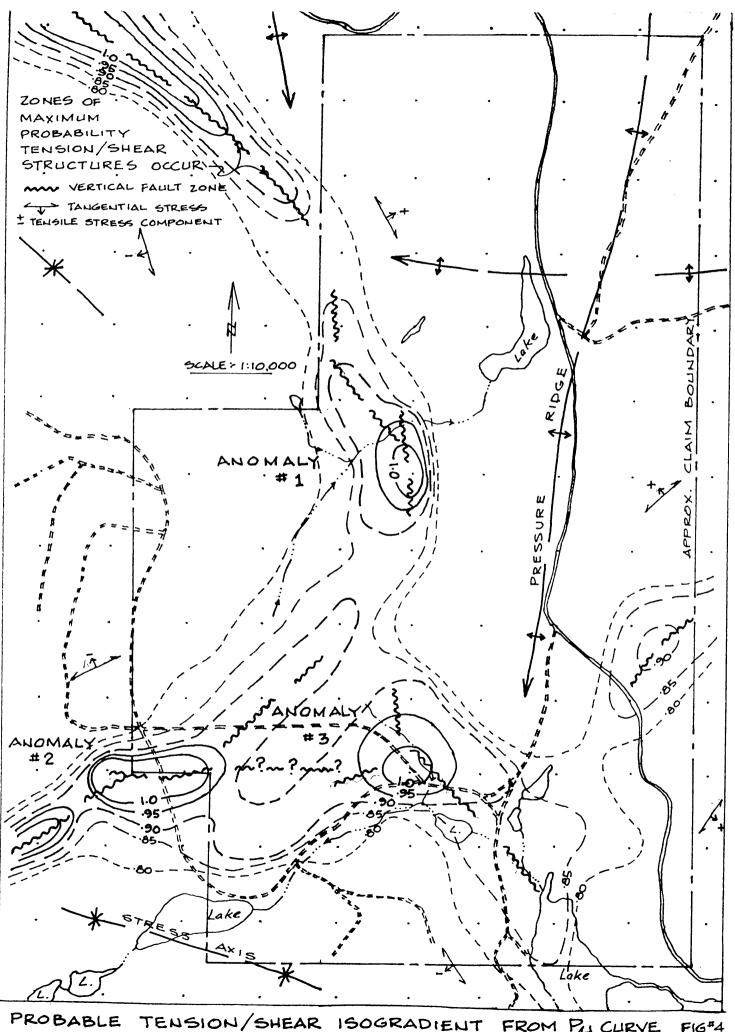


CIG 100 MINERAL CLAIM NICOLA M.D. BRITISH COLUMBIA 1505TATIC TRACES INTERPRETED BY. D.A. CHAPMAN FIG # 1



BRITISH COLUMBIA





TENSION/SHEAR ISOGRADIENT FROM PLI CURVE FIG#4

Explorations

CERTIFICATION

- I Douglas A. Chapman, certify that I have practised the art of photogeological interpretation for mineral exploration for more than 5 years.
- 2. I received a Technical Diploma in 1949 from the Vancouver Technical School.
- 3. From 1950 to 1955 I was engaged in mapping and surveys using both ground and airborne methods; first, with the Canadian Government and, secondly, with Photographic Surveys (Western) Ltd. in Vancouver.
- 4. From 1955 to 1959 I was engaged by Blanchet and Associates Ltd. in Calgary, Alberta, where I practised interpretation and compilation of fracture patterns for structural studies; studies related to oil exploration.
- 5. From 1961 to 1964 I was engaged by Chapman, Wood and Griswold Ltd. and assisted Mr. Blanchet in the formation of their air photo department as well as carrying out studies relating to tectonics and their association to mineral deposits.
- 6. In 1965 I formed D.A. Chapman & Associates Ltd. to provide air photo interpretation for mining exploration and, primarily, exploration reports to assist consulting engineers in planning field programmes.
- 7. In 1978 I formed J.C. Explorations to provide similar services as D.A. Chapman & Associates Ltd.

Signed this 4th day of March . A.D. 1991