

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL
REPORT ON MINERAL CLAIMS,
OX [386], OX2 [531], OX3 [532] AND HOT [410]
SITUATED 9 KM E OF PORT RENFREW, VICTORIA M. D.

NST 92C/9W

LAT. 48°34'N

LONG. 124° 17'W

OWNER, OPERATOR AND AUTHOR

FILMED

MATTI TAVELA

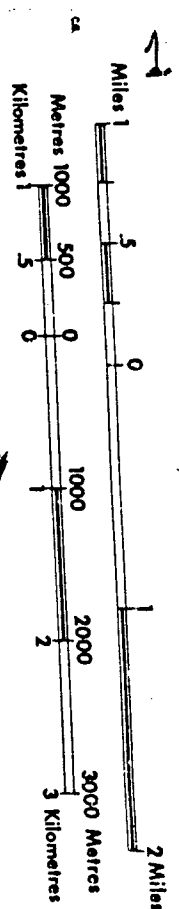
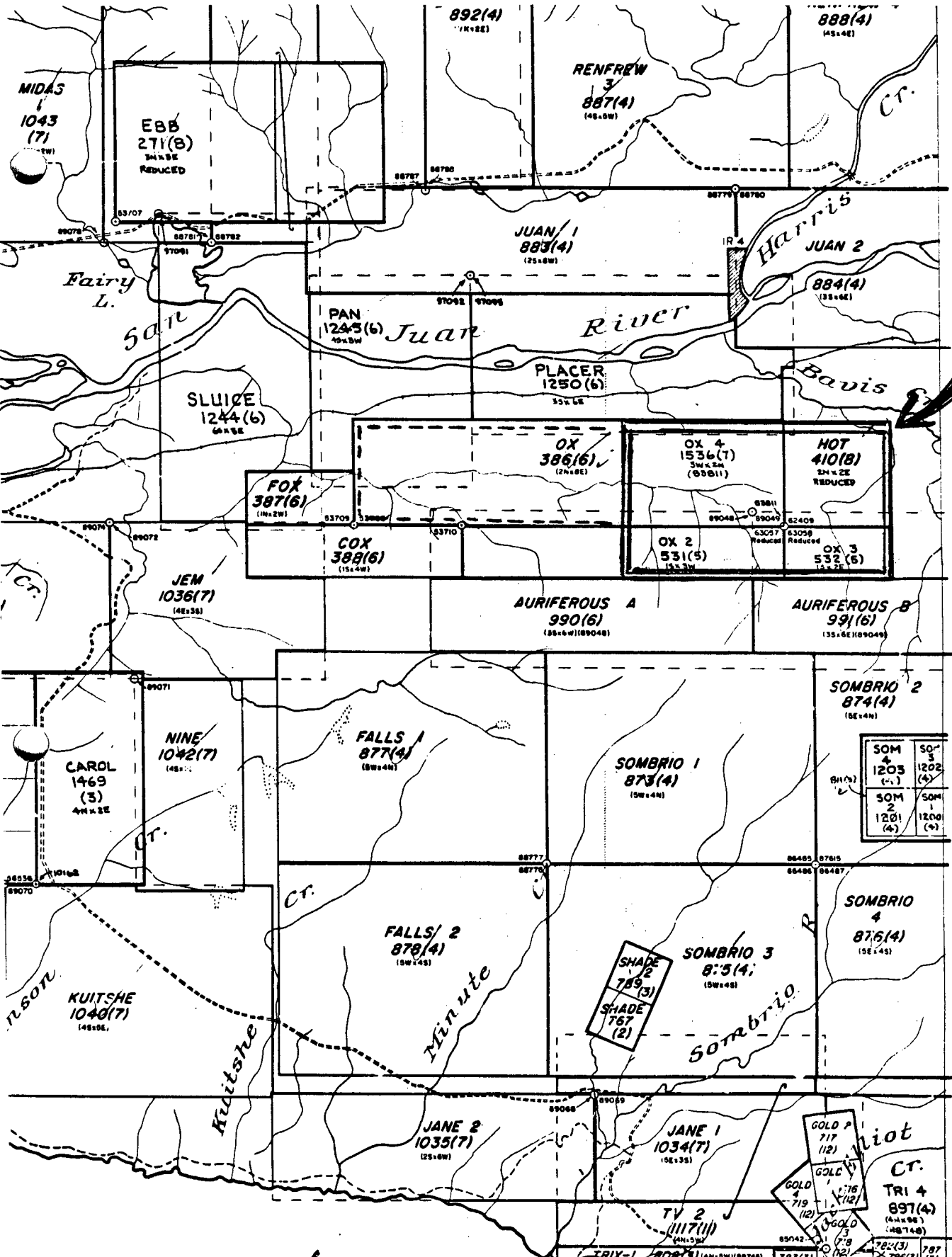
Aug 6. 1985.
Matti Tavel

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,699

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UNLESS VERIFIED OR SURVEYED, THE MAIN CORNER POST IS BASED ON THE LOCATOR'S SKETCH. FOR FURTHER INFORMATION, APPLY TO THE OFFICE OF THE MINING DIVISION CONCERNED.

DATE OF MICROFILM: 85-07-12

M92/9W

78W
ROLEUM RESOURCES

This map is prepared to serve as a guide to the positions of located mineral claims and Placer Mining Leases only. Unsurveyed claims and leases are plotted from locators' records.

48° 30'

124° 15'

92C/9W

INTRODUCTION

[Location Map and Fig. 1]

General Description

OX claim area is accessible by automobile from Port Renfrew along Red Creek ML beginning from the village proper and Mosquito Creek ML beginning 3 km E from Port Renfrew along Hwy 14. Both ML's run E; the former close to the claims' N border and the latter in the middle of the claims.

Previous Reports

This report is a sequel to the following reports, which in text, is abbreviated referring to its year:

EBB #80-568-8278	EBB-80
OX GROUP #81-1041-9707	OX -81
OX 2 GROUP #82-520-10519	OX -82
EBB-R #84-1017-12885	EBB-84

Topo Control is based on 1:5,000 maps surveyed by theodolite and chain by B.C. Forest Industries Ltd. On S side of San Juan valley, BCFP has oriented these maps as to be viewed to S. This has not been changed; N-arrow in all maps, points as required.

Property Definition

The area's first report [OX-81] has defined that gold, its sole commodity, appears in two parallel albitite dykes as lattice element in sparsely disseminated iron and arsenopyrites [old gold, acronym OG in text].

A separate mode has been in suspect: gold associated with mafic rocks [OX-82]. It was found and worked enough

to confirm that a new and younger gold mineralization [new gold, NG] appears along a break trust in a differentiating mafic sequence having a multiple quartz end stage with VG and/or lattice gold in ptigmatic and network quartz veins.

Summary of work

Geological Survey: Scale 1:2,500, 5,000 and 10,000
 20 units = 500 ha

Geochemical Survey: 155 samples: 107 rocks and 47
 soils for Au; one assay for Au,
 Ag; majority produced by blasting.

Geophysical Survey: Mag; scale 1:2,500, 2 x 56 sta-
 tions [gradient survey] 10 m. spac-
 ing; 37 station, 50 m spacing VLF-EM,
 87, spacing as above and 1.5 km of
 recce.

GEOLOGICAL REPORT

[Figs. 1, 2, 3 and 4]

In East, geology was done together with sampling [Fig. 2]. In West, sampling only was done. [Geochem. Report]. Results from both were negative and claims were reduced to 3 by 5 unit block around Mosquito Break Thrust Junction [Figs. 1, 3].

Till late 1984, efforts concentrated on E-W running albitite dykes and their immediate shale host, in which gold appears in lattice of arseno/iron pyrites. Above background values are common; significant values are spotty and far apart. This may be attributable to the low volatile content in the dykes and in their plutonic equivalent of Sombrio diorite and that these intrusions were peneconcordant.

A second mode of gold as VG in one shattering and cutting quartz vein has been known from the outset [Fig. 1, New Gold]. Its connection with in the junction appearing gabbro/basalt-greenstone neck was proposed in OX-82. The dry summer of 1984 provided access to previously unseen parts of the canyon. Observations from junction to ESE are [Fig. 3: locations and anal. results] from N to S wall:

Junction +120 m.: Shale with tiny V-shaped translucent gold quartz; block of greenstone with fine quartz veins, all foliated in creek's direction; cloudy dissemination in shale from which a 20 cm vein shoots up and under a thick till; sampling results in OX-81; a float resting on bedrock described in petrographic report [103.P].

+200: 15 m. wide pool; shale with thick quartz ribbons, barren; from one center 4 arms of quartz radiate explosively and pygmatically into an area of 10 by 3 m. [sampling by crowbar]; shale.

+260: Amphibolite [207.P]; ribbon quartz; quartz intrusion as above [sampling by underwater blast]; shale.

+260 to +310: Amphibolite; ribbon shale; greenstone floats; shale.

+310: Amphibolite; ribbon shale, strongly recrystallized; one sliver of ptymatic quartz in the N-wall; pool with gravel; shale; the N-wall blasted open: gold appears in the cutting quartz only.

+310 to 390: Ribbon quartz fades out; large floats of greenstone and gabbro cover the bottom; both walls shale.

+390: A lens of amphibolite plunges under the N-wall; shale as basic gneiss; first albitite outcrop [S-dyke]; creek turns to S.

This longitudinal section suggests that amphibolite/greenstone has filled the canyon, now partially eroded; that gold/quartz appears intermittently connected with barren ribbon quartz in shale essentially confined to the bottom, striking 115°E versus the N-wall's strike of 105°E . The S-wall's shale undulates around 105°E and has very few ribbons, if any, in the sense of mobilized quartz.

When this 115°E direction is projected 350 m. WNW [Fig. 3] a second miniature break appears, centered around R2000/2700 junction, and expressed by narrow abrupt depressions and ridges and faults. As in Mosquito, the break/shear terminates in albitite [N-dyke].

This site has three Au anomalies in order of 300-400 ppb [OX-81], one within and two outside of the dyke, which was then believed to be the source of the outside Au as well. While

present sampling gave only faint and few results, a ptygmatic quartz was exposed [site 088, 092 to 094]. The repeated mag. survey and geology together indicates [Fig. 4]:

- Anomaly A; narrow lense of amphibolite
- Anomaly B: blind similar anomaly with sharp polarity, possibly amphibolite
- Fringing with this a 70 m. wide pronounced low at the beginning of the landing

The latter's geological expression in surface is a 40 by 15 m. chaotic intense intrusion of quartz in shale. This quartz has a different appearance than the ribbon quartz with shale remnants. Previously this has been twice blasted and sampled to a depth of 2.5 m., where it is still heavily leached, no Au found.

The findings in Mosquito suggest that a new interpretation here is possible: a similar basic but subsurface neck expressed by amphibolite, ptygmatic and cloud-like quartz. A more complete mag. survey and sampling are suggested.

Structurally, the habitat of this new gold, is depicted and interpreted in Fig. 1. The slope from Sombrio ridge down to the valley [Box 1] has five distinct sections:

- Steady slope with few cutting andesite dykes, a cone sheet geometry
- Slope hits Mosquito canyon with variable angle from vertical to moderate; albitite as batches but still peneconcordant
- Canyon's bottom and immediate walls: strong coherent ribbon quartz zone, possibly a gliding zone with mobilised quartz

- N-wall and its extension as a ridge, 500 m. wide, one clear summit, one interval 600 m. long break zone; core continuous albitite.

- Step faults down to the valley.

A structure of a major isoclinal fold is one possibility: besides, the albitite, a closely attached, coarse, indurated volcanic layer repeats itself [thin sections 138, 209, 233, 208.P in Fig. 2]. The slope's principal unit is the incompetent shale. If folding occurred there should be many drag folds, but they are lacking. Also, a fold of this magnitude should have extensions beyond the structure's 25 km. lateral extent. An attempted broken fold continuing as a break thrust dividing itself into three [East Creek, Upper Mosquito and R2000/2700 area] is proposed instead. Where this division occurred, a residual magma intruded from the same source as the cone dykes, northernmost of which appears in the Mosquito canyon.



Exploration
Research Laboratory

Mr. M. Tavela, P. Eng.
#1 - 2230 Harrison Drive
Vancouver, B.C.
V5P 2P6

12 June 1985

Dear Matti:

As requested I have briefly looked at five of your thin sections. They are numbered as follows:

138
208
209
103
207

Following are brief notes on my petrographic findings:

Sample 138. In transmitted light the sample is seen to be extensively silicified and carbonated in sub-parallel swarms. The groundmass is a fine grained mixture of chlorite, feldspar and sericite. Occasionally a clast of quartz to 1.5mm is noted in this groundmass.

The rock is an altered clastic with possible volcanic affinities.

Sample 208, in thin section, is similar to the previous sample (138). However, this material is obviously clastic with strained fragments of plagioclase, quartz and quartzite to 1.5mm in size. The origin of the fragments is probably volcanic and the rock is a poorly sorted (immature) feldspathic wacke.

Sample 209. In thin section this sample is seen to consist of a jumble of 2-3mm angular clasts of plagioclase, minor potash feldspar and minor quartz clasts. Occasional lithic-volcanic clasts are noted. These clasts are set in a recrystallized matrix of quartz and feldspar. Streaks and seams of biotite-chlorite indicate a metamorphic imprint. They also define a crude layering.

The rock is a poorly sorted wacke of volcanic derivation (intermediate composition).

Letter to: M.Tavela, P.Eng.

Page 2

Sample 103. In thin section the groundmass is seen to consist of extremely fine grained quartz (10-20 microns) and contains abundant dusty leucoxene. This rock is cross-cut by numerous quartz veinlets. Noted on one end of the section is a fine grained feldspathic rock.

This material is believed to be a recrystallized chert or silicified glass.

Sample 207. In thin section laths of plagioclase to 0.5mm are arranged in a swallows-tail texture. This feature is usually indicative of basalt.

The plagioclase matrix is fractured by shears and veinings containing chlorite, epidote and fine fibrous amphibole.

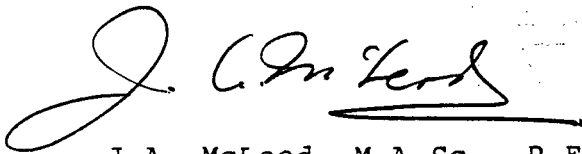
This rock is a basalt and has been overprinted by abundant fibrous amphibole (actinolite/tremolite) to the point when it is best termed amphibolite. Several percent of sphene and Fe-oxides are disseminated throughout the rock.

This rock is an amphibolite of basic volcanic origins.

I believe the first three samples correspond well to your volcanoclastic marker bed rocks. The last two samples are not quite what we had expected in that 103 is not a glass now and 207 is not a spilitic basalt, but may have been a basaltic rock that has been amphibolitized.

I hope these notes help you in your interpretation.

Yours truly,

A handwritten signature in cursive script, reading "J.A. McLeod". The signature is written in dark ink and is positioned above the typed name. There is a faint circular stamp or watermark behind the signature.

J.A. McLeod, M.A.Sc., P.Eng.

JAM/c11

GEOCHEMICAL REPORT

[Figs. 2 and 3, results in text]

The survey's aims were:

- 1] To confirm or decline ground with indecisive results and lesser favorable geology as outlined in geological report.
 - 2] To continue sampling in the areas around newly opened roads in the E.
 - 3] To tackle the old problem of the Mosquito Creek VG quartz vein, which has not yet found its simile nor parents.
-
- 1] The Bavis caldera, creeks and basin have received little coverage due to difficult access. While indecisive, a micropanned sample from Bavis bridge area gave 250 ppb Au. This is in the range for most similarly produced samples in the general area.

It was thought that a sampling in level-delta between the recent gravel and pre-glacial siltstones, if sufficiently duplicated, might solve the problem to have or not have.

The samples #001-008 were blasted into this surface; one micropanned has comparable results, others negative. Bavis caldera bottom is dolerite but without the differentiates, as in Mosquito Creek; claims were reduced or dropped.

In the W end of claim area, during initial years, two serious efforts have been made by Utah Mines Ltd. and Lacana Mining Co. Ltd., along the Western R2,000: the former produced two spectacular Au/Ag values and the latter's results were negative. Present sampling went beyond the roadsides:

results were negative. Similarly, negative results were obtained from Mosquito Creek's center parts' [#206-208] cutting veins. This information could nevertheless be of value since mafic rocks were lacking. As a result, the W part of the claim was abandoned.

- 2] This work concentrated in the E part of R2700. Here is the most exemplary area of a roof pendant cut. One of the roofs [albitite] thrust sharply forming a cusp with concentrations of tourmaline and pyrite but only 20/50 ppb Au respectively.

At the end of R0100 situates one strong N-S winding ptigmatic quartz vein twice sampled with negative results.

- 3] The Fig. 3 lower part depicts R2000/2700 jct. It is included into the comments of NG at Mosquito because the mafic structure may have a continuation here.

Most of the 2000/2700 sampling was again, as previously, encouraged by three geochemical gold values, sampled and repeated several times. This second effort sought correlation with two magnetic anomalies and the first ptigmatic quartz vein discovery after BCFP blasted there to repair the jct. The ptigmatite is barren but vaguely anomalies appear in its country shale and soils nearby.

The Mosquito Creek is discussed in geological report. The main problem, even during low water level, is the sampling. Only one set of proper samples was obtained: 168 and 179, at 10,000 ppb and 179; the latter semi-quantitative at 0.4 oz/t.

Earlier [OX-81] very similar value was obtained from the initial discovery, at the opposite site of sample #164. Interesting, is the fact that both sites show an extraordinarily high Au/Ag ratio 5 and 6 respectively. If considered representative, it implies high temperature injections and in case of #168 and #179, explains the lack of VG: the abruptly chilled quartz has retained Au in its structure.

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



Geochemical
Lab Report

REPORT: 125-0731 (COMPLETE)

REFERENCE INFO:

CLIENT: DR. MATTI TAVELA
PROJECT: NONE GIVEN

SUBMITTED BY: M. TAVELA
DATE PRINTED: 16-MAY-85

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold - Fire Assay	4	5 PPB	FIRE-ASSAY	Fire Assav AA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	4	2 -150	4	CRUSH, PULVERIZE -150	4

REPORT: 124-1205

REPORT: 124-2470

REPORT: 124-2921

REPORT: 124-3425

REPORT: 124-2291

REPORT: 124-2625

REPORT: 124-3274

REPORT: 125-0980

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



Certificate
of Analysis

REPORT: 624-3274

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT	NOTES
R 179		0.427	0.07	8*

Registered Assayer Province of British Columbia

Bondar-Clegg & Company Ltd.

130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

SAMPLE ELEMENT Au
NUMBER UNITS PPB

P 001 5
P 002 <5
P 003 -80 30
P 003 -40A <5
P 003 -40B 155

P 004 20
P 006 <5
P 007 <5
P 008 <5
P 009 <5

P 010 <5
P 011 <5
P 013 <5
P 014 15
P 015 <5

P 016 <5
P 017 <5
P 018 <5
P 019 5

R 038 10
R 039 <5
R 040 <5
R 041 <5
R 042 <5

R 043 15
R 044 <5
R 045 10
R 046 <5
R 047 15

R 048 <5
R 049 5
R 050 <5
R 051 <5
R 052 <5

R 053 5
R 054 <5
R 055 <5
R 056 10

S 057 <5
S 058 <5
S 063 <5
S 066 <5
S 067 <5

S 068 <5
S 070 <5
S 071 <5
S 076 5
S 077 <5

S 078 <5
S 079 <5
R 059 5
R 060 10
R 061 <5

R 062 <5
R 064 15
R 065 <5
R 069 <5
R 072 <5

R 073 <5
R 074 <5
R 075 <5

R 080 <5
R 081 <5
R 082 <5
R 083 <5
R 084 <5

R 085 <5
R 086 <5

S 097 <5
R 088 10
R 092 45
R 093 <5
R 094 20

R 109 20
R 110 <5
R 111 <5
R 112 <5
R 113 10

R 114 <5
R 115 <5
R 116 <5
R 117 <5
R 118 <5

R 119 <5

S 135 15
S 136 15
S 137 5
S 138 30
R 138 <5

S 140 <5
S 141 <5
S 142 <5
S 155 <5
S 156 <5

S 157 5
R 144 <5
R 145 <5
R 146 10
R 147 <5

R 148 <5
R 149 <5
R 150 <5
R 152 <5
R 153 <5

R 154 50
R 158 <5
R 159 <5

R 160 <5
R 161 <5
R 162 2000
R 163 25
R 164 5

S 170 <5
S 171 <5
S 172 5
S 173 <5
S 175 <5

R 165 <5
R 166 60
R 167 10
R 168 > 10000
R 169 15

R 174 55
R 176 5

R 182 <5
R 183 5
R 184 <5
R 185 25
R 186 80

R 187 <5

R 188 <5
R 189 <5
R 190 5

R2 191 5
R2 192 <5
R2 193 <5
R2 194 <5

R 177 100
R 178 30
R 179 > 10000
R 180 <5
R 181 5

R2 195 <5
R2 196 <5
R2 197 <5
R2 198 20
R2 199 5

R2 200 5
R2 201 <5
R2 202 <5
R2 203 5
R2 204 5

R2 205 <5
R2 206 <5

GEOPHYSICAL REPORT

[Fig. 4]

Previous mag. surveys covered 24 km on roads [OX-81] with traverses added later in Mosquito area [OX-82]. The benefits to clarify the geology, were obvious but had no hints as to the localizations of gold mineralization, so far.

The return to these surveys happened only after systematic previous sampling results were compared with the NG's geological setting. Therefore, it seems to be of value to report these results and for that purpose the Fig. 4 area's survey was repeated in 1984.

One of the many mafics in Mosquito is magnetite bearing amphibolite [about +1,000 γ over background]. The average and unusually steady background in the general area is 64,000 \pm 400 γ , in mildly rising and declining patterns, possibly reflecting original and/or metamorphic [near dyke] magnetite content.

Exposure "Rock 400 Au" is a 1.5 x 0.2 m sliver of quartz/shale admixture with iron and arsenopyrite in shale country rock. The anomaly's peak is 6 m. from it above an amphibolite exposure, firstly thought to be part of the shale. The composition of the anomalous part of the shale is not commensurate with Mosquito's but the mag. anomaly and amphibolite in both areas are similar.

Mag. anomaly at point "Soil 300 Au" is similar to the former, but has not suitable rock to explain it nor gold in bedrock: the several times repeated residual soil has gold values only within a few sq. m. area. The spot and all the surroundings have been sampled by short hole blastings,

all mainly in deeply leached quartz bearing shale; results barren.

Shale is also the only country rock in well exposed and recently re-bulldozed and blasted areas, exposing the first ptymatic quartz vein, also barren. The presence of man-left iron objects was also eliminated by gradient survey. Low level airborne mag. survey indicates that the combined anomalies have a deep vertical extension.

Because the projection of break thrust's Mosquito direction points towards this jct. which has quartz in many forms despite indefinite results, it should be kept under continuous scrutiny.

VLF-EM survey was attempted here and some other parts were considered suitable. Results were not meaningful: lack of sulfides, abundance of graphite and frequent topo fluctuation with mini swamps, explain this. In contrast, a high resolution magnetometry with 10 m. spacing in two directions is suitable to sort out the mafics and possibly also the larger quartz concentrations.

STATEMENT OF COSTS

M. TAVELA, P. ENG.

June 1-7, June 17-20, July 4-9, July 19-26,
 Aug. 2-7, Aug. 8-19, Aug. 23-26, Sept. 5-10,
 Sept. 20-27,

TOTAL 43 days

* \$200/day incl. support \$ 8,600

T. ONORATO, Sampler

Aug. 23-26, Sept. 5-10,

TOTAL 10 days

\$135/day incl. support	1,350
Blasting material	372
Thin sections with report	132
Analysis	1,351
Reporting	<u>145</u>

TOTAL \$11,950

Balance from P.A. account #9835

* In report EBB-84 [same area, operator, author]
 a \$350/day charge was used. In this area
 afternoons were used for outside recce. and
 charge reduced accordingly.

STATEMENT OF QUALIFICATIONS

I, Matti Tavela, hereby state that:

1. I am a Prospector, a citizen of Canada and reside at #1, 2230 Harrison Drive, Vancouver, in the Province of British Columbia.
2. I have a M.Sc. degree in Chemistry and a Ph.D. degree in Geology from the University of Helsinki, Finland. I have practiced these professions since 1947.
3. My Canadian experience is: 1961-62 Geologist/Geochemist for Selco Inc.; 1970-72 Geochemist for Kennco Explorations, (Canada) Limited; 1973 Project Manager for Brinco Limited; 1975-78 Vice President of Compass Exploration Limited; 1979-present as independent.
4. My foreign experience has been in Scandinavia, the Far East, NE Africa, Cental and West South America, and California.
5. I am a Registered Professional Engineer in B.C., Registered Geologist in the State of California, and Licenced Mining Surveyor in Finland.

Matti Tavela

Matti Tavela, P.Eng.

Aug 6, 1985.



MOSQUITO ML

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,699

MOSQUITO CR

EAST CR

R 2700

DEPRESSION & RIDGE TOPO

R 2000

R 2700

R 2000

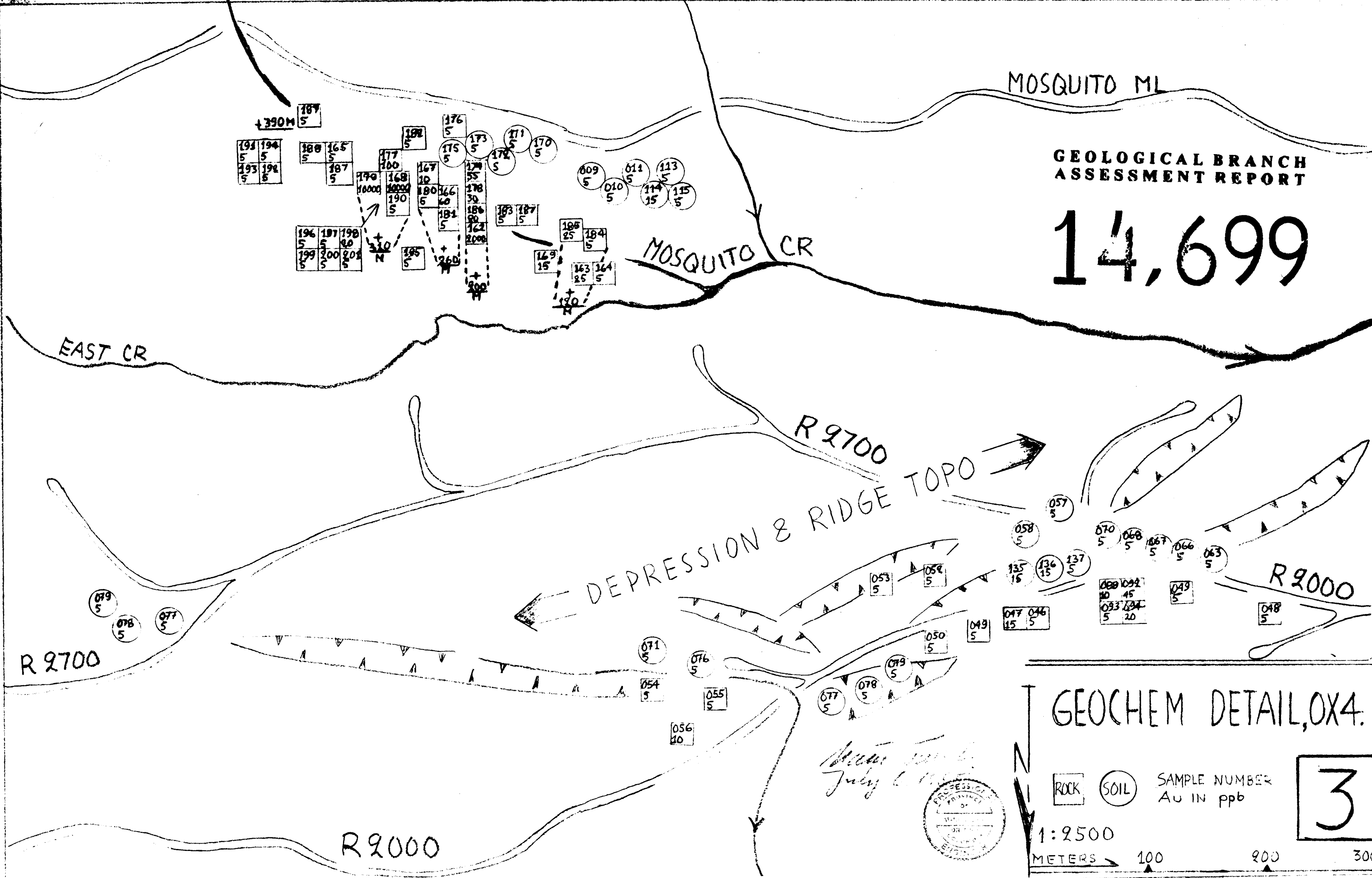
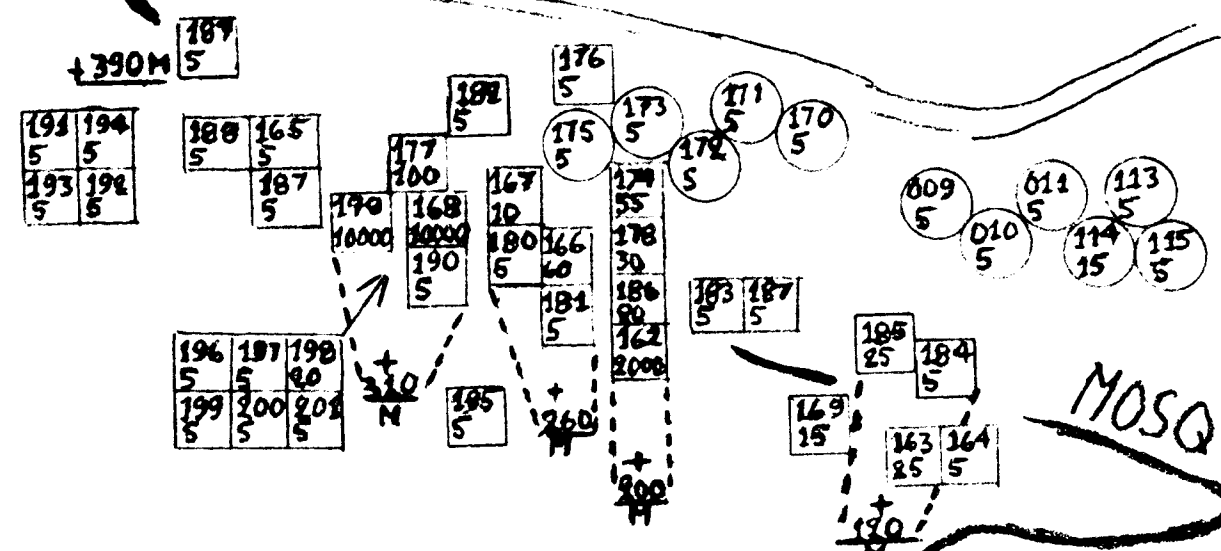
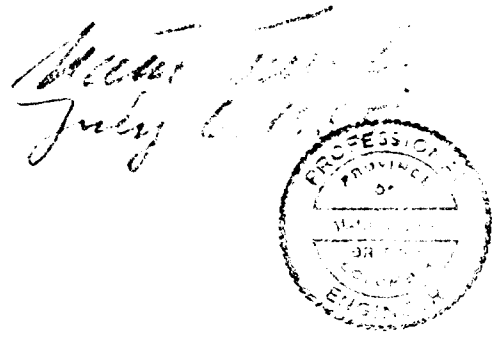
GEOCHEM DETAIL, OX4.

ROCK SOIL SAMPLE NUMBER
Au IN ppb

3

1:2500

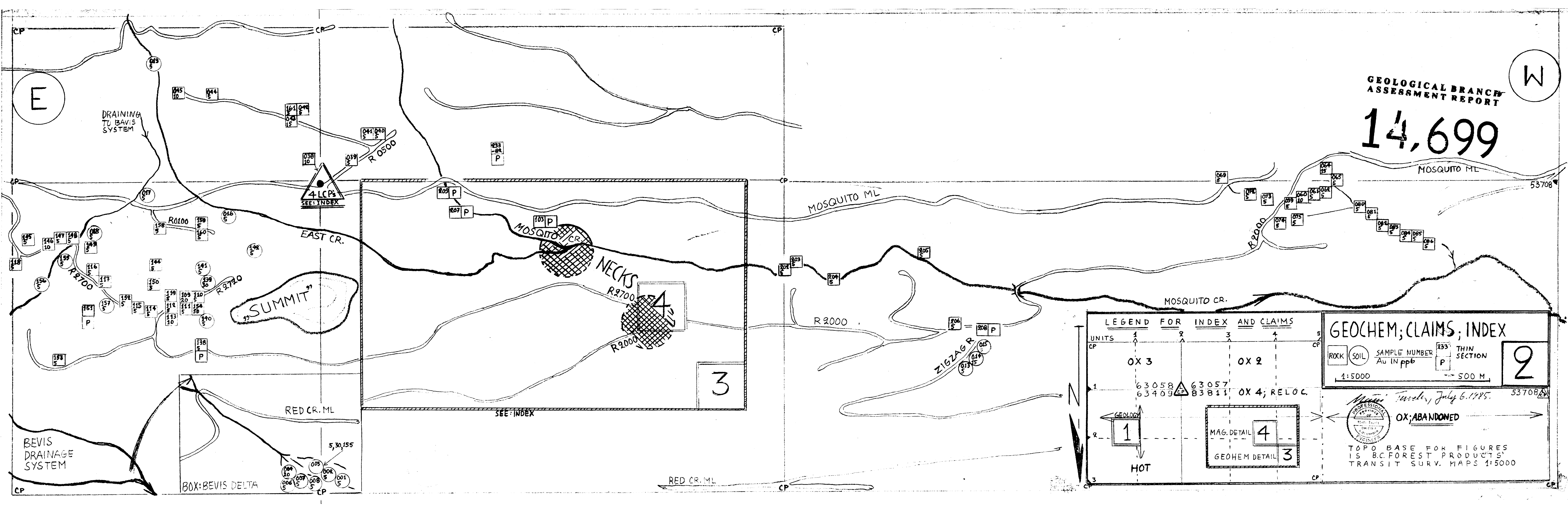
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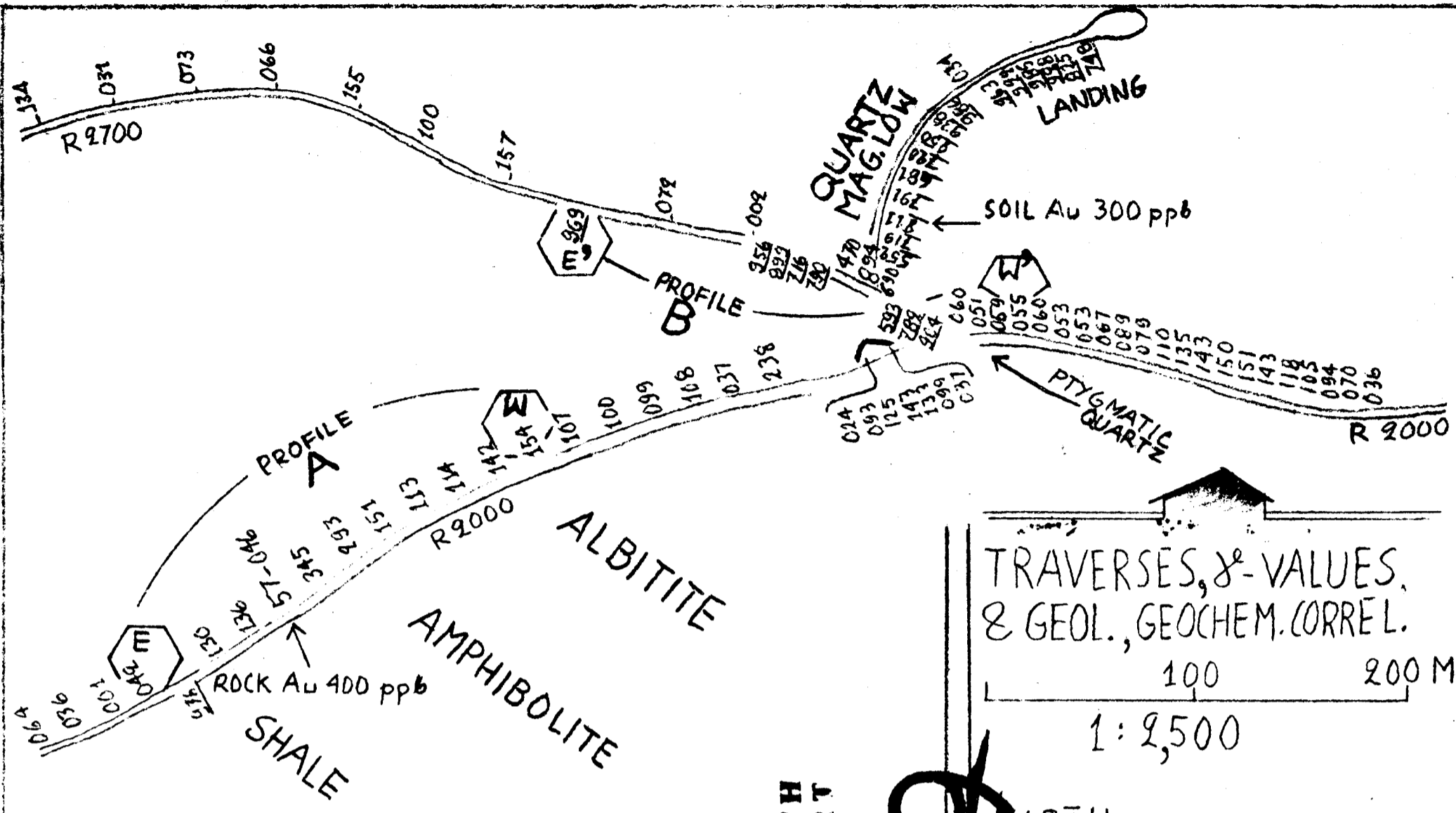


GEOLOGICAL BRANCH
ASSESSMENT REPORT



14,699



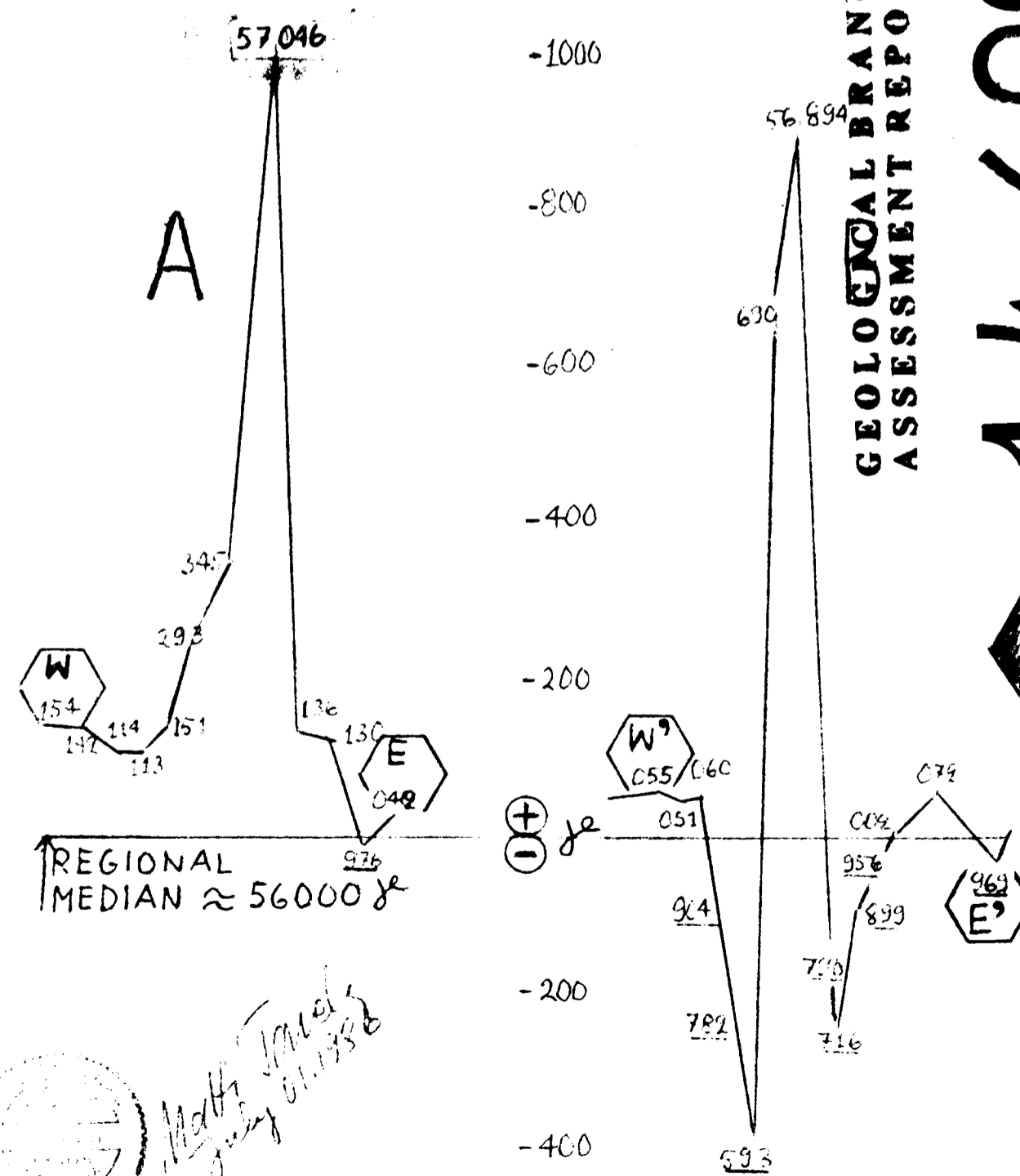


TRAVERSES, γ -VALUES,
 & GEOL., GEOCHEM. CORREL.
 100 200 M
 1:2,500

NORTH
 COMMON FOR PLAN
 & PROFILES: INSTRUMENT:
 SINTREX, PROTON, M-P-2;
 UNLESS FULLY DISPLAYD:
 UNDERLINED (55)904 γ
 NOT -- (56)345 γ

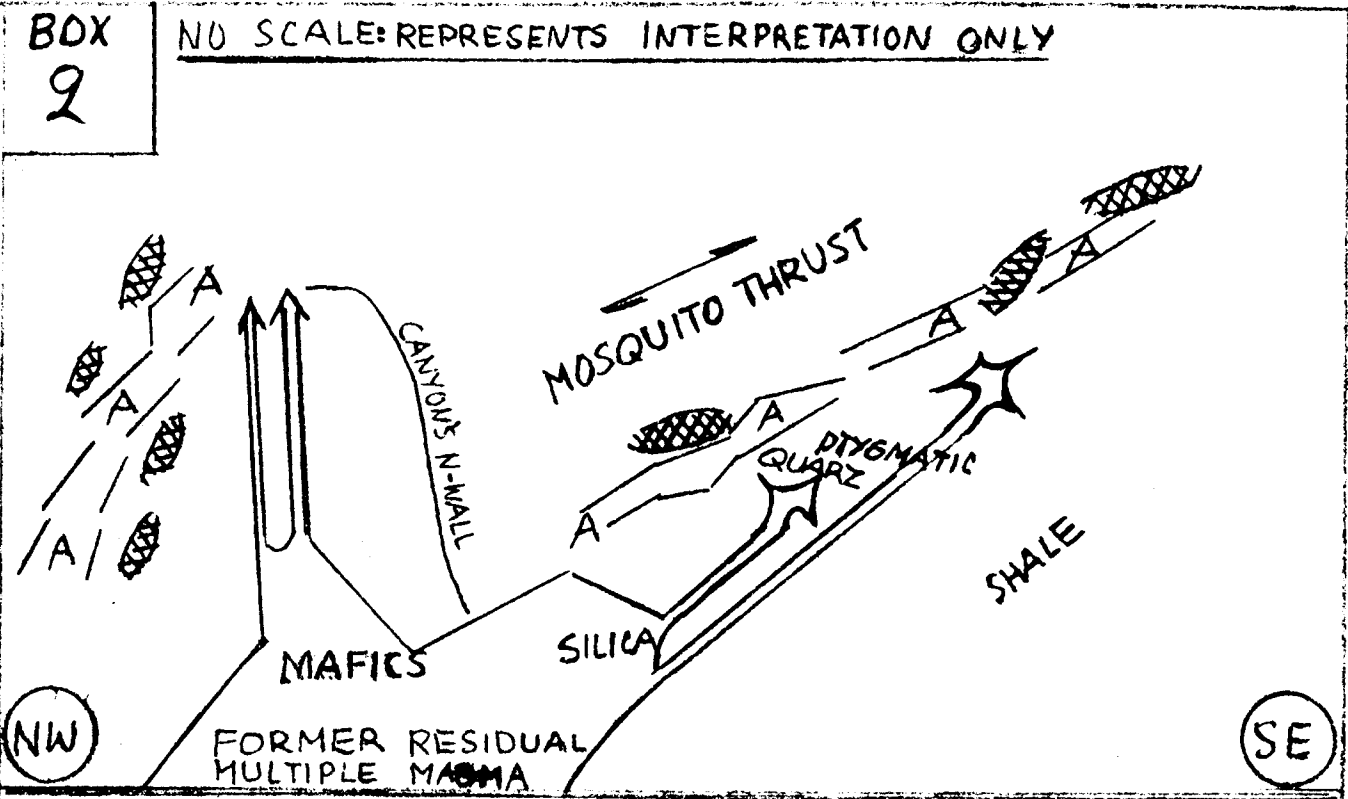
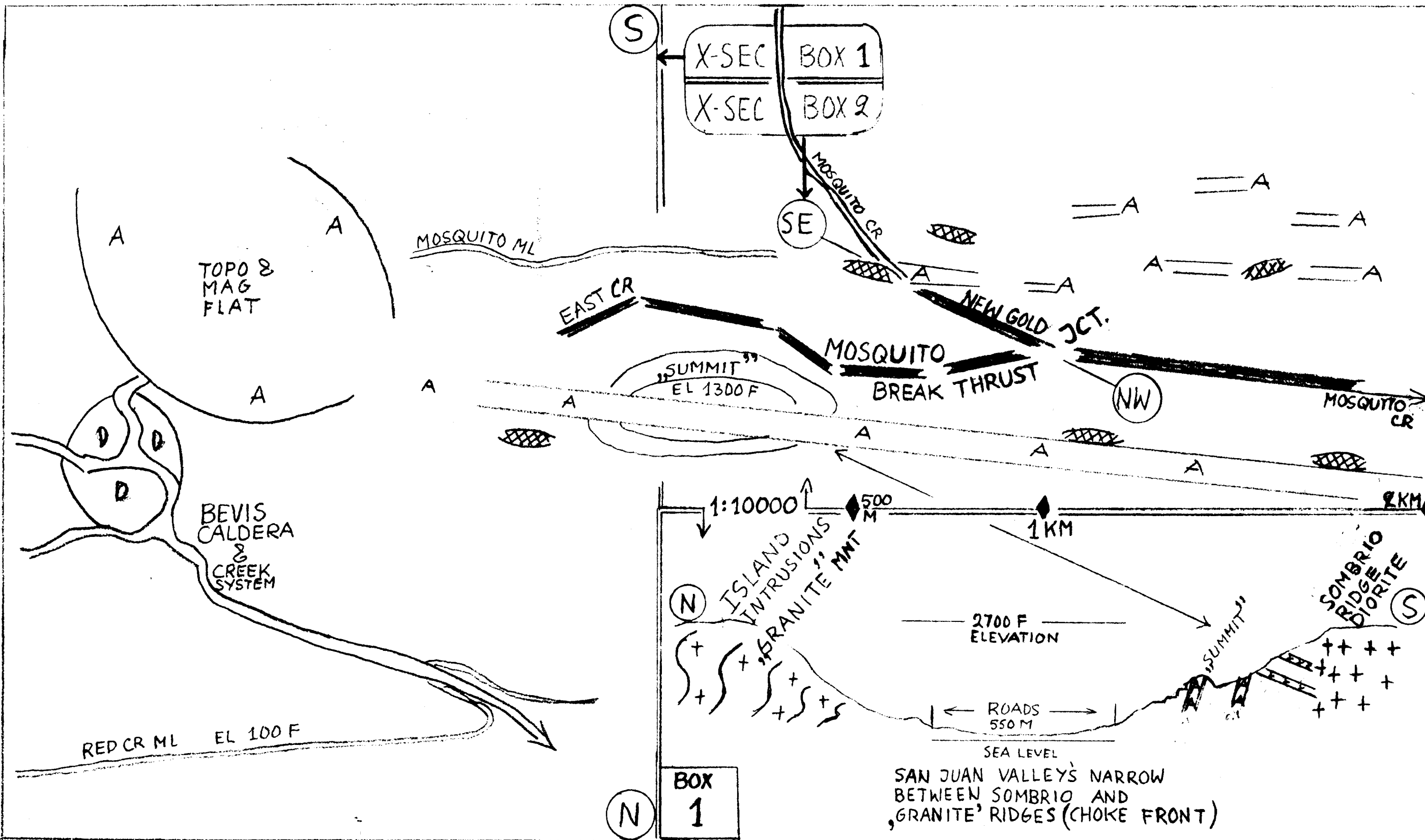
14699

PROFILES:
 CONSISTENT WITH PREVIOUS
 REPORTING [OX-81; OX-82;
 DIRECTION OF VIEW NORTH]
 200 γ = 2.5 CM
 100 200 METERS
 1:5,000



MAG DETAIL AT
 R 2000/2700 JCT.
 TOTAL COMPONENT 4

Maths [unclear] 01/13/88



GEOLOGY

	SHALE AND COHORTS
	ALBITITE CLAN
	INDURATED VOLCANICS
	DOLERITE
	BREAK THRUST; CANYON; MOSQUITO AND EAST CREEKS

Matt Tava
July 6, 1985

PROFESSIONAL
PROVINCE OF
Matt Tava
BRITISH COLUMBIA
ENGINEER

1

14,699