Diamond Drill Report

for

MENIKA MINING LTD.

on the

RELIANCE PROPERTY

Lillooet M.D.

N.T.S. 92J/15W

WEHINA MINING LTD. (M. P. L.)

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WENG PHONE 133-2408

February 10, 1986 Vancouver, B.C. L. Sookochoff, P.Eng. Consulting Geologist

Sookochoff Consultants Inc. .

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PART A

#### SUMMARY

In October-November 1985 five diamond drill holes were put down on the Menika Reliance property to test an altered zone of an epithermal system where values of up to .482 oz Au/ton were obtained from samples taken by the writer (1985) from quartz-stibnite zones.

The property is 13 km north of the historic Bralorne camp where some eight million tons with a recoverable grade of 0.52 oz Au/ton were processed. The Bralorne in addition to producers in the immediate area of the Reliance are presently under exploration. On the Levon-Congress property one km north of the Reliance, recent exploration reportedly resulted in the delineation of reserves to about 160,000 ounces gold.

Former exploration at the Menika-Reliance Property included the exploration of at least three mineralized shear zones by four adits over a vertical range of 458 meters. These adits explore gold bearing quartz-stibnite zones assaying up to .58 oz Au/ton across 20 cm. A 1921 geochemical survey delineated a 365 meter antimony anomaly 365 meters east of the workings designated as the Fergusson-Reliance zone and located along north-south structures at the central portion of the property.

On the western portion of the property former exploration of a gold-stibnite zone by the Senator workings returned .16 oz Au/ton across 1.4 meters.

In 1985 Menika Mining constructed a road to the Senator and Imperial Zone with additional roads to investigate the trend of the zone. An 80 meter zone of shearing, alteration and mineralization was intersected on the Imperial Road at the 845 meter elevation. A series of predominant fractures trending at 025°-035° have associated limonite which may be up to five cm wide and gold bearing. Quartz veins up to twelve cm wide and trending northerly or southeasterly are commonly stibnite bearing with associated gold values.

I. Borovic, P.Eng. (1985) took a one meter sample (true width) from this mineralized zone which returned 2.5 oz Au/ton.

The writer sampled 100 meters of the <u>Imperial Zone</u>. A shear zone adjacent to the north of a central silicified zone returned .08 oz Au/ton across 12 meters with an inclusive 0.7 meter zone of quartz-stibnite assaying .185 oz Au/ton.

The central silicified portion of the zone returned anomalous gold values with a limonitic zone assaying up to .397 oz Au/ton.

A one meter wide quartz-stibnite-limonite zone along the southern periphery of the siliceous zone returned .195 oz Au/ton.

To the south of the central zone a 0.6 meter limonitic zone with yellow stibulte alteration returned .622 oz Au/ton.

On the lower Senator road zone 40 meters below the Imperial zone, samples from zones bearing quartz-stibnite trending mainly at 030° and less often at 130° assayed up to .482 oz Au/ton.

On the roads above the main Imperial zone there is less alteration. A 1.5 meter sample across a siliceous zone returned .054 oz Au/ton. Cinnabar and travertine occur in this area.

A newly discovered zone - The Bona Zone - some 200 meters northeast of the Senator workings returned an assay of 2.11 oz Au/ton from grabs across a six meter section.

A 1971 geochemical survey (Tri Con Explorations) delineated a 400 meter long antimony anomaly within 300 meters east of the Fergusson-Reliance workings. In addition a more significant 1000 meter anomaly was delineated over the eastern portion of the Senator workings and adjacent to the Imperial and Senator Road Zones. An arsenic anomaly envelops the antimony anomaly and extends to the northern limits of the property and includes the Bona Zone.

The 1985 diamond drill program tested the altered gold bearing epithermal system up to 70 meters southeast from a northwesterly trending sediment-greenstone contact zone indicated as a major structure. Three drill holes 70 meters from the main structure and from the same elevation disclosed a bleached siliceous zone containing a porphyritic -breccia section with anomalous gold values. Samples from massive stibnite veins associated with the bleached zone returned up to .037 oz Au/ton and 17.11% Sb.

#### **CONCLUSIONS**

The five hole drill program was successful in providing information as to the controls of gold mineralization and a direction to the potential location of gold values associated with an indicated proximal major structure.

The alteration pattern disclosed by the drill holes also confirmed the conclusions derived from the original sampling program. The conclusions were that the Imperial Zone exposed the upper portion of an epithermal system and that increased gold values should occur at depth.

The first three drill holes some 70 meters northeast of the topographicaly expressed northwest trending contact and structure indicated anomalous gold values within a near surface silicified-bleached-limonitic zone which includes a porphyritic-breccia section, light pyrite and variable ankerite content.

A massive stibnite section associated with the bleached zone within two of the drill holes is not correlatable with the surface quartz-stibnite vein where an assay of .195 oz Au/ton was obtained. In addition poor core recovery within the interval containing the 85-3 stibnite intersection resulted in doubtful trends and values.

Drill holes 85-4 and 85-5 within 22 meters northeast of the contact structure also intersected a surface bleached limonitic zone containing spotty anomalous gold values with massive stibnite and quartz stibnite sections. DH 85-4 returned Au values of up to .184 oz Au/ton across .3 meters and .097 oz Au/ton across .9 meters.

In drill hole 85-5 some 40 meters lower in elevation than 85-4 and paralleling the contact structural trend returned the most encouraging results to the location of a structure which could host an extensive continuous gold bearing mineralized zone.

The intersected schist of 85-5 which contains a section with values of .110 oz Au/ton over 3.1 meters is indicated to parallel and occur as a subsidiary shear to the major contact structure. In addition to the gold values the shear zone contains graphite, exhalite and late quartz-ankerite vein material indicating that the schist was a favorable channelway for mineralizing fluids of the epithermal system.

Thus there are at least three geological controls for and indicators of the containment of potential economic grades of gold mineralization.

- 1) Local zones of ankerite-quartz with anomalous gold and/or stibnite, arsenic values. These zones are predominantly heavily altered zones with late stage quartz-carbonate introduction and without a definite structure association could be indicative of proximal mineral zones rather than "ore" making potential.
- 2) Porphyry dyke breccia silicified zones as intersected in the upper portion of the drill holes in where variable quartz, pyrite and limonite with anomalous gold content occur.

This zone with the associated massive stibulite veins and/or quartz which include gold values to some extent could be considered moderately favorable for the development of economic zones of gold mineralization.

3) Graphitic-chloritic shear zones containing quartz-ankerite veins with gold values are considered to be the most favorable to the containment of economic gold bearing zones.

It is concluded that the northwest trending contact structure zone within 22 meters of the DH 85-4 and DH 85-5 collars is a prime potential controlling structure for localizing epithermal gold zones. Drill hole 85-5 at the lowest elevation and with the more significant intersection suggests that the gold mineralization is increasing to depth with an increasing zone of quartz-ankeritic alteration.

#### **RECOMMENDATIONS**

It is recommended that initially a drill hole be spotted to test the contact zone at the Senator Road (85-5) level. Should the initial drill hole be successful the contact zone should be tested at intervals to lower elevations where the gold values are expected to increase in accordance to the epithermal model.

Respect fully submitted,

atrence Sookachoff,

February 10, 1986 Vancouver, B.C.

\_\_ Sookochoff Consultants Inc.

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#### PART B

#### INTRODUCTION

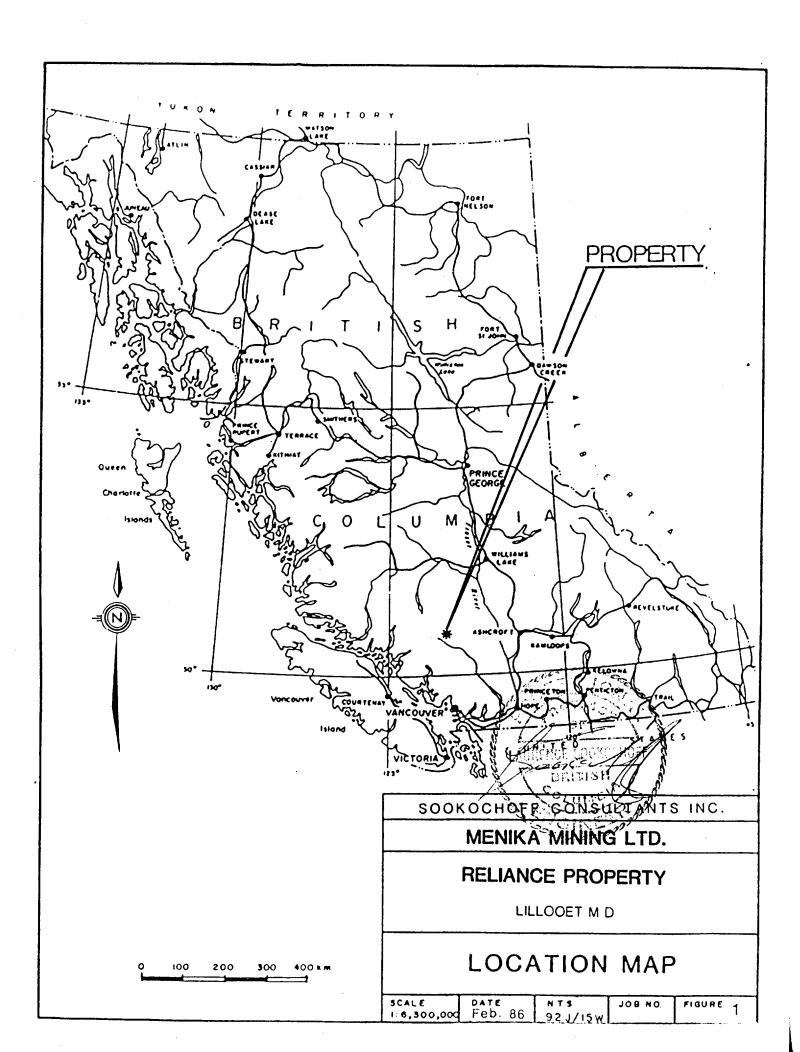
In October - November 1985 a five hole diamond drill program was carried out on the Menika-Reliance property. The purpose of the program was to test for extensions of the known gold bearing gold-stibnite zones exposed in a 1985 trenching and subsequent sampling program carried out by the writer. The results of the sampling program were reported on in a July 15, 1985 report by the writer with the information contained herein.

The writer supervised the diamond drill program.

#### **PROPERTY**

The property is comprised of 19 reverted contiguous crown grants. Particulars are as follows:

Claim Name	Lot No.	Record No.	Expiry Date
Omen 1-3	7659-7661	2158-2161	Sept. 20, 1991
Omen 7	7465		Sept. 20, 1991
Ome n 8	7496		Sept. 20, 1991
Nemo 1-8	7651-7658	2144-2155	Sept. 20, 1991
Omen 7	7465		Sept. 20, 1991
Eros 2	7498		Sept. 20, 1991
Omen Fraction	7502		Sept. 20, 1991
Nemo Fraction	7503		Sept. 20, 1991
Thin Fraction	7504		Sept. 20, 1991
Nova Fraction	7505		Sept. 20, 1991
Frns Franklina	7508	Sookoch	off fonsultants, ling _



The claims are wholly owned by Menika Mining Ltd. of Vancouver.

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

#### LOCATION AND ACCESS

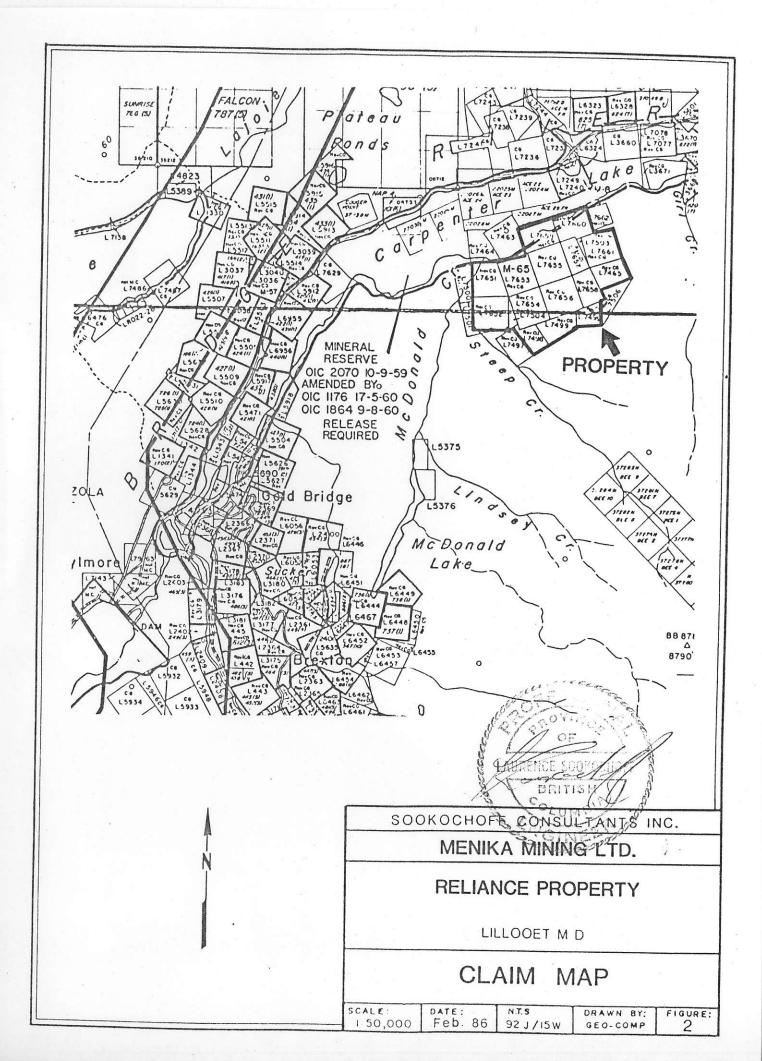
The property is located south of and adjacent to Carpenter Lake, adjacent to the east of McDonald Creek and eight km east of Gold Bridge. Gold Bridge is 60 km north of Pemberton and 165 km north of Vancouver.

From Vancouver, Gold Bridge may be reached northward via Squamish, Pemberton and the Hurley River road in the summer or eastward to Lytton - on the Trans Canada Highway (342 Km) northward to Lillooet (64 Km) and westward to Gold Bridge (80 Km).

Access to the property from Gold Bridge is eight km eastward on a secondary gravel logging road. A newly constructed road branching off to the south provides access to the main showings on the property.

#### PHYS I OGRAPHY

The property extends southward from the shores of Carpenter Lake at an elevation of 654 meters. Moderate forest covered slopes extend southward to an elevation of 1432 meters. Two northerly flowing creeks one in the west and one centrally exhibit moderately incised slopes from the paralleling ridges.



#### WATER AND POWER

Sufficient water for all exploration purposes could be obtained from McDonald Creek or many other smaller water courses on the property.

Diesel electric power would be required in the initial stages of exploration.

#### REGIONAL HISTORY

The history of the Bralorne gold camp - the most productive gold camp in the Canadian Cordillera - stems from the discovery of placer gold in the Bridge River area in 1863 and auriferous gold bearing veins in 1897. Although many gold showings were located, the occurrences that were explored and developed into major gold producers were the Bralorne and Pioneer veins.

The Pioneer Mine was operated on a small scale to 1917 with the main production commencing in 1928.

At the Bralorne Mine, two km northwest of the Pioneer and 13 km southeast of the G.G. Claims, full production started in 1932 at 100 tons per day increasing to 600 tons per day in 1960. The Bralorne emanated from the consolidation of the Bradien and Lorne Mines in 1932. In 1959 the Bralorne and Pioneer Mines were consolidated and were operated to the closure of the Pioneer Mine in 1962 and the closure of the Bralorne in 1971.

Gold and silver production (Barr 1980) from the two mines was:

	Tons	Gold (oz)	Silver (oz)
Pioneer	2,476,693	1,333,083	244,648
Bralorne	5,474,238	2,821,036	705,862
	7,950,931	4,154,119	950,512
Recovered	grade oz/t	0.522	0.012

The <u>Bralorne</u> is presently being re-explored and developed by Mascot Gold Mines.

Other properties in the immediate area with a production history include the <u>Congress</u>, where former exploration included three adits over a vertical range of 183 meters. In 1937 some 3500 tons of mineralized material was processed at the Wayside mill. The tests were successful, however further production was not achieved.

Reports on the recent exploration at the Congress are that the equivalent of 160,000 oz of gold have been delineated.

At the Minto Mine on the north side of Carpenter Lake 11km northeast development consisted of workings to a depth of 245 meters and for a length of 304 meters. Between 1934 to 1937 the mill treated ere valued at \$625,000.

At the <u>Kelvin</u> along the northeastern boundary of the Reliance property work carried out between the claim location in 1933 to 1936 was composed of three adits and a considerable amount of surface work.

#### PROPERTY HISTORY (RELIANCE)

The Reliance was staked in 1910 as an antimony prospect. By September 1915 four tons of ore assaying .5 oz Au/ton were shipped with an additional tonnage shipped to England during WW I. Work done since 1933 consisted of four or five adits and several open cuts and trenches. The workings are over an elevation of 457 meters from an uppermost adit at an elevation of 1112 meters to an adit less that 30 meters above river level at an elevation of 655 meters. The lower working was a crosscut adit to explore the downward extension of the upper mineralized shear zones.

The Fergusson adit is 100 meters below and 182 meters to the southeast of the uppermost adit. The adit extends for 32 meters.

The Turner adit is at an elevation of 830 meters and 304 to 457 meters northwest of the Fergusson adit. The adit runs southeast for 26 meters and northeasterly for 17 meters.

Exploration on the Reliance from 1942 to 1971 included work by Hills Lake Mining Company Ltd., Consolidated Mining and Smelting Company and Braiorne Mining Company.

In 1972 Tri Con Exploration Surveys Ltd. carried out geochemical surveys and rock chip sampling on the Reliance Property. The surveys (Anselmo et al 1971) resulted in the location of three interesting antimony anomaly trends which contain values greater than the geochem values over the known mineral showings.

In 1984 Interex Resources Inc. carried out localized geochemical and EM surveys of the Reliance property for Menika Mining Ltd. The results indicated positive gold geochemistry co-incident with an arsenic/VLF anomaly that was originally revealed in the 1971 Tri-Con survey (TVI Mining Ltd.).

In 1985 Menika Mining Ltd. carried out a program of road building, trenching and sampling.

#### REGIONAL GEOLOGY

The oldest rocks of the map areas are those of the Permian River (Fergusson Group) which regionally trends northwesterly as a 45 km belt fault bounded generally on the northeast and southwest by the Upper Triassic Pioneer Formation. At the southwest limits are the Bralorne which associated with Intrusives аге system northwesterly trending regional compressed fault systems including the major Cadwallader Fault.

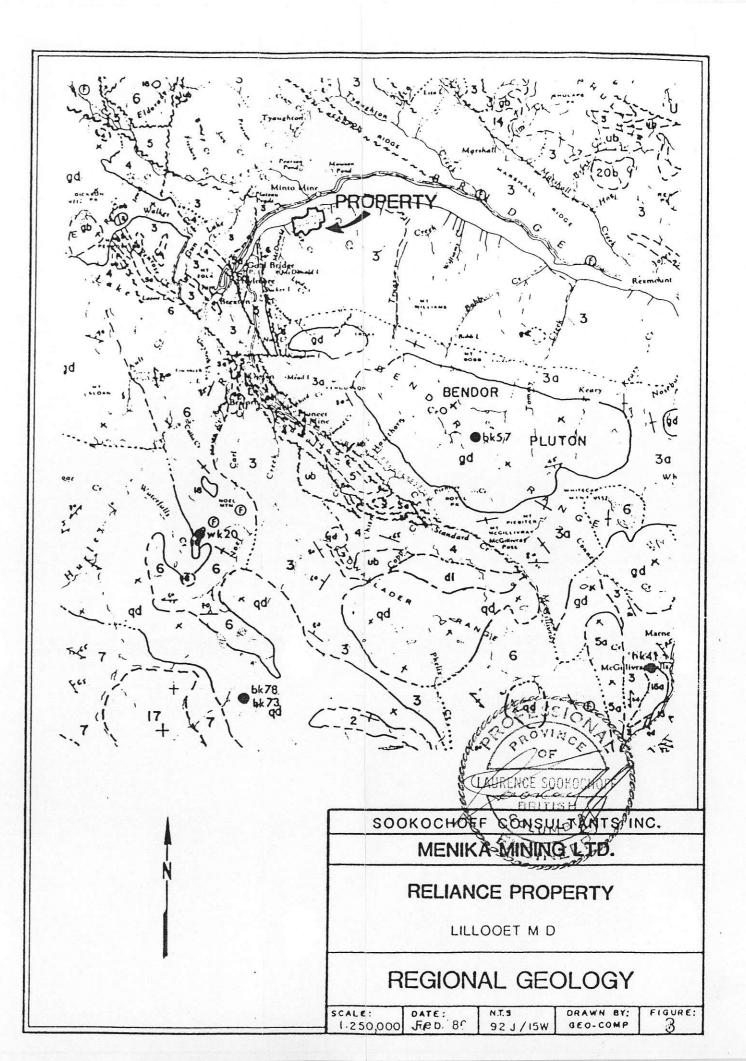
The faults bound, in addition to the Fergusson Group, lenticular trends of the Upper Triassic Noel Formation, the Hurley Formation and ultramafic rocks. Local exposures of these Upper Triassic and mafic rock are also evident within the Fergusson Group.

Also within the band of Fergusson rocks are located plugs, stocks, and plutons of intrusives. The <u>Bralorne intrusives</u> of dioritic to gabbroic rocks and soda granite relate to the mineralized zones at the Bralorne Mine and the Wayside.

### TAYLOR CREEK GROUP Chert-petble conglowerate, black limy shale, green tuff, volcante brecesa, andesite and basalt JACKASS MOUNTAIN GRIGHP. 12a, intertiedded carbonaceous argillite and greywacke, minor conjlomerate and coal; 12b, greywacke, pebble conglomerate, argillite and gritty sandstome; 12c, argillite, conglomerate, and greywacke; 12d, massive greenish greywacke, argillite, gritty sandstone and pebble conglomerate GAMBIER GROUP: Andestic to dactic tuff, breccia, agglomerate; andestie, argillite; complomerate, lesser marble, greenstone, and phyllite FIRE LAKE GROUP: Greenstone, chlorite schist, conglomerate, andesite, greywacke UPPER JURASSIC AND LOWER CRETACEOUS MAP SYMBOLS RELAY MOUNTAIN GROUP: Greywacke, siltstone, argillite Geological Intundary (defined, approximate, assumed) -----UPPER TRIASSIC TO MIDDLE JURASSIC Bedding (horizontal, inclined, wertical) "// TYAUGHTON GROUP: Shale, siltstone, greywacte foliation, schistosity (inclined, vertical, dip unknown, absent) " x x fault (defined, approximate, assured) -----CADMALLADER GROUP (undivided; includes Hurley, Ploneer and Moel strata, may include older and younger rocks): andesitic breccia, kuff, and flows, greenstone; lesser slate, argillite, phyllite, conglomerate, limestone, rhyolitic breccia and flows MURLEY FORMATION: Thin-bedded argillite, phyllite, limestone, twff, conglomerate, andesite, minor chert Radiometric ages Age in millions of years System: k-potassium-argon, unuranium-lead PIONEER FORMATION: Greenstone, andesitic to basaltic flows and pyroclastics; Sa. BRALDRHE INTRUSIONS (in part): augite diorite, gabbro, greenstone (intrusive and dioritized equivalents of 5) Minerals: b-biotite, h-hormblende, m-muscovite, w-whole rock, z-zircon Laboratory: (u)-U.B.C. All others are G.S.C. NOEL FORMATION: Thin-bedded argillite, chert, conglowerate and Mhole-rock K-Ar age determination (age given in years) for Garibaldi Group rocks. Data from N.L. Green (Ph.D. thesis in preparation) and Anderson (1975) PLUTONIC ROCKS (mostly of unknown age) CECLOGY ST Juartz monzonite J.A. Roddick and G.J. Moodsworth (1970, 1974), M.M. Mutchison (1970), and from earlier reports (see references) Diorite; dioritic complexes containing diorite, quartz diorite, amphibolite, greenstone, and dyke swarms J.A. Jeletzky (Camelsfoot Range), M.W. Tipper (Gun Creek), and M.L. Green (Cheakamus River area). COMPILED ST TRIASSIC AND JURASSIC AND OLDER(1) G.J. Woodsworth (1977) Ultramafic rocks: Serpentine, harzburgite, perioditite, diorite BRIDGE RIVER (FERGUSSON) GROUP: Greenstone, basalt, chert, argillite, phyllite; minor limestone, serpentine, and serpentinized perdotite; la, more metamorphosed equivalents of 1, mainly biotite schist 3 PALEOZOIC(T) Metasedimentary rocks, mainly micaceous quartrite, biotite-hormblende schist; minor garmet and staurolite schist; Za, horm-blende-biotite-genret schist, amphibolite, quartz diorite, garmet-cordierite gneiss, and migmatite

Granitold gneiss, migmatite complexes, amphibolite, quertz diorite, and schist

LOWER CRETACEOUS



The <u>Fergusson Group</u> is comprised of an alternating succession of sedimentary and volcanic rocks. The sedimentary series consist of largely, thinly bedded, often much contorted, chert, with argillaceous partings between the chert ribbons. Locally, argillaceous beds predominate. Pods and beds of crystalline limestone are not uncommon, and in places are "several feet" thick.

The volcanic rocks are chiefly fine grained massive to schistose, altered, andesitic to basaltic lavas, commonly green (greenstones) but reddish in places. They are commonly angular and rarely show pillow structures.

#### REGIONAL MINERAL OCCURRENCES

Some of the more significant mineral occurrences which occur in the area of the Reliance Property include the Minto, Bralorne, Congress and the Wayside. At the Congress Mine considerable bodies of ore carrying gold as well as antimony were established. The indications were that as depth was attained, gold values were increasing at the expense of the antimony content.

A principal mineralized shear is developed over a vertical range of more than 600 feet and strikes across sedimentary and volcanic members of the Fergusson Group.

Stibnite and associated milky quartz occur irregularly along either side especially in the greenstone. the shear and on The wall rocks are altered for up to two meters consisting of a dense, light buff, ankerite carbonate impregnated with varying degrees of finely disseminated pyrite, arsenopyrite and a little sphalerite. Some cinnibar is reported along fractures in the altered rock and as impregnations minute between the fractures. Gold values are found principally in mineralized greenstone rather than the i n the stibnite bearing veins along the shear.

At the <u>Golden</u> in addition to sedimentary and volcanic rocks of the Fergusson Group, a belt of carbonatized serpentine rock, up to several hundred feet wide is also present. Dykes and small bossess of feldspar porphyrite, like those on the adjoining Minto and Congress properties intrude the previous units.

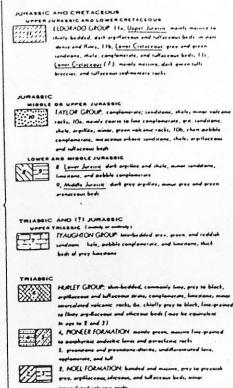
The principal mineral is stibulite occurring in coarsely crystalline masses associated with minor proportions of disseminated pyrite and arsenopyrite. Gold values are reported to be associated with the pyrite and arsenopyrite and not the stibulite.

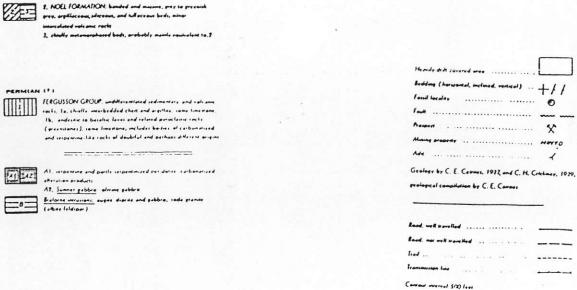
The wide belt of altered rocks indicates strong evidence of the action of thermal, probably vein bearing solutions (Cairnes 1943).

#### PROPERTY GEOLOGY

The Menika Reliance property is underlain by the Fergusson Group of rocks with known altered felsic intrusives and serpentine 500 meters east and Bralorne intrusives (soda granite) and the Hurley Group of sediments with minor intercalated volcanics 2000 meters to the west (Wayside).

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CRETACEOUS

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hamblande granadiarke

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LECOE GROUP: vareplaned pyraclastic racks interclated with prep, preasablycey, and merry lare flows, in part perphysics, muser dark prey shale and conglamerate

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sensions. 17c, homblende drank and handlende purphyre,
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the same ope

Pearson Mowson (2683 Ponds Ponde PAUNTLESS ..... · TE MINTO MINE SOOKOCHOFF CONSULTANTS INC. MENIKA MINING LTD. RELIANCE PROPERTY LILLOOET M D LOCAL GEOLOGY FIGURE: DATE: N.T.S SCALE: 4 GEO-COMP Feb. 86 1:25,000 92 J/15 W

The geology of the property is described by Cairnes (1943) as follows.

The property is underlain chiefly by massive greenstones with one north striking belt of ribbon cherts, abut 300 feet wide, crosses about midway of the workings and reaches the river about a few hundred feet east of the portal of the lowest or River adit. Another and smaller body of cherts has a short distance west of the portal.

The workings are on three well defined mineralized shear zones the greenstone. The zones each carry one or more veins or nearly solid, fine to coarsely crystalline stibnite associated with more or less quartz and calcite gangue. sets of shear zones may be recognized, one striking southeast with steep dips to the southwest and the northwest. Most of the exploratory work has been done on the east-northeast The following described workings - Upper, Fergusson and Turner are located in the Central portion of the property, on the Nemo 7 and Omen 1 mineral claims along a north-south structure paralleling Camp Creek.

In the Reliance Adit 1112 meters the adit is driven southeast along a shear several feet wide in purplish volcanic rocks. Except for some calcite, little vein material could be seen, but an open cut above the adit displays several stringers of stibnite up to one or two inches wide.

The Fergusson Adit (1013 meters) is along an east northeast mineralized shear zone four feet wide to a mineralized fault which offsets the first shear 13 feet northeast. Beyond this offset the drift follows the main about 25 feet to the face. Between the portal and the shear the shear carries a vein of stibnite up to six inches fault wide with some quartz. Beyond the fault the stibnite vein is inches wide and runs off into the foot wall a three to four few feet from the face of the adit, where however, other are seen. Above the adit the sma l l stringers of stibnite shear zone has been investigated by a long trench from which a shipment o f hand sorted stibnite is reported to have been extracted in 1917 (Cairnes 1943).

Anselmo et al describes the Fergusson adit and the Reliance Adit (Appendix I) as located in andesitic rock in a southeast trend from the Turner adit and also reflects the same structural features.

Cairnes (1943) describes the <u>Turner Adit</u> (Elev 830 meters and 304 to 457 meters northwest of the Fergusson adit) as situated in ....

green and purple volcanic rocks for 85 feet to a mineralized shear zone several feet wide striking eastnortheast and dipping steeply northwest. This was driven for 55 feet and contains veinlets northeasterly stibnite in altered and pyritized greenstone. direction the shear was followed for only a few opposite fault striking southeasterly and dipping 50 feet to degrees northeast. Where cut off, the shear zone contained a stibnite several inches wide. Its vein of probable continuation across the fault appears 6 feet to the northwest. Such a displacement is similar to that of the fault in the Fergusson adit."

The <u>River</u> crosscut <u>adit</u> (elevation 655 meters) is 76 meters long and in greenstone. It was started to explore the downward extensions of the mineralized shear zones (Cairnes 1943).

On the western portion of the Reliance property are the Senator Workings, some 1100 meters due west of the Fergusson Adit. A map of the Senator workings was incorporated in the report by Anselmo et. al. (1971) and included herein as reference. The workings consist of four adits trending easterly to northeasterly with the longest being some 18 meters. Current exploration is located in this area.

The workings appear to explore northerly and eastnortheasterly trending stibnite veins up to 11 cm wide and extending over a strike length of 183 meters.

#### PROPERTY MINERALIZATION

Within the eastern portion of the property in the area of the Reliance-Fergusson-Turner adit, stibnite and/or with associated quartz veins occurs along the east-northeast and northwest structures.

Anselmo et. al. (1971) in the maps accompanying his report and included in the writers report indicate the following selected assay results.

Location

Description

Assay

Sb Au oz/ton

Turner adit

Plate 4 Samp #CS-1 Channel sample across shear in cut (2") Stibnite in qtz. 4"-6" oxidized and sheared

13.7% .19

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Location	Description	Assay	
Turner adit		<u>Sb</u> <u>Au</u>	oz/ton
Samp# CS-2	Across 12" from east end in adit. Stibnite in		
R 2	2"-3" qtz vein Green andesite next to	1.32%	.016
	shear	67ppm	
Fergusson adit			• .
Samp CS-6 Samp CS-3	Gangue qtz w/py Across 12" of fault	1.62%	.20
•	material	5.48%	.078
Samp R-1	Rock sample from 10' either side of shear	73 ppm	(5ppm As)
Reliance adit (Plate 6)			
Samp CS-1	. Across 10 <sup>#</sup> shear at		
Samp CS-2	portal Across intersection of	1.2%	. 25
	two shears at portal (8")	20%	.58

Information on the <u>Senator Workings</u> (western zone) is taken from previous exploration work. Some of the more significant results were as follows:

Anselmo et al (1971-Plate 7) indicates that east-north east and northerly shear zones within a siliceous tuff may contain stibnite which can be associated with quartz and/or calcite veins. Assays from the main workings include 15% Sb and .16 oz Au/ton across 1.4 meters within a shear zone. A sample of wall rock with minor pyrite returned 400 ppm Sb.

CM&S reported sampling (1943) returning .39 oz Au/ton and .095 oz Au/ton across one meter of mostly gouge material.

The geological and sampling map (Anselmo et al 1971) indicates a number of anomalous geochem Sb, As, Cu, Zn samples along the road for 1000 meters from the northwest projection of the Senator workings easterly to the River adit of the Fergusson-Turner zone.

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The geochemical survey also delineated an anomalous antimony zone trending east westerly of north for 1000 meters and over the eastern portion of the Senator workings.

An arsenic anomaly envelopes the antimony anomaly and extends the length of the property. Samples from a working 105 meters northwest of the main workings returned .01 Sb., and .11 oz Au/ton across 15 cm of a shear or vein with minor pyrite.

Reported samples taken by <u>CM%S</u> from the same working included 8.4% Sb and 0.14 oz Au/ton of gouge and stibnite over a two foot square area. A one meter sample of mostly gouge returned .141 oz Au/ton.

Borovic (1985) from sampling the mineralized zones reports that the Imperial Vein zone is 5.5 m wide and contains average values of 0.467 oz Au/ton, 0.26 oz Ag/ton and 7.56% Sb. The Senator Vein is reported as 4.5 m wide with average values of 0.156 oz Au/ton, 0.25 oz Ag/ton and 7.8% Sb.

A sampling program was completed by the writer over exposed zones along the road cuts that could reflect potentially economic gold bearing mineralization.

The <u>Imperial road zone</u> consists of an exposed 100 meter long fractured variably altered zone hosted by andesitic tuffaceous greenstones.

The northern portion of the zone is moderately to intensely fractured with a predominant northwesterly structural trend. Alteration consists of varying degrees of dolomitization. Limonite is prevalent on major fractures and may occur in variable degree with the andesite. Occasional quartz veins with stibnite trend at 35°.

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Sampling has indicated a 12 meter zone of .08 oz Au/ton with and included zone of quartz with stibnite assaying .185 oz Au/ton across 0.3 meters. southerly the shear zone trends to a peripheral silicified zone 40 meters wide (true width approx. 15 meters). Silicification may be pervasive or local with interval of complete replacement (bleaching). Moderate to heavy limonite occurs predominantly restricted to the major fracture trend at 25° to 35°. Occasional quartz veins up to 12.5 cm commonly contain massive pods of stibnite. A one meter (true width) zone of two quartz- stibnite vein (1-5cm, 1-12.5cm) returned an assay of .195 oz Au/ton. Associated with the quartz veins is a highly limonitic zone. A second quartz-stibnite vein near the same location trends at 155°.

A two meter sample along the silicifided zone returned up to .397 oz Au/ton however this sample and an adjacent sample of .319 oz Au/ton was along a limonitic fracture face and could not be considered representative. The length of the silicified zone however returned anomalous values of gold mineralization with the higher values related to either quartz-stibnite veins or limonitic zones.

The southern portion of the Imperial zone trends to a low to moderate generally unsilicified zone with a predominant structural trend at 030°. An occasional stibulite zone occurs with values up to .208 oz Au/ton across .6 meters.

A two meter sample from a fracture zone near the southern most sampled portion returned .069 oz Au/ton.

Forty meters to the southwest of the sampled zone is a contact between the greenstones and thinly bedded cherty sediments. This contact within a topographical depression is indicated as a major structure.

The <u>Senator Road Zone</u> 40 meters lower in elevation than the Imperial Road Zone was sampled over an 80 meter interval.

The zone is of a well fractured greenstone containing dolomitic, limonitic and local silicic alteration. Intermittent sampling disclosed up to four quartz-stibnite zones. The zones trend dominantly at 025° to 035° and less often at 130°. Limonitic zones are commonly associated with the quartz as well as occurring moderately to heavily in the more significant fracture trends.

Qtz-stibnite-limonite zones assayed up to .482 oz Au/ton across one meter (true width).

A stockwork fracture zone with limonite returned .133 oz Au/ton across two meters (one meter true width).

A two meter quartz stockwork zone returned .185 oz Au/ton (one meter true width).

The Imperial #2 Road and Imperial #4 Road Zones 80 meters vertically above the main Imperial read display a less altered area. The andesites are maroonish, red hematite stained and contain moderate limonite. Moderate to light dolomitization, light and occasional pyrite, and epidote are apparent. Barren, at times vuggy quartz veinlets with local silicification occur. Very local patches of cinnibar on fracture planes occur near the terminice.

A 1.5 meter sample across a siliceous zone bearing limonite returned .054 oz Au/ton.

#### Bona Road Zone

The Bona Road Zone is a shear zone at an elevation of 805 meters approximately 30 meters wide with heavy limonite, occasional bleaching (silicification) and moderate calcite veining. A six meter wide random grab sample across the zone returned .96% As., .005% Sb and 2.11 oz Au/ton.

#### **ALTERATION**

The original stage of alteration was the introduction of quartz and/or ankerite subjecting the predominantly andesitic (with latite) pile to chloritic and clay (mont morillonite) alteration. The clay is a result of the alteration of plagioclase within the volcanics.

The quartz stage was followed by the addition of calcite, serecite and Fe-Ti oxides. The calcite replaces and cuts through the earlier quartz veins and is pervasive in the ground mass. A second stage of quartz and/or ankerite was introduced.

Gold and/or stibnite mineralization occurs in association with:

- 1) The bleached sections represented as a silicified and brownish zone commonly cut by ankerite-quartz-kaolinite veins.
- 2) In a black chloritic graphitic schist (after andesite) (DH 85-5) containing exhalite material and quartz-ankerite vein material. Albite, traces of chalcopyrite in association with quartz and pyrite in association with ankerite veinlets cutting quartz are also indicated.
- 3) Massive stibnite-quartz veins.
- 4) The porphyritic-brecciated bleached-silicified andesite.

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#### DIAMOND DRILL PROGRAM - 1985

A five hole 719 meter diamond drill program was completed on the Imperial and Senator zones of the Reliance Property.

The purpose of the drill program was to test for continuity of mineralization that is exposed on the Imperial road zone. Sampling (Sookochoff 1985) of the zone revealed anomalous to substantial values of gold mineralization within heavily altered volcanics.

The drill holes were of predominantly BQ core size with the initial portion of the holes (less than 31 meters) of NQ core size. The core was logged by the writer with pertinent sections marked for splitting. The one-half split sections were bagged and sent for analysis to Acme Analytical of Vancouver. The other half of the split sections was retained in the core box for future reference. The core is stored at 2245 West 13th Ave. Vancouver, B.C., V6K 2S4.

The core was analysed for 30 elements by ICP analysis with specific sections assayed for gold and/or silver and stibnite.

In the geochemical ICP analysis the sample is crushed to minus 100 mesh with a .500 gram sample digested with 3 ml 3-1-2-HCL-HNO3-H20 at 95°C. for one hour and diluted to 10 ml with water. As the Au detection limit by ICP is 3ppm a 10 gram sample is analyzed for gold by AA for a 1 ppb detection limit.

Particulars of the diamond drill holes are as follows:

Drill Hole No.: 85-1

Location:

Imperial Zone

Bearing:

130°

Dip:

-50°

Length:

105 meters

Results: Bleached, ankeritic and limonitic meta andesite and porphyritic meta andesite with localized blebs, stringers and blebs pyrite to 18 meters. The highest assay in this section returned 95 ppb Au and 160 ppm As from 16.7 to 19.8 meters.

In a 1.5 meter section bounded by gouge, mineralization was indicated however due to poor core recovery (20%) the assay of .001 oz Au/ton could be misleading.

From 18 meters to the end of the hole at 105 meters the core is of propylitic and/or red hematitic alteration zones with a variable quartz carbonate ground mass and/or stringer content. The highest assay was from the area of the porphyritic-propylitic altered zone at 19.8 to 22.5 meters which returned 375 ppb Au and 802 ppm As.

Drill Hole No.: 85-2

Location: Imperial Zone (Same loc. as 85-1)

Bearing: 150°
Dip: -60°

Length: 212 meters

Results: portion of the drill hole (to 26.5m) in brecciated porphyritic meta andesite. Heavy alteration ankerite carbonate, quartz and limonite with localized blebs and pods of fine grained pyrite. stringers, Localized stibnite and quartz (selected sample at 18 m assayed .037 oz Au/ton and 17.11 Sb) massive stibnite at 18.2 to 18.6 meters assayed 280 ppb Au and 23.32% Sb. Core recovery from 16.1m to 18.6m was 62%. Balance of from 26.5m. to 212m is of propylitic and/or red the hole hematitic altered meta-andesite with variable quartz carbonate content within the and/or ground mass stringers.

Drill Hole No.: 85-3

Location: Imperial zone - 7.5m north of DH 85-1

Bearing: -

Dip: -90°

Length: 99.5 meters

Results: To 19.5m variably silicified with light red hematite and limonite associated with fractures. Gouge at .9m - 1.8m and localized. Localized stringers and "pebbles" of stibnite and/or qtz. Core recovery of 7% over 1.1 meters, 25% over 2.5 meters and 33% over 3.4 meters.

Drill Hole No.: 85-4

Location: Imperial zone - 74m @187° from DH 85-1 and

15m lower in elevation.

Bearing: 115°

Dip: -70°

Length: 151.5 meters

Results: Bleached-limonitic and altered volcanics to 37.6 meters with localized zones of quartz-carbonate Massive stibulte vein (0.3m) and stibulte quartz pyrite. veinlets and/or ankerite. Massive stibnite zone assayed .184 oz Au/ton. Sections of quartz-stibnite assayed .097 oz Au/ton, 3888 ppm As and 1376 ppm Sb over .9m and .9m o f .068 oz Au/ton, 802 ppm Sb, and 1541 ppm As with an section from 37.6m to included graphitic zone. Lower propylite and red hematite altered zones with included localized sections and/or zones of ankerite and bleached from increased hydrothermal alteration increased quartz content.

Drill Hole No.: 85-5

Location: Senator zone - 40m lower in elevation than DH

85-4 and 44.5m @252° from DH 85-1

Bearing: 130°

Dip: -60°

Length: 151 meters

Results: Bleached altered zone (meta andesite)

Including a section of porphyritic meta andesite to 26m. Alteration includes a greenish gray chloritic-clay ground mass with variable carbonitic and ankeritic content. Moderate to heavy limonite on fractures. Values of up to 175 ppb Au with 150 ppm As over 2.7 meters. Also a 1.7 meter section of 60 ppb Au and 442 ppm As.

From 27m to 151m. localized sections of propylitic and red hematitic zones with dominant ankeritic sections of greater hydrothermal alteration and increased quartz content.

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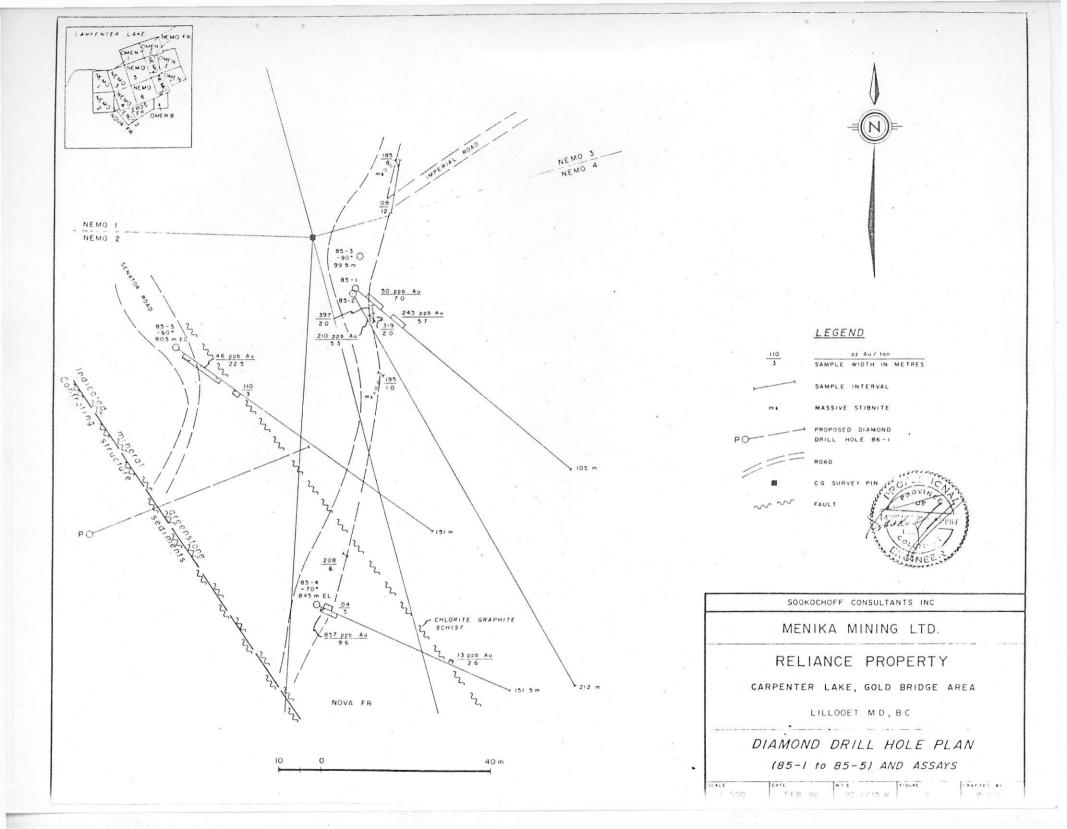
Results: cont'd.

A section of black chloritic schist (after andesite) from 33.2m to 45.1m with graphitic and ankeritic zones. A 3.1 meter section of schist with quartz veinlets returned a weighted average grade of .110 oz Au/ton. The highest assay in this section returned .182 oz Au/ton, 9804 ppm Sb and 3557 ppm As over 1.4 meters.

### RECOMMENDED EXPLORATION PROGRAM

It is recommended that a 750 meter diamond drill program be carried out to test the main structural contact zone. The initial drill hole should be spotted to the southwest of the contact, collared in the sedimentary formation and drilled northeasterly across the structure. The Senator Road levelthe level of drill hole 85-5 would be initially tested with subsequent holes spotted based on the initial results.

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### ESTIMATED COST OF THE RECOMMENDED PROGRAM

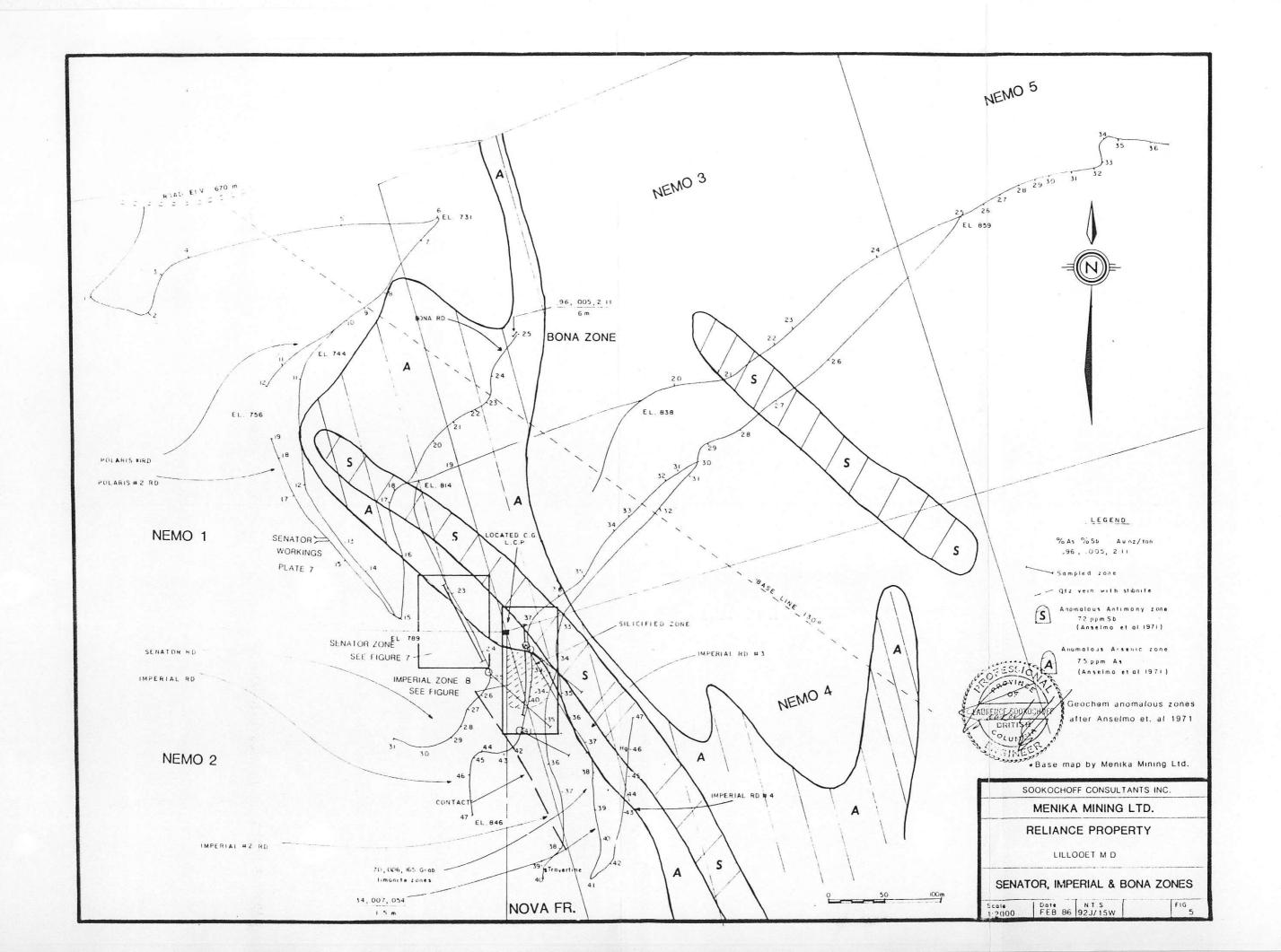
Diamond Drilling

750 meters @ \$100 \$75,000 5,000 Associated costs Engineering and Supervision 10,000 \$90,000

It is estimated that the program would take two months to complete.

Laurence Sookochoff, P.Eng. Constitute Geologist

February 10, 1986 Vancouver, B.C.



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- George Cross News Letter No. 26, Feb. 26, 1985.

#### CERTIFICATE AND CONSENT

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

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with offices at 311-409 Granville Street, Vancouver, B.C., V6C 1T2.

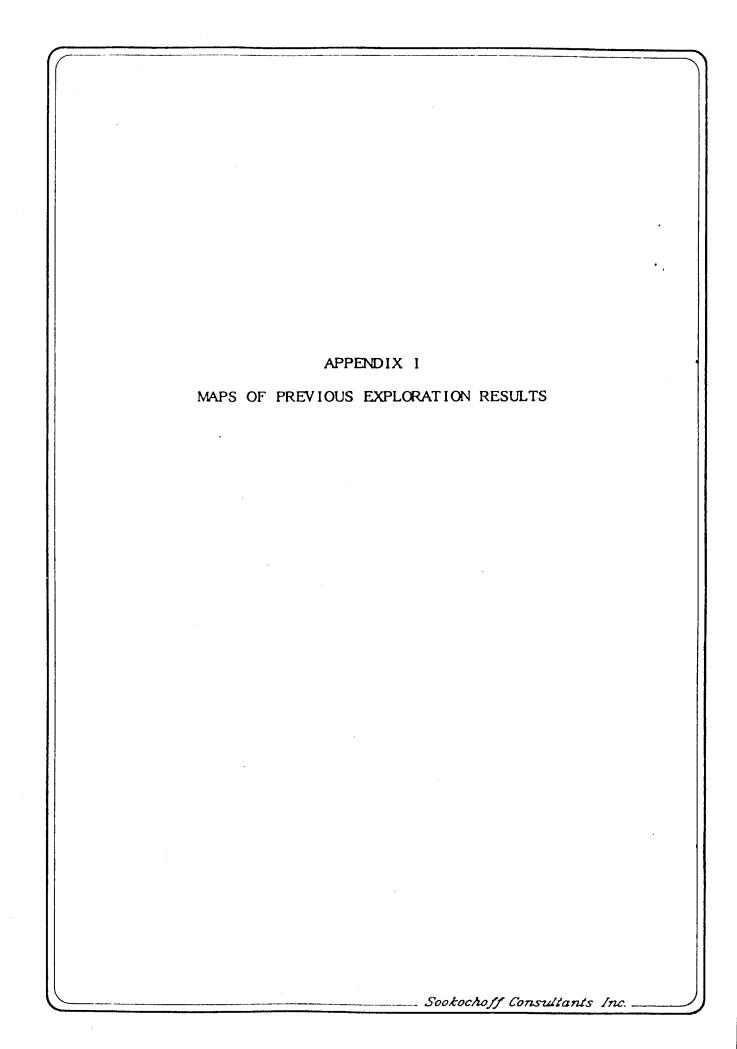
#### I further certify that:

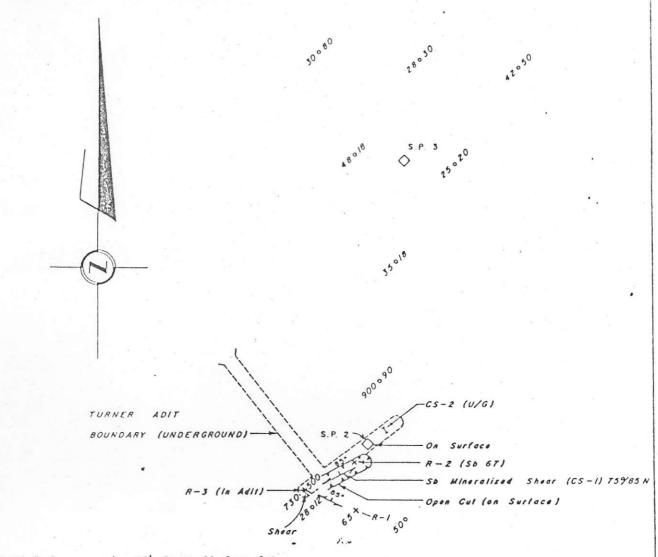
- 1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology
- 2. I have been practising my profession for the past nineteen years.
- 3. I am registered and in good standing with the Association of Professional Engineers of British Columbia.
- 4. The information for this report was obtained from sources as cited under Selected References, from a property examination and sampling program carried out on June 26-28, 1985 and from the supervision of the 1985 diamond drill program.
- 5. I have no direct, indirect or contingent interest in the property described herein. I own 2057 shares of Menika Mining Ltd.
- 6. This report may be utilized by Menika Mining Ltd. for financial purposes.

Eurence Sookochoff, P.Eng. Consulting Geologist.

February 10, 1986 Vancouver. B.C.

Sookochoff Consultants Inc.





TR-TA-R-1 O/c 25' South Of Open Cut

" R-2 Sample Of Rock In Cut Hext To Shear - Green Andestte

" R-3 4' Sample Of Fault Gouge Where Shear Is Faulted In Adit, (Underground)

" CS-1 Channel Sample Actors Shear In Cut (2') - Stibnite In Quartz 4"-6" Oxidized f

Sheared (.19 T Au, 13.7% Sb)

" CS-E Across 12" 9 15' From East End Of Crosscut In Adlt. Stibnite in 2"-5" Quartz Vein (  $0.016 \frac{\partial E}{\Gamma}$  Au, 1.52% Sb)

Soil Sample & Values

Soil Profile

Rock Location

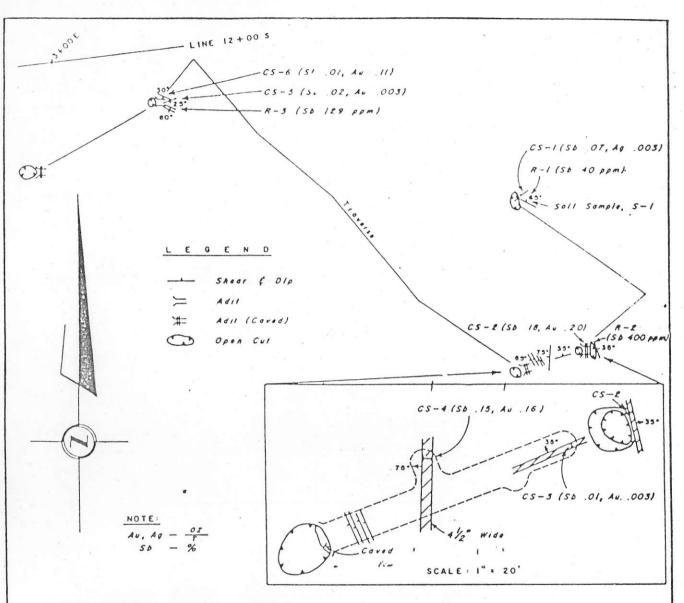
# SAMPLE DATA TURNER ACIT & OPEN CUT

T. V.I. MINING L.TD.

OMEN, NEMO & EROS CLAIMS

SCALE: 1" DO FEET APPROX.





#### CHIP SAMPLES

TR-5-CS-1 2" Oxidized Gouge Of Shear (50/90) In Small Open Cut

" CS-2 6" Oxidized Koolinitic Gouge

" CS-3 6" Shear At End Of Adil

" CS-4 4.5' Shear At End Of Crosscut In Adit - Gouge W/ Colcile Stringers

" CS-5 Shear At End Of 15' Long Adil, Sample 12" Across

CS-6 Shear Or Vola W/ Minor Pyrile. Sample 6" Acrose

#### ROCK GEOCHEM SAMPLES

R-I Sample Of Wall Rock At CS-I - Siliceous Tull With Minor Pyrile

" R-2 " " CS-2 " "

" R-3 " " CS-5 " Hand Specimen

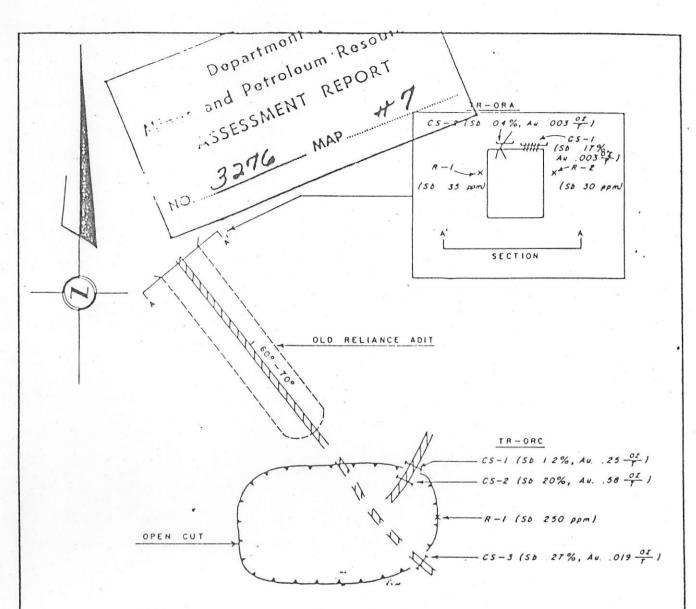
# LOCATION, SAMPLE DATA & GEOLOGY SENATOR WORKINGS

T.V.I. MINING LTD.

OMEN, NEMO & EROS CLAIMS

SCALE: 1" 100 FEET APPROX





#### ADIT

TR-ORA-CS-1 Across 10" Shoor At Portal

" CS-2 Across Intersection Of Two Shears Al Portal (8")

" R-1 Host Rock On worth Side Of Portal - Purple Andersite

R-2 " South " - Green

#### OPEN CUT

TR-ORC-CS-1 12" Oxidized Shear Of Stibnile in Quartz

" CS-2 S" Lower Than CS-1 In Same Shear - 6"X 2"XI" Channel Sample

" CS-3 4" Shear - Some In Adil

" R-1 Bolwoon CS-1 & CS-3, Allered, Oxidized Andeoile

" R-2 Average Sample Of Outcrop Around Adil ( Open Cut ~ 60' (SD 60 ppm)

" R-2-R Quarts W/ Stibnite & Oxides From Shear At TR-ORC-CS-2 (Sb > 4000 ppm)

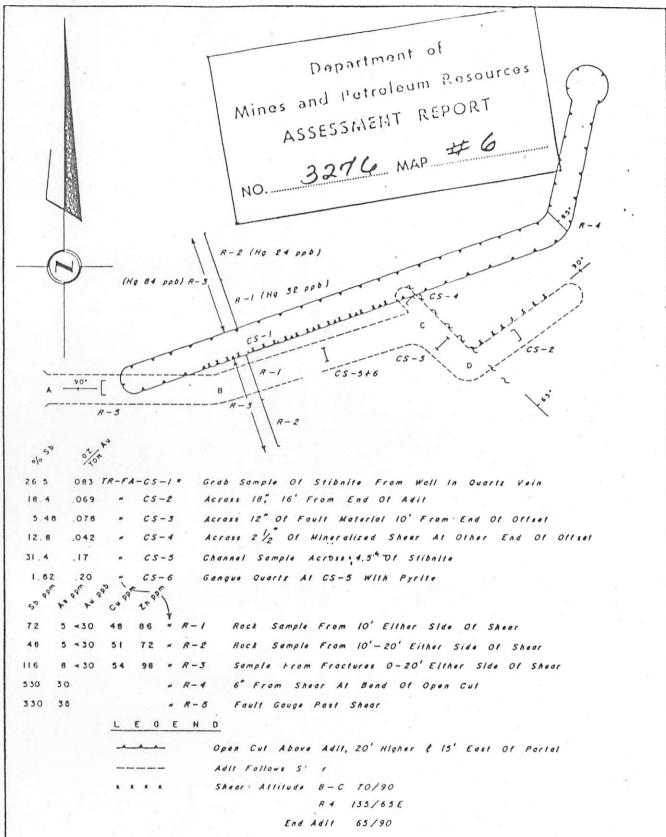
# GEOLOGY & SAMPLE DATA RELIANCE WORKINGS

T. V. I. MINING LTD.

OMEN, NEMO & EROS CLAIMS

SCALE: (". 10 FEET APPROX





Shear Mineralized From Portal With Stibnite Across 2"-18"
Fault Offsets Shear 130/75N

# FERGUSSON ADIT & OPEN CUT

T. V. I. MINING LTD.

OMEN, NEMO & EROS CLAIMS

SCALE: 1" 20 FEET APPROX

EXPLORATION SURVEYS LTD