GEOCHEMICAL, GEOPHYSICAL AND ROAD SURVEYS

ON THE ALEXANDRIA PROPERTY

Located Claims:

Ben 1 to 6	**(6 units)**	**345159 to 345164**
Jeff	**(9 units)**	**348964**
Dy 1 to 4	**(4 units)**	**344975 to 344978**
Dy 5 and 6	**(2 units)**	**345277 and 345278**
Hope 1 to 4	**(4 units)**	**342582 to 342585**

Owners:

Bernard H. Fitch
304-420 7th. Street
New Westminster, B.C.
V3M 3L1

Christopher I. Dyakowski
3750 West 49th. Avenue
Vancouver, B.C.
V6N 3T8

Location:

Vancouver Mining Division
N.T.S.: 92 K/6, 92 K/11
U.T.M.: 5595200 N., 331250 E.

Optionee:

NORWOOD RESOURCES LIMITED
1104-750 West Pender Street
Vancouver, British Columbia
V6C 2T8

By
John Ostler, M.Sc., P.Geo.
Consulting Geologist

January 12, 1998

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GEOCHEMICAL, GEOPHYSICAL AND ROAD SURVEYS ON THE ALEXANDRIA PROPERTY

SUMMARY

The Alexandria property is located on the steep slopes of the Pembroke Range above the western shore of the mouth of Phillips Arm. It is at the boundary of the Pacific Ranges of the Coast Mountains of south-western British Columbia. The property comprises seventeen located claims. These claims cover 25 claim-units; about 537.5 ha (1290 A) after deducting areas of overlapping claims. This property adjoins the Doratha Morton gold mine property to the southeast.

The Alexandria workings, the most extensive workings in the claim-area, are located in the southeastern part of the property, at 50° 29' 22" north and 125° 22' 45" west in the Vancouver Mining Division of B.C.

The Alexandria property is about 60 km (36.6 mi) north-northwest of Campbell River, B.C. and is accessible by boat and float plane.

Access to the south-central part of the property is by a series of logging roads that terminate at tide water at Picton Point, about 3 km (1.8 mi) southwest of the Alexandria workings. All major access routes to the property area were brushed out during the 1996 exploration program. There are no significant creeks on the property. However, adequate fresh water for mining purposes could be obtained from the creek that flows into Cordero Channel southwest of Picton Point south of the claims.

Elevations on the property range from sea level to 993.6 m (3260 ft). The southwestern part of the claims is covered by second growth forest. The extremely steep slopes on the northeastern part of the claims has not been logged very far up from the shore. There is sufficient available timber on the Alexandria property to support a mining operation.

Soil development on the Alexandria property is extremely variable. However, on most slopes soil profiles are sufficiently mature to have distinct undisturbed horizons amenable to

meaningful soil survey results. Even in poorly developed soils on very steep slopes, dispersion trains of gold particles can be used to locate gold-bearing lodes.

The property is owned by Bernard H. Fitch and Christopher I. Dyakowski. Norwood Resources Limited holds an option to acquire 100% interest in the property subject to a defined 2% net return royalty to Dyakowski and Fitch.

The Alexandria property is located on a roof pendant of metavolcanic and metasedimentary rocks within the Coast Range plutonic complex. The roof pendant hosts a series of sub-parallel, en echelon gold-bearing structures that attain lengths of over 500 m (1640 ft).

Gold occurs with sparsely disseminated pyrite, tellurides and traces of other sulphides in ribboned quartz veins and dilatant pods within these structures. Gold concentration in these quartz bodies can exceed 5.0 oz/ton (165.6 gm/mt) and commonly is in excess of 0.3 oz/ton (10 gm/mt) across widths in excess of 1 m (3.28 ft). Composite widths of several adjacent quartz bodies can exceed 10 m (32.8 ft).

The property covers some of the central and most intensely mineralized part of the Phillips Arm gold camp which extends for 6 km (3.7 mi) from the northern shore of the entrance to Phillips Arm, up the mountain toward Loughborough Inlet. Old gold prospects and mines presently within the Alexandria property are: the Alexandria, Enid-Julie, Empress and All Up. Northwest of the Enid-Julie and Empress is the Doratha Morton mine and the Champion-Commonwealth prospect which are presently covered by other claims.

Production from the Doratha Morton mine from 1898 to 1899 was 4,434.08 ounces of gold and 10,222 ounces silver from 9,707 tons of ore. The Alexandria mine produced 773.66 ounces of gold and about 1,340.5 ounces of silver from 1,915 tons of ore from 1898 until 1940.

Neither of these former producers is worked out.

Major gold-bearing structures have been found in two areas on the property; at the Alexandria mine, located in the southeastern part of the property, and along a trend that extends from the Enid-Julie workings northwestward to the northern property boundary near

the Doratha Morton mine.

The 1997 soil survey in the Ben grid area was conducted over 5250 m of new grid line and 475 m of base line. This expanded soil grid-area covers the expired Comox and Empress crown grants (now covered by the Ben claims) and tests most of the area between the Doratha Morton and Enid-Julie workings. Soils range up to 760 ppb gold with high gold concentrations being concentrated along four linear trends named: the Doratha Morton, Comox, Main Empress and West Empress trends. Soil-silver anomalies indicate that they are the result of down-slope dispersion from very local sources along the soil-gold trends.

Magnetic and electromagnetic surveys were conducted along 2337.5 m of grid line and 800 m of base line in the central part of the Ben grid area.

The Comox adit was located at 2+80 E., 0+20 S. on the Ben soil grid. It was driven into meta-andesite for 46 m at a bearing of 215°. The adit was at an elevation of 838 m (2749 ft) and was an attempt to test the downward extent of mineralization in two parallel, 2 m-thick quartz bodies that outcropped at 849 m (2785 ft). Sparse pyrite and dark grey discolouration assumed by the writer to be sylvanite ($AuAgTe_4$) was exposed in a small exploration trench blasted into the westerly quartz ledge in the outcrop. That mineralization probably provided the encouragement to drive the adit. Sample CO97-1, a composite chip sample taken by the writer in the trench of grey quartz containing sparsely disseminated pyrite contained 2.19 gm/mt (0.064 oz/ton) gold and 7.5 gm/mt (0.219 oz/ton) silver with no copper, lead or zinc.

The Empress adit was located near 6+00 E., 0+25 S. at an elevation of 850 m (2788 ft). Soil has sloughed down the slope and buried the adit at the portal, however, the tunnel appears to have been driven at a bearing of 215° to get under a quartz body that is exposed about 10 m up the slope. There is enough material on the dump to account for a 30 m long tunnel.

A 2-m thick quartz ledge mineralized with pyrite, sylvanite and smoky grey mineralization assumed to be fine-grained tellurides is exposed at both sides of the portal. Sample ED97-1, a composite chip sample of material in place, ran 192.5 gm/mt (5.62 oz/ton) gold and 647 gm/mt (18.87 oz/ton) silver with no copper, lead or zinc. The Empress adit portal is

close to a sample site containing 310 ppb gold in soil on the Main Empress soil-gold trend.

A new road route was surveyed from the mine camp on the Doratha Morton property to a point on the slope near 5+15 E., 1+00 N. on the Ben grid.

Work on the area between the Doratha Morton and Enid-Julie workings-areas during the 1997 program has added significantly to the understanding of the distribution of mineralization in that area.

The distribution of gold in soils indicates that there are at least four sub-parallel, en-echelon, mineralized structures in the Ben grid-area. The orientations of the soil-gold trends suggests that these structures are arcuate, sub-vertical tension gashes. This is confirmed by the presence of numerous quartz ledges and podiform bodies in outcrops of meta-andesite located along the soil-gold trends. Pyrite-sylvanite mineralization in quartz at the Empress adit and up-slope from the Comox adit demonstrate that gold and silver tellurides are locally present in significant amounts within these dilatant quartz bodies.

The intensity of mineralization within the dilatant quartz bodies seems to be quite variable. The distribution of soil-silver in the grid-area may be a good indication of the locations of high-grade gold and silver mineralization. Plumes of silver in soils extend down-slope from mineralized trends at several locations, perhaps revealing more mineralized areas.

Geophysical surveys seem to be of little use in the location of mineralization on the Alexandria property. The total pyrite content of gold and silver bearing rocks in this area is rarely more than 1% of the total rock. Consequently the magnetic response of mineralizes quartz bodies would not be very different from that of the surrounding meta-andesites. Most of what is revealed by the magnetic survey conducted during the current program is probably gneissic layering or palaeostratigraphy in the meta-andesite host rocks. Steep variable slopes and the general lack of contiguous sulphide mineralization tends to render electromagnetic surveys ineffective.

Careful prospecting and soil geochemistry have been demonstrated to be the most effective tools for the exploration of economic mineralization in this area.

GEOCHEMICAL, GEOPHYSICAL AND ROAD SURVEYS ON THE ALEXANDRIA PROPERTY

1.0 INTRODUCTION

1.1 Terms of Reference

The writer was retained by Bernard H. Fitch and Christopher I. Dyakowski on behalf of Norwood Resources Limited of Vancouver, British Columbia through Cassiar East Yukon Expediting Ltd. to conduct an examination of the 1997 work on the Alexandria Property.

Field work on the Alexandria Property was conducted from November 15 until December 7, 1997. Data compilation continued intermittently until 12, 1998. The work was conducted under work approval number NAN-96-0801071-123 by Bernard H. Fitch, one of the owners of the claims.

1.2 Location and Access

The Alexandria Property is located on the steep slopes of the Pembroke Range above the western shore of the mouth of Phillips Arm. The Phillips Arm area is at the western boundary of the Pacific Ranges of the Coast Mountains of south-western British Columbia (Figure 1). The property comprises seventeen located claims which are owned 100% by Christopher Dyakowski and Bernard Fitch. These claims cover 25 claim-units; about 537.5 ha (1290 A) after deducting areas of overlapping claims. This property adjoins the Doratha Morton gold mine property to the southeast.

The Alexandria workings, the most extensive workings in the claim-area, are located near the shore of Phillips Arm in the southeastern part of the property, at 50° 29' 22" north and 125° 22' 45" west in the Vancouver Mining Division of B.C. (Figure 2).

The town of Campbell River is the closest major supply and service centre to the Phillips Arm area. Campbell River is on the northeastern coast of Vancouver Island near the northern end of Strait of Georgia. It services local fishing and logging industries and most services required for property exploration and development can be found there. It is about 200 km (122

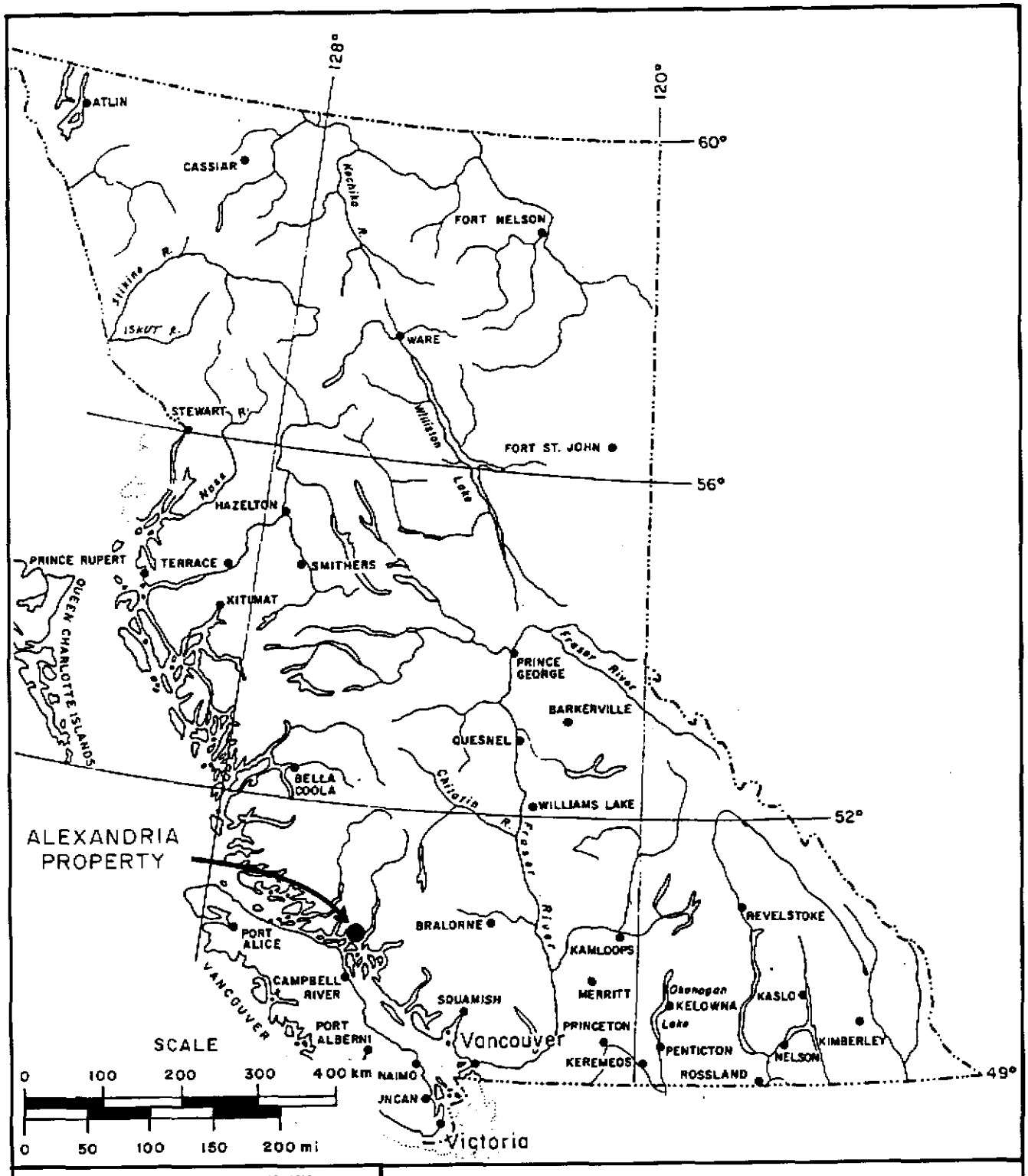

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Figure 1

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

GENERAL LOCATION

ALEXANDRIA PROPERTY

50°29'22" N., 125°22'45" W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

mi) from Vancouver to Campbell River via the Nanaimo ferry and B.C. Highway 19.

The Alexandria property is about 60 km (36.6 mi) north-northwest of Campbell River and is accessible by boat and float plane. The closest accommodation to the property-area is Cordero Lodge, located in the bay near Lorte Island in Cordero Channel about 8 km (4.9 mi) southwest of the property-area. The lodge is open from early spring until late autumn.

Access to the south-central part of the property is by a series of logging roads that terminate at tide water at Picton Point, about 3 km (1.8 mi) southwest of the Alexandria workings (Figure 2).

1.3 Terrain and Vegetation

The Alexandria property is located at the western boundary of the Pacific Ranges of the Coast Mountains of south-western British Columbia (Figure 2) (Holland, 1976).

Holland's description of the terrain of the Pacific Ranges containing the area around the Alexandria property is as follows:

> The Pacific Ranges... comprise essentially granitic mountains extending southeastward from Burke Channel and Bella Coola River for about 300 miles to the Fraser River. The ranges have a width of 80 to 100 miles between their western boundary along the Coastal Trough and their eastern boundary with the Interior System. On the western side the summit levels diminish to the west with the downward slope of the late Tertiary erosion surface...
>
> The Pacific Ranges contain the highest peaks in the Coast Mountains... There are a number of 10,000- to 11,000-foot peaks... Drainage in the Pacific Ranges is to the coast by way of the Bella Coola, Kingcome, Homathko, Southgate, Toba, Squamish and Lillooet Rivers and their tributaries. These have cut major lower-level valleys through the mountains, dividing them into blocks...
>
> The high peaks are sculpted by cirque glaciers. Many projected as nuantaks above the Pleistocene ice-cap, whose upper surface over the Pacific Ranges was from 5,000 to 8,000 feet above sea-level. Lower summits were covered by the ice-sheet at its maximum, and many of these are rounded and domed even though they are scalloped by cirques on their northeastern sides. Evidence of tremendous ice erosion is everywhere to be seen...
>
> There is a noticeable difference between the heavy vegetation in the western ranges, where rainfall is high and the eastern ranges, where the rainfall is lighter...
>
> Holland, S.S.; 1976: pp. 42-43.

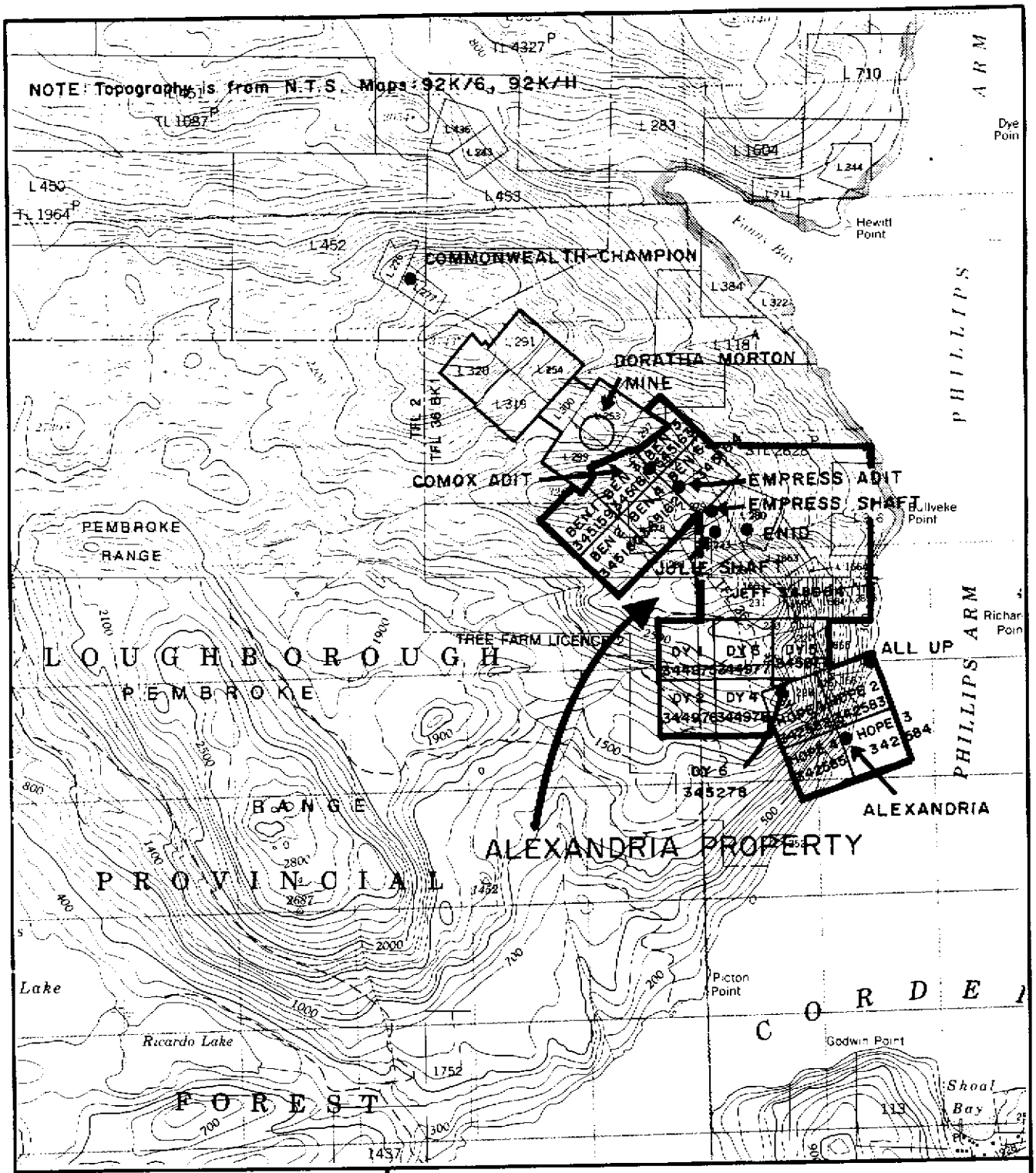


Figure 2

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

LOCATION and TERRAIN

ALEXANDRIA PROPERTY

50°29'22" N., 125°22'45" W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

There are no significant creeks on the Alexandria property. However, adequate fresh water for mining purposes could be obtained from the creek that flows into Cordero Channel southwest of Picton Point (Figure 2).

Elevations on the property range from sea level to 993.6 m (3260 ft) near the northwestern corner of the property (Figure 2).

The southwestern part of the claims is covered by second growth forest. The extremely steep slopes on the northeastern part of the claims has not been logged very far up from the shore. The forest is dominated by yellow cedar with lesser amounts of douglas fir. There is sufficient available timber on the Alexandria property to support a mining operation.

Soil development on the Alexandria property is extremely variable due to great variation in slope. However, in most areas on the claims where soil development is significant, soil profiles are sufficiently mature to have distinct undisturbed horizons amenable to meaningful soil survey results. Even in poorly developed soils on very steep slopes, dispersion trains of gold particles can be used to locate gold-bearing lodes.

The closest weather station to the property-area is at Powell River, British Columbia. Climatic statistics for the Powell River station are quoted from Environment Canada as follow:

Average temperature: January, High 4.6°C. July, High 22.7°C
Low -1.1°C. Low 10.8°C.

Average annual precipitation: 1258 mm
of which 68 cm (68 mm of rain equivalent) falls as snow

Month-end snow pack in cm:

This data is not available because snow pack does not accumulate at sea-level in this area.

The climate around the property-area is more extreme than at Powell River because it is 50 km (30.5 mi) north of open water of the Strait of Georgia. At sea-level in the property-area, very little snow accumulates. However, in the ridge-top area on the western part of the claims, snow can accumulate from November until April during a cold year.

1.4 Property

The Alexandria property comprises the following claims located in the Vancouver Mining Division of British Columbia (Figure 2):

Claim Name	Record Number	No. of Units	Record Date	Expiry Date	Owner
Hope 1	342582	1	Dec. 13, 1995	Dec. 13, 2002	C.I. Dyakowski
Hope 2	342583	1	Dec. 13, 1995	Dec. 13, 2002	C.I. Dyakowski
Hope 3	342584	1	Dec. 13, 1995	Dec. 13, 2002	C.I. Dyakowski
Hope 4	342585	1	Dec. 13, 1995	Dec. 13, 2002	C.I. Dyakowski
Ben 1	345159	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 2	345160	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 3	345161	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 4	345162	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 5	345163	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 6	345164	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Dy 1	344975	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Dy 2	344976	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Dy 3	344977	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Dy 4	344978	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Dy 5	345277	1	Apr. 21, 1996	Apr. 21, 2002	C.I. Dyakowski
Dy 6	345278	1	Apr. 21, 1996	Apr. 21, 2002	C.I. Dyakowski
Jeff	348964	9	July 23, 1996	July 23, 2002	B.H.Fitch
		25			

Note: These expiry dates reflect assessment credit filed from the work reported upon herein.

Bernard H. Fitch and Christopher I. Dyakowski entered into an option agreement with Norwood Resources Limited on August 2, 1996 whereby: for payments comprising $95,000 and 200,000 of its common shares, and by the expenditure of $500,000 on exploration of the claims, Norwood could acquire 100% of the Alexandria property. Payments and expenditures under that agreement must be made by the third anniversary of the listing of Norwood on a stock exchange. Norwood's ownership in these claims shall be subject to a defined 2% net return royalty to Dyakowski and Fitch.

The writer personally inspected most of the posts and lines of the claims comprising the Alexandria property on October 22 to 24, 1996 (Ostler, 1997). In his opinion, they have been staked in accordance with the laws and regulations of the Province of British Columbia.

The property boundaries have not been surveyed.

1.5 Summary of Present Work

Field work on the Alexandria property was conducted from November 15 until December 7 , 1997. Data compilation continued intermittently until January 12, 1998. The work was conducted under work approval number NAN-96-0801071-123 by:

Christopher I. Dyakowski, B.Sc. Vancouver, B.C.	Consulting Geologist
Bernard H. Fitch, B.A. New Westminster, B.C.	Exploration Manager
John Ostler; M.Sc., P.Geo. West Vancouver, B.C.	Consulting Geologist
Thomas Jones Bold Point, B.C.	Geological Technician
Karl Christensen Bold Point, B.C.	Prospector
Patrick Poissant Bold Point, B.C.	Geological Technician
Jack Lucke Grand Forks, B.C.	Geophysical Technician
Jason Fitch New Westminster, B.C.	Surveyor
Josco Dujmovic New Westminster, B.C.	Surveyor's Assistant
Wacor Industries Campbell River, B.C.	Equipment Operator

The 1997 work program on the Alexandria property included the following:

A. Soil survey in the Ben grid area comprising a total of 5250 m of grid line and 475 m of base line; 307 soil samples (Figures 19 and 20)	36 man-days
B. Magnetic and electromagnetic surveys in the central part of the Ben grid area comprising a total of 2337.5 m of grid line and 800 m of base line; (Figures 21 to 24).	10 man-days
C. Trenching in the Ben grid area comprising 2 trenches with an aggregate volume of 78 m^3 (Figures 19 and 20)	25 man-days
D. Location and prospecting of old workings and mineral showings (Figures 19, 20, 25 and 26)	13 man-days
E. Renovation of 3 km of access road of which 1.5 km is on the Dy 1-4 claims (Figure 2)	10 man-days
F. Theodolite survey of road route from the Doratha Morton camp to the Ben grid-area; 1308 m	8 man-days
G. Transportation, expediting, camp set-up, data compilation and report time	33 man-days
Total time spent during the current work program	135 man-days

1.6 Claims Worked On

During the November to December, 1997 program, work was done on the following claims:

Claim Name	Record Number	No. of Units	Record Date	Expiry Date	Owner
Ben 3	345161	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 4	345162	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 5	345163	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Ben 6	345164	1	Mar. 31, 1996	Mar. 31, 2002	B.H.Fitch
Dy 1	344975	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Dy 2	344976	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Dy 3	344977	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Dy 4	344978	1	Apr. 2, 1996	Apr. 2, 2002	C.I. Dyakowski
Jeff	348964	9	July 23, 1996	July 23, 2002	B.H.Fitch

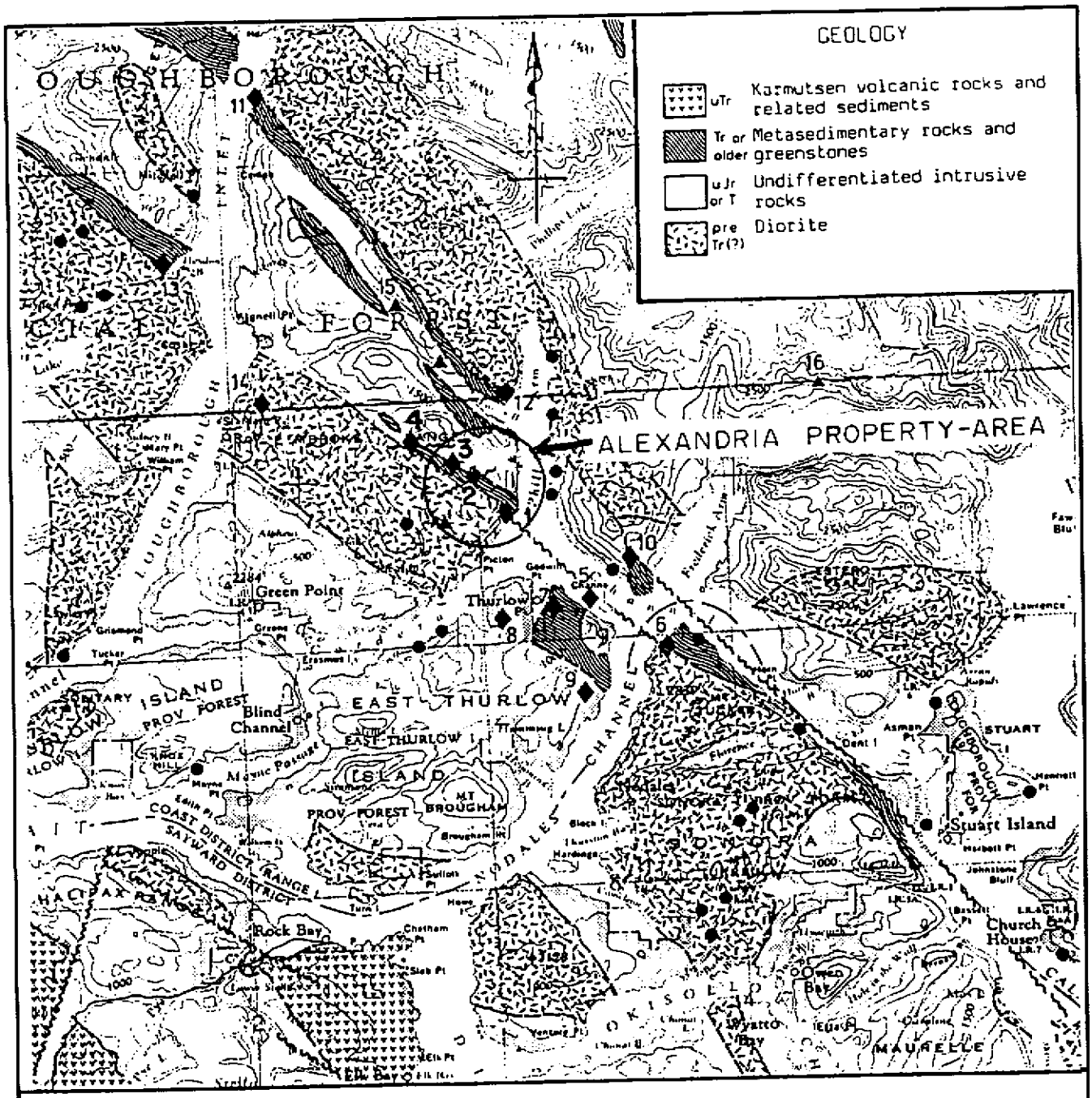
Note: These expiry dates reflect assessment credit filed from the work reported upon herein.

2.0 GEOLOGY AND GEOPHYSICS

2.1 Regional Geology and Mineralization

The regional geology of the area around the Alexandria property and the Phillips Arm gold camp was compiled by Roddick and Woodsworth of the Geological Survey of Canada (Roddick, 1977). Their general description of the rocks of the Phillips Arm gold camp are as follow:

> ... most of the area is underlain by plutonic rocks, ranging from gabbro to quartz monzonite. Granodiorite and quartz diorite predominate and unlike most areas in the Coast Mountains, granodiorite is slightly more abundant. The granodiorite forms a broad central belt about 50 km wide, extending from Big Julie pluton in the southeast to Knight Inlet, with a core area of quartz monzonite between Toba and Knight Inlets. The flanking belts are underlain mainly by quartz diorite but granodiorite and diorite are also well represented. Most of the plutons, excepting the quartz monzonite, exhibit a pronounced northwesterly elongation. This pattern is accentuated by long narrow belts of metasedimentary and metavolcanic rocks...



MINERAL OCCURENCES

- ◆ Gold showing or past producer
- ▲ Molybdenum occurrence
- ● Pyrite occurrence

1 Alexandria
2 Enid-Julie
3 Doratha Morton
4 Champion/Commonwealth
5 Channe Island
6 Sonora
7 Douglas Pine
8 White Pine
9 Thurlow
10 Bluebells
11 Cuba Silver
12 Monte Cristo/Amethyst
13 Heydon Bay
14 Loughborough
15 Ace
16 Colossus

SCALE
0 1 2 3 4 5 km
0 1 2 3 mi

NOTE:
This Figure adapted from Borovic, 1995: Figure 3

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PROFESSIONAL ENGINEER PROVINCE OF B.C. GEOSCIENTIST

Figure 3

NORWOOD RESOURCES LTD.

GEOLOGY and WORKINGS of the PHILLIPS ARM CAMP ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

> Steeply dipping metasedimentary and metavolcanic rocks form narrow bands engulfed in the main mass of the Coast Plutonic Complex. Although interrupted here and there by large plutons they are remarkably persistent along strike and are thought to represent fault slices or grabens along which 'horsts' of plutonic rock were thrust upward. The bounding shear zones in places still exist but synplutonic recrystallization has commonly reduced them to mere foliations or obliterated them entirely. In many places these 'screens' are flanked on one side by diorite and on the other by quartz diorite or, less commonly, by granodiorite. The dioritic rocks may represent remnants of a primitive granitoid basement upon which Karmutsen and later rocks were deposited. Deep burial and subsequent deformation of the eugeosynclinal pile along with the underlying basement was probably in response to compressive forces transmitted through the North America Plate against oceanic crust. Relief came eventually with the onset of subduction, and plutonic masses, formed before and during the compressive stage, began their movement upwards bounded by synplutonic faults. The open structure of the Karmutsen volcanics on Vancouver Island is in marked contrast with the strongly deformed remnants of these rocks within the Coast Plutonic Complex...
>
> Minimum final cooling dates from potassium-argon work on ... granitic rocks show a range from Jurassic (153 m.y.) ... to Eocene (55 m.y.) ... The general decrease in age from west to east is characteristic of the Coast Plutonic Complex between latitudes 50° and 55° N.
>
> Roddick, J.A.; 1977: pp. 2-3.

Borovic (1995) combined Roddick's (1977) regional geology with Cathro and Carne's (1983) locations of the major prospects of the Phillips Arm gold camp resulting in a comprehensive picture of the extent of the camp and its relation to local geology (Figure 3). A general table of geological events and lithological units in the Phillips Arm area is as follows:

FIGURE 4

TABLE OF GEOLOGICAL EVENTS AND LITHOLOGICAL UNITS
IN THE PHILLIPS ARM AREA

Time	Formation or Event
Recent 0.01-0 m.y.	**valley rejuvenation**, down cutting of stream gullies through grey clay-boulder till, development of brown soil
Pleistocene 1.6-0.01 my.	**glacial erosion and deposition,** deepening of major fjords, removal of Tertiary-age regolith, deposition of grey clay-boulder till at lower elevations
Eocene to Pliocene 57-1.6 m.y.	**erosion and unroofing of Coast Plutonic Complex: tensional tectonics,** development of northeasterly trending normal faults and mafic to intermediate dykes
Cretaceous to Eocene 144-57 m.y.	**deposition of gold-bearing quartz-pyrite veins in roof pendants among igneous plutons during shearing and dilation** **development of the Coast Plutonic Complex:** intense deformation of older stratigraphy in roof pendants among rising igneous lobes, development of a deeply rooted mountain chain
Triassic to Jurassic 245-144 m.y.	**deposition of the Karmutsen Group:** mafic volcanics associated sediments, and possibly dioritic sub-volcanic intrusions
Pre-Triassic pre-245 m.y.	**evolution of pre-Karmutsen basement,** now granitoid gneiss
	m.y. = million years ago

Stevenson (1947) summarized the geology and mineralization of the Phillips Arm gold belt as follows:

> This part of the coast is well within the western margin of the Coast Range batholith. Several isolated areas of older rocks are shown in a belt, about 5 miles wide, which extends north-westerly from Sonora Island to Loughborough Inlet a distance of 18 miles. These areas of older rocks probably represent the roots of roof pendants now largely destroyed by erosion.
>
> The older rocks include argillaceous sediments and volcanics that have been minutely folded, and in many places the argillites have been changed to schistose rocks. Limestone pods, found at several points, have been changed by contact metamorphism

to rocks consisting mostly of sulphides and high-temperature silicates. The foliation of the rocks strikes north-westerly to westerly with the trend of the belt...

In this part of the coast there is a concentration of gold-bearing lode deposits, which coincides with the belt of older rocks and was no doubt localized by them. The deposits are veins in fractures and shear-zones along which there has been more or less replacement of wall-rock. Not all the deposits are in roof-pendant rocks, but those in the granitic rocks are not far from them...

Gold is found in quartz veins, usually associated with small quantities of sulphides, and is rarely found if sulphides are not present. Pyrite is the commonest and usually the most abundant sulphide; small amounts of chalcopyrite, sphalerite and galena are sometimes found. Samples of relatively pure pyrite have assayed as much as 5.5 oz. gold per ton.

Most of the deposits are bedded quartz veins striking west-north-westerly with the formations. The vein minerals occur in lenticular masses, one of which may die out along the strike and another may shortly come in.

Stevenson, J.S.; 1947: pp. 12-13.

Intense prospecting was conducted in the area around Phillips Arm in the late 1880s and early 1890s. By 1893, most of the showings along the shorelines including the Alexandria, had been discovered and staked. Showings farther up the steep hill sides were discovered by 1895 and by 1900, the Phillips Arm gold camp was well-defined. It extended from the northern part of Sonora Island northwestward to Loughborough Inlet (Figure 3).

The central and most intensely mineralized part of the camp extended for 6 km (3.7 mi) from the northern shore of the entrance to Phillips Arm, up the mountain toward Loughborough Inlet. That area contained, the Alexandria, Enid-Julie, Empress and All Up; all of which are presently within the Alexandria property (Figures 2 and 3). Northwest of the Enid-Julie was the Doratha Morton mine and the Champion-Commonwealth property.

In 1898, the Doratha Morton gold mine, located adjacent to and northwest of the Enid-Julie showings, was in production. Ore from the mine was transported to the mill located on the southwest shore of Fanny Bay on a 2 km (1.2 mi) long areal tram. The mill included a 5-stamp mill and 6 cyanide leach vats (B.C. Min. Mines, Ann. Rept.; 1898: pp. 1138-1142).

Production from the Doratha Morton mine from 1898 to 1899 was 4,434.08 ounces of gold and 10,222 ounces silver from 9,707 tons of ore (B.C. Min. Mines, Ann. Rept.; 1925: p.

A276).

The Alexandria mine was the second largest gold producer in the camp. About 773.66 ounces of gold and 1,340.5 ounces of silver were recovered from 1,915 tons of ore at the Alexandria mine from 1898 until 1940.

Stevenson (1947) summarized production from the Phillips Arm gold belt as follows:

> ... Total production from seven properties has amounted to 5,821 oz. of gold from 13,702 tons of ore; that is, ore with an average grade of 0.42 oz. of gold per ton. Shipments from individual properties ranged from 2 to 10,000 tons...
>
> Stevenson, J.S.; 1947: p. 12.

2.2 Regional Geophysics

Regional geophysical surveys conducted over the Alexandria property-area are of little use in predicting mineralized quartz veins because any response by such local features is totally masked by large regional trends.

The Bouger Gravity map for this area shows the boundary of the coast mountains but little else (E.M.R. Map 10 GR(BA)).

Aeromagnetic coverage includes N.T.S. map sheet 92 K/6, which contains only the southern part of the property (E.M.R. Map 9764G). There is none for the northern and central parts of the claims. A slight magnetic low is centred offshore in Cordero Channel just south of the Alexandria workings. The workings-area itself coincides with no aeromagnetic disturbance.

Airborne magnetic and electromagnetic surveys were flown over the area southwest of Phillips Arm by Aerodat Limited (Hogg and Podolsky, 1985). The most significant features on maps from these surveys were northeasterly trending linear features that the writer assumes were related to late Tertiary-age mafic dykes that significantly post-date mineralization in this area.

Airborne geophysical surveys have been of little use in finding gold-bearing quartz veins in this part of the Phillips Arm gold camp.

3.0 EXPLORATION AND DEVELOPMENT OF THE ALEXANDRIA PROPERTY-AREA

3.1 Early Exploration and Development of the Alexandria mine: 1893 to 1940

Development of the Alexandria vein system was underway by 1896. The claims had been prospected and surveyed, and the No.1 adit was being driven in on the vein system from a portal located just above high tide. Enough work had been done in the area for the Phillips Arm Gold Mining Company to have the claims covering the Alexandria to be crown-granted in 1897.

Work proceeded underground on the No.1 and No.2 tunnels at the Alexandria, and from 1896 to 1898 several small shipments of ore totaling 48.8 tons grading 1.23 oz/ton gold were sent to the Tacoma smelter (Jones, 1982). A government geologist reported upon the state of work at the Alexandria in 1898 as follows:

> Alexandria Mineral Claim — **Is located on Picton Point, on Philipps Arm, and is in all probability on an extension of the Doratha Morton lead. The claim is a mineral location and is owned by the Philipps Arm Gold Mining Co. and extends from the shore inland.**
>
> **There is an outcropping of a very large quartz ledge near the shore, the strike of the lead being N. 65° W. Upon this ledge a tunnel has been run in about 180 feet parallel with the strike. At a point 90 feet from the mouth of the tunnel, drifts have been driven to the right and left for 45 feet in each direction, neither of which has reached the wall of the ledge. Near the face of the tunnel a 15-foot porphyry dyke cuts across, apparently faulting the ledge slightly.**
>
> **Above this tunnel some 50 feet, is another tunnel, which I could not get into, as it was caved in.**
>
> **There does not appear to be in this property the defined paystreak, noted in the Doratha Morton, and the ledge does not appear to be highly mineralized.**
>
> **A trial shipment of ore is said to have been made to a smelter, and an assay of $28 in gold received.**
>
> B.C. Min. Mines, Ann. Rept.; 1898: p. 1142.

During the same property visit, the tunnel on the All Up claim was examined (Figure 2), resulting in the only early record of its development known to the writer:

All Up Mineral Claim	**Is near the Alexandria, and has a tunnel in about 110 feet, running about magnetic west, some 6 feet above water level, and following an irregular quartz vein, about 24 inches wide, which contains a small amount of white iron sulphides.**

B.C. Min. Mines, Ann. Rept.; 1898: p. 1142.

The All Up tunnel is located on the Alexandria property near the northeastern corner of the Hope 2 claim (Figure 2).

It was found that the Alexandria vein was mineralized throughout with gold in white to grey ribboned quartz containing minor amounts of sulphide. Underground work continued until about 1910 (Borovic, 1995).

The Doratha Morton mine was the most important gold producer in the Phillips Arm camp. Production ceased at the Doratha Morton mine in 1899 because all of the known, easily accessible ore had been exhausted. Ore at the mine was found in high-grade pods and not long shoots. At that time there were no reliable exploration techniques for predicting the size and location of such pods. Tunneling on hope alone was deemed to be too risky.

As development continued on the Alexandria the rest of the Phillips Arm camp went into a decline that lasted until the end of the first world war in 1918.

In 1919, the Alexandria workings, by then comprising the No.1 to No.4 tunnels (Figures 5 and 7) were cleaned out, surveyed and sampled by Henry Rhodes for the Phillips Arm Gold Mines Company (B.C. Min. Mines, Ann. Rept.; 1920: p. N212). Assays from 108 samples taken from adits No.1, 3 and 4 ranged "from about $25 in gold and silver down to low values".

Reportedly, the No.1, 3 and 4 adits were driven on gold-bearing quartz veins. The No.2 adit was driven in the hanging wall of the main Alexandria vein with the intention of using it as a haulage way during full-scale production.

The Phillips Arm Gold Mines Company sold the Alexandria mine to the Alexandria Mines Company, Limited, a new company formed for the acquisition in 1925. During that year, a raise connecting the No.1 and No.2 adits was completed for ventilation, and the workings

were cleaned out. Work was stalled in 1926 due to corporate structuring delays.

An inspection of the Alexandria workings by a government geologist in 1927 resulted in the first succinct description of them presently available:

> **On the Alexandria the pyritized quartz vein will average between 5 and 6 feet in width. *Four tunnels have been driven, but only the lowest one, at the beach, has drifted on the vein* which is continuous for the full length of the tunnel of 530 feet. The ore shoot extends from the collar to 300 feet in the tunnel. Six crosscuts have been driven from this level... At 185 feet in from the portal a raise was driven 50 feet, which is claimed to be in ore all the way, and connected with the tunnel above. The three tunnels above this, at 70 feet, 300 feet and 400 feet elevations respectively, are probably too far to the west and therefore parallel the vein in its hanging wall, although the top tunnel shows high-grade gold values in some places. These upper tunnels were all started at the foot of the bluff just at the top of the talus slope. What is apparently a continuation of the vein was disclosed farther up the hill this summer, and lining this up with the lower tunnel suggests that the vein lies under the rock slide and consequently to the east of the three upper tunnels...**
>
> B.C. Min. Mines, Ann. Rept.; 1927: p. C354-C355.

Work at the Alexandria continued through 1928, comprising surface prospecting, *driving of the No.5 tunnel and preliminary work on the shaft (winze) to the proposed 100 and* 200 levels below the No.1 adit. Mining was supported by a 30-man camp located on the shore just south of the No.1 portal, and a large dock for landing heavy machinery and supplies.

Enthusiasm was buoyed by new discoveries both on surface and underground. Work of that year was recorded as follows:

> **...The lower or beach tunnel follows the quartz vein all the way; the first 300 feet comprises the ore-body, averaging 5 feet in width, of $9 to-the-ton ore, principally gold. The upper tunnels are in a more or less crushed area and mineralization has therefore been irregular and good values found only in spots.**
>
> **The work for 1928, under the supervision of T.D. Davey, mining engineer, has been mainly the exploration of the ground above the beach tunnel. The vein was traced up the hill for about 1,000 feet. In the No.2 tunnel a crosscut was driven north from the crushed condition for a distance of 100 feet through an irregularly mineralized quartz-diorite rock showing values up to $5 to the ton in spots, but no commercial ore. At a favourable point below the outcrops, about 400 feet north of and 200 feet above the beach tunnel, a new crosscut tunnel was driven, encountering the downward extension of the vein at 125 feet in the tunnel and 100 feet below the surface. A drift south was run on the vein, showing it to be 3 to 4 feet wide, composed mainly of shattered and oxidized quartz carrying low values, but these conditions are apparently improving as greater depth is obtained: that is, the fracturing is diminishing and the mineralization increasing.**

It was decided to continue the winze started from the beach tunnel, and in cutting out for hoist, etc., a parallel lens of ore about 4 feet wide was encountered in the hanging-wall, assaying up to $32 to the ton. A sample above the winze across 15 feet gave assays of $12 to the ton. The hanging-wall ore has been opened up for a length of 30 feet. It is proposed to sink the winze to a depth of 100 feet and drift on the vein at that depth...

B.C. Min. Mines, Ann. Rept.; 1928: pp. C380-C381.

At that time it was assumed that the vein encountered in the No.1 tunnel flattened out significantly so that it would be encountered east of the No.2 tunnel driven 50 feet above and was exposed on the slope above the No.3 to 5 tunnels. That assumption has since been found to be incorrect.

The main Alexandria vein passes the No.2 tunnel to the west and is not the same vein encountered in the No.3 to 5 tunnel-area. The writer believes that several sub-parallel mineralized veins occur in the area around the Alexandria workings.

Mining continued through 1929 and was summarized as follows:

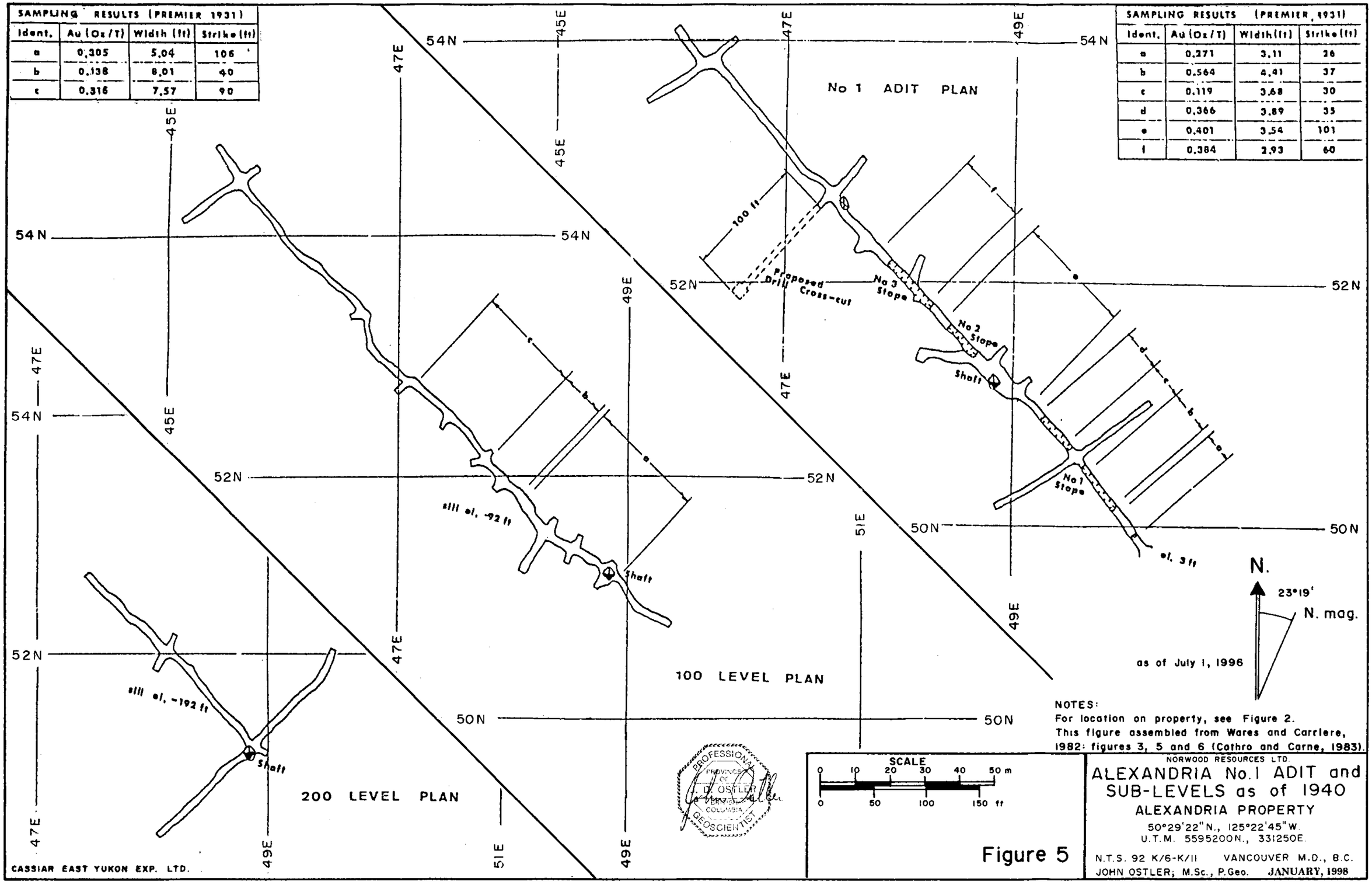
...Further work was done on the surface and upper tunnels, but the important development consisted in sinking the shaft from the lower tunnel as was outlined in the 1928 *Annual Report. The shaft is now down 100 feet and the vein drifted on from the bottom of the* shaft for 37 feet to the west, or into the hill. An average sample across the face of the drift at this point gave $14 in gold to the ton. Selected samples show gold values up to $75 or more to the ton. As the ore is pyrite in a gangue of quartz it will be an ideal one for flotation concentration. Soundings have been taken on the eastward extension of the vein, which indicate that a very appreciable length of drift can be run on the vein under tide-water, from the present depth of the shaft. The shaft is about 300 feet in from the portal of the tunnel and there is therefore room in that distance for substantial bodies of ore...

B.C. Min. Mines, Ann. Rept.; 1929: pp. C386-C387.

By 1933, the shaft beneath the No.1 adit was over 60 m (200 ft) down and extensive work had been done on the 100 and 200 levels out from the shaft. R.S. Mellum inspected and sampled the Alexandria workings during 1931 for Premier Gold Mining Company, Limited (Figures 5 to 7). Premier optioned the property in 1932 and worked in the Alexandria mine in 1934 as was summarized by a government geologist who visited the property that year:

SAMPLING RESULTS (PREMIER 1931)			
Ident.	Au (Oz/T)	Width (ft)	Strike (ft)
a	0.305	5.04	106
b	0.138	8.01	40
c	0.316	7.57	90

SAMPLING RESULTS (PREMIER, 1931)			
Ident.	Au (Oz/T)	Width (ft)	Strike (ft)
a	0.271	3.11	26
b	0.564	4.41	37
c	0.119	3.68	30
d	0.366	3.89	35
e	0.401	3.54	101
f	0.384	2.93	60



NOTES:
For location on property, see Figure 2.
This figure assembled from Wares and Carriere, 1982: figures 3, 5 and 6 (Cathro and Carne, 1983).

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

ALEXANDRIA No.1 ADIT and SUB-LEVELS as of 1940

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

Figure 5

...The Premier Company unwatered the shaft and did an appreciable amount of drifting and crosscutting on the 100- and 200-foot levels... During this period No.2 adit-level, approximately 50 feet above sea-level, and the main (or No.1) adit-level were extended north along the mineralized shear-zone, which at this property is found in a bed of highly altered sedimentary rocks between two granite sills or stocks.

The underground workings were all carefully sampled by the Premier Company, the results of some hundreds of carefully taken channel samples checking very closely the figures obtained by engineers who had formerly sampled the mine. It is indicated that the values, chiefly pyrite and some chalcopyrite, with which is associated gold and silver, are confined to that portion of the shear-zone between the portal and the flat-dipping fault on No.1 level. In this area it appears that there have been two periods of mineralization; the first period during which the quartz and pyrite was deposited, and the second period subsequent to faulting, when quartz, chalcopyrite, pyrite and associated gold values were deposited. This is indicated by the distribution of values as obtained by sampling, the best values coming in the section of the shear underlying the fault, while past it very little in the way of values were found. Ore-zones were located by sampling on the main or No.1 level and on the 100-foot level, with almost negative results being obtained on the 200-foot and No.2 levels.

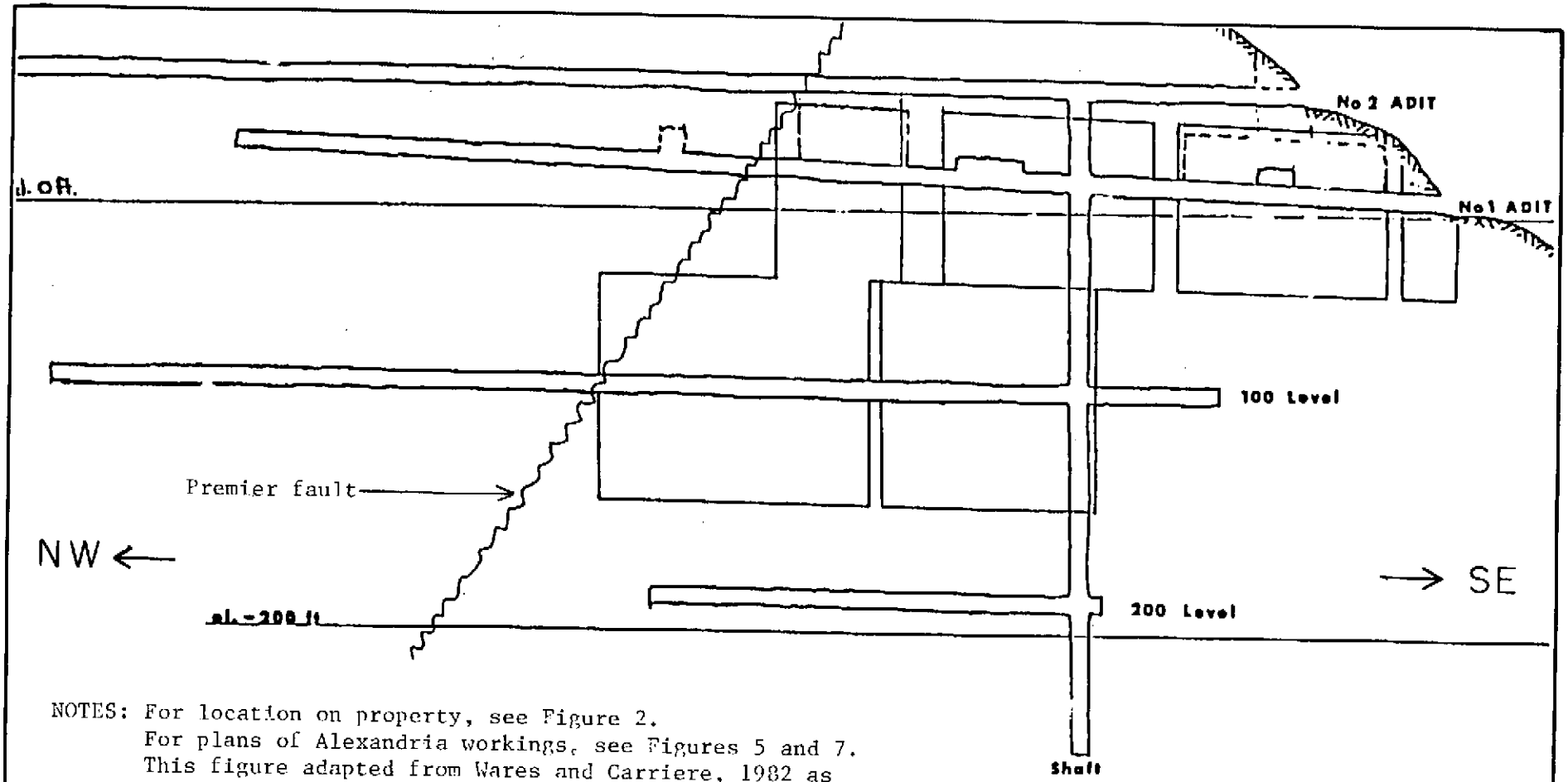
About 15,000 tons of material assaying approximately 0.30 oz. gold per ton is calculated in the ore-shoot between the No.1 and 100-foot levels, due allowance being made for the extension of the ore above and below the two levels mentioned...

B.C. Min. Mines, Ann. Rept.; 1934: pp. F7-F8.

Later that year, Premier dropped their option on the Alexandria property. It was subsequently reoptioned to R. Crowe-Swords, the founder of the Glasord Mining Corporation Ltd. which had developed the Doratha Morton and Enid-Julie properties. R. Crowe-Swords' option had terminated by 1939.

The Alex Mining Company was formed in 1939 to exploit the proven ore in the Alexandria No.1 working. Two stopes located between the portal and the shaft were worked from the No.1 level up to the No.2 level, a distance of about 15.4 m (50 ft). A third was up about 3 m (12 ft) when work ceased. A total of 1,867 tons of ore was shipped to the Asarco smelter from 1939 to 1940 (Borovic, 1995). The writer believes that work ceased because of a shortage of explosives brought about by the second world war and not because of a shortage of ore. After the war, increasing mining costs and a gold price artificially held down to $US 35/oz. prevented further development until the 1970s.

Carriere (1983) summarized development on the Alexandria claim-area as follows:



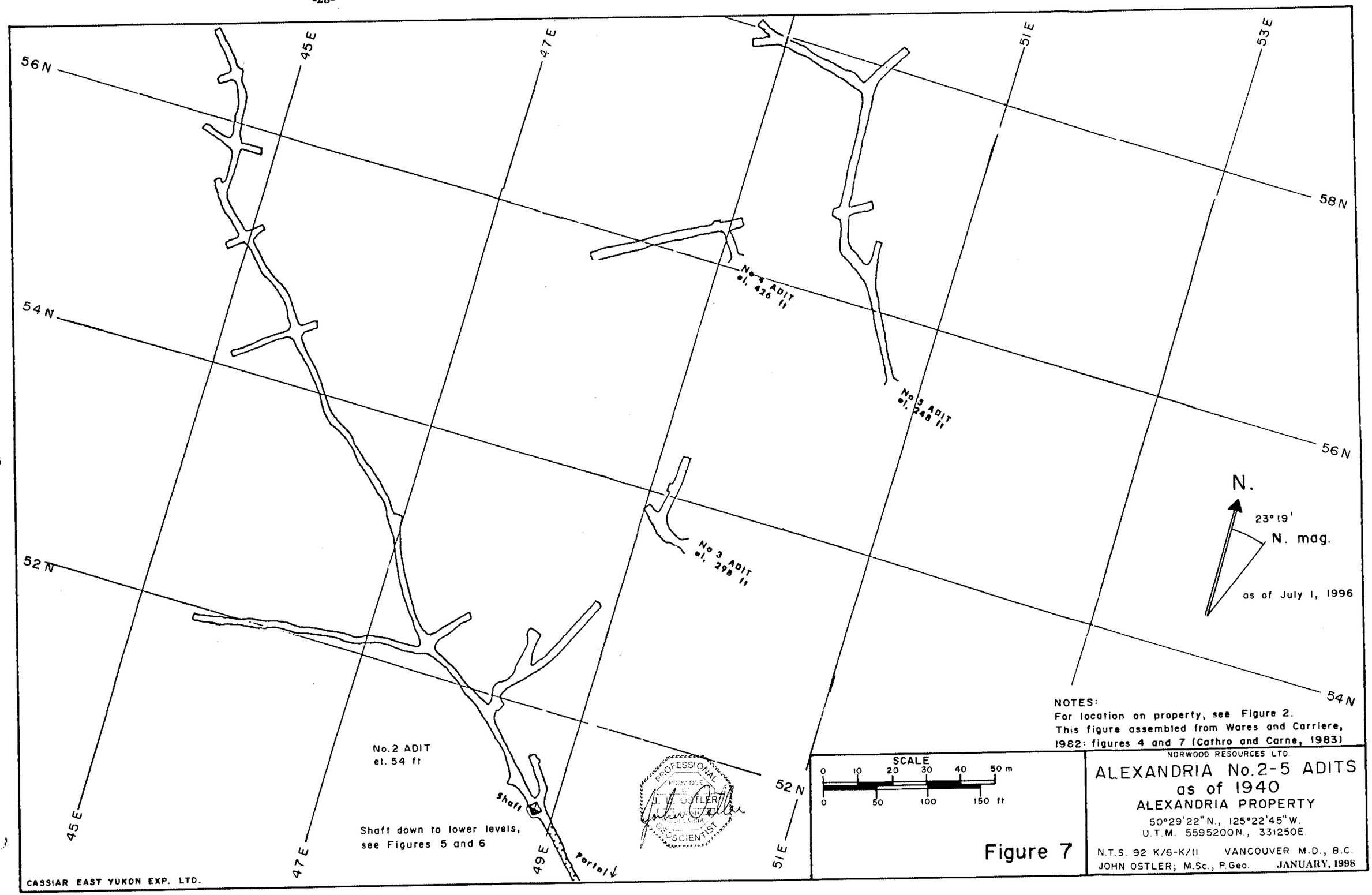
NOTES: For location on property, see Figure 2.
For plans of Alexandria workings, see Figures 5 and 7.
This figure adapted from Wares and Carriere, 1982 as appended in Cathro and Carnes, 1983 and as appears as Borovic, 1995; Figure 29

SCALE
0 10 20 30 40 50 m
0 50 100 150 ft

Figure 6

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.
ALEXANDRIA MINE:
NW-SE SECTION as of 1940
ALEXANDRIA PROPERTY
50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E
N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998



CASSIAR EAST YUKON EXP. LTD.

Figure 7

NORWOOD RESOURCES LTD.

ALEXANDRIA No.2-5 ADITS as of 1940

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

UNDERGROUND ADVANCE: ALEXANDRIA

Heading	Elevation	Drift	X-Cut	Raise	Shaft	Total
No.1 adit	1 m	176 m	122 m	4 m	98 m	400 m
Sublevels: 050 level	-15 m		4 m			4 m
100 level	-30 m	154 m	64 m			218 m
200 level	-60 m	66 m	69 m			135 m
250 level	-75 m		2 m			2 m
No. 2 adit	17 m	230 m	193 m			423 m
No. 3 adit	92 m	18 m	13 m			31 m
No. 4 adit	131 m	11 m	38 m			49 m
No. 5 adit	74 m	72 m	65 m			137 m
Total advance						1,399 m

NOTE: Data for this table is from Carriere, 1983: p. 9, Table III.

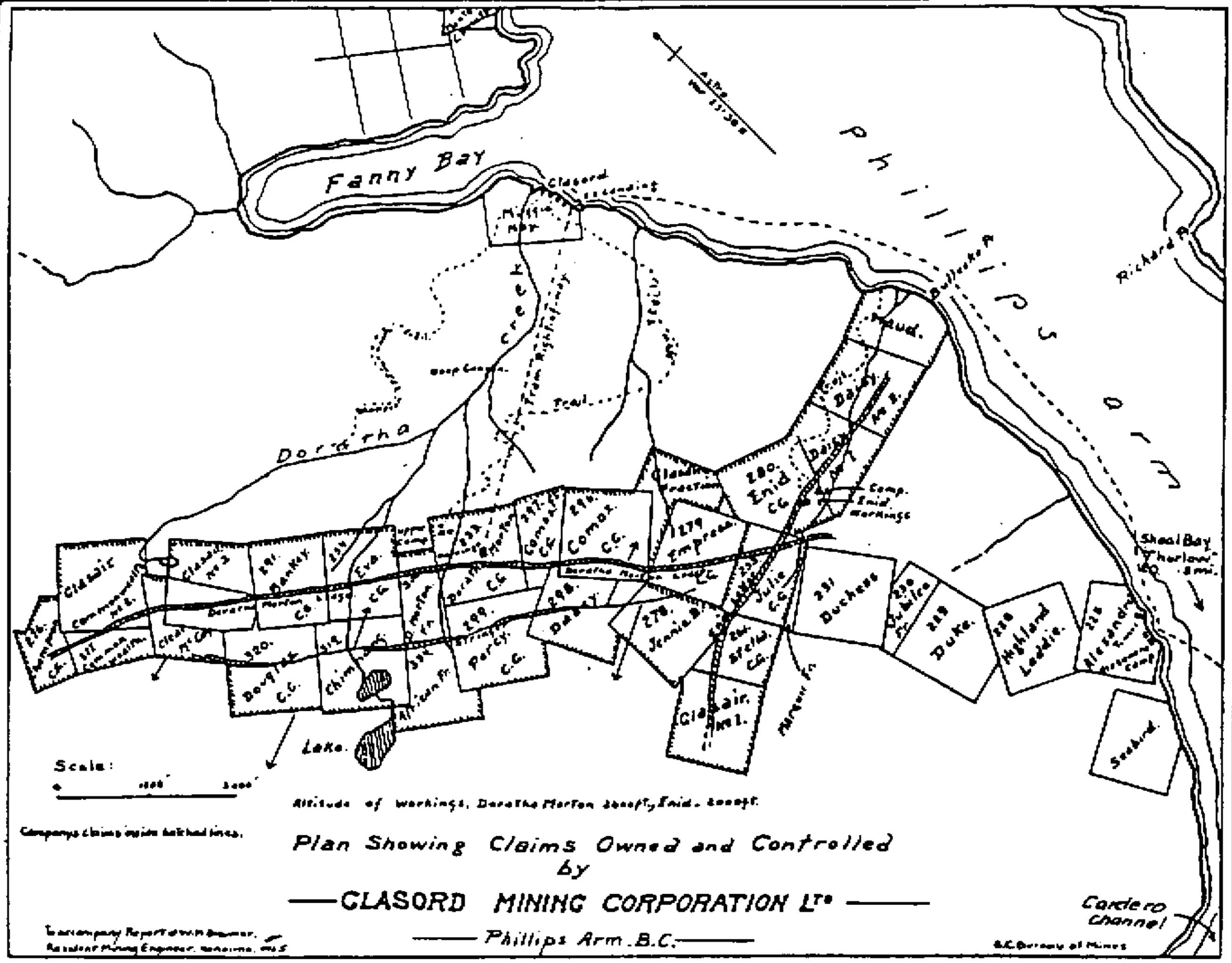
Production statistics from the Alexandria mine were adapted from Carriere (1983) as follow:

PRODUCTION STATISTICS: ALEXANDRIA

Year	Tons	oz/ton Au	oz/ton Ag	Tonnes	gm/mt Au	gm/mt Ag
1896-8	48	1.23	unknown	43.6	40.8	unknown
1939	50	0.68	1.1	45.5	22.5	36.4
1940	1817	0.375	0.69	1651.8	12.4	22.8
Total	1915			1740.9		
Average Grade		0.404	0.70*		13.4	23.2*

*** Silver averages do not include 1898-9 production.**
NOTE: Data for this table is adapted from Carriere, 1983: p.10, Table IV.

The total production from the Alexandria mine was 773.66 ounces of gold and about 1,340.5 ounces of silver from 1,915 tons of ore.



NOTE: This Figure is from B.C. Min. Mines, Ann. Rept.; 1925: p. A276.

Figure 8

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

1897 to 1925
CROWN GRANTS
ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

3.2 Early Exploration and Development of the Enid-Julie and Empress Properties: 1890 to 1940

In 1898, both the Doratha Morton mine, the Enid-Julie and the Empress were controlled by the Fairfield Exploration Syndicate of London, England. During the 1890s, prospecting on the Empress and Enid-Julie were conducted in conjunction with development of the Doratha Morton workings and by 1897 both the Empress and Enid-Julie groups had been crown-granted. During 1898, a pack trail was completed from a loading point at Bullveke Point up the north side of the creek to the Julie showing (Figure 2).

A shaft was excavated on the Empress claim, located west of the Enid claim near the edge of the ridge (Figure 2). That shaft was probably sunk in the mid-1890s. It was located and examined by G.A. Noel (1980) who found it to be 4.6 m (15 ft) deep.

In July, 1925 the Glasord Mining Corporation, Limited was formed to develop the mineral properties in the central part of the Phillips Arm camp. The company's holdings included the Doratha Morton, Commonwealth-Champion, Enid-Julie and Empress properties (Figure 8).

That year, an aggressive program of development was conducted on all of Glasord's holdings. The trail, camp and workings at the Doratha Morton mine were cleaned and refurbished, and the areal tram right of way was brushed out. The trail to the Enid and Julie claims was recut and the Enid adit and Julie shaft were excavated.

The Julie shaft (Figure 2) was sunk for 5 m (16.4 ft) on gold-bearing pyrite mineralization in a 0.5 to 1.1 m (1.6 to 3.6 ft) thick quartz vein (Hardy, 1986). By the end of the season, the Enid adit was in 15.4 m (50 ft) (B.C. Min. Mines, Ann. Rept.; 1925: p. A279).

A provincial mineralogist who visited the property in 1925 described progress as follows:

> **Prospecting-work has also been done of the Enid-Julie group, which adjoins the Doratha Morton group on the east. This has exposed quartz with ribbon structure that carries good values in gold and silver, but apparently the lead in the mineralized zone is not an extension of the Doratha Morton lead, but probably is a pay-shoot almost paralleling it.**
>
> **A sample said to be from the wall of the shaft being sunk on the Julie assayed: Gold, 5.4 oz.; silver, 14 oz to the ton; copper, nil; zinc, 2 per cent.**

Another sample of selected ore from the Julie assayed: Gold, 6.04 oz; silver, 16 oz to the ton.

It appears that the ore will lend itself readily to concentration and there is a very good site for a mill on the beach, where there is a sufficient supply of water to meet the demands of a medium-sized plant.

B.C. Min. Mines, Ann. Rept.; 1925: p. A279.

By 1929 the Enid-Julie prospect was in the hands of Morton Woolsey Consolidated Mines, Limited which also controlled the Doratha Morton mine. An unspecified amount of prospecting was conducted on the Enid-Julie in that year but no more underground development was recorded (B.C. Min. Mines, Ann. Rept.; 1929: p. C387).

In August, 1933, Enid-Julie Mines Ltd. was formed to develop the property. A significant amount of work was conducted on the property that year:

... The general rock formation in the area is a belt of sedimentaries lying on the west border of a wide belt of altered sedimentaries and volcanics contained in the Coast Range granodiorite. Bedded with the sedimentary rocks and lying on the east side of a 10-foot basic dyke is a quartz vein up to 25 and 30 feet in width. This vein was discovered at an elevation of 2,900 feet, where a 15-foot shaft showed good gold values. It was traced down the hill and a tunnel was started at 2,140 feet elevation. This tunnel is about 30 feet east of the dyke and has been driven about 155 feet in mineralized quartz, without any walls showing. The mineralization consists of iron sulphides, mainly pyrrhotite, carrying values up to 0.4 oz. gold per ton, except where cross-fracturing causes enrichments. It is now proposed to crosscut both ways at the face of this tunnel, cutting through the dyke to prospect the ground to the west, where arsenopyrite float gave high gold values upon assaying.

During road-construction a second vein was discovered about 600 feet northeast of the main vein and a little lower down the hill. Stripping exposed this vein on the surface for a few hundred feet length and a 30-foot crosscut intersected it underground. It is reported to be 6 feet wide, of more or less banded quartz, from which encouraging assays were obtained.

About 500 feet up the hill from this discovery the No.3 vein has been exposed. A 37-foot drift on the foot-wall was in loose material, but the face shows more signs of solid formation.

The work on the main vein indicates an important tonnage of at least milling-grade ore, with excellent chances of finding high-grade ore shoots. The property is ideally situated for operating and transportation and altogether is an outstanding prospect...

B.C. Min. Mines, Ann. Rept.; 1933: p. A255.

Work in the Enid adit continued until July, 1934. A property inspection by a government geologist resulted in the following report:

... During the early part of 1934 a crew of eleven to fifteen men was employed in driving the 780-foot level to get under the shaft showing, located 780 feet in elevation above and 800 to

1,000 feet beyond the portal. This adit was in 284 feet as at June, 1934, and the work was discontinued a few weeks later. The working followed a quartz-filled shear, mineralized with pyrite, in the altered sedimentary rocks of the area. The shear followed by the adit is not to be considered to be the same one on which the shaft was sunk.

The upper (or shaft) showing, where high gold values are reported to have been obtained across 1 ½- to 3 ½-foot widths, the writer took three channel samples across widths of 3 ½ and 3 feet respectively of quartz mineralization. The average gold content obtained on assay of these samples was 0.1 oz. per ton. A selected sample showing approximately 3 per cent. galena and pyrite assayed 0.85 oz. gold per ton, but little or no mineralization of this character was visible in the well-defined shear at this shaft. A short distance downhill from the 10-foot shaft the quartz-filling pinches in width and at 60 to 80 feet distance it disappears as a narrow stringer under the overburden...

B.C. Min. Mines, Ann. Rept.; 1934: p. F8.

Upon realizing that they were dealing with a series of sub-parallel veins rather than one structure, the operators of the Enid-Julie suspended operations in order to rethink their exploration strategy. They did not return and the Enid-Julie remained idle until 1976.

Later, mineralization in the Enid-Julie workings-area was summarized by Stevenson as follows:

> On the Enid-Julie property numerous quartz bands and lenses alternating with schist are found over a width of 35 feet in a marginal contact-zone between granodiorite and argillites and greenstone schists. The individual quartz lenses attain widths of 2 to 5 feet and may extend several hundred feet along the strike, which is west-north-westerly.
>
> Stevenson, J.S.; 1947: p. 13.

Carriere (1983) summarized development on the Enid-Julie claim-area as follows:

UNDERGROUND ADVANCE: ENID-JULIE AND EMPRESS

Heading	Elevation	Drift	X-Cut	Raise	Shaft	Total
Enid adit	652 m	93 m	44 m			137 m
Julie shaft	884 m				5 m	5 m
No. 2 adit	847 m?		10 m			10 m
No. 3 adit	999 m?	11 m				11 m
Total advance (Enid-Julie)						163 m
Empress shaft	900 m				4.6 m	4.6 m

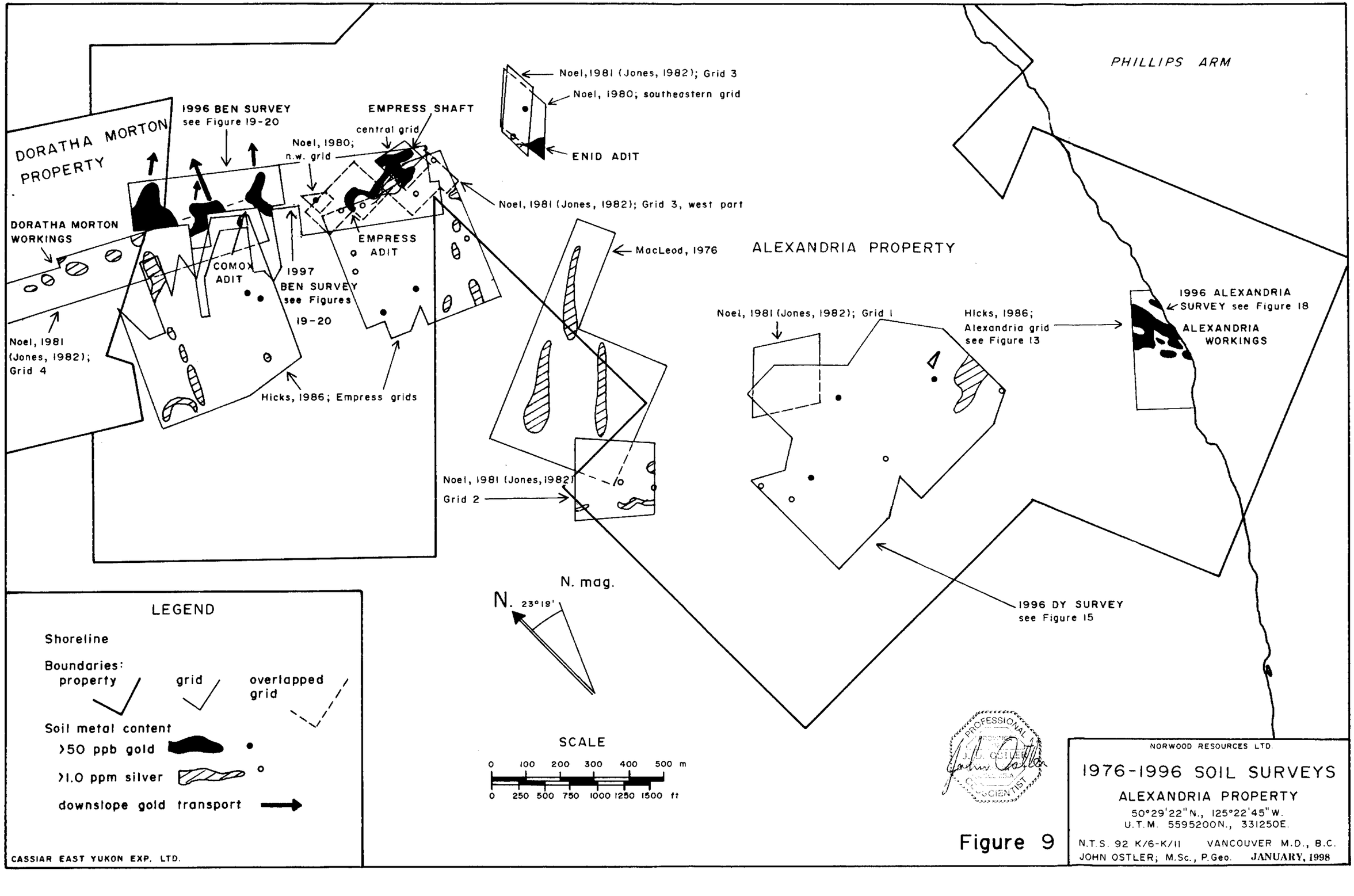
NOTE: Data on the Enid-Julie is from Carriere, 1983: p. 15 and B.C. Min. Mines, Ann. Rept.; 1933: p. A255.
Data on the Empress shaft is from Noel, 1980: p. 6 and Figure 3. Some recent workers have labeled the shaft on the Empress claim as the Julie shaft. The writer believes that there are two shafts of similar depth above the Enid adit and the shaft on the Julie claim has not been located by recent workers.

3.3 Recent Exploration and Development of the Alexandria Property-area: 1976 to 1997

Pegging the official gold price at $US 35/oz from 1935 to 1970 effectively halted gold exploration in British Columbia for two generations. When a free market for gold was re-established, gold exploration resumed using many new ideas and techniques.

Late in 1976, the first soil geochemical survey was conducted on the Alexandria property-area (MacLeod, 1976) for M.P. Warshawski. That survey covered part of the current Ben and Jeff claims (Figure 9) just west of the Enid-Julie and Empress workings-areas. Warshawski's holdings comprised all of the reverted crown-granted claims from the Alexandria mine to the Doratha Morton mine (Figure 2).

Soil surveys were relatively new at that time and this one was conducted as an experiment to see if the technique would work in the highly leached soils of a cold rain forest. Soils were tested for copper, lead, zinc and silver. At that time soil gold analyses were generally considered excessively expensive and not very reliable. Consequently, soils were commonly not



NORWOOD RESOURCES LTD.

1976-1996 SOIL SURVEYS

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

Figure 9

tested for gold.

MacLeod (1976) summarized his findings as follow:

> Of 152 soil samples taken and analyzed for copper, lead, zinc and silver only four isolated lead assays could be considered anomalous, therefore it must be concluded that there is no significant mineral occurrences within the area tested or the approach of using these tracer elements for the gold showing in this area is not effective.
>
> MacLeod, J.W.; 1976: p.1.

Despite his pessimism concerning the 1976 soil survey, by 1980 J.W. Macleod was listed with M.P. Warshawski as an owner of the claims on which the 1976 soil survey was done.

Had MacLeod analyzed his soils for gold he probably may have been pleasantly surprised. Silver analyses from that survey ranged from detection limit (0.2 ppm) up to 2.2 ppm. Two parallel silver anomalies trending about 055° across the 1976 grid-area were defined by the 1.0 ppm silver contour. A seemingly conjugate structure trending about 100° was evident in the northern part of the grid-area (Figure 9) (MacLeod, 1976: Figure 6).

On the 1996 and 1997 soil surveys on the Ben claims adjacent with the Doratha Morton mine workings, similar silver concentrations are associated with soil-gold concentrations of over 300 ppb which are now considered highly anomalous (Figure 9 and section 3.4 of this report).

It is the writer's opinion that MacLeod was premature in writing off the area west of the Enid-Julie workings.

MacLeod and Warshawski optioned their claims on the Enid-Julie to Corpac Minerals Ltd. Corpac reconsidered the value of soil surveys in the area and commissioned G.A. Noel (1980) to conduct soil surveys near the Enid-Julie workings-area in an attempt to discover the extent and trend of mineralization.

Noel's exploration crew were successful in locating the exact positions of the Empress shaft and the Enid adit with regard to the surveyed north-east corner of the Julie crown-grant (Figure 2).

Three small grids were laid out along the trend joining the Enid-Julie and Doratha Morton workings in order to prove that the two were on the same mineralized structure (Figure 9).

The southeasterly grid covered the area from near the Julie shaft across the Enid showing to the No. 2 adit. Large gold and silver anomalies were found that extended from just down hill of the Empress shaft to the creek near the Enid adit. Gold concentrations in that anomaly were up to 6,000 ppb and silver concentrations were up to 6.0 ppm. A small gold and silver anomaly was located near the No.2 adit near the north end of that grid.

The central grid covered an exposure of pyritic quartz near the centre of the Empress claim. There, soil-gold values of up to 1,310 ppb and silver concentrations of up to 2.4 ppm confirmed that a gold-bearing structure probably extended from the central grid to the Empress shaft (Figure 9).

The northwesterly grid tested a relatively flat area located at the southeastern end of the bluffs that are exposed southeast of the Doratha Morton workings. That grid was quite small and hosted a spot gold-silver anomaly comprising 100 ppb gold and 1.0 ppm silver in soils (Figure 9). However, it added to the hypothesis that a gold-bearing continued on northwesterly along the bluffs to the Doratha Morton mine.

Grab samples taken by Noel's exploration crew were as follow:

Working	oz/ton Au	oz/ton Ag	% Cu	% Zn
Enid adit	3.96	16.1	1.72	3.16
Empress shaft	0.096	0.21		

Noel's crew returned to the area between the Doratha Morton mine and the Enid-Julie workings during 1981 for Corpac Minerals to continue soil sampling (Jones, 1982). Soils from that program were analyzed for silver, copper, zinc arsenic and antimony.

Two long grids; numbered 3 and 4, were laid out along the projected trend of

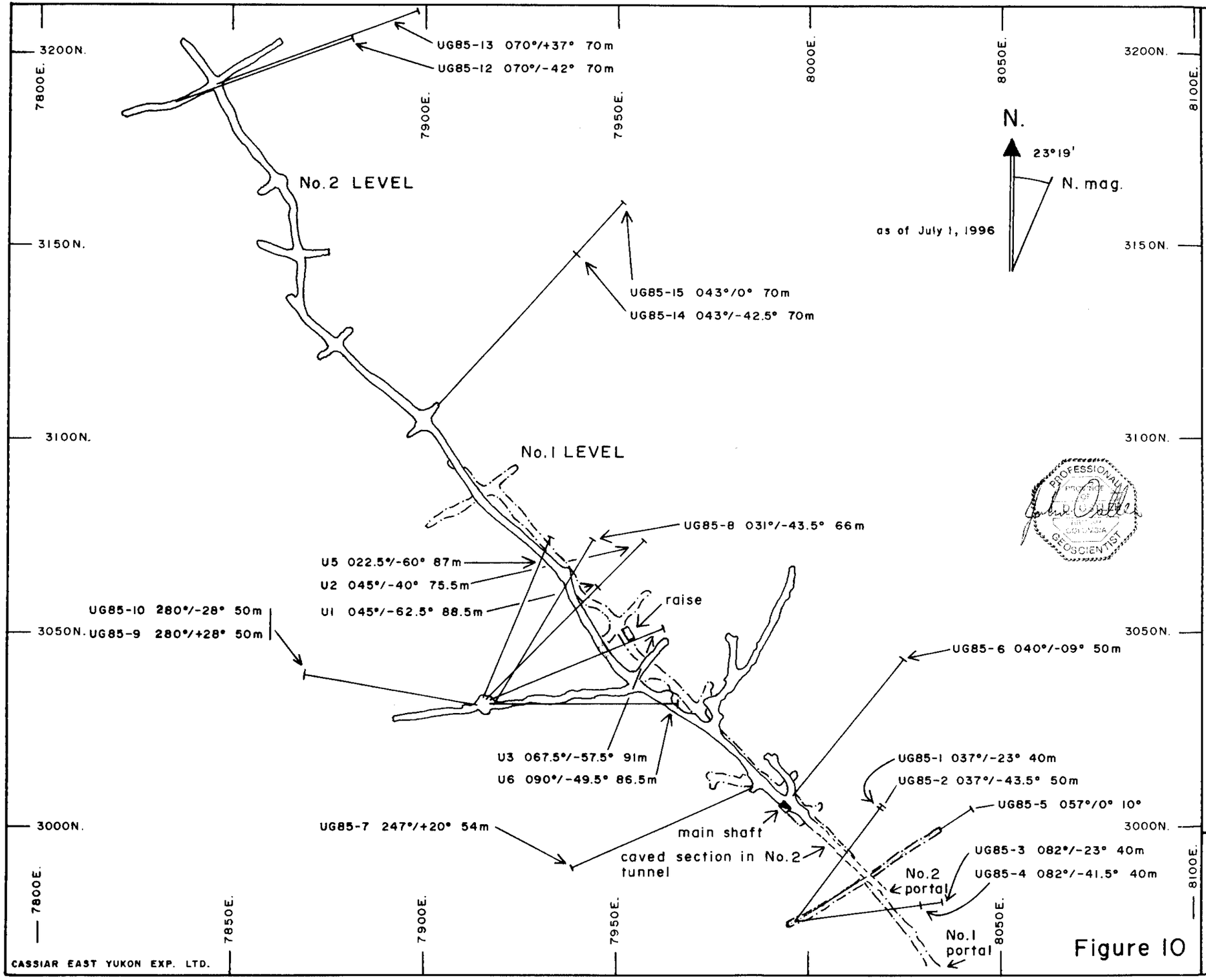


Figure 10

LEGEND

Diamond drill hole

1983 drilling U3 067.5°/57.5° 91m

1985 drilling UG85-7 247°/+20° 54m

hole no. azimuth dip length

SCALE

0 10 20 30 40 50m

0 50 100 150ft

NOTES:

For location on property, see Figure 2.
For earlier plans and sections of the Alexandria workings, see Figures 5 to 7, and 11.
This figure adapted from Hicks, 1986 Figures 106-85-7, 106-85-8_1 and 8_2 and Carriere, 1983: Map 1.

NORWOOD RESOURCES LTD.

ALEXANDRIA WORKINGS: 1983-5 UNDERGROUND DRILLING

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. JANUARY, 1998

CASSIAR EAST YUKON EXP. LTD.

CALCULATIONS

a)

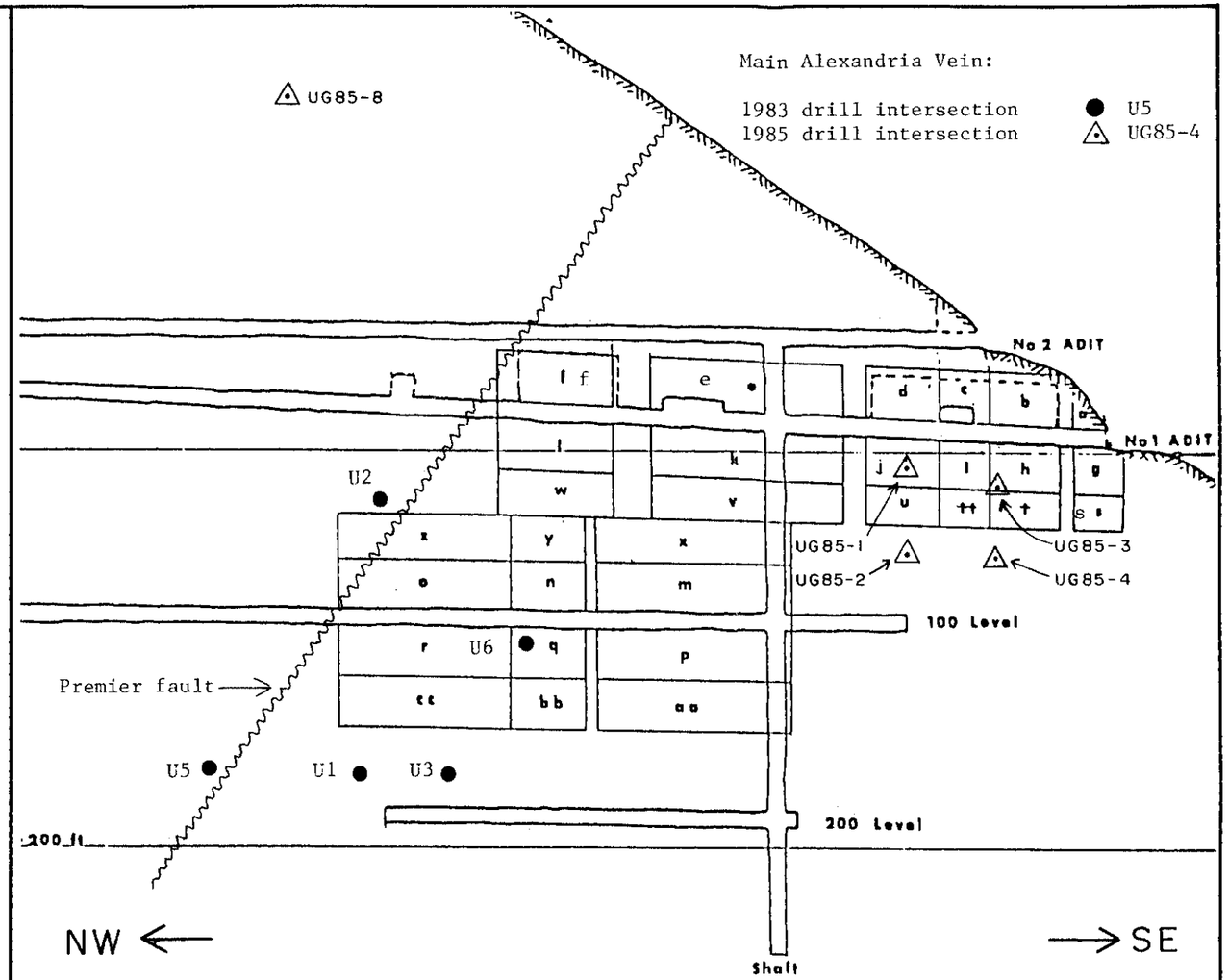
Block	Area Sq Ft	Width (ft)	Volume Cu Ft	Tons	Assay	Oz Au
a	325	3.11	1,011	84.3	0.271	22.85
b	925	4.41	4,079	339.9	0.564	191.70
c	750	3.68	2,760	230.0	0.119	27.37
d	875	3.89	3,404	283.7	0.366	103.83
e	2,525	3.54	8,939	744.9	0.401	298.70
f	1,500	2.93	4,395	366.3	0.384	140.66
g	650	3.11	2,022	168.5	0.271	45.66
h	925	4.41	4,079	339.9	0.564	191.70
i	750	3.68	2,760	230.0	0.49	27.37
j	875	3.89	3,404	283.7	0.366	103.83
k	2,525	3.54	8,939	744.9	0.401	298.70
l	1,500	2.93	4,395	366.3	0.384	140.66
m	2,650	5.04	13,356	1113.0	0.305	339.47
n	1,000	8.01	8,010	667.5	0.138	92.12
o	2,250	7.57	17,033	1419.4	0.316	448.53
p	2,650	5.04	13,356	1113.0	0.305	339.47
q	1,000	8.01	8,010	667.5	0.138	92.12
r	2,250	7.57	17,033	1419.4	0.316	448.53
TOTAL	25,925	4.90		10582.2	0.317	3353.27

b)

Block	Area Sq Ft	Width (ft)	Volume Cu Ft	Tons	Assay	Oz Au
s	494	3.11	1,536	128.0	0.271	34.69
t	703	4.41	3,100	258.3	0.564	145.68
tt	570	3.68	2,098	174.8	0.119	20.80
u	665	3.89	2,587	215.6	0.366	78.91
v	2,020	3.54	7,151	595.9	0.401	238.96
w	1,380	2.93	4,043	336.9	0.384	129.37
x	2,332	5.04	11,753	979.4	0.305	298.72
y	920	8.01	7,369	614.1	0.138	84.75
z	2,070	7.57	15,670	1305.8	0.316	412.63
aa	2,650	5.04	13,356	1113.0	0.305	339.47
bb	1,000	8.01	8,010	667.5	0.138	92.12
cc	2,250	7.57	17,033	1419.4	0.316	448.53
TOTAL	17,054	5.50		7808.7	0.298	2324.63

NOTES: For location on property, see Figure 2.
For plans of Alexandria workings as of 1940, see Figures 5 and 7.
For plans of 1983 and 1985 drilling, see Figure 10.
This table and figure are from Wares and Carriere, 1982 as appended in Cathro and Carne, 1983.

CASSIAR EAST YUKON EXP. LTD.



SCALE

0 10 20 30 40 50 m

0 50 100 150 ft

Figure 11

NORWOOD RESOURCES LTD.

1982 INFERRED RESOURCE CALCULATIONS

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

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mineralization between the two workings-areas to help fill in the gaps in information left from the previous year's work. Consequently, more soil-silver anomalies were discovered along the trend (Figure 9).

Two other soil grids were sampled that year, numbered 1 and 2. Those grids were laid out in an attempt to intersect a northwesterly extension of the Alexandria vein system. The easterly one was located on ground currently covered by the Jeff claim (Figure 9). The results from neither of those two grids were exciting.

It was concluded that a mineralized structure extended for a distance of at least 1500 m (4920 ft) from the Enid-Julie to the Doratha Morton mine. The lack of soil-silver and gold anomalies along the trend between the two workings-areas was attributed to sparse mineralization in those areas (Jones, 1982). The writer believes that the two workings may be on sub-parallel en-echelon dilatant structures and that the 1980-81 sampling grids were too narrow to display such details.

Late during 1982, G. Wares and G.H. Carriere calculated an inferred resource on the main Alexandria vein within the workings using the 1931 Premier sampling data (Figures 5, 7, 10 and 11). Blocks comprising this inferred resource were defined between the No.2 and 100 levels (Figure 11) as follow:

1982 INFERRED RESOURCE CALCULATION

Number of Blocks	Total Tonnage	oz/ton Au	Total troy oz Au
30	10582.2	0.371	3353.27
12	7808.7	0.298	2324.63

Wares, G. and Carriere, G.H.; 1982: p. 21.
as appended in:
Cathro, R.J. and Carne, J.F.; 1983.

The total estimated inferred resource in the Alexandria mine between the No.2 and 100 levels was 18,390.9 tons containing 5,677.9 ounces of gold and an unestimated amount of silver.

However, although the areas of 1931 to 1940 production were outlined in blocks 'b' to 'd' and 'f' on Wares and Carriere's diagram (Figure 11), that production does not seem to have been deducted from the estimate of the inferred resource. A revised inferred resource calculation after deducting blocks mined from 1931 to 1940 is as follows:

INFERRED RESOURCE CALCULATION
AFTER 1931 TO 1940 PRODUCTION

Number of Blocks	Total Tonnage	oz/ton Au	Total troy oz Au
26	9382.1	0.371	2889.71
12	7808.7	0.298	2324.63

The total estimated inferred resource in the Alexandria mine between the No.2 and 100 levels after deduction of all material contained within the four blocks mined from 1931 to 1940 is 17,190.8 tons containing 5,214.3 ounces of gold.

The foregoing estimates were generated from data contained within an appendix to a 1983 regional report by R.J. Cathro and J.F. Carne. Neither Carriere's 1982 report nor the original 1931 Premier Mines report were available to the writer. Consequently, parameters of these estimates were unknown reducing them to qualitative value only.

Subsequently, underground drilling indicated that there was potential to expand the area of the previously inferred resource along the No.1 Alexandria vein.

By 1983, the area now covered by the Alexandria property was held under option by Charlemagne Oil and Gas Ltd. (subsequently Charlemagne Resources Ltd.). An extensive work program was conducted that year by G.H. Carriere. Emphasis was on the Alexandria workings and comprised underground mapping sampling and drilling. Carriere's 1983 program was the first modern exploration conducted in the Alexandria workings.

Carriere's mapping along the main vein was confined to the No.1 and No.2 levels. The 100 and 200 levels beneath the No.1 level were not dewatered.

Carriere found that the main Alexandria vein was a composite structure comprised of

up to six quartz units and having composite widths of up to 10 m (32.8 ft). South of the Premier fault, the mineralized part of the vein generally had a northwesterly strike and a dip of 80° to 85° southwest. The vein was always a northeast and parallel with a diorite contact, separated from it and an intervening, medium-grained quartz-plagioclase rock up to 11 m (36 ft) thick and by less than 2 m (6.5 ft) of andesite. A few quartz stringers were found in volcanics mapped in the northeasterly crosscuts but only one major vein system was mapped in the workings.

Mineralization was found to occur south of the Premier fault in white to grey vitreous quartz also containing elongate lenses and masses of pyrite aligned with the vein strike. Gold concentration was found not to be directly related to local concentration of sulphides. High assays were obtained from clean quartz as well as from some felsic tuff units. Sampling on the No. 1 level confirmed Premier's 1931 sampling, thus increasing confidence in the Wares and Carriere 1982 estimate of the extent of the inferred resource along the main vein (Figure 11) (Carriere, 1983).

The main Alexandria vein was traced north of the Premier fault where similar-looking quartz and pyrite contained no significant gold values.

It had long been accepted that the northern limit of gold mineralization was the plane of the Premier fault. Also unchallenged was the view that two generations of quartz-sulphide fluids were deposited in the Alexandria vein (B.C. Min. Mines, Ann. Rept.; 1934; pp. F7-F8). The first generation was barren. It predated the Premier fault and was deposited along the whole vein. The second generation which was gold-bearing and post-dated the Premier fault. was deposited only in the southern part of the vein beneath the Premier fault plane.

The Premier fault has a measured attitude of 210°/67° NW. and the diorite contact is displaced at least 85 m (279 ft) to the southwest north of the fault.

The writer disagrees strongly with the 1934 model of mineralization. Firstly, if the Premier fault is a trap for the second generation of mineralizing fluids, why is there no mineralization along the plane of the fault, especially since the main vein and surrounding rocks are significantly rotated in relation the those beneath the fault plane. Secondly, the

diorite volcanic contact is displaced a significant distance to the southwest suggesting substantial movement along the fault plane.

The writer believes that gold mineralization; however many generations it may have had, predated the Premier fault. Also, the Premier fault is a normal fault that has displaced rocks on its hanging wall downward juxtaposing mineralized quartz in the southern part of the vein with a barren section originally emplaced at a much higher level. the vein may be mineralized at depth, north of the Premier fault. Similar faulting may be associated with Middle Tertiary-age northeasterly trending mafic dykes encountered in the No.1 level at the Alexandria mine, at the Doratha Morton mine and at the Enid-Julie workings.

Carriere mapped the No.3, 4 and 5 tunnels, located up the hill and northeast of the main workings (Figure 7). The No.3 penetrated a vein similar to that in the No.1 tunnel. The vein in the No.3 adit had a measured attitude of 180°/50-55° W. Farther in the crosscut was a diorite contact similar to that found in the southern part of the No.1 working. A drift followed the quartz vein near the entrance for 5 m then lost it in a fault similar to the Premier fault. No significant gold values were found in the No.3 tunnel. Carriere (1983) assumed that the vein in the No.3 working was not the main Alexandria vein.

The No.4 adit penetrated four quartz veins in andesite with generally southeasterly strikes and dips ranging from 50° to 55° SW. The veins themselves returned low gold values but a 1.42 m (4.66 ft) wide section of silicified andesite; named the WAR zone, contained an average of 0.367 oz/ton gold. Carriere (1983) remarked that the WAR zone was the only place where significant gold values had been found in wall rocks. He mused that it was probably due to lack of work on those rocks and more sampling would possibly result in more mineralization being found in andesitic wall rocks.

Carriere did not map the No.5 adit in detail. The writer inspected that working and found that it contained flat lying, somewhat ptigmatic quartz lenses in andesitic volcanics.

The writer examined the No.1 adit as far as the obstruction caused by 1983 work located about 15 m beyond the Premier fault. All of the mineralized part of the main Alexandria vein

in the No.1 adit were viewed. Some of the No.2 adit-area were visible up production stopes near the No.1 portal. The vein appeared to maintain the same width, attitude and visible character from the No.1 up to the No.2 level. The sub-levels beneath the No.1 adit were flooded and consequently not examined by the writer. Also, the No.3 and No.5 adits were examined; the No.2 and No.4 portals were caved.

To test his calculation of an inferred gold resource beneath the No.1 level (Figure 11), Carriere had five holes drilled through the main Alexandria vein among the lower workings (Figure 10). Drilling was done from a station cut out in a southwest drift on the No.2 level.

To facilitate work, the No.1 portal was retimbered, the man way above the shaft connecting the No.1 and No.2 levels was rehabilitated, stopes were scaled and an waste pass was constructed to handle the rock excavated from the new drill station (Figure 10). Waste from that pass blocks the No.1 level at present.

The results of the 1983 drilling are summarized as follows:

ALEXANDRIA No.1 VEIN: 1983 UNDERGROUND DRILLING

Hole No.	Intersection Location	Vein Width m ft	oz/ton Au	gm/mt Au
U1	9 m above 200 level south of Premier fault and 10 m SW of working	0.4 1.3	2.73	90.3
U2	15 m above 100 level north of Premier fault	narrow intersection with low values		
U3	15m SE of U1 south of Premier fault and 5 m SW of working	Int. 1: 1.6 5.3 Int. 2: 1.7 5.6	0.26 0.29	8.6 9.6
U4	not drilled			
U5	15m? NW of U1 just north of the Premier fault	narrow intersection with low values		
U6	30m SE of U1 and 5 m below the 100 level	1.9 6.2	0.37	12.2

Carriere's (1983) conclusions were most succinct and eloquent. They were as follow:

1. Gold values in the quartz veins are related to the proximity of the diorite intrusive.

2. The Premier Fault truncates gold values to the northwest.

3. The diorite contact is displaced at least 85 metres southwest across the Premier Fault.

4. Gold occurring in quartz veins is generally associated with a narrow heavily pyritized white/grey vitreous quartz unit.

5. Assays taken by the Premier Gold Mining Co. Ltd. in the 1930s correlate favourably with those taken during the 1983 program.

6. The Alexandria ore shoot extends below the 100 level.

7. A lateral offset below the 100 level moves the ore 5 to 10 metres southwest of the anticipated down dip projection.

8. The 200 level was driven in the hanging wall of the ore zone and as such does not necessarily limit the down dip extension of the Alexandria ore shoot.

9. The No.3 and No.5 adits are different structures than that of the Alexandria vein.

10. The No.4 adit is northeast of the Alexandria vein.

11. Gold values may be present in the silicified andesite formations of the Phillips Arm shear zone, as seen in the No.4 WAR zone.

12. Further exploration is required to correlate the geology of the 5 main adits and the Enid-Julie showings to the northwest.

13. Excellent exploration potential exists for the discovery of significant gold-bearing zones in the following areas:

    (a) Southwest of the Alexandria vein and northwest of the Premier Fault
    (b) Below the 200 level and within the lower block of the Premier Fault
    (c) The No.4 adit wall rock zone (WAR zone)
    (d) The diorite contact southwest of the No.4 adit
    (e) Enid-Julie workings
    (f) Northwest of, and on strike with the Enid-Julie towards the Doratha Morton property line.

Carriere, G.H.; 1983: p. 19.

During 1983, Charlemagne Resources Ltd. acquired a large block of claims covering the northeasterly facing slope between the Enid-Julie, Doratha Morton and Fanny Bay. The

southern part of that claim-area is ground now covered by the northern part of the Jeff and Ben claims (Figure 2).

Charlemagne retained G.H. Carriere and Robert Simpson to conduct a program of prospecting the following year (Simpson and Carriere, 1984). A large piece of angular quartz-pyrite float assaying 7.17 oz/ton gold and 21.8 oz/ton silver was found in Bullveke Creek about 300 m (984 ft) downstream from the Enid-Julie area.

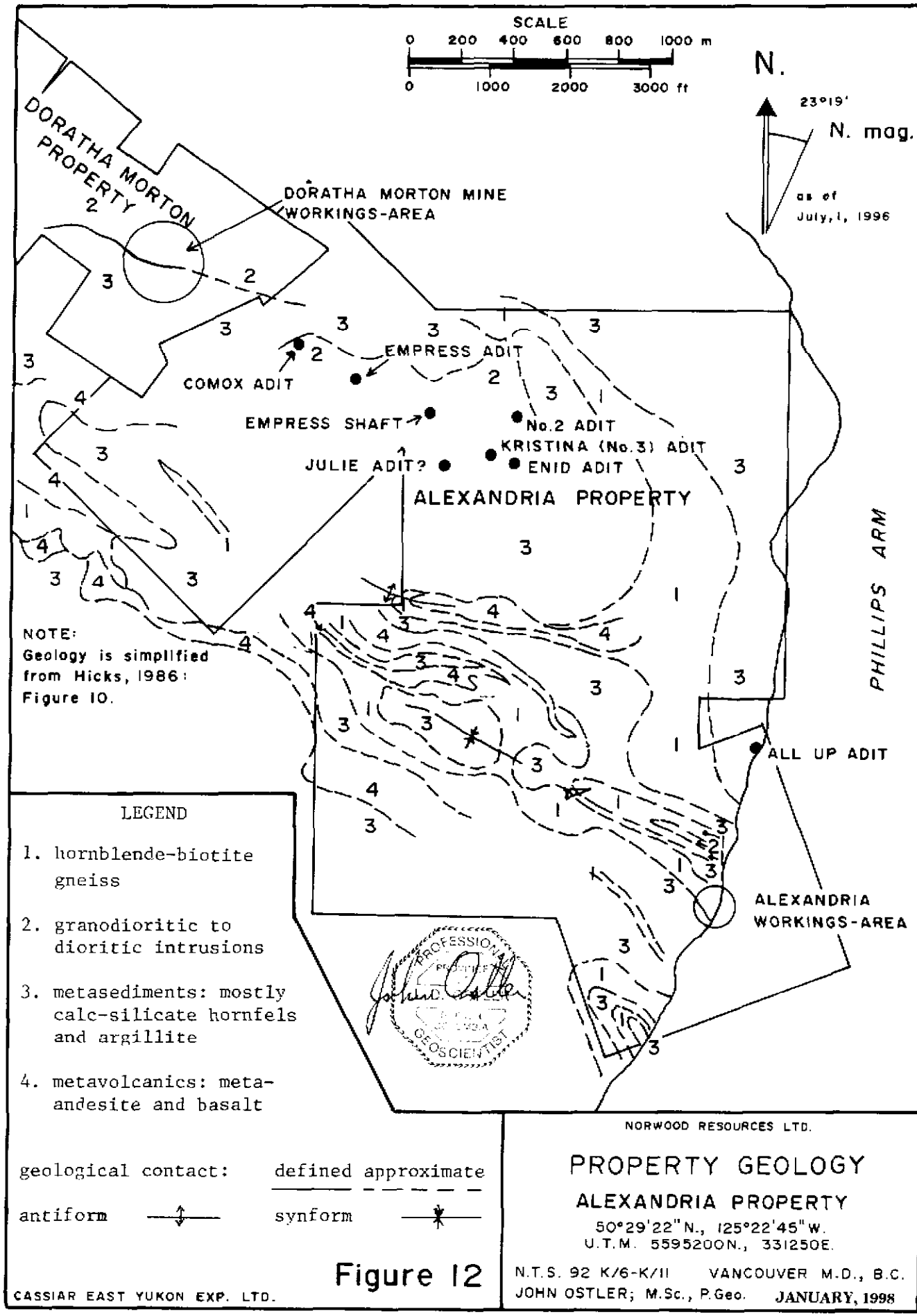
Enthused by the prospects of the Alexandria mine and the property-area in general, Falconbridge Limited optioned part of Charlemagne's interest in the claims. Falconbridge conducted an extensive exploration over most of the area from Fanny Bay southward past Picton Point (Figure 2) including all of the present Alexandria property-area.

The 1985 exploration program (Hicks, 1986) included the following:

1. underground mapping in the Alexandria, All Up, Empress and some of the Enid-Julie workings
2. more drilling in the Alexandria workings
3. regional mapping and prospecting
4. airborne geophysical surveys
5. soil surveys and ground geophysical surveys west of the Enid-Julie workings and around the Alexandria workings

The current Alexandria property-area was mapped at a scale of 1:10,000 (Hicks, 1986) (Figure 12). Professional rock climbers were employed to map difficult terrain above the Alexandria workings.

It was demonstrated that gold-gearing quartz bodies in the claim-area were hosted by a northwesterly trending keel of andesitic metavolcanics and associated metasediments that had been tightly folded into a series of at least three major anticlines and synclines. Fold axes trended about 310°; the intrusive contacts bounding the keel trended about 320°, a 10° difference. Gold-bearing quartz bodies seem to be oriented parallel with the margins of the keel where near them and parallel with the enclosing fold axes away from the margins of the keel.



NORWOOD RESOURCES LTD.

PROPERTY GEOLOGY

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

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Figure 12

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It is possible that rocks within the keel were rotated up to 10° during left-lateral strike-slip movement along a shear-zone paralleling it. The Gold-bearing quartz bodies may have developed in dilatant areas during shearing and rotation. Consequently, the Doratha Morton, Enid-Julie and Alexandria may all be on sub-parallel en echelon quartz bodies and there may be several parallel gold-bearing structures in each workings-area.

Detailed mapping and sampling was conducted at the Alexandria in the No.1 level in to the waste pass from the 1983 program and in the No.2 to No.5 workings. The 1983 work of Carriere and his estimates of an inferred gold resource were confirmed (Hicks, 1986).

The petrography of high-grade gold-bearing quartz samples was studied at Lakefield Research. It was found that:

> Generally the mineralized quartz vein from the Alexandria workings is very heavily sheared, granulated, fractured, annealed and recrystallized. Pyrite is the major sulphide mineral with trace amounts of native gold, sylvanite, kregerite, native silver and native bismuth. Native gold occurs along later fractures, possibly as a supergene alteration product.
>
> Hicks, Ken; 1986: p. 24.

A total of 15 holes were drilled across the shear zone hosting the Alexandria vein from stations in the No.1 and No.2 adits (Figure 10).

Drill holes UG85-1 to 4 were drilled from a station located in the first drift extending southwestward from the No.1 adit. They were drilled back into the main Alexandria vein and penetrated it less than 30 m (100 ft) below the No.1 level (Figures 5 and 10). The holes hit a complex vein structure with variable gold contents. The best intersections in that area were in UG85-3, 0.38 oz/ton gold over 1.0 m and in UG85-4, 0.149 oz/ton gold over 0.2 m.

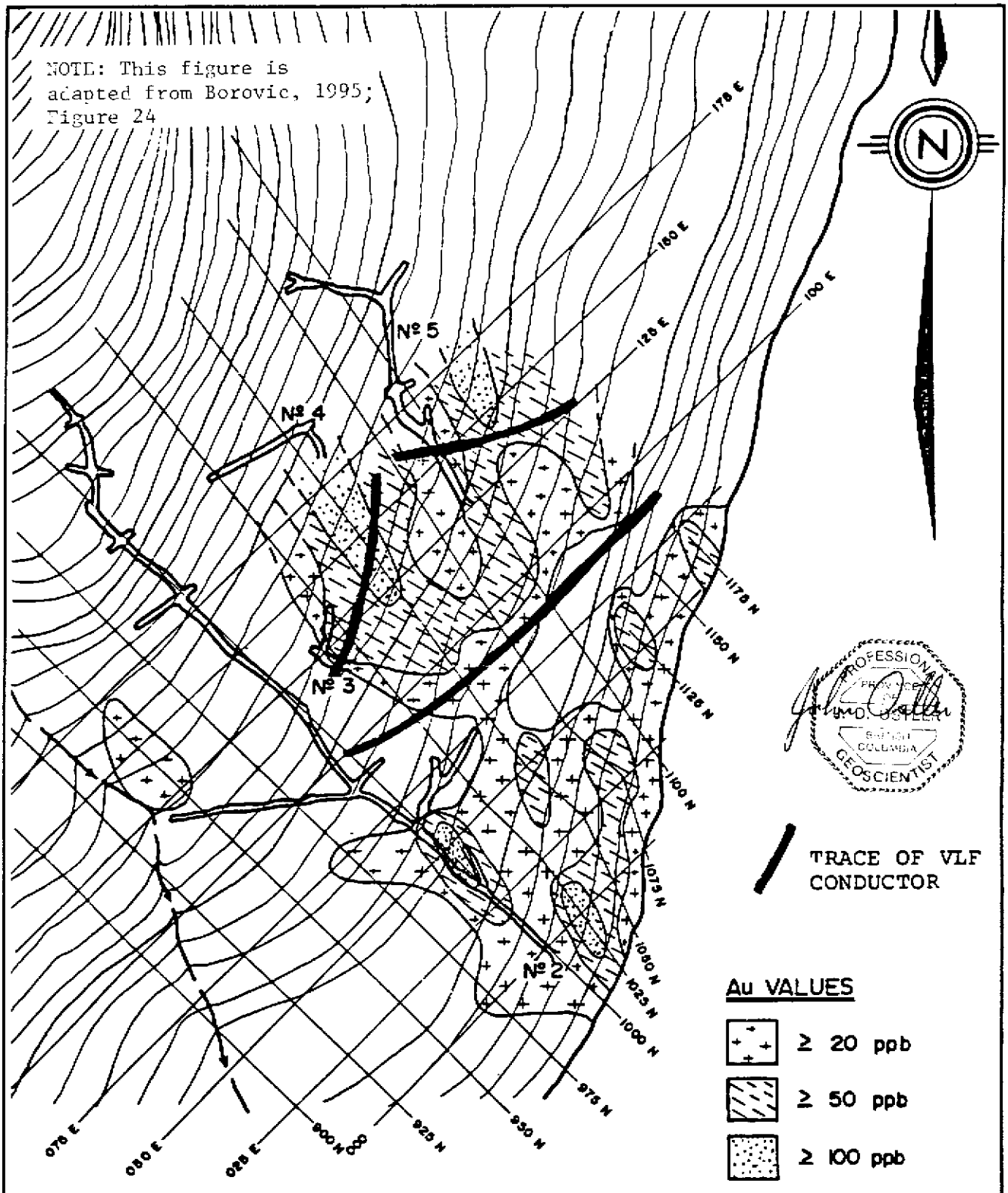


Figure 13

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

ALEXANDRIA WORKINGS: SOIL and EM SURVEYS

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. **JANUARY, 1998**

Hole UG85-5 was drilled northeastward from the end of the first northeasterly drift in the No.1 adit. That hole penetrated volcanic rocks northeast and at the same elevation as the No.1 adit and encountered no significant mineralized intersections. UG85-6 was drilled northeasterly into similar rocks from the top of the man way to the No.2 level (Figure 10) with similar results.

Hole UG85-7 was drilled southwestward from a point in the No.2 adit about 20 m (66 ft) in from the top of the man way. As would be expected, the main Alexandria vein structure was encountered just west of the No.2 adit where a 1.8 m intersection returned 0.03 oz/ton gold.

Holes UG85-8 to 15 were drilled from several locations along the No.2 adit north of the Premier fault where conventional wisdom indicated that no gold-bearing sections would be found on the main Alexandria structure. Holes UG85-8 and 11 to 14 intersected a series of lean gold-bearing quartz-filled structures that returned up to 0.07 oz/ton gold over widths in excess of 1 m (3.3 ft). These structures were parallel with the main vein and located just east of the No.2 adit through a vertical distance of at least 50 m (164 ft).

A summary of 1985 drilling into the main Alexandria vein is as follows:

ALEXANDRIA No.1 VEIN: 1985 UNDERGROUND DRILLING

Hole No.	Intersection Location	Vein Width m	Vein Width ft	oz/ton Au	gm/mt Au
UG85-1	6 m below No.1 level, 38 m in from portal	1.2	3.9	0.19	6.45
UG85-2	18 m below No.1 level, 38 m in from portal	1.0	3.3	0.04	1.2
	5 m west of vein, 15 m below No. 1 level	0.8	2.6	0.17	5.8
UG85-3	9 m below No.1 level, 18 m in from portal	1.0	3.3	0.38	12.6
UG85-4	20 m below No.1 level, 18 m in from portal	1.0	3.3	0.04	1.2
	5 m west of vein, 16 m below No.1 level	1.5	4.9	0.06	2.0
UG85-8	37 m above No.2 level, 80 m in from the main shaft area, above and north of the Premier fault	1.9	6.2	0.09	3

Geological mapping, soil, magnetic and electromagnetic surveys were conducted throughout the Alexandria workings-area. Gold concentrations in those soils ranged up to 2,200 ppb. Generally, the highest values were coincident with the old working-portals (Hicks, 1986), probably due in part to blasting contamination. The soil-gold anomalies near the No.4 adit and just east of the No.2 portal-area (Figure 13) may be caused by the gold-bearing zone parallel with and east of the main Alexandria vein found by underground drilling east of the No.2 adit. The soil-gold anomaly east of the No.5 working may be an expression of another untested gold-bearing zone.

Hicks (1986) found that there was no obvious correlation of electromagnetic conductors and known gold-bearing structures. A significant northeasterly trending anomaly located along line 090 E. (Figure 12) had no obvious correlation with anything on the ground. The writer believes that it may be related to the Premier fault.

The All Up adit (Figure 2) was located along the shoreline about 800 m (2,624 ft) north-

northeast of the Alexandria No.1 adit. It was sampled and mapped by the Falconbridge crew (Hicks, 1986; Fig. 19). The adit penetrated andesites containing narrow quartz stringers for a length of 29 m (95.1 ft) on an average bearing of 295°. No significant gold concentrations were found in the All Up.

The Falconbridge crew prospected along the area between the Doratha Morton and Enid-Julie workings areas. They discovered a caved adit near where Noel's (1980) central soil grid was located (Figures 2 and 9). From the dump, pyritic grab samples assayed up to 132 gm/mt (3.99 oz/ton) gold. They followed a sparsely mineralized quartz vein for 300 m (984 ft) northwest where it "horsetailed out" (Hicks, 1986). They identified that adit as the Empress working. That working was located by the writer at 6+00 E., 0+50 S. on the Ben soil grid (Figures 19, 20 and 26).

Farther along the trend near the southeastern corner of the reverted Empress crown-grant they found a water-filled shaft reported to be 5 m (16.4 ft) deep. Pyritic quartz from the dump area returned very low assays. This was identified as the Julie shaft.

The writer strongly suspects that this shaft is not the Julie shaft but another excavated on the Empress claim. The old Minister of Mines annual reports reported a shaft located on the Julie claim. At that time, all of the claims in the area had been surveyed along cut lines. It seems unlikely that the Julie shaft was reported as being on the wrong claim and that the Enid adit would have been excavated to get under a barren vein. There may be another shaft on a gold-bearing lead located just south of the Empress (Julie) shaft that has not been found by recent workers.

Hicks (1986) mapped and sampled the Enid adit confirming earlier results (Noel, 1980). Channel samples contained generally low gold concentrations.

The Kristina (No.3) adit was found to have been driven into a quartz lens in calcareous metasediments. Gold values from samples taken within the tunnel were low. A float sample near the entrance returned an assay of 148.5 gm/mt (4.48 oz/ton) gold.

Soils were sampled for several elements including gold and silver on two extensive

grids. One was located just southwest of the trend between the Doratha Morton and the Enid-Julie; the other was southwest of the Enid-Julie workings (Figure 9).

Falconbridge's northwesterly Enid-Julie grid was located just southeast of the Doratha Morton claim line, and southwest of the grids laid out along the trend between the Doratha Morton Mine and the Enid-Julie (Noel, 1980; Jones, 1981) (Figure 9). A southwesterly trending series of soil silver anomalies extended across the northwestern part of that grid just south of the Doratha Morton claim line.

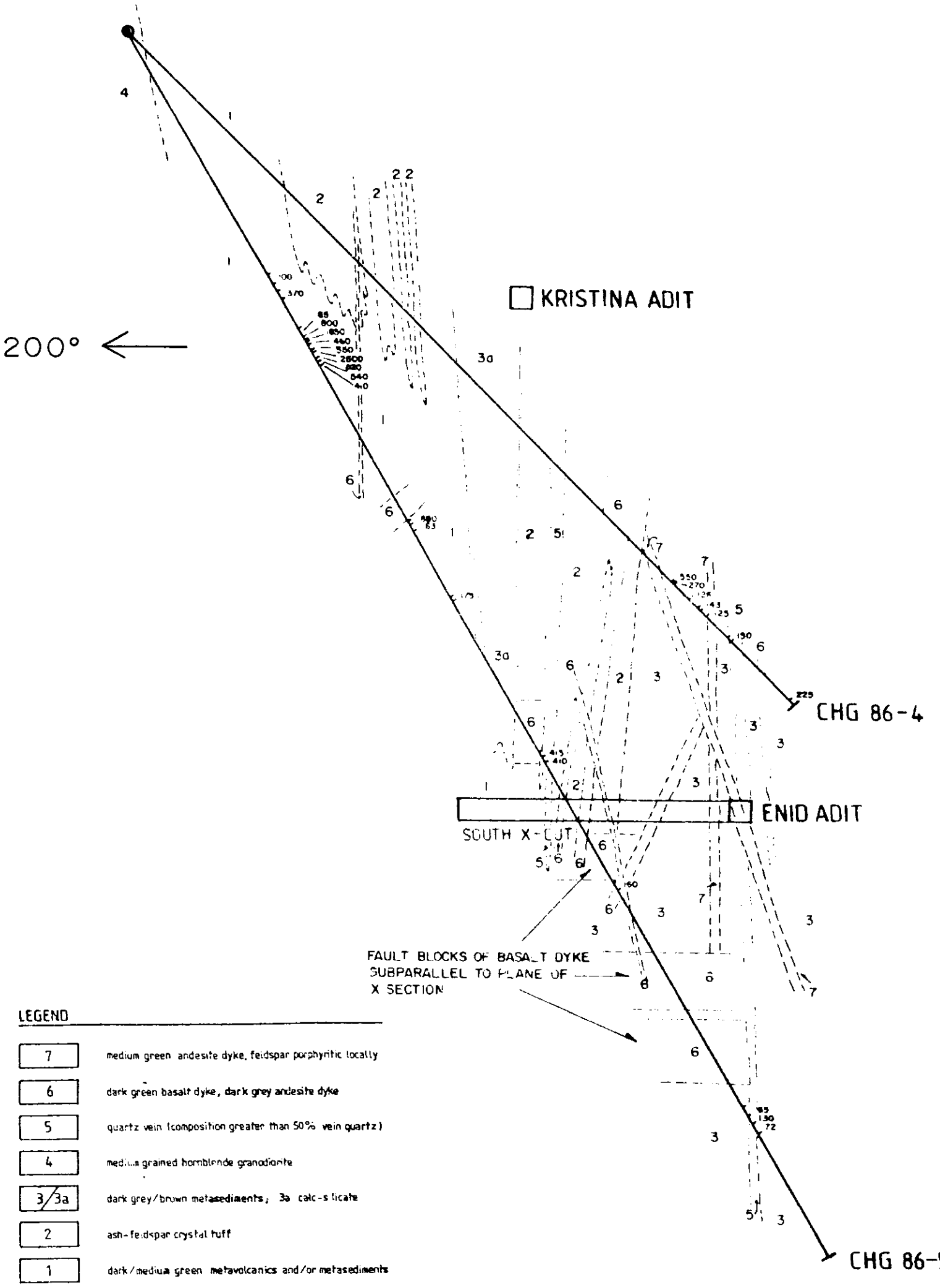
There were no significant gold anomalies on either grid, only a few spot highs.

A ground electromagnetic survey was conducted over an area extending across the southeasterly Enid-Julie soil grid to near the Enid-Julie workings. Hicks (1986) concluded that there was little anomalous response.

Other surveys that were tried during the 1985 program and found to be ineffective in the Alexandria property-area were: airborne geophysical surveys, remote sensing surveys using satellite data and ground piezoelectric surveys.

Despite positive results, Falconbridge Ltd. dropped their options to claims in the area during 1986.

Later that year Charlemagne Resources continued drilling along the Enid-Julie to Doratha Morton trend. The program comprised five holes that were drilled from October, 1986 to February 1987. The first three holes were drilled north of the Doratha Morton mine in the Commonwealth-Champion workings-area (Figure 2). The last two holes were drilled at the Enid-Julie workings (Figures 2 and 14). The drill was moved by helicopter onto a platform located up hill and to the west of the Kristina (No.3) and Enid adits. The holes were oriented to test gold-bearing structures mapped in the adits. Jenna Hardy described the results of that work with regard to Hole CHG.86-4 as follows:



LEGEND

- 7 — medium green andesite dyke, feldspar porphyritic locally
- 6 — dark green basalt dyke, dark grey andesite dyke
- 5 — quartz vein (composition greater than 50% vein quartz)
- 4 — medium grained hornblende granodiorite
- 3/3a — dark grey/brown metasediments; 3a calc-silicate
- 2 — ash-feldspar crystal tuff
- 1 — dark/medium green metavolcanics and/or metasediments
- axis of gold mineralized zones
- sample location and width
- diamond drill hole with sample width and assay result Au ppb
- lithologic contact
- joint/fracture
- dyke
- vein
- foliation/banding
- fault

NOTES: For location on property, see Figures 2 and 12.
This figure adapted from Hardy, 1988: Figure E86-1.

SCALE

0 5 10 15 20 25 30 m

0 25 50 75 100 ft

Figure 14

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

ENID ADIT: 1986 DRILLING

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. **JANUARY, 1998**

> While lithologies as shown vary considerably, much of CHG.86.4 lies within the metavolcanics and metasediments of a roof pendant, through a small sequence of medium grained hornblende diorite occurs at the top of the hole. Anomalously thick sections of ash feldspar crystal tuff in the upper portions of the hole, pass downward to interlayered metavolcanics and metasediments. Both basalt and andesite dykes occur nearer the bottom of the hole above and below the vein system (Map Unit 5) (Figure 13). Narrow intervals of calc-silicate alteration are present in both metavolcanics and metasediments. The basalt dykes shown appear most often to trend sub-parallel to a major shear zone running through the area
>
> The hole was placed to test values of up to 3.8 oz gold per ton and 15.4 oz silver per ton in caved material from the floor of the Kristina adit, and penetrated about 14 m beneath the adit floor. It failed to intersect any mineralization that could be attributable to a mineralized feature extending from the area of the Kristina adit. The extension of the Enid structure is however geochemically and geologically recognizable in the hole by values up to 550 ppb Au. Three distinct anomalous zones are in fact present.
>
> Hardy, Jenna; 1988: p. 14.

During the early 1990s, Home Ventures Ltd. gained control of ground now covered by the Alexandria property. That company commissioned Ignacije Borovic (1995) to write a summary report. The writer could find no evidence that any work had been done in the area from 1987 until 1996.

Norwood Resources' 1996 exploration program on the Alexandria property comprised the following:

1. Renovation of the access roads from Picton Point onto the southern and western parts of the property. 10 km of road of which 4 km is on the property was brushed out.

2. Magnetic, electromagnetic and soil surveys on the Dy grid located near the southwestern boundary of the property (Figures 9, and 15 to 17).

3. Soil survey on the Alexandria grid that covers the Alexandria workings-area in the southeastern part of the property (Figures 9 and 18).

4. Soil survey on the Ben grid located near the northern boundary of the property (Figures 9, and 19).

The 1996 Dy claim grid was on the slope just above the cliffs adjacent to the Alexandria workings-area. Soils were analyzed for a broad range of elements including copper, silver and gold.

Soil gold concentrations were generally near background values. Only two soils had

gold concentrations in excess of 50 ppb (Figure 15).

Silver results were consistent with those obtained by Noel's crew (Jones, 1982). Almost all values were below a detection limit of 0.03 ppm (Figure 15).

Copper concentrations are generally below Jones' (1982) "possibly anomalous" threshold of 30 ppm. However, possibly anomalous copper contours outlined east-northeasterly trends that are probably related to late (post-mineralization) faulting and dyke emplacement. These trends are truncated by a northwesterly trend in the southern part of the grid-area. The northwesterly trend in soil-copper concentrations coincides with an electromagnetic cross-over from negative to positive dip angles (Figures 16 and 17). Probably, the cross-over and coincident soil copper trend define an extension of the shear zone that bounds the Alexandria structure on its southwesterly side.

From work on the western part of the Dy claims and previous lack of success in locating an extension to mineralization northwest of the No.1 Alexandria adit, it can be assumed with confidence that economic mineralization on the main Alexandria vein dies out northwest of the workings.

Previous work had indicated that at least one other mineralized vein lying sub-parallel with and northeast of the main Alexandria vein was located somewhere near the No.4 and No.5 adits. To test and accurately locate such a structure, prospecting and a soil survey were conducted across the Alexandria workings-area where Falconbridge's 1985 work had been done (Hicks, 1986) (Figures 9, 13 and 18).

Soil-gold concentrations from the 1996 survey of the Alexandria area were up to 2760 ppb. Most high values were from near the No.3 to No.5 portals where contamination from mining would probably be significant. The 1996 survey did not test the area up hill from the No.4 adit and consequently, must be considered incomplete.

The most significant result of Norwood's 1996 exploration program was the location of the Doratha Morton gold trend on the Alexandria property.

Soils were tested from across a grid located on the Ben claims extending southeastward

DY 1
344975

DY 2
344976

DY 3
344977

DY 4
344978

DY 5
345277

HOPE 1
342582

Elev. 765m

claim boundry

30ppm Cu

Dry Oct. 10

Dry Sept.30

HELI-PAD

SABRE 27 VLF STATION SEATTLE

LEGEND

Grid
- 2/4 — grid line
- 3/19 — sample station
- 3/1 — soil concentration Au(ppb)/Cu(ppm)

Road

Claims
- claim boundry
- HOPE 1 ← claim name
- 342582 ← record number

GEOLOGY

5	quartz vein
4	biotite–hornblende gneiss
3	granodiorite
2	argillaceous metasediments
1	andesitic metavolcanics
po	pyrrhotite
py	pyrite
cpy	chalcopyrite

limit of outcrop
cliff

Geology: adopted from Hardy,J.L. ;1986.

Notes: For location on property, see Figure 2.
Data for this figure provided by B.H. Fitch.

PROFESSIONAL GEOSCIENTIST

N
23°19' N. Mag.
declination as of July 1, 1996

0 25 50 75 100 metres
0 50 100 200 300 feet

Figure 15

NORWOOD RESOURCES LTD.

1996 DY SOIL SURVEY AND GEOLOGY

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6–K/11 VANCOUVER M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. **JANUARY, 1998**

DY 1
344975

DY 3
344977

DY 5
345277

DY 2
344976

DY 4
344978

HOPE 1
342582

VLF-EM CROSS-OVER

Elev. 765m

claim boundry

HELI-PAD

SABRE 27 VLF STATION SEATTLE

LEGEND

dip angle reading

grid line

grid station

profile

Grid

Road

Claims

claim boundry

HOPE 1 ← claim name

342582 ← record number

NOTES: For location on property, see Figure 2.
For dip angle contours, see Figure 17
Data for this figure provided by B.H. Fitch.

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
J. D. OSTLER

N

23°19' N. Mag.

declination as of July 1, 1996

0 25 50 75 100 metres

0 50 100 200 300 feet

Figure 16

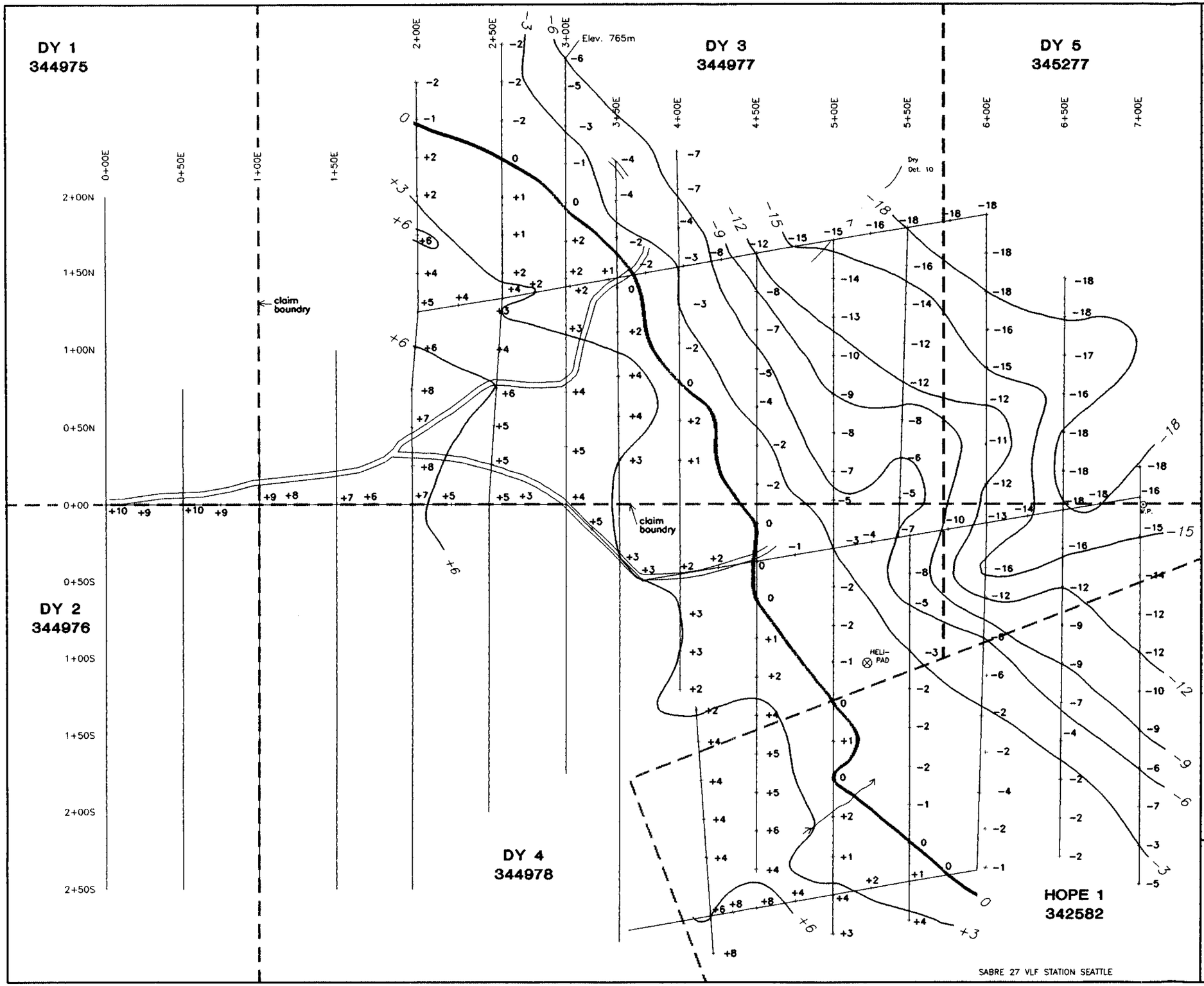
NORWOOD RESOURCES LTD.

1996 DY SURVEY: VLF DIP ANGLE PROFILES

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. **JANUARY, 1998**



LEGEND

-4 ← dip angle reading
grid line
-2 grid station
contour
-2

Grid

Road

claim boundry

Claims

HOPE 1 ← claim name
342582 ← record number

NOTES: For location on property, see Figure 2.
For dip angle profiles, see Figure 16
Data for this figure provided by B.H. Fitch.

N

23°19' N. Mag.

declination as of July 1, 1996

0 25 50 75 100 metres

0 50 100 200 300 feet

Figure 17

NORWOOD RESOURCES LTD.

1996 DY SURVEY: VLF DIP ANGLE CONTOURS

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 VANCOUVER M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. **JANUARY, 1998**

from the Doratha Morton-Alexandria property boundary (Figures 9 and 19). That grid was in the area of Noel's (1980) northwestern soil grid. Noel's grid was atop the bluffs and Norwood's 1996 grid was below them.

Soil-gold concentrations from the 1996 Ben grid ranged up to 585 ppb gold. It was most impressive that almost half of the grid-area had soils containing over 20 ppb gold. The distribution of gold in those soils indicated that aprons of gold were being transported down the steep slope from source-areas along the base of the bluffs near the southwestern margin of the grid. Intense soil-gold anomalies in that area suggested that a significant amount of gold mineralization comprising an extension of the Doratha Morton gold trend could be buried along the base of the bluffs.

4.0 1997 EXPLORATION PROGRAM ON THE ALEXANDRIA PROPERTY

4.1 Extension of the Ben Soil Survey

The 1997 soil survey in the Ben grid area was conducted over 5250 m of new grid line and 475 m of base line (Figures 19 and 20). Lines were laid out using compasses and hip-chains and were flagged with biodegradable flagging tape. Lines were spaced 25 m apart with sample stations at 25 m intervals along each line. Samples were taken at 307 stations on the grid.

Soil samples were collected in undyed kraft paper envelopes from illuviated 'B' soil horizons as much as possible. Upon drying, the samples were sent to Acme Analytical Laboratories Ltd. of Vancouver, British Columbia. Samples were analyzed for 31 elements including gold and silver and copper. Results of the soil analyses of gold and silver concentrations are displayed in Figures 19 and 20; methods and complete results of analysis comprise Appendix 'A' of this report.

The expanded Ben soil grid-area covers the expired Comox and Empress crown grants (now covered by the Ben claims) and tests most of the area between the Doratha Morton and Enid-Julie workings (Figures 9, 19 and 20). The 1997 survey area covers Noel's (1980) northwestern and central grids, the western part of Noel's 1981 Grid No. 3 (Jones, 1982) and

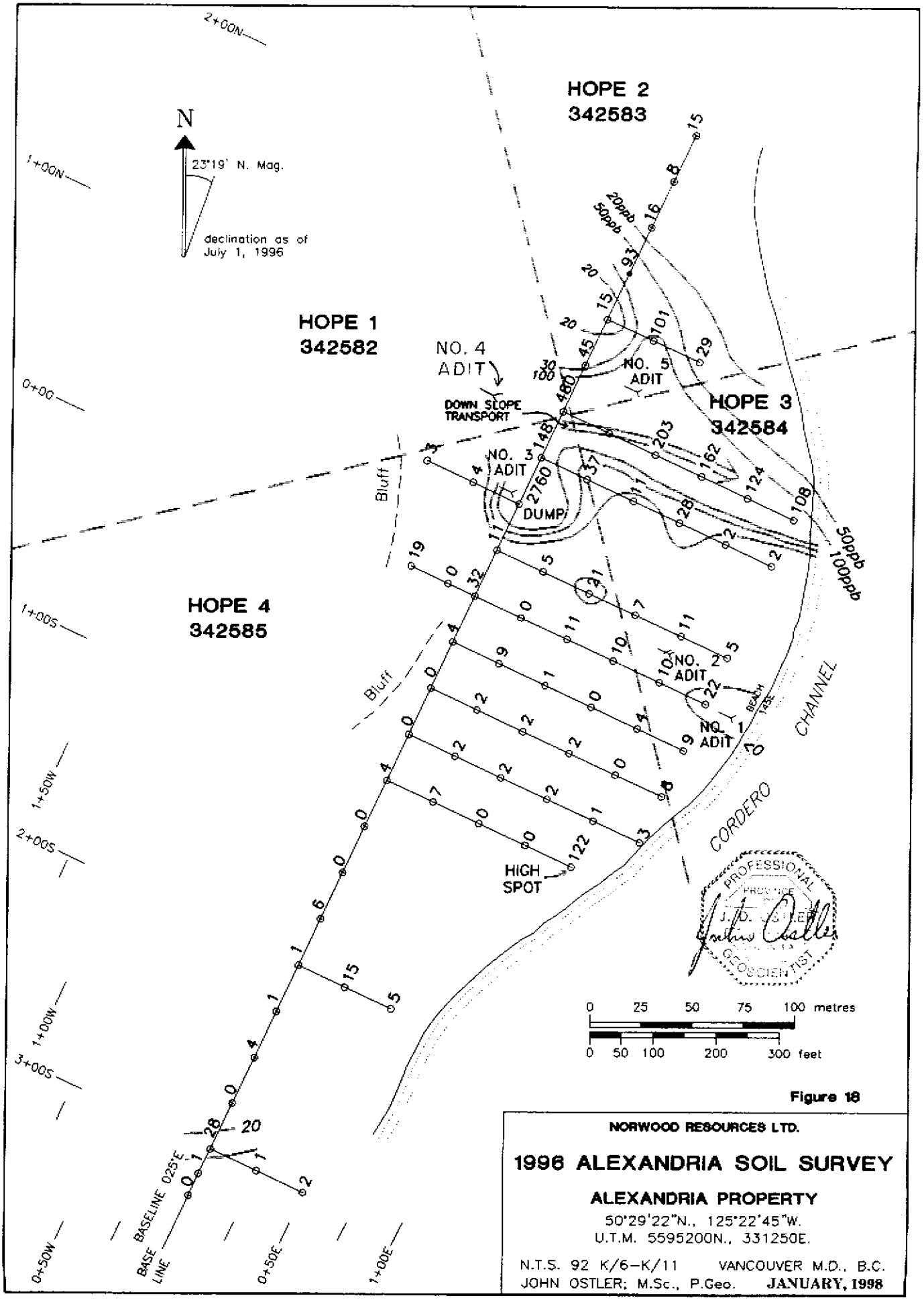


Figure 18

NORWOOD RESOURCES LTD.

1996 ALEXANDRIA SOIL SURVEY

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6–K/11 VANCOUVER M.D., B.C.
JOHN OSTLER; M.Sc., P.Geo. **JANUARY, 1998**

the northeastern corner of Hicks (1986) eastern Empress grid (Figure 9).

Soils of the expanded Ben grid-area range up to 760 ppb gold with high gold concentrations being concentrated along four linear trends named: the Doratha Morton, Comox, Main Empress and West Empress trends (Figure 19). These soil-gold trends appear to represent arcuate, en-echelon concentrations of mineralization that extend for an average of 450 m (1476 ft) along strike and have widths of less than 50 m (164 ft). The precise distribution of the mineralization responsible for the development of these soil-gold trends remains undefined. However, prospecting, trenching in the grid-area indicates that a complex group of mineralized quartz-filled tensional structures is the source (section 4.3, this report).

The Ben grid-area is located along the upper part of a steep northeasterly slope. Consequently, aprons of metals extend northeasterly down-slope from mineralized areas. Where soil-gold trends cross significant drainages or encounter workings or mineralized outcrops, dispersion trains of high gold and silver concentrations develop.

The Doratha Morton soil-gold trend enters the northern part of the Ben grid-area near 0+00 E., 0+25 S. and extends along the base of a group of low bluffs to about 2+00 E, 0+00 N. where it fades out. Aprons of high soil-gold concentrations extend northeastward down clefts in the slope near lines 0+25 E. and 1+25 E.

The Comox soil-gold trend enters the grid-area near 1+50 E., 0+50 S. at the southeastern end of the outcrop that forms the bluff above the Doratha Morton soil-gold trend. The northern limit of the Comox trend is not known at present but the writer suspects that mineralization associated with it runs parallel with the Doratha Morton trend across the bluff to the Doratha Morton property boundary. The Comox trend extends to near 5+25 E., 0+25 S. where it fades out. The spot gold high at the northern end of line 3+00 E. may represent down-slope dispersion from the Comox adit-area. A significant dispersion train along line 3+75 E. may indicate the presence of unexposed high-grade gold mineralization near 3+50 E., 0+25 S. along the Comox trend.

There seem to be several parallel zones of mineralization located in the area between

the Empress adit and the southeastern boundary of the Ben grid-area. Two soil-gold trends have been identified in that area: the Main and West Empress trends. The Main Empress trend extends from 4+75 E., 0+50 S. to beyond 8+75 E., 0+75 N. at the southeastern boundary of the survey-area. High-grade gold and silver mineralization in a pyrite and telluride-bearing quartz body along this trend at the mouth of the Empress adit indicates what may be the source of high soil-gold concentrations there. The pattern of soil-gold concentrations down-slope from the Main Empress trend seems to be too complex to have been caused solely by down-slope dispersion. Probably another soil-gold trend is located in that part of the grid-area which is also very close to the reported location of the Empress (Julie) shaft (Figures 2 and 9).

The West Empress soil-gold trend extends from 5+50 E., 1+00 S. to near 6+25 E., 0+75 S. across the area just up-slope from the Empress adit.

The distribution of soil-silver concentrations confirms the existence of the previously described soil-gold trends in the Ben grid-area. Soil-silver anomalies are developed at several locations along the soil-gold trends and down-slope from both the Comox and Empress dumps (Figure 20). Silver seems to be quite mobile within soils in the Ben grid-area. Silver anomalies indicate that they are the result of down-slope dispersion from very local sources along the soil-gold trends. These source areas will be good places to prospect for high-grade mineralization during subsequent exploration programs.

4.2 Magnetic and Electromagnetic Surveys in the Ben Grid-area

Magnetic and electromagnetic surveys were conducted by Jack Lucke in the central part of the Ben grid area. The area of these surveys covered a total of 2337.5 m of grid line and 800 m of base line (Figures 21 to 24). The methods, equipment and results of these surveys was described by Lucke (1997) as follow:

Electromagnetic Survey

A Sabre Model 27 unit was utilized for the electromagnetic survey. An excellent signal was available from the Jim Creek transmitting station near Seattle and this was the main signal used. Others were poor to variable. Crisply defined dip angles were observable and these were plotted both as cross-sections for each line (Figure 21) and as a contour map (Figure 22).

No cross-overs were observed in the study, all dip angles having positive values. However a number of interesting trends were observed:

(A) There was a general decrease in the magnitude of the readings from the northwest to the southeast.

(B) There appears to be a linear expression running more or less due east-west, where the decrease in values is quite abrupt. This begins at about 2+50 E., 0+00 N. and travels uninterrupted to 4+50 E., 1+00 N. (This linear expression runs parallel with the Comox soil-gold trend. jo)

(C) A general region of low values lies south of the baseline from 4+50 E to 6+00 E. ...

Magnetic Survey

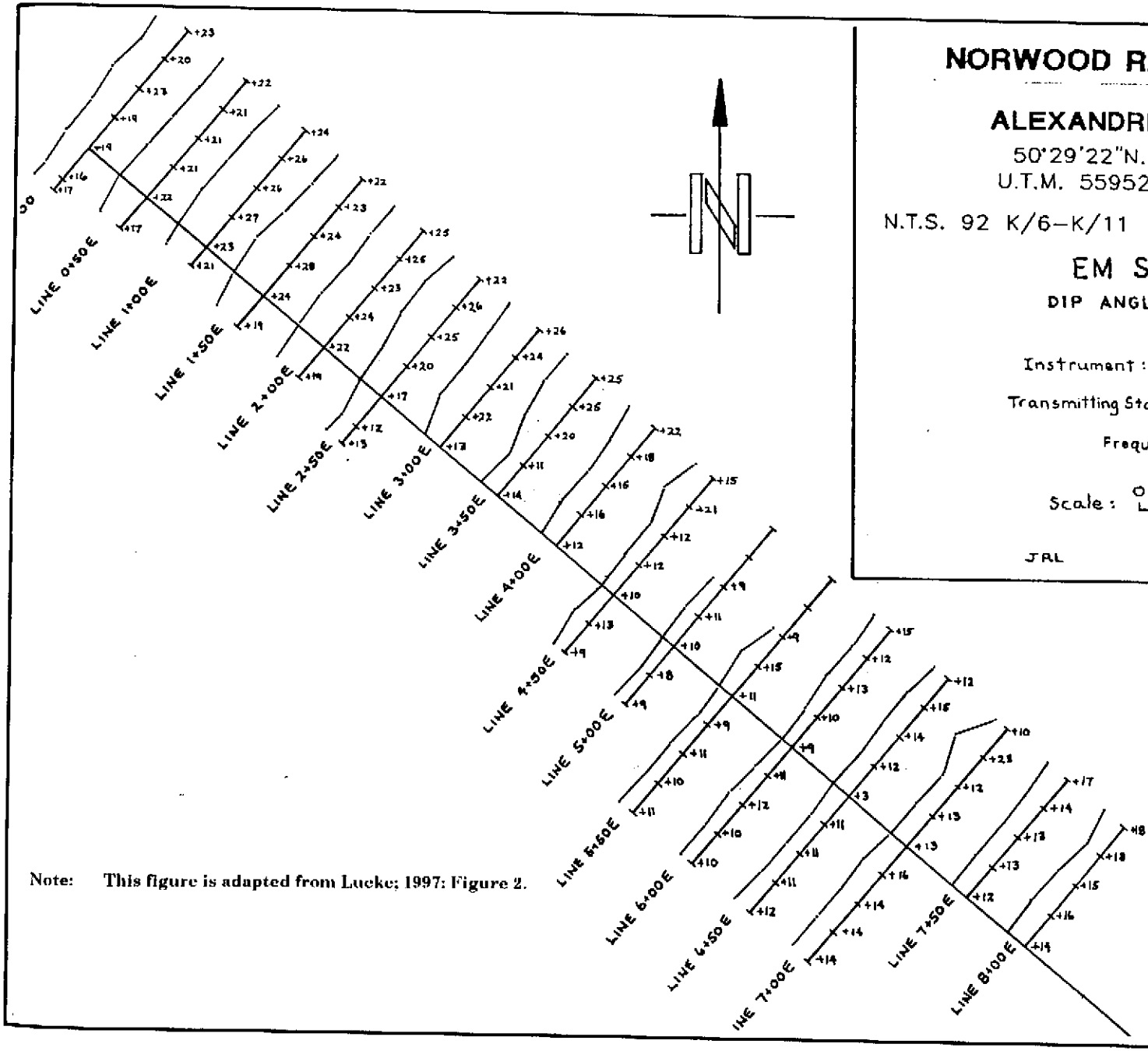
The ground magnetic survey (using an MP2 magnetometer) covered the same grid area as the EM. A neutral base station was established and frequent loops were made so that readings could be adjusted for diurnal magnetic variation. Total magnetic field values were observed and recorded. The diurnally adjusted values were then plotted (Figure 23) and a contour map constructed using these values (Figure 24).

No enormous fluctuations in the total magnetic field were observed, although there were several significant anomalous situations:

(A) A very subtle but persistent magnetic low trough occurs on strike and in the vicinity of a known mineralized shear zone. This is located generally 25 to 50 m south of the baseline from 5+00 E. to at least 7+00 E. and is open at both ends.

(B) A single-station high (about 300 gammas above background) was observed at station 6+00 E., 0+25 N. Moving a few metres off the station still produced an anomalously high reading. (This spot high is located on a relatively flat bench directly below the Empress adit. There may be old exploration camp junk in the soil at this location. jo).

(C) There are apparently at least two other dipolar situations, reflecting magnetic mineralization within the host rock. Opposing ends of these are observed at 6+00 E., 0+25 N. to 7+00 E., 0+75 N. and at 5+00 E., 0+25 N. to 4+50 E., 0+50 N.



NORWOOD RESOURCES LTD.

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6–K/11 VANCOUVER M.D., B.C.

EM SURVEY

DIP ANGLE PROFILES

Instrument: Sabre Model 27

Transmitting Station: Jim Creek WA.

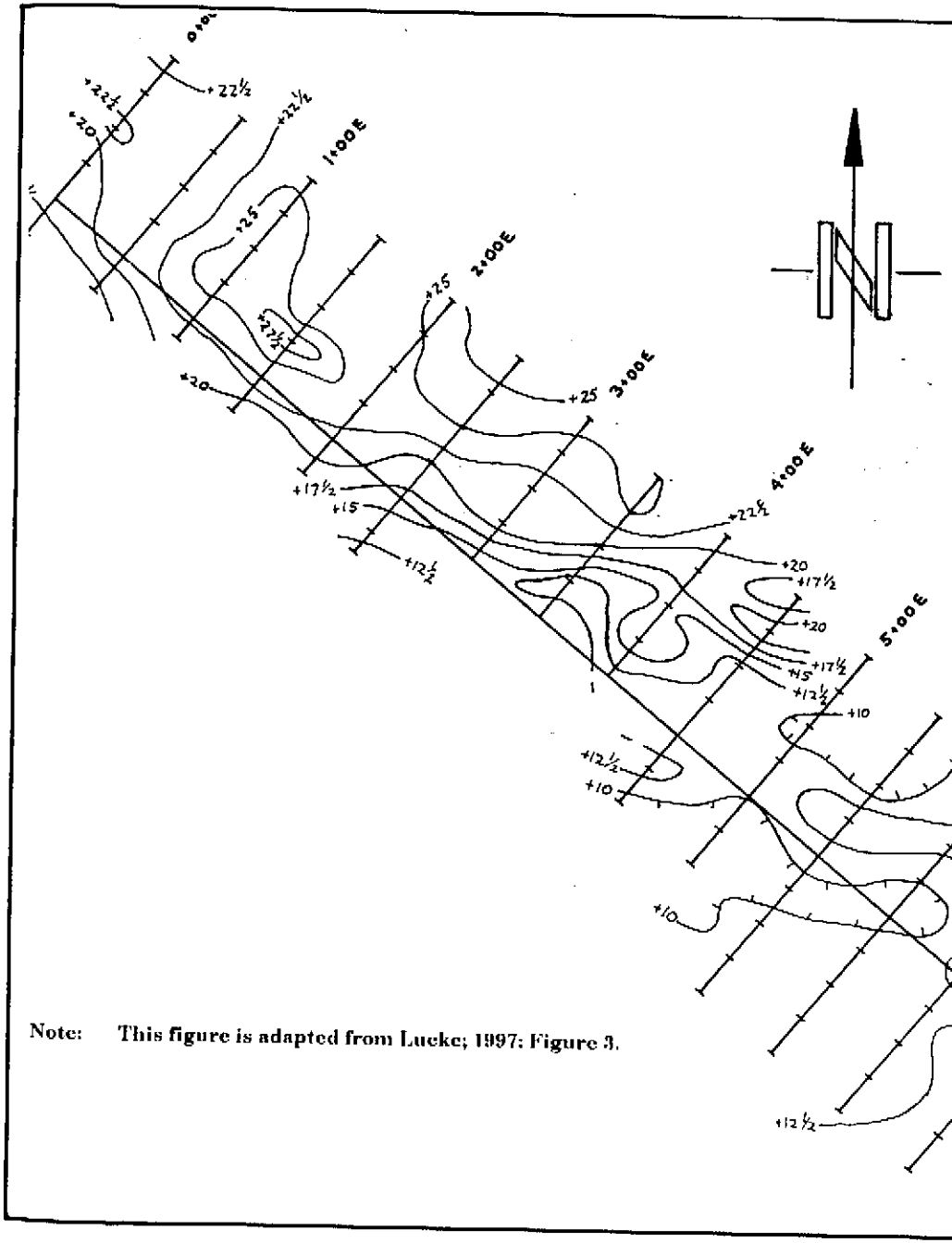
Frequency: 24.8 kHz

Scale: 0 2.5 50 7.5 100 metres

JRL DECEMBER 1997

Note: This figure is adapted from Lucke; 1997: Figure 2.

Figure 21



NORWOOD RESOURCES LTD.

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6–K/11 VANCOUVER M.D., B.C.

EM SURVEY

Dip Angle Contours : 2½° Intervals

Instrument : Sabre Model 27

Transmitting Station : Jim Creek WA.

Frequency : 24.8 kHz

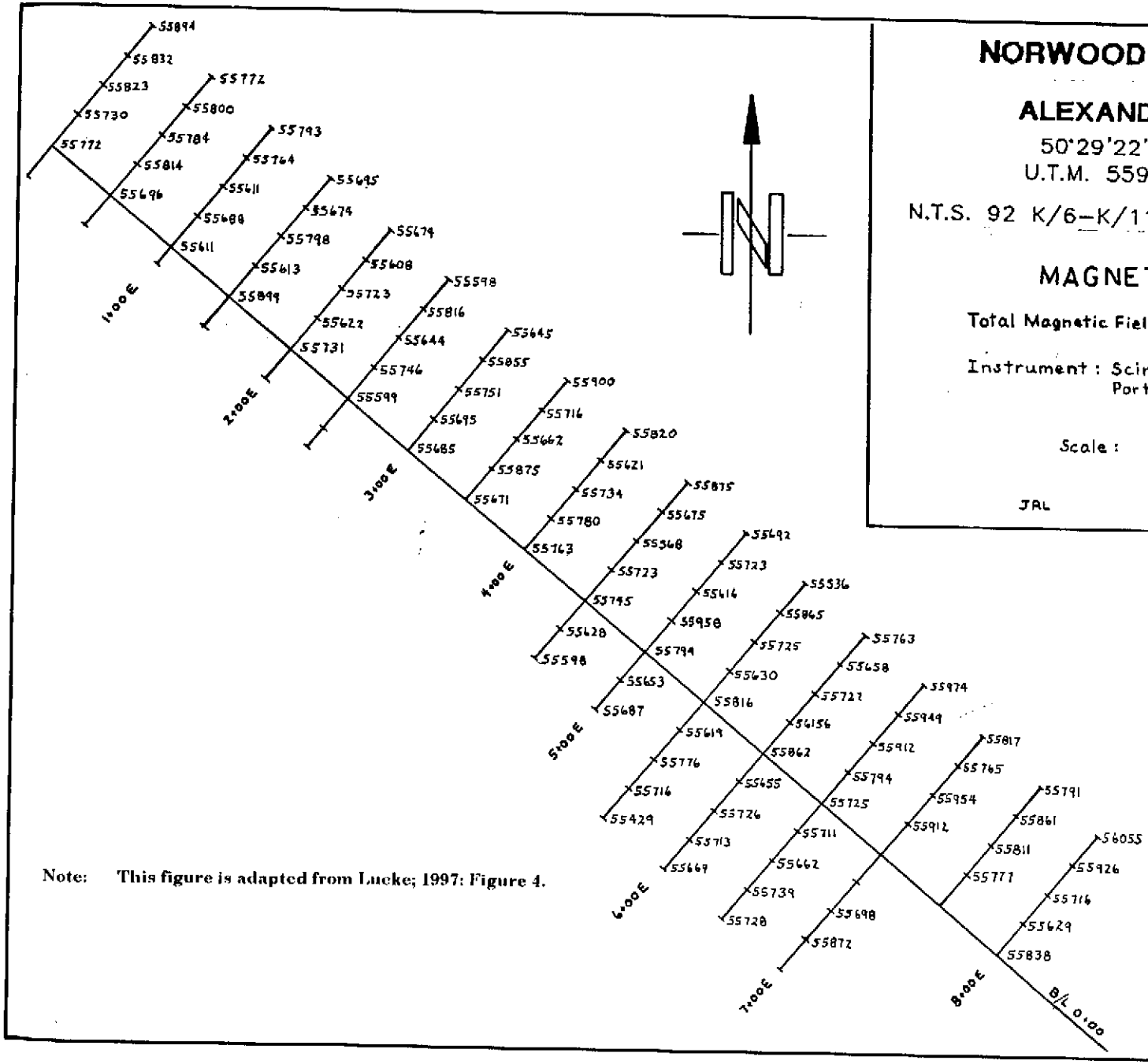
Scale : 0 25 50 75 100 m

JRL DECEMBER 1997

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

Note: This figure is adapted from Lucke; 1997: Figure 3.

Figure 22



NORWOOD RESOURCES LTD.

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.
U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6–K/11 VANCOUVER M.D., B.C.

MAGNETIC SURVEY

Total Magnetic Field Readings – Gammas

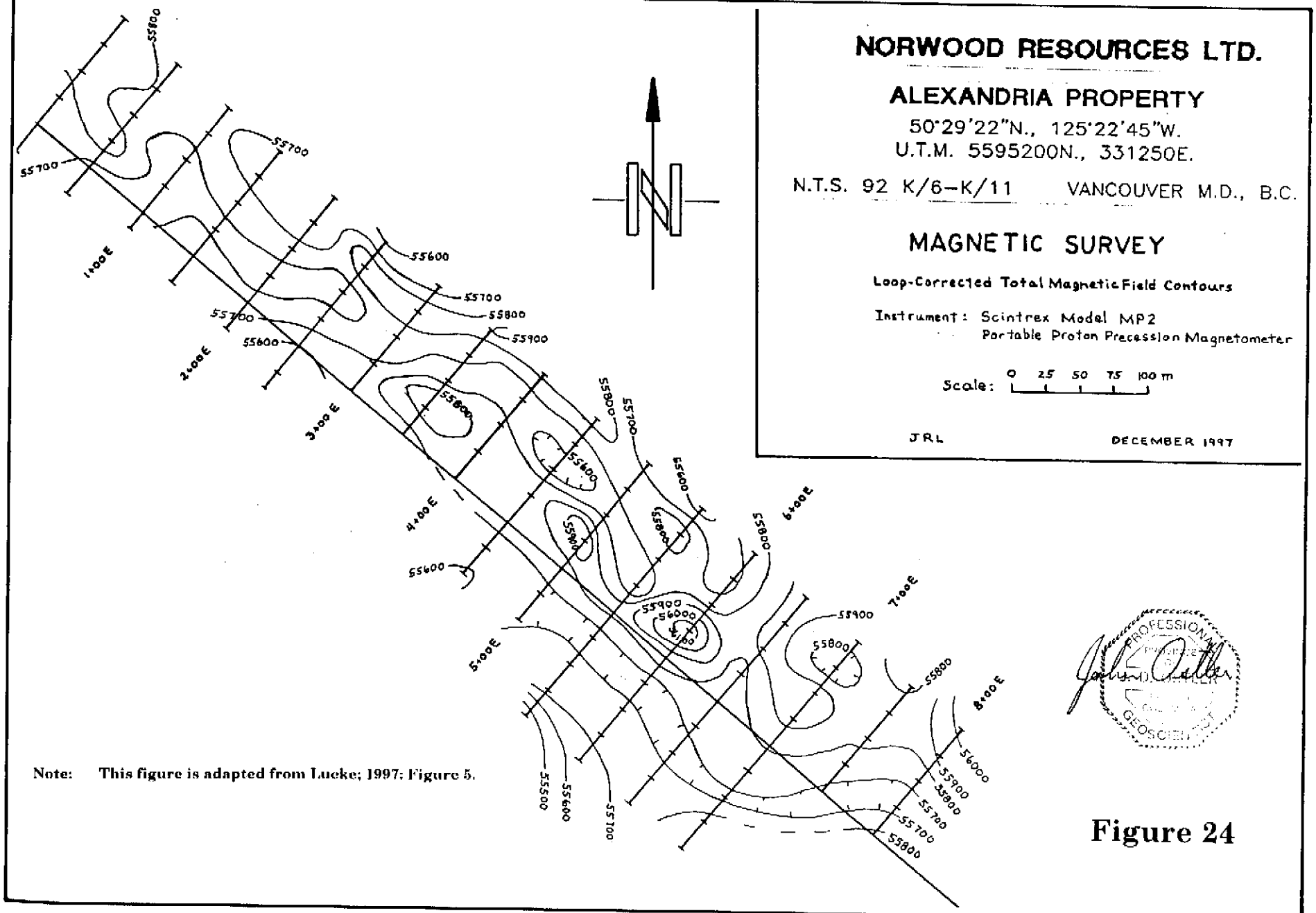
Instrument : Scintrex Model MP 2
Portable Proton Precession Magnetometer

Scale : 0 25 50 75 100 meters

JRL DECEMBER 1997

Note: This figure is adapted from Lucke; 1997: Figure 4.

Figure 23



Note: This figure is adapted from Lucke; 1997; Figure 5.

Figure 24

4.3 Prospecting, Trenching and Location of Old Workings in the Ben Grid-area

Prospecting was conducted in the Ben soil-grid area during and after the soil survey. Several outcrops of variably mineralized quartz in tensional structures were found adjacent to soil geochemical anomalies at several locations and two old adits, the Comox and Empress were located.

The results of the 1996 soil survey on the Ben grid indicated that the source of the soil gold anomalies from 0+00 E. to 4+50 E. was buried beneath the bluffs along the southwestern margin of the 1996 survey area (Ostler 1997) (Figures 19 and 20). Two hand-trenches; TR97-1 and TR 97-2, were excavated into the soil at the base of the bluffs to test this theory. The trenches were located near 0+25 E., 0+25 S. and near 1+00 E., 0+12.5 S. (Figures 19 and 20).

Both trenches uncovered meta-andesite containing narrow white quartz stringers that appeared unmineralized and did not seem to be responsible for the adjacent soil gold and silver anomalies. It was suspected that mineralized quartz bodies exposed in the bluffs was the primary source of the mineralization in this area.

Due to treacherous working conditions resulting from a thin layer of snow on the moss-covered bluffs, they were not prospected during the 1997 program.

Outcrops of quartz bodies in meta-andesite were located in several other parts of the grid-area. Snowfall precluded any subsequent work being done on them.

Comox Adit

The Comox adit was located at 2+80 E., 0+20 S. by Norwood's prospectors (Figures 19,20 and 25). It was driven into meta-andesite for 46 m at a bearing of 215°. The adit was at an elevation of 838 m (2749 ft) and was an attempt to test the downward extent of mineralization in two parallel, 2 m-thick quartz bodies that outcropped at 849 m (2785 ft) (Figure 25). Sparse pyrite and dark grey discolouration assumed by the writer to be sylvanite ($AuAgTe_4$) was exposed in a small exploration trench blasted into the westerly quartz ledge in the outcrop. That mineralization probably provided the encouragement to drive the adit. Sample CO97-1,

a composite chip sample taken by the writer in the trench of grey quartz containing sparsely disseminated pyrite contained 2.19 gm/mt (0.064 oz/ton) gold and 7.5 gm/mt (0.219 oz/ton) silver with no copper, lead or zinc. Sample CO97-2 of white quartz taken at the same location contained 0.78 gm/mt (0.023 oz/ton) gold and 1.5 gm/mt (0.044 oz/ton) silver and no base metals.

The tunnel intersects an area of barren quartz boudins in meta-andesite about 5 m in from the portal. Near the working face located 46 m in from the portal is a series of thin, sparsely pyritic shears in the meta-andesite. Drill holes in the roof near the working face indicate that an attempt to raise up to the quartz bodies above was being considered.

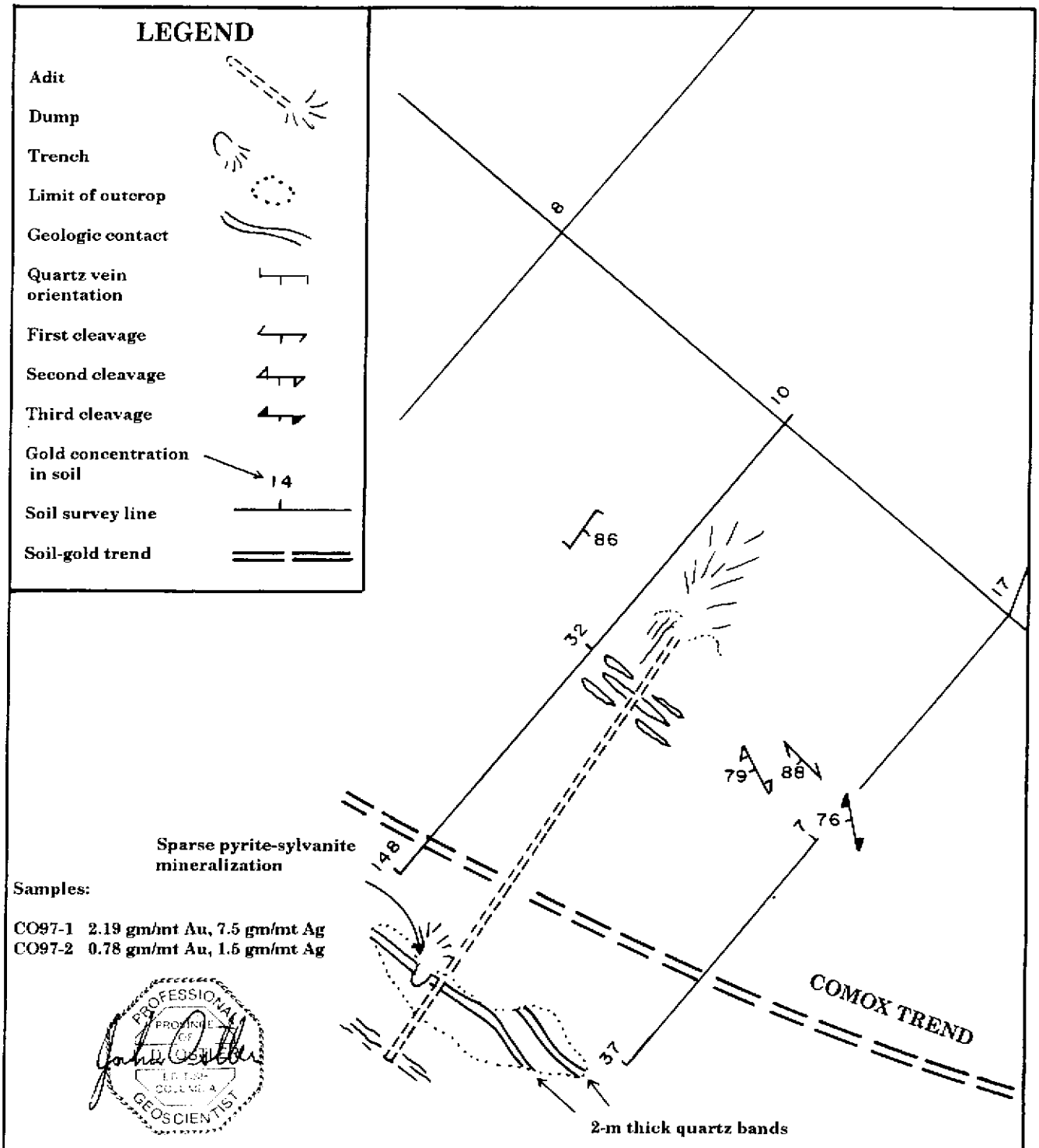
The rock throughout the Comox adit is quite competent and no timber is required to hold up the roof. The timbers at the portal are in excellent condition and do not appear to be original.

The writer suspects that this adit was driven during the 1930s and that the portal may have been retimbered subsequently.

Empress Adit

The Empress adit was located near 6+00 E., 0+25 S. at an elevation of 850 m (Figure 26). The portal area is just as described by Hicks (1986). Soil has sloughed down the slope and buried the adit at the portal, however, the tunnel appears to have been driven at a bearing of 215° to get under a quartz body that is exposed about 10 m up the slope. There is enough material on the dump to account for a 30 m long tunnel. This working would be easy to reopen and sample.

A 2-m thick quartz ledge mineralized with pyrite, sylvanite and smoky grey mineralization assumed to be fine-grained tellurides is exposed at both sides of the portal. Sample ED97-1, a composite chip sample of material in place, ran 192.5 gm/mt (5.62 oz/ton) gold and 647 gm/mt (18.87 oz/ton) silver with no copper, lead or zinc. The Empress adit portal is close to a sample site containing 310 ppb gold in soil on the Main Empress soil-gold trend (Figure 19).



SCALE

0 10 20 30 40 50 m.

0 50 100 150 ft.

N.

24°

N. m.

CASSIAR EAST YUKON EXP. LTD.

Figure 25

NORWOOD RESOURCES LTD.

COMOX ADIT

ALEXANDRIA PROPERTY

50° 29' 22" N., 125° 22' 45" W.

U.T.M.: 5,595,200 N., 331,2500 E.

N.T.S.: 92 K/6 and K/11, VANCOUVER M.C., B.C.

JOHN OSTLER; M.Sc, P.Geo. JANUARY, 1998

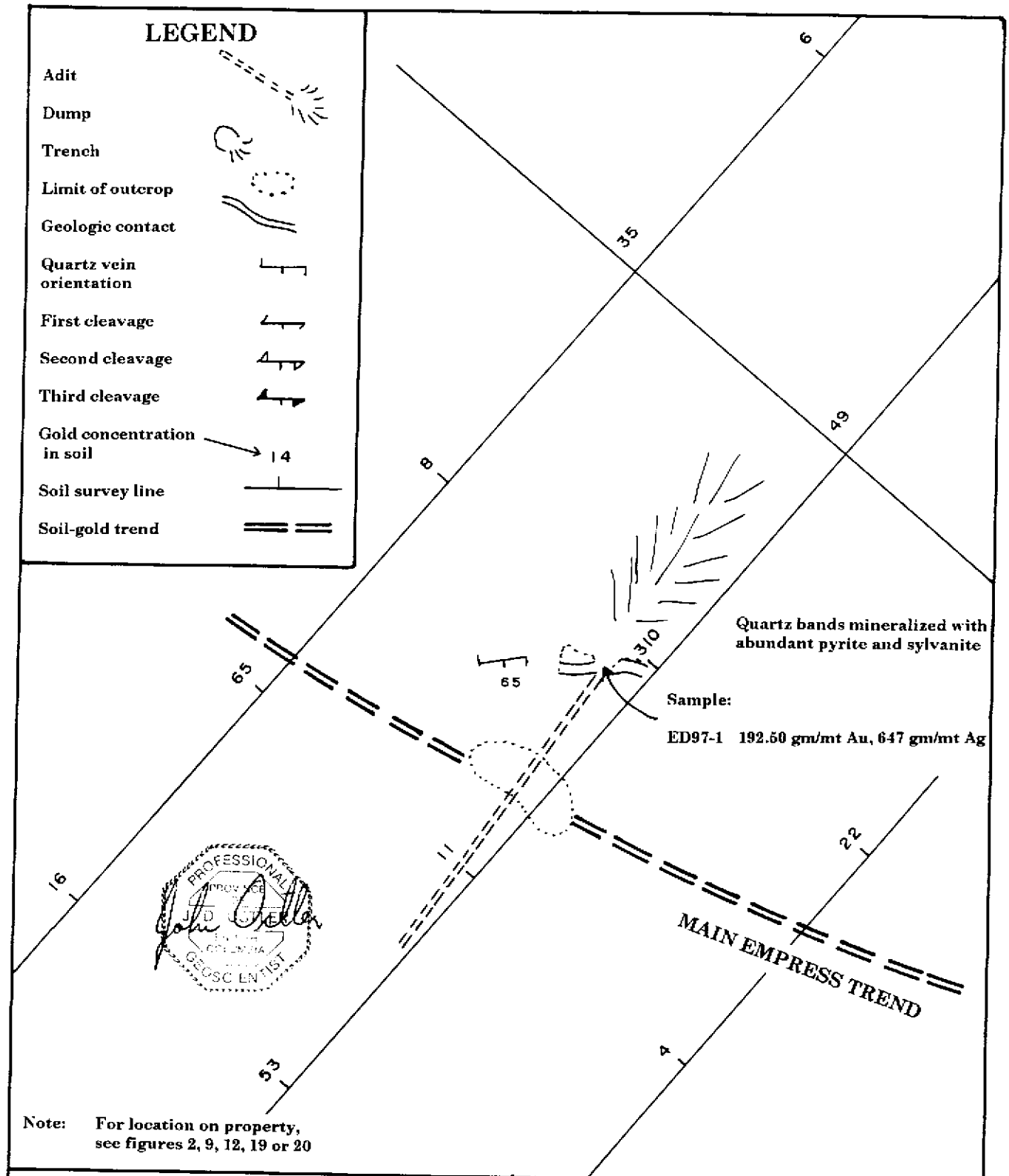


Figure 26

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

EMPRESS ADIT

ALEXANDRIA PROPERTY

50° 29' 22" N., 125° 22' 45" W.
U.T.M.: 5,595,200 N., 331,2500 E.
N.T.S.: 92 K/6 and K/11, VANCOUVER M.C., B.C.
JOHN OSTLER; M.Sc, P.Geo. JANUARY, 1998

4.4 Access Trail Construction and Road Survey in the Ben Grid-area

A 1000-m long access trail was constructed from the end of the road on the Doratha Morton property to the baseline of the Ben soil grid at 0+00 E. thence along the baseline to 9+00 E. to facilitate access to the grid-area as was previously recommended (Ostler, 1997).

During the 1997 program it became apparent that gold mineralization in this area was concentrated in several sub-parallel, en-echelon structures and not in a single band along the base of the bluffs at the southwestern margin of the grid-area as was previously suspected. Consequently, a road along the base of the bluffs would be of only moderate value. A new road route was surveyed from the mine camp on the Doratha Morton property to a point on the slope near 5+15 E., 1+00 N. on the Ben grid (Figure 27). From that point both the Ben grid-area and the main Enid-Julie workings could be accessed efficiently.

The road route was surveyed using a Nikon Total Station Model DTMA-20 theodolite and a stadia target. Readings were stored in the theodolite and dumped into a computer file for processing. Geometric calculations were done by the program software. Start and end positions were checked with an Ensign GPS unit.

The road route was 1308 m long. The survey comprised 40 stations thet required 150 side shots.

4.5 Road Renovation on the Dy Claims

Access to the central part of the Alexandria property is by a logging road that extends from the main Picton Point road onto the Dy claims. This road is about 3 km long of which 1.5 km is on the Dy claims.

This access road was renovated with a backhoe to enable vehicular access to the central part of the property. Also, several creek crossings on the main Picton Point road were cleaned of outwash debris.

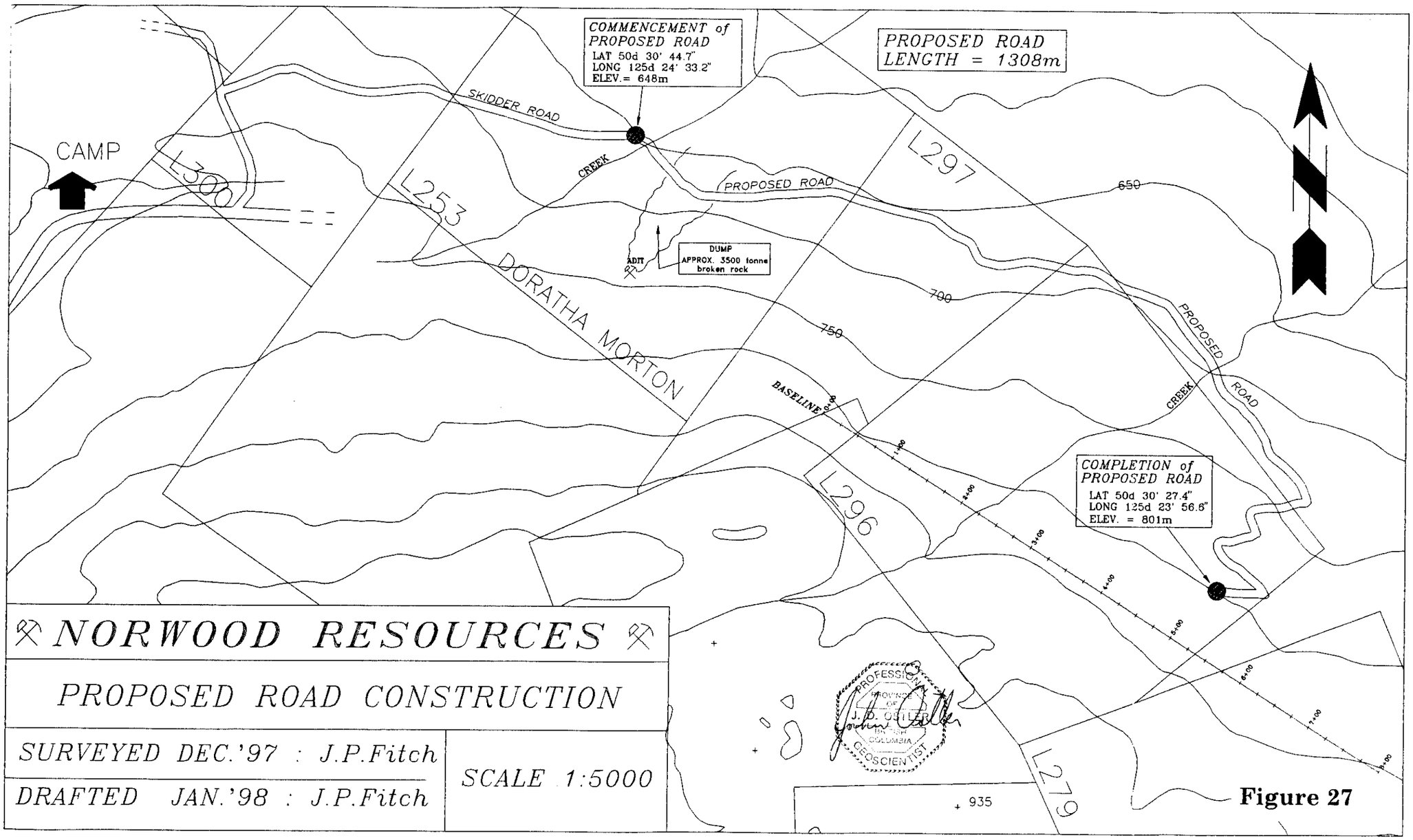

COMMENCEMENT of PROPOSED ROAD
LAT 50d 30' 44.7"
LONG 125d 24' 33.2"
ELEV.= 648m
PROPOSED ROAD LENGTH = 1308m
SKIDDER ROAD
CAMP
L300
L253
DORATHA MORTON
CREEK
PROPOSED ROAD
L297
650
700
750
DUMP
APPROX. 3500 tonne broken rock
ADIT
BASELINE
PROPOSED ROAD
CREEK
COMPLETION of PROPOSED ROAD
LAT 50d 30' 27.4"
LONG 125d 23' 56.6"
ELEV. = 801m
L296
L279
935
NORWOOD RESOURCES
PROPOSED ROAD CONSTRUCTION
SURVEYED DEC.'97 : J.P.Fitch
DRAFTED JAN.'98 : J.P.Fitch
SCALE 1:5000

Figure 27

4.6 Alexandria Mine Workings-area

No work could be conducted around the Alexandria mine workings during the 1997 exploration program because the area was being torn up by a logging operation.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Work on the area between the Doratha Morton and Enid-Julie workings-areas during the 1997 program has added significantly to the understanding of the distribution of mineralization in that area.

The distribution of gold in soils indicates that there are at least four sub-parallel, en-echelon, mineralized structures in the Ben grid-area. The orientations of the soil-gold trends suggests that these structures are arcuate, sub-vertical tension gashes. This is confirmed by the presence of numerous quartz ledges and podiform bodies in outcrops of meta-andesite located along the soil-gold trends. Pyrite-sylvanite mineralization in quartz at the Empress adit and up-slope from the Comox adit demonstrate that gold and silver tellurides are locally present in significant amounts within these dilatant quartz bodies.

The intensity of mineralization within the dilatant quartz bodies seems to be quite variable. The distribution of soil-silver in the grid-area may be a good indication of the locations of high-grade gold and silver mineralization. Plumes of silver in soils extend down-slope from mineralized trends at several locations, perhaps revealing more mineralized areas.

Geophysical surveys seem to be of little use in the location of mineralization on the Alexandria property. The total pyrite content of gold and silver bearing rocks in this area is rarely more than 1% of the total rock. Consequently the magnetic response of mineralizes quartz bodies would not be very different from that of the surrounding meta-andesites. Most of what is revealed by the magnetic survey conducted during the current program is probably gneissic layering or palaeostratigraphy in the meta-andesite host rocks. Steep variable slopes and the general lack of contiguous sulphide mineralization tends to render electromagnetic

surveys ineffective.

Careful prospecting and soil geochemistry have been demonstrated to be the most effective tools for the exploration of economic mineralization in this area.

5.2 Recommendations

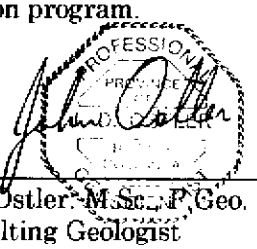
A significant amount of progress was made in the exploration of mineralization in the area between the Doratha Morton and Enid-Julie workings-areas during the 1997 exploration program. Work should continue there.

High-grade gold and silver telluride mineralization located near the Empress adit portal should be trenched in both directions along strike to determine its length. Debris at the adit portal should be removed so that the adit can be entered and sampled.

Intensive prospecting should be conducted throughout the whole Ben grid-area with particular attention being paid to those areas where there is significant down-slope transport of silver in soils adjacent to a soil-gold trend. Any promising areas should be opened by trenching.

The eastern end of the Ben grid-area is very close to the Enid-Julie workings area. It is possible that the Empress shaft is located near 8+50 E., 0+75 N. on the Ben grid. The Enid-Julie workings should be located and sampled. Road access to them from the end of the road route that was surveyed during the 1997 program should be developed. The Ben soil survey should be extended north and east to include the Enid-Julie workings area.

Damage to the Alexandria soil grid on the Hope 1 to 4 claims done by current logging should be assessed and repaired. The horse trail from the No. 1 to No. 4 Alexandria portal should be renovated for access and the soil grid should be expanded around the Alexandria No. 4 adit as was recommended after the 1996 exploration program.



West Vancouver, British Columbia
January 12, 1998

John Ostler, M.Sc., P.Geo.
Consulting Geologist

6.0 ITEMIZED COST OF THE 1997 EXPLORATION PROGRAM

PERSONNEL		
B.F. Fitch, B.Sc, Project Manager	46 days @ $300/day	$13,800.00
J. Lucke , Geophysical Technician	15 days @ $250/day	3,750.00
K. Christensen, Prospector	28 days @ $200/day	5,600.00
T. Jones, Linecutter and Sampler	23 days @ $150/day	3,450.00
P. Poissant, Linecutter and Sampler	26 days @ $150/day	3,900.00
J. Riha, Helper	3 days @ $150/day	450.00
TRANSPORTATION		
Flights (Charter and Scheduled)		3050.74
Helicopter Charter		1530.18
Barge Service from Campbell River to Picton Point		3266.26
Chevrolet 4x4 6 weeks @ $500/wk		3000.00
RENTALS		
Rubber Tire Backhoe	80.5 hrs @ $70/hr	5635.00
ATV	4 weeks @ 500/week	2000.00
Radio		282.00
Magnetometer		484.86
Sabre VLF-EM		300.00
Chainsaw	4 weeks @ 100/wk	400.00
Honda Generator	4 weeks @ 100/wk	400.00
EXPLORATION SUPPLIES		
Fuel		405.20
Powder		750.05
MEALS & ACCOMMODATION		
Cordero Lodge, Picton Point		1,815.00
Field Camp	130 man-days @ $50/day	6,500.00
ASSAYS		3,500.55
ROAD SURVEY		2,000.00
REPORT COSTS		5,616.11
TOTAL		**71,885.95**

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APPENDIX 'A'

1997 Rock Assays and Soil Analyses:

Methods and Results

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(640)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Dyakowski, Chris PROJECT NORWOOD File # 9730114 Page 1

3750 W. 49th Ave, Vancouver BC V6N 3T8

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
4+50E 1+00N	4	21	10	34	.4	12	7	203	7.89	3	<8	<2	<2	13	.9	<3	<3	104	.14	.049	5	28	.43	22	.23	<3	2.57	.02	.06	<2	23
4+50E 0+75N	4	19	8	62	<.3	14	13	510	6.06	4	<8	<2	<2	14	.6	<3	<3	117	.19	.020	4	33	.63	22	.23	<3	2.12	.02	.05	2	8
4+50E 0+50N	3	17	12	33	.3	13	8	197	3.54	4	<8	<2	<2	11	.5	<3	<3	98	.17	.039	3	22	.55	30	.15	<3	1.53	.02	.08	<2	8
4+50E 0+25N	8	31	<3	67	<.3	23	9	275	3.92	2	<8	<2	3	8	.8	<3	<3	108	.11	.027	6	51	1.16	25	.22	<3	4.12	.01	.07	<2	41
4+50E BL	4	25	9	27	<.3	9	8	231	5.38	3	<8	<2	2	10	.9	<3	3	147	.15	.022	6	20	.44	32	.40	<3	2.03	.01	.08	2	23
4+50E 0+25S	2	38	5	22	<.3	9	8	208	12.30	<2	<8	<2	4	12	1.0	<3	<3	247	.12	.026	3	46	.56	20	.60	<3	3.33	.01	.04	3	7
4+50E 0+50S	<1	6	9	11	<.3	3	2	110	.91	2	<8	<2	<2	18	.2	4	<3	43	.19	.019	2	8	.26	23	.22	4	.98	.01	.02	<2	3
4+50E 0+75S	2	3	22	8	<.3	4	1	62	.74	2	<8	<2	<2	13	.3	3	<3	79	.16	.024	2	11	.11	14	.45	<3	.69	.01	.03	<2	13
RE 4+50E 0+75S	2	3	24	8	<.3	4	1	65	.75	3	<8	<2	<2	12	.4	3	<3	81	.15	.024	2	12	.11	14	.45	<3	.69	.01	.03	<2	6
4+50E 1+00S	1	3	23	9	<.3	3	1	81	.75	2	9	<2	<2	12	.2	3	<3	100	.16	.015	3	14	.12	14	.57	3	1.08	.01	.02	<2	14
4+75E 1+00N	2	23	8	28	<.3	12	7	164	3.86	<2	<8	<2	2	12	.5	<3	<3	86	.18	.035	5	33	.32	19	.22	<3	4.25	.01	.03	<2	28
4+75E 0+75N	1	22	6	41	<.3	17	9	244	4.53	3	<8	<2	3	15	.8	<3	<3	98	.24	.023	4	40	.65	31	.27	<3	3.78	.02	.07	<2	8
4+75E 0+50N	2	10	9	19	<.3	9	4	139	4.05	3	<8	<2	<2	12	.4	<3	<3	129	.15	.025	3	17	.27	19	.26	<3	1.19	.01	.03	<2	6
4+75E 0+25N	2	11	13	19	<.3	8	5	148	5.98	2	<8	<2	2	11	.7	<3	<3	172	.15	.022	3	26	.26	16	.38	3	1.65	.01	.03	<2	4
4+75E 0+00	2	17	<3	23	<.3	9	6	151	4.59	<2	<8	<2	2	10	.7	4	3	122	.15	.029	5	32	.36	34	.21	<3	4.56	.02	.06	<2	6
4+75E 0+25S	1	47	<3	54	<.3	9	10	431	9.42	<2	<8	<2	2	9	1.1	<3	<3	200	.10	.041	6	23	1.35	71	.46	<3	4.17	.01	.15	<2	15
4+75E 0+50S	2	7	15	16	<.3	8	4	116	3.42	2	<8	<2	<2	11	.4	3	<3	175	.19	.025	2	15	.29	13	.38	<3	1.09	.01	.03	<2	22
4+75E 0+75S	1	13	7	51	<.3	33	8	394	3.14	3	<8	<2	<2	21	.6	<3	<3	127	.27	.031	2	54	1.44	28	.25	<3	1.69	.03	.08	<2	3
4+75E 1+00S	2	6	11	9	<.3	4	2	75	3.08	3	<8	<2	<2	8	.4	<3	<3	229	.10	.017	3	20	.10	12	.51	<3	.88	.01	.02	<2	2
5+00E 1+00N	1	9	3	23	<.3	9	7	197	4.68	4	<8	<2	<2	10	.6	<3	<3	143	.20	.016	2	24	.33	19	.35	<3	1.21	.01	.05	<2	2
5+00E 0+75N	1	4	7	8	<.3	4	3	59	1.00	2	<8	<2	<2	13	<.2	3	<3	56	.11	.014	3	8	.07	12	.13	3	.69	.01	.01	<2	2
5+00E 0+50N	1	10	14	10	<.3	4	6	72	3.90	9	<8	<2	<2	7	.6	3	<3	199	.09	.023	1	15	.05	7	.43	<3	.61	.01	.02	<2	11
5+00E 0+25N	4	10	<3	15	<.3	9	4	66	2.88	3	<8	<2	<2	14	.3	3	<3	54	.11	.033	3	17	.15	27	.08	<3	.72	.01	.02	<2	12
5+00E BL	7	49	<3	71	.3	40	17	411	6.10	<2	<8	<2	2	12	.9	<3	<3	130	.26	.019	3	74	1.67	31	.40	<3	3.47	.01	.12	<2	3
5+00E 0+25S	3	21	10	19	<.3	10	7	110	7.15	5	<8	<2	2	9	.7	<3	<3	114	.13	.042	3	40	.23	14	.26	<3	2.58	.01	.03	<2	12
5+00E 0+50S	2	16	5	25	.4	10	6	171	6.45	3	<8	<2	<2	9	.4	3	<3	127	.14	.044	4	25	.45	19	.27	<3	2.71	.01	.04	<2	5
5+00E 0+75S	2	23	3	38	<.3	12	12	286	6.63	3	<8	<2	2	15	.7	<3	<3	176	.20	.029	3	24	1.19	28	.36	<3	2.11	.01	.08	<2	2
5+00E 1+00S	2	13	9	21	<.3	10	5	111	6.04	3	<8	<2	<2	9	.5	3	<3	113	.15	.049	4	18	.29	18	.10	<3	1.93	.01	.04	<2	2
5+25E 1+00N	2	20	7	36	<.3	12	10	259	4.59	3	<8	<2	2	15	.4	<3	<3	90	.20	.025	4	23	.57	23	.12	<3	1.97	.02	.06	<2	4
5+25E 0+75N	4	19	8	20	<.3	9	8	126	4.01	2	<8	<2	<2	16	.6	<3	<3	78	.21	.033	3	22	.24	16	.20	<3	1.18	.01	.03	<2	20
5+25E 0+50N	1	12	12	60	<.3	10	7	335	2.99	3	<8	<2	<2	37	.2	<3	<3	81	.39	.042	2	16	1.18	38	.22	<3	2.01	.02	.25	<2	5
5+25E 0+25N	4	13	10	15	.5	8	5	92	8.56	2	<8	<2	<2	8	.3	3	<3	85	.09	.060	4	26	.19	17	.11	3	2.05	.01	.05	<2	42
5+25E BL	2	10	11	16	<.3	7	5	102	5.82	3	<8	<2	2	9	.6	<3	<3	185	.14	.020	2	23	.15	11	.49	<3	.99	.01	.02	<2	4
5+25E 0+25S	2	11	5	25	<.3	7	5	165	5.29	3	<8	<2	<2	11	.6	<3	<3	129	.11	.022	3	18	.31	17	.34	<3	1.33	.01	.03	<2	2
5+25E 0+50S	2	13	4	54	<.3	14	12	259	6.31	2	<8	<2	2	7	.4	<3	<3	126	.09	.031	4	24	.70	18	.23	<3	2.25	.01	.04	<2	17
STANDARD C3/AU-S	25	64	36	170	5.8	37	13	796	3.52	57	26	3	21	30	24.5	20	20	81	.61	.089	18	168	.65	146	.08	22	1.98	.04	.17	20	60
STANDARD G-1	<1	1	<3	41	<.3	6	5	548	2.08	<2	<8	<2	5	73	<.2	3	<3	41	.60	.083	9	13	.62	300	.12	5	.99	.10	.54	3	<1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O 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.
- SAMPLE TYPE: SOIL AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 8 1997 **DATE REPORT MAILED:** Dec 12/97 **SIGNED BY** .....C.D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
5+25E 0+75S	2	17	19	24	<.3	4	5	94	5.89	4	8	<2	2	14	.9	3	<3	140	.15	.034	4	14	.23	18	.27	<3	1.34	.01	.04	2	7
5+25E 1+00S	3	13	28	37	<.3	6	5	240	3.21	<2	<8	<2	2	17	.7	<3	<3	144	.22	.023	4	17	.56	22	.47	<3	1.67	.01	.06	<2	5
5+50E 1+00N	3	25	17	48	.4	13	11	274	5.64	3	<8	<2	3	21	.8	<3	<3	112	.21	.032	5	35	.45	21	.29	<3	1.99	.02	.05	<2	9
RE 5+50E 1+00N	3	25	12	49	.4	13	11	276	5.66	5	10	<2	3	21	.9	<3	<3	119	.21	.032	5	34	.45	21	.30	<3	1.96	.02	.05	<2	8
5+50E 0+75N	4	22	14	36	<.3	10	9	210	4.55	4	<8	<2	2	23	.5	<3	<3	83	.27	.033	5	25	.47	14	.21	<3	1.53	.01	.05	<2	12
5+50E 0+50N	1	19	7	31	<.3	11	9	242	2.82	3	<8	<2	4	17	.3	<3	<3	86	.28	.044	7	23	.41	33	.10	<3	1.63	.03	.10	<2	5
5+50E 0+25N	2	34	10	68	<.3	29	13	387	3.88	3	<8	<2	3	28	.5	<3	<3	102	.49	.037	5	42	.98	56	.22	<3	1.87	.03	.19	<2	10
5+50E BL	5	14	13	34	<.3	10	5	149	4.69	2	<8	<2	3	13	.7	3	<3	143	.20	.021	4	31	.38	14	.40	<3	1.50	.01	.04	<2	13
5+50E 0+25S	1	19	10	40	.4	9	6	160	3.30	<2	<8	<2	3	12	.5	<3	<3	92	.19	.037	5	30	.37	23	.21	<3	3.73	.02	.03	<2	9
5+50E 0+50S	2	54	11	62	.6	8	12	450	5.94	<2	11	<2	3	15	.9	<3	<3	99	.25	.020	4	18	1.12	30	.23	<3	2.57	.02	.06	<2	15
5+50E 0+75S	1	8	6	13	.3	3	5	75	1.97	2	<8	<2	2	13	.2	<3	<3	131	.16	.013	3	14	.06	13	.26	<3	.68	.01	.02	<2	11
5+50E 1+00S	3	18	17	27	<.3	5	5	103	6.53	2	<8	<2	3	12	.9	3	<3	232	.20	.023	3	23	.17	15	.48	<3	1.32	.01	.04	<2	13
5+75E 1+00N	7	18	20	53	<.3	7	6	157	5.71	2	<8	<2	4	11	1.0	<3	<3	147	.37	.036	5	33	.17	18	.35	<3	3.02	.01	.03	<2	7
5+75E 0+75N	4	31	11	46	<.3	9	8	269	5.17	2	<8	<2	4	14	.7	<3	<3	121	.22	.022	5	31	.59	25	.33	<3	1.87	.02	.07	<2	7
5+75E 0+50N	5	26	19	61	<.3	18	11	284	6.36	<2	11	<2	5	19	.9	<3	<3	154	.26	.021	6	55	.73	23	.37	<3	2.48	.02	.07	<2	3
5+75E 0+25N	4	26	14	30	<.3	10	7	128	4.59	<2	<8	<2	4	12	.9	<3	<3	162	.19	.021	4	33	.27	15	.40	4	2.19	.01	.03	<2	6
5+75E BL	3	21	17	44	.5	10	7	206	3.52	3	8	<2	2	14	.6	<3	<3	101	.21	.019	5	28	.54	23	.24	<3	1.77	.02	.05	<2	35
5+75E 0+25S	3	22	22	45	.4	14	9	263	5.26	3	12	<2	3	16	.7	<3	<3	110	.27	.023	4	37	.86	19	.26	<3	1.99	.02	.09	<2	8
5+75E 0+50S	4	61	21	102	1.2	24	14	349	4.70	<2	<8	<2	3	25	.8	<3	<3	86	.21	.052	7	46	1.04	62	.17	<3	5.69	.02	.09	<2	65
5+75E 0+75S	4	14	16	30	<.3	6	4	139	4.59	3	8	<2	3	13	.7	3	<3	133	.17	.028	5	20	.28	15	.33	<3	1.60	.01	.04	<2	16
5+75E 1+00S	3	13	11	17	<.3	4	5	79	3.38	3	8	<2	3	10	.6	3	<3	182	.14	.019	3	19	.08	9	.37	<3	.84	.01	.03	<2	23
6+00E 1+00N	2	5	11	13	<.3	3	2	80	1.74	<2	8	<2	3	16	.2	4	<3	148	.21	.012	4	17	.11	11	.54	<3	.76	.01	.02	<2	2
6+00E 0+75N	4	28	10	57	.3	13	7	226	3.58	<2	<8	<2	6	14	.5	<3	<3	134	.20	.035	6	49	.44	24	.34	<3	3.80	.02	.04	<2	3
6+00E 0+50N	6	18	12	21	.4	6	8	111	3.52	<2	8	<2	3	18	.7	4	<3	143	.25	.016	4	16	.14	20	.49	<3	1.27	.01	.02	<2	13
6+00E 0+25N	3	9	19	16	<.3	5	4	68	2.73	<2	11	<2	3	10	.5	4	<3	214	.17	.016	4	19	.05	11	.55	<3	1.11	.01	.02	<2	4
6+00E BL	4	24	14	48	.3	12	8	224	3.84	2	9	<2	3	14	.6	<3	<3	97	.20	.037	6	28	.54	27	.23	<3	2.84	.02	.06	<2	49
6+00E 0+25S	5	39	27	79	1.4	15	10	243	5.55	4	<8	<2	2	14	.8	<3	3	110	.21	.025	5	33	.69	28	.21	<3	2.27	.01	.05	<2	310
6+00E 0+50S	2	19	9	43	<.3	15	7	218	2.30	3	<8	<2	2	15	.2	<3	<3	75	.37	.032	4	28	.64	23	.21	<3	1.59	.02	.06	<2	11
6+00E 0+75S	4	18	16	35	<.3	7	6	173	5.23	3	<8	<2	3	14	.9	4	<3	179	.20	.015	5	23	.41	21	.36	<3	2.12	.01	.04	<2	53
6+00E 1+00S	<1	10	18	17	.3	2	4	104	.99	4	8	<2	<2	9	.2	3	<3	48	.17	.029	3	6	.22	11	.10	3	.67	.02	.03	<2	3
6+25E 1+00N	4	13	10	22	<.3	5	5	79	4.09	3	<8	<2	4	9	.9	4	<3	144	.13	.018	4	22	.06	14	.25	<3	1.24	.01	.02	<2	2
6+25E 0+75N	4	27	5	48	<.3	14	7	198	3.08	<2	<8	<2	4	14	.5	<3	<3	100	.24	.037	7	33	.53	26	.22	<3	3.44	.02	.06	<2	8
6+25E 0+50N	2	5	7	11	<.3	3	3	64	1.91	2	<8	<2	2	6	<.2	3	<3	123	.07	.012	4	15	.03	8	.23	<3	.56	.01	.02	<2	6
6+25E 0+25N	4	23	13	42	<.3	13	7	155	4.55	2	<8	<2	5	13	.9	<3	<3	111	.18	.024	6	44	.41	26	.22	<3	3.94	.02	.04	<2	4
6+25E BL	4	24	23	42	.9	9	7	162	5.21	2	8	<2	3	14	.7	<3	<3	136	.21	.028	5	30	.36	28	.23	4	1.97	.02	.05	<2	66
STANDARD C3/AU-S	26	66	38	176	5.8	37	13	778	3.57	57	23	4	22	32	24.0	17	20	83	.63	.087	20	183	.66	148	.09	22	2.00	.04	.19	19	57
STANDARD G-1	<1	2	5	44	<.3	6	5	541	2.11	2	<8	<2	5	80	<.2	<3	<3	42	.66	.086	10	30	.62	275	.12	<3	1.02	.10	.50	4	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
6+25E 0+25S	2	20	8	22	.6	8	7	121	4.60	3	<8	<2	<2	9	.7	6	<3	115	.10	.031	3	17	.24	28	.19	<3	1.67	.01	.02	<2	22
6+25E 0+50S	1	8	7	13	<.3	4	4	71	1.36	<2	<8	<2	<2	8	<.2	3	<3	99	.12	.016	1	7	.18	12	.23	<3	.75	.01	.02	<2	4
6+25E 0+75S	1	7	7	13	<.3	3	3	69	.96	2	<8	<2	<2	12	<.2	3	<3	73	.14	.017	2	7	.15	14	.20	<3	.83	.01	.02	<2	6
6+25E 1+00S	2	7	8	7	<.3	3	1	27	2.22	<2	<8	<2	<2	8	.2	3	<3	82	.08	.026	3	8	.05	11	.20	<3	1.03	.01	.01	<2	2
6+50E 1+00N	3	16	9	22	<.3	6	6	110	3.99	2	<8	<2	2	9	.6	7	<3	138	.13	.029	4	27	.20	17	.22	<3	3.10	.01	.02	<2	3
6+50E 0+75N	2	6	4	10	<.3	4	5	62	2.55	<2	<8	<2	<2	9	.3	3	<3	160	.08	.011	3	14	.03	12	.24	<3	.76	<.01	.01	<2	2
6+50E 0+50N	2	6	7	11	<.3	5	4	59	1.78	<2	<8	<2	<2	9	<.2	<3	<3	156	.14	.015	2	15	.09	10	.47	<3	.43	.01	.01	<2	2
6+50E 0+25N	2	15	7	32	<.3	8	7	174	3.93	<2	<8	<2	<2	10	.8	5	<3	111	.14	.025	4	17	.39	23	.24	<3	2.10	.01	.02	<2	4
6+50E BL	1	37	9	68	<.3	22	15	456	5.78	<2	<8	<2	<2	13	.9	5	<3	124	.17	.020	4	45	1.29	39	.30	<3	3.08	.01	.11	<2	25
6+50E 0+25S	2	9	6	16	<.3	5	4	471	3.89	3	<8	<2	<2	10	.5	3	<3	86	.12	.031	3	12	.17	15	.19	<3	1.48	.01	.02	<2	11
6+50E 0+50S	1	6	10	12	<.3	4	3	83	2.50	<2	<8	<2	<2	9	.2	3	<3	107	.14	.016	3	12	.15	15	.30	<3	1.00	.01	.02	<2	2
6+50E 0+75S	1	7	10	16	<.3	2	5	122	1.52	2	<8	<2	<2	7	<.2	<3	<3	93	.17	.020	2	4	.28	14	.24	<3	.68	.02	.03	<2	1
RE 6+50E 0+75S	1	8	10	17	<.3	2	5	120	1.56	3	<8	<2	<2	7	<.2	<3	<3	98	.17	.021	2	6	.31	16	.26	<3	.74	.02	.03	<2	1
6+50E 1+00S	1	8	12	19	<.3	5	3	106	1.18	2	<8	<2	<2	10	<.2	<3	<3	75	.14	.020	3	14	.27	18	.29	<3	1.02	.01	.03	<2	2
6+75E 1+00N	3	13	8	42	<.3	10	6	163	3.57	<2	<8	<2	<2	14	.5	5	<3	113	.16	.025	4	25	.34	20	.25	<3	2.06	.01	.03	<2	3
6+75E 0+75N	2	8	9	13	.3	4	4	72	2.34	4	<8	<2	<2	9	.2	3	<3	94	.10	.035	3	12	.11	14	.20	<3	.89	.01	.02	<2	3
6+75E 0+50N	1	10	6	18	<.3	5	6	129	4.26	3	<8	<2	<2	11	.5	3	<3	120	.15	.020	3	15	.25	17	.22	<3	1.05	.01	.03	<2	<1
6+75E 0+25N	3	26	5	36	.3	12	8	253	7.19	4	<8	<2	2	10	.9	5	<3	113	.15	.039	4	31	.49	22	.33	<3	2.83	.01	.03	<2	16
6+75E BL	2	29	17	28	<.3	11	10	125	2.53	12	<8	<2	<2	10	<.2	5	<3	121	.12	.025	6	25	.22	30	.09	<3	1.49	.01	.03	<2	143
6+75E 0+25S	1	40	5	15	<.3	4	4	98	3.08	4	<8	<2	<2	12	.4	5	<3	56	.17	.029	5	11	.14	21	.08	<3	1.42	.01	.01	<2	3
6+75E 0+50S	2	6	7	12	<.3	5	3	73	2.13	<2	<8	<2	<2	10	<.2	<3	<3	108	.15	.018	3	10	.14	11	.26	<3	.95	.01	.01	<2	5
6+75E 0+75S	1	7	7	13	<.3	3	3	88	1.48	2	<8	<2	<2	7	.2	3	<3	66	.14	.025	2	7	.19	14	.20	<3	.73	.01	.03	<2	3
6+75E 1+00S	1	3	10	10	<.3	2	2	75	.54	<2	<8	<2	<2	7	<.2	<3	<3	55	.12	.013	3	2	.12	11	.21	<3	.70	.01	.01	<2	4
7+00E 1+00N	3	20	3	32	<.3	11	6	129	3.64	<2	<8	<2	3	12	.6	4	<3	98	.16	.032	5	31	.28	22	.20	<3	4.36	.01	.02	<2	2
7+00E 0+75N	1	13	8	25	<.3	9	6	144	4.76	<2	<8	<2	2	9	.7	5	<3	108	.15	.027	4	31	.27	17	.22	3	2.76	.01	.02	<2	1
7+00E 0+50N	4	34	6	82	1.1	15	10	275	4.50	2	<8	<2	3	12	.8	6	<3	94	.19	.039	7	34	.63	29	.22	<3	4.54	.02	.04	<2	9
7+00E 0+25N	3	31	14	36	.6	10	27	2287	4.90	9	<8	<2	<2	14	.7	7	<3	102	.13	.074	5	21	.52	44	.13	<3	2.25	.01	.06	<2	40
7+00E BL	3	45	10	53	1.8	21	16	442	6.63	8	<8	3	6	16	.9	20	<3	116	.12	.035	6	51	1.18	63	.19	14	3.06	.01	.06	<2	59
7+00E 0+25S	2	62	24	61	.3	37	25	634	4.04	8	<8	<2	<2	498	.5	6	<3	108	.22	.062	2	100	3.01	355	.08	<3	3.15	.01	.13	<2	68
7+00E 0+50S	1	5	6	13	<.3	3	4	99	1.65	<2	<8	<2	<2	15	.2	<3	<3	95	.12	.011	2	7	.21	24	.22	<3	.86	.01	.04	<2	4
7+00E 0+75S	1	5	6	14	<.3	2	2	98	1.12	2	<8	<2	<2	17	<.2	<3	<3	50	.09	.024	2	5	.17	15	.06	<3	.84	.01	.03	<2	2
7+00E 1+00S	1	3	<3	6	<.3	2	3	69	1.06	2	<8	<2	<2	5	<.2	<3	<3	102	.08	.007	2	6	.02	4	.11	<3	.34	<.01	.01	<2	8
7+25E 1+00N	2	27	<3	55	<.3	11	14	418	3.12	6	<8	<2	<2	11	.8	5	<3	86	.23	.068	9	28	.40	31	.11	<3	5.86	.02	.05	<2	4
7+25E 0+75N	3	16	13	44	<.3	10	25	1138	2.87	4	<8	<2	<2	12	.5	3	<3	70	.16	.039	4	23	.40	19	.08	<3	1.59	.02	.03	<2	10
7+25E 0+50N	2	31	10	62	1.3	17	10	352	3.87	9	<8	<2	<2	14	.9	4	<3	88	.21	.046	6	36	.61	31	.13	<3	2.73	.02	.05	<2	25
STANDARD C3/AU-S	26	64	36	173	5.3	38	13	774	3.46	57	20	2	20	30	24.0	21	19	81	.61	.086	19	166	.64	147	.08	21	1.96	.04	.16	18	51
STANDARD G-1	1	2	3	44	<.3	7	6	510	1.93	<2	<8	<2	4	67	<.2	<3	<3	38	.63	.084	8	37	.60	212	.11	<3	.95	.08	.44	3	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data d FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
7+25E 0+25N	1	31	66	43	2.0	13	16	3212	4.20	<2	10	<2	2	10	.3	<3	3	104	.09	.063	5	29	.76	37	.11	5	2.88	.01	.07	<2	89
7+25E 0+25S	1	6	12	7	<.3	2	2	96	5.18	<2	<8	<2	<2	11	.2	<3	<3	91	.11	.028	2	4	.07	15	.22	5	1.49	.01	.03	<2	2
7+25E 0+50S	<1	2	4	8	<.3	<1	1	58	.84	<2	<8	<2	<2	7	<.2	<3	<3	21	.03	.024	2	1	.07	13	.02	<3	.63	.01	.03	<2	<1
7+25E 0+75S	<1	4	<3	4	<.3	1	1	25	.77	<2	<8	<2	<2	9	<.2	<3	<3	22	.09	.019	1	1	.03	13	.04	<3	.57	.01	.01	<2	2
7+25E 1+00S	3	13	14	17	<.3	6	3	93	10.65	<2	<8	<2	<2	8	<.2	<3	<3	235	.07	.054	1	38	.21	21	.64	4	2.94	.01	.03	<2	3
7+50E 1+00N	1	8	5	7	<.3	3	3	51	1.69	<2	<8	<2	<2	7	<.2	3	<3	113	.05	.011	2	8	.02	10	.25	4	.33	<.01	.02	<2	2
7+50E 0+75N	4	25	11	36	<.3	14	8	203	7.82	<2	<8	<2	<2	9	<.2	<3	<3	178	.09	.052	4	35	.72	23	.23	<3	3.25	.01	.05	<2	29
7+50E 0+50N	1	17	13	25	<.3	13	10	286	4.82	2	<8	<2	<2	10	.2	<3	<3	106	.07	.032	4	31	.60	24	.11	<3	2.29	.01	.05	<2	68
7+50E 0+25N	<1	17	12	23	.3	8	7	217	7.34	<2	<8	<2	2	9	.2	<3	<3	113	.09	.038	3	21	.45	21	.15	5	2.31	.01	.04	<2	18
7+50E BL	2	22	12	19	.6	8	4	117	6.69	2	<8	<2	2	10	.2	7	<3	79	.09	.065	5	28	.32	23	.15	8	5.16	.01	.03	<2	6
7+50E 0+25S	1	9	10	19	<.3	3	3	148	5.31	3	<8	<2	2	6	<.2	<3	<3	167	.06	.027	4	8	.20	14	.11	8	1.58	.01	.03	<2	1
7+50E 0+50S	2	2	26	10	<.3	3	1	58	.75	2	<8	<2	<2	10	<.2	<3	<3	61	.09	.027	3	8	.12	16	.35	7	.92	.01	.03	<2	9
7+50E 0+75S	2	24	9	32	<.3	12	5	177	2.86	<2	<8	<2	<2	14	.2	<3	<3	100	.15	.035	5	34	.56	24	.28	<3	3.53	.01	.05	<2	11
7+50E 1+00S	1	15	12	32	<.3	12	5	179	1.59	<2	<8	<2	<2	16	<.2	<3	<3	61	.15	.034	4	26	.58	26	.26	5	3.07	.01	.05	<2	6
7+75E 1+00N	12	32	37	142	1.1	20	7	1508	5.05	9	<8	<2	2	13	.4	<3	<3	350	.11	.036	3	63	.76	20	.32	4	2.79	.01	.04	<2	366
7+75E 0+75N	10	52	379	447	1.8	42	7	396	4.61	6	<8	2	2	25	.8	3	<3	330	.16	.077	7	93	1.49	38	.25	6	5.72	.01	.10	<2	760
7+75E 0+50N	6	28	12	50	.3	20	10	561	4.49	3	<8	<2	<2	22	.3	<3	<3	113	.16	.049	4	48	.81	25	.24	4	2.94	.02	.08	<2	18
7+75E 0+25N	1	35	14	43	.5	16	11	229	6.69	5	<8	<2	<2	5	.7	<3	<3	132	.04	.056	7	38	.90	38	.11	5	2.92	.01	.09	<2	99
RE 7+75E 0+25N	2	36	12	43	<.3	16	11	226	6.79	6	<8	<2	<2	5	.6	<3	<3	134	.04	.056	8	38	.91	39	.11	<3	2.92	.01	.10	<2	87
7+75E BL	3	29	12	44	1.4	17	9	240	8.97	6	<8	<2	2	12	.5	<3	<3	139	.14	.043	3	48	.79	30	.32	5	3.51	.01	.05	<2	32
7+75E 0+25S	1	10	10	16	<.3	4	3	116	3.86	3	<8	<2	<2	10	<.2	3	<3	167	.11	.019	2	11	.20	25	.32	4	1.28	.01	.03	<2	1
7+75E 0+50S	<1	3	7	5	<.3	2	2	89	1.34	2	<8	<2	<2	7	<.2	<3	<3	83	.12	.008	2	7	.03	7	.15	3	.42	.01	.01	<2	7
7+75E 0+75S	<1	3	7	5	<.3	1	1	75	.71	2	<8	<2	<2	7	<.2	<3	<3	53	.12	.009	3	1	.06	5	.13	5	.39	.01	.01	<2	18
7+75E 1+00S	1	3	10	5	<.3	1	1	57	.49	<2	<8	<2	<2	8	<.2	<3	<3	75	.08	.012	2	10	.09	10	.32	4	.84	.01	.02	<2	3
8+00E 1+00N	8	52	34	125	.3	22	15	567	4.52	7	<8	<2	2	13	.4	<3	<3	116	.13	.055	6	64	1.11	20	.25	3	4.33	.01	.06	<2	51
8+00E 0+75N	3	28	17	54	.3	17	11	380	4.94	3	10	<2	2	19	.3	<3	<3	135	.17	.027	5	48	1.20	30	.41	<3	2.77	.01	.10	<2	5
8+00E 0+50N	2	53	5	74	<.3	42	18	407	5.70	<2	<8	<2	<2	13	.5	<3	<3	112	.23	.029	4	69	1.68	19	.37	<3	3.38	.01	.11	<2	3
8+00E 0+25N	2	22	13	32	.4	10	7	168	5.52	4	<8	<2	<2	11	.5	4	<3	111	.13	.047	4	25	.51	24	.23	<3	2.54	.01	.06	<2	142
8+00E BL	1	14	5	16	<.3	3	4	131	2.75	3	<8	<2	<2	9	<.2	3	<3	95	.09	.019	3	6	.17	19	.08	<3	1.22	.01	.03	<2	5
8+00E 0+25S	1	7	8	8	<.3	1	3	74	.99	<2	<8	<2	<2	8	<.2	3	<3	76	.09	.017	3	4	.11	17	.14	<3	.61	.01	.02	<2	3
8+00E 0+50S	1	16	14	31	<.3	10	5	195	1.66	2	<8	<2	<2	15	<.2	<3	<3	60	.18	.030	4	26	.64	29	.23	<3	2.41	.01	.06	<2	9
8+00E 0+75S	<1	8	7	6	<.3	1	3	47	.52	3	<8	<2	<2	11	<.2	<3	<3	44	.12	.020	3	6	.05	9	.05	<3	.63	<.01	.02	<2	3
8+00E 1+00S	2	12	17	20	<.3	6	2	95	2.76	3	<8	<2	2	10	.3	<3	<3	169	.11	.030	4	23	.25	20	.58	<3	2.22	.01	.06	<2	17
8+25E 1+00N	5	24	17	81	.4	17	7	284	4.85	8	<8	<2	2	18	.2	<3	<3	131	.20	.033	4	31	.60	20	.29	<3	1.86	.01	.05	<2	9
8+25E 0+75N	2	18	13	29	<.3	6	5	807	3.77	4	<8	<2	<2	10	.5	<3	<3	103	.12	.072	4	24	.21	16	.20	<3	3.55	.01	.03	<2	6
STANDARD C3/AU-S	24	62	35	161	5.6	36	12	743	3.33	56	14	<2	17	28	22.4	18	19	76	.56	.083	18	161	.63	147	.10	22	1.85	.04	.16	19	45
STANDARD G-1	<1	2	7	44	<.3	6	5	520	2.03	<2	<8	<2	4	69	<.2	<3	<3	38	.60	.087	8	37	.61	229	.14	5	.93	.08	.48	3	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
8+25E 0+50N	2	46	<3	61	.4	8	14	891	7.24	9	<8	<2	3	9	.3	<3	<3	155	.07	.055	7	28	1.18	86	.18	<3	2.61	.01	.19	<2	105
8+25E 0+25N	1	14	5	13	<.3	4	4	85	2.02	<2	<8	<2	<2	8	.2	3	<3	45	.06	.032	5	7	.11	34	.01	<3	1.87	.01	.02	<2	2
8+25E BL	2	14	<3	25	<.3	3	2	171	7.63	5	<8	<2	2	8	.4	4	<3	151	.07	.039	4	8	.27	51	.01	4	3.01	.01	.02	2	<1
8+25E 0+25S	3	15	10	37	<.3	11	4	185	5.25	8	<8	<2	2	14	.3	3	<3	239	.15	.029	2	26	.60	22	.44	<3	1.89	.01	.05	<2	16
RE 8+25E 0+25S	3	11	8	35	<.3	9	3	177	5.00	8	<8	<2	2	14	.2	3	<3	232	.16	.028	3	25	.58	21	.43	7	1.83	.01	.05	<2	7
8+25E 0+50S	1	14	7	12	<.3	2	2	72	2.98	3	<8	<2	2	13	.2	4	<3	105	.10	.026	3	20	.19	22	.20	<3	2.18	.01	.02	<2	9
8+25E 0+75S	1	15	8	33	<.3	7	6	203	1.59	<2	<8	<2	<2	22	<.2	3	<3	71	.15	.034	5	23	.61	35	.23	<3	2.12	.01	.07	<2	6
8+25E 1+00S	1	16	5	7	<.3	3	1	32	.33	<2	<8	<2	<2	9	.2	<3	<3	26	.09	.143	4	13	.05	24	.02	<3	2.36	.01	.01	<2	5
TR1-97#1 1M	3	61	7	81	1.5	27	21	1408	6.09	3	<8	<2	2	42	.4	<3	<3	149	.17	.066	6	62	1.68	170	.22	4	3.82	.03	.31	<2	242
TR1-97#2 3M	2	97	3	77	2.1	30	21	895	6.30	6	<8	<2	2	24	.4	<3	7	151	.14	.053	8	79	1.60	136	.26	<3	5.28	.02	.26	<2	415
TR1-97#3 5M	2	90	<3	76	2.1	22	18	915	6.34	<2	<8	<2	2	16	.6	<3	<3	166	.14	.043	8	80	1.58	138	.29	<3	4.76	.02	.32	<2	400
TR1-97#4 7M	7	84	<3	87	1.6	19	16	510	5.54	7	<8	<2	2	18	.5	<3	<3	122	.15	.035	6	54	1.33	100	.23	<3	3.63	.03	.20	2	1060
TR1-97#5 9M	2	146	<3	72	1.7	23	16	564	5.77	5	<8	<2	2	17	.5	4	<3	153	.14	.044	8	69	1.52	138	.26	5	4.13	.02	.30	2	389
STANDARD C3/AU-S	27	69	33	172	5.7	37	12	800	3.60	58	22	2	21	31	24.2	22	28	84	.60	.091	19	169	.66	165	.10	21	2.04	.04	.17	22	53
STANDARD G-1	<1	<1	<3	43	<.3	1	5	537	2.02	<2	<8	<2	5	74	<.2	<3	<3	42	.64	.095	9	30	.62	245	.14	3	.99	.08	.49	3	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data 1 FA ___

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(640)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Dyakowski, Chris PROJECT NORTHWOOD File # 9730239 Page 1

3750 W. 49th Ave, Vancouver BC V6N 3T8

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
1+50E 1+00S	<1	37	7	34	<.3	4	11	189	2.67	3	<8	<2	2	42	.8	<3	<3	85	.13	.023	3	5	.43	50	.12	<3	2.59	.02	.04	2	<1
1+50E 1+25S	<1	15	7	19	<.3	3	3	92	1.47	2	<8	<2	<2	9	<.2	<3	5	72	.11	.033	6	21	.24	17	.20	3	5.73	.01	.02	<2	2
1+50E 1+50S	<1	16	<3	18	<.3	<1	3	132	2.70	4	<8	<2	<2	8	<.2	3	7	112	.18	.019	7	10	.31	6	.20	<3	4.25	.02	.02	<2	3
1+50E 1+75S	<1	5	7	9	<.3	<1	3	112	1.70	3	<8	<2	<2	9	.2	<3	6	97	.20	.013	2	6	.14	6	.16	3	.60	.01	.01	<2	9
1+50E 2+00S	<1	5	3	15	.3	<1	1	81	.71	<2	<8	<2	<2	16	.3	<3	3	28	.14	.022	1	2	.23	37	.07	4	.55	.02	.03	<2	1
1+50E 2+25S	<1	5	6	6	<.3	<1	3	54	2.83	4	<8	<2	<2	7	.5	3	7	87	.07	.017	3	8	.03	17	.16	3	.84	.01	.02	<2	3
1+50E 2+50S	1	9	13	8	<.3	<1	2	49	5.08	5	<8	<2	2	6	.9	<3	8	239	.07	.030	6	26	.07	12	.42	3	2.38	<.01	.02	<2	5
1+50E 2+75S	<1	1	3	4	<.3	1	1	40	.28	<2	<8	<2	<2	3	<.2	3	4	14	.03	.006	3	1	.03	12	.02	<3	.65	.01	.03	<2	8
1+50E 3+00S	1	4	12	5	<.3	<1	<1	35	.41	2	<8	<2	<2	8	.3	<3	3	52	.11	.014	3	12	.06	17	.26	<3	.62	.01	.02	<2	4
1+75E 0+75S	1	13	11	18	<.3	2	5	122	4.59	5	<8	<2	2	13	.9	<3	5	216	.18	.017	3	12	.24	10	.45	4	1.21	.01	.03	<2	5
1+75E 1+00S	1	38	4	23	<.3	4	3	156	1.45	<2	<8	<2	<2	49	.2	<3	<3	82	.31	.019	1	6	.58	10	.15	4	1.54	.01	.03	2	7
1+75E 1+25S	1	21	3	28	<.3	9	5	173	4.36	7	<8	<2	2	13	.8	<3	5	128	.17	.026	5	27	.46	21	.27	<3	3.08	.02	.04	2	16
1+75E 1+50S	2	92	12	34	.7	11	6	133	4.05	9	<8	<2	3	9	1.2	4	<3	105	.13	.253	8	42	.46	59	.22	<3	5.10	.02	.05	3	7
1+75E 1+75S	<1	15	5	13	.4	3	4	116	3.03	3	<8	<2	<2	16	.6	4	<3	128	.28	.026	3	7	.18	13	.27	5	1.11	.02	.03	<2	4
1+75E 2+00S	1	4	16	8	<.3	2	2	55	1.59	4	<8	<2	<2	8	<.2	<3	3	152	.11	.011	3	10	.07	10	.39	<3	.67	.01	.02	<2	3
RE 1+75E 2+00S	1	3	17	8	.3	1	<1	59	1.63	2	<8	<2	<2	9	.2	<3	<3	156	.12	.010	3	10	.07	10	.41	<3	.70	.01	.02	<2	4
1+75E 2+25S	1	<1	10	5	<.3	<1	<1	48	.50	2	<8	<2	<2	6	<.2	3	<3	87	.08	.006	2	8	.03	3	.35	<3	.47	.01	.01	<2	9
1+75E 2+50S	<1	<1	<3	6	<.3	<1	<1	33	.36	<2	<8	<2	<2	3	.2	<3	<3	12	.02	.014	2	1	.03	18	.02	3	.53	.01	.04	<2	1
1+75E 2+75S	1	6	19	9	<.3	4	<1	49	.69	2	<8	<2	<2	8	.3	<3	<3	82	.09	.016	3	14	.10	24	.42	4	.86	.01	.03	<2	5
1+75E 3+00S	<1	3	6	12	<.3	1	1	91	1.00	2	<8	<2	<2	40	.2	<3	<3	29	.33	.040	3	2	.13	11	.05	3	.75	.01	.03	<2	2
2+00E 0+25S	<1	8	9	44	<.3	5	8	358	2.94	4	<8	<2	<2	61	.4	<3	<3	75	.42	.023	2	16	1.37	35	.24	3	1.92	.01	.13	<2	1
2+00E 0+50S	1	18	3	25	<.3	6	6	154	2.94	3	<8	<2	<2	18	.3	<3	<3	70	.24	.027	5	29	.44	14	.17	5	3.21	.02	.03	<2	16
2+00E 0+75S	<1	7	14	12	<.3	3	1	105	.92	2	<8	<2	<2	20	<.2	3	<3	77	.27	.021	3	8	.18	11	.18	4	.87	.01	.02	<2	10
2+00E 1+00S	2	3	12	11	<.3	2	1	69	1.42	<2	<8	<2	<2	11	<.2	<3	<3	128	.13	.016	3	22	.15	16	.45	<3	1.12	.01	.02	<2	6
2+00E 1+25S	1	4	15	12	<.3	5	1	109	.92	3	<8	<2	<2	10	<.2	<3	<3	74	.13	.011	3	10	.19	17	.36	3	.83	.01	.04	<2	6
2+00E 1+50S	<1	1	3	3	.3	<1	1	58	1.07	3	<8	<2	<2	4	<.2	<3	<3	56	.04	.008	4	9	.01	1	.06	<3	.26	.01	.01	<2	9
2+00E 1+75S	<1	5	12	17	.4	7	2	120	.84	4	<8	<2	<2	14	<.2	3	<3	29	.21	.036	2	13	.35	37	.08	5	.79	.02	.07	<2	2
2+25E 0+25S	1	12	7	17	.3	<1	4	108	4.07	5	<8	<2	<2	32	.8	<3	3	94	.13	.021	3	10	.25	25	.29	<3	1.84	.01	.03	<2	5
2+25E 0+50S	1	2	11	14	.3	3	1	81	1.30	3	<8	<2	<2	11	.2	4	<3	88	.12	.017	3	7	.13	20	.24	<3	.83	.01	.03	<2	4
2+25E 0+75S	1	6	13	11	.3	<1	1	57	2.02	4	<8	<2	<2	10	.3	<3	<3	215	.12	.014	3	17	.10	17	.50	<3	.88	.01	.02	<2	7
2+25E 1+00S	1	10	5	13	<.3	3	3	87	5.78	10	<8	<2	2	10	1.0	3	<3	199	.11	.016	3	26	.14	23	.41	3	2.34	.01	.02	<2	10
2+25E 1+25S	1	11	8	10	<.3	5	4	73	4.50	6	<8	<2	2	10	.7	3	3	237	.12	.013	2	19	.09	15	.39	4	1.29	<.01	.01	<2	6
2+50E 0+50S	1	30	14	55	.5	24	12	448	7.64	14	<8	<2	<2	114	1.5	<3	<3	145	.21	.071	5	64	1.13	43	.17	5	2.88	.02	.06	<2	71
2+75E 0+25S	11	25	18	46	<.3	12	7	192	5.47	10	<8	<2	<2	26	.9	<3	<3	146	.12	.042	4	36	.31	26	.31	6	1.67	.01	.03	<2	32
2+75E 0+50S	1	7	<3	13	.5	5	3	74	3.79	5	<8	<2	<2	22	.6	<3	4	205	.12	.022	4	32	.17	31	.28	3	1.18	.01	.04	<2	148
STANDARD C3/AU-S	27	68	31	172	5.6	36	12	786	3.66	57	25	3	19	32	24.4	21	24	86	.61	.090	19	175	.66	160	.11	22	2.08	.05	.18	20	42
STANDARD G-1	<1	3	<3	43	<.3	3	4	534	2.01	2	<8	<2	4	81	.2	<3	<3	42	.66	.091	9	14	.61	252	.14	3	1.04	.11	.52	6	<1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O 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.
- SAMPLE TYPE: SOIL AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 16 1997 **DATE REPORT MAILED:** Dec 18/97 **SIGNED BY** ..... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data___ FA___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
3+00E 0+25S	3	15	8	24	.3	10	7	181	4.17	6	<8	<2	<2	14	.3	3	<3	140	.19	.022	3	22	.50	20	.31	6	1.76	.02	.05	<2	7
3+00E 0+50S	4	15	14	18	.6	9	3	116	13.38	<2	<8	<2	3	8	<.2	<3	<3	294	.10	.034	5	69	.19	21	.56	5	2.60	.01	.04	2	37
3+25E 0+25S	2	21	8	33	.6	15	4	178	6.13	6	<8	<2	2	11	.5	<3	<3	155	.14	.032	4	71	.44	23	.36	6	3.89	.01	.04	<2	30
3+25E 0+50S	2	5	13	9	.3	4	2	57	2.13	<2	<8	<2	<2	8	.2	<3	<3	184	.11	.014	3	11	.06	17	.37	<3	1.02	.01	.01	<2	9
3+25E 0+75S	1	2	7	5	<.3	<1	1	44	.58	<2	<8	<2	<2	5	<.2	<3	<3	39	.08	.010	3	3	.04	13	.12	<3	.34	.01	.02	<2	9
3+25E 1+00S	1	<1	24	7	<.3	1	1	52	.43	<2	<8	<2	<2	8	<.2	<3	<3	70	.19	.010	3	9	.04	10	.36	<3	.53	.01	.02	<2	36
3+25E 1+25S	<1	4	4	6	<.3	3	4	59	.85	<2	<8	<2	<2	9	<.2	<3	<3	45	.14	.010	1	5	.08	7	.10	<3	.29	.01	.02	<2	1
3+25E 1+50S	1	5	21	9	<.3	6	2	39	.82	<2	<8	<2	<2	8	<.2	<3	<3	91	.11	.018	3	16	.06	15	.48	<3	.68	.01	.03	<2	5
3+25E 1+75S	<1	1	15	5	<.3	2	1	34	.19	<2	<8	<2	<2	6	<.2	<3	<3	42	.08	.015	3	12	.02	9	.20	4	.72	.01	.01	<2	18
3+50E 0+25S	4	10	12	18	.4	8	3	116	6.04	2	<8	<2	2	11	<.2	<3	4	231	.15	.024	4	48	.31	31	.46	5	1.35	.02	.04	<2	26
3+50E 0+50S	2	13	12	10	.5	6	<1	65	8.84	4	<8	<2	2	6	.3	<3	<3	247	.10	.025	3	22	.11	12	.54	<3	1.87	.01	.02	<2	<1
3+50E 0+75S	3	3	16	9	<.3	2	1	52	.54	<2	<8	<2	<2	6	.7	3	<3	79	.08	.014	4	12	.06	10	.32	<3	.60	.01	.02	<2	4
3+50E 1+25S	1	3	11	5	<.3	1	<1	40	.26	<2	<8	<2	<2	4	<.2	<3	<3	47	.06	.023	2	6	.06	5	.29	<3	.53	.01	.01	<2	10
3+50E 1+50S	<1	2	<3	4	<.3	<1	2	72	1.07	3	<8	<2	<2	6	<.2	<3	<3	62	.09	.004	2	5	.02	<1	.13	<3	.25	<.01	.01	<2	11
3+50E 1+75S	1	7	13	12	<.3	6	2	65	.86	<2	<8	<2	<2	10	.3	<3	<3	68	.13	.018	3	24	.15	13	.33	<3	1.11	.01	.03	<2	4
3+75E 0+25S	5	29	10	18	1.4	11	3	123	12.89	<2	<8	<2	3	8	<.2	<3	<3	214	.07	.049	6	66	.29	13	.39	5	3.98	.01	.04	<2	259
3+75E 0+50S	1	6	10	15	<.3	5	3	107	1.70	<2	<8	<2	<2	10	.3	<3	<3	143	.22	.029	4	27	.35	28	.38	3	1.03	.02	.06	<2	8
RE 3+75E 0+50S	<1	5	12	14	.3	6	3	103	1.58	<2	<8	<2	<2	10	.3	<3	<3	144	.22	.027	3	28	.36	25	.38	3	.99	.02	.06	<2	9
3+75E 0+75S	2	4	14	6	<.3	1	1	42	.26	<2	<8	<2	<2	9	<.2	3	<3	50	.13	.017	3	9	.04	11	.27	<3	.60	.01	.02	<2	9
3+75E 1+00S	3	40	10	57	.3	7	14	399	5.69	9	<8	<2	<2	13	.9	<3	<3	162	.26	.025	4	14	1.63	29	.29	4	2.99	.04	.07	<2	2
3+75E 1+25S	1	8	6	9	<.3	<1	4	70	1.52	<2	<8	<2	<2	7	.2	<3	<3	79	.12	.020	2	5	.09	5	.11	<3	.39	.01	.02	<2	3
3+75E 1+50S	1	7	10	13	<.3	2	2	102	1.73	4	<8	<2	<2	18	<.2	<3	<3	65	.25	.011	2	7	.16	<1	.21	<3	.93	.01	.02	<2	6
3+75E 1+75S	<1	4	15	8	<.3	<1	1	48	.53	<2	<8	<2	<2	15	.2	<3	<3	43	.16	.023	2	6	.06	10	.27	3	.62	.01	.02	<2	7
3+75E 2+00S	5	10	7	13	.3	4	1	79	2.97	2	<8	<2	<2	6	.3	<3	<3	163	.05	.024	3	13	.26	72	.22	3	.77	.01	.09	<2	226
4+00E 0+50S	1	6	13	7	<.3	<1	<1	52	.71	<2	<8	<2	<2	7	<.2	<3	<3	109	.11	.015	2	6	.08	12	.42	3	.62	.01	.02	<2	2
4+00E 0+75S	2	4	13	5	<.3	1	1	54	.32	<2	<8	<2	<2	12	<.2	<3	<3	69	.17	.011	2	3	.03	1	.30	<3	.47	.01	.02	<2	11
4+00E 1+00S	<1	3	8	5	<.3	<1	<1	42	.26	<2	<8	<2	<2	15	<.2	<3	<3	49	.14	.011	2	6	.02	3	.16	3	.31	.01	.02	<2	2
4+00E 1+25S	1	3	13	5	<.3	<1	<1	26	.19	<2	<8	<2	<2	6	<.2	3	<3	44	.07	.012	3	4	.02	6	.19	3	.32	.01	.02	<2	4
4+00E 1+50S	<1	5	16	21	.3	3	<1	23	.12	2	<8	<2	<2	12	.5	<3	<3	7	.38	.042	1	3	.04	11	.02	5	.13	.01	.05	<2	1
4+00E 1+75S	2	15	15	30	.3	9	4	158	2.04	<2	<8	<2	<2	13	.2	<3	<3	121	.22	.018	4	31	.48	19	.34	<3	1.83	.01	.04	<2	7
8+50E 1+00N	1	29	14	32	1.0	10	7	1880	3.19	7	<8	<2	<2	16	.9	<3	<3	88	.17	.093	5	20	.36	24	.10	3	1.93	.01	.06	<2	6
8+50E 0+75N	1	25	13	22	1.0	10	6	255	2.20	6	<8	<2	<2	11	.4	<3	<3	57	.09	.054	4	18	.33	4	.05	7	1.34	.01	.03	<2	16
8+50E 0+50N	2	48	10	19	.6	5	5	121	3.77	2	<8	<2	<2	10	<.2	<3	4	82	.07	.085	6	27	.27	24	.11	3	5.10	.01	.03	<2	11
8+50E 0+25N	1	9	9	15	.3	3	1	91	5.35	2	<8	<2	<2	6	.5	<3	<3	69	.04	.039	4	7	.12	12	.02	<3	2.56	.01	.02	<2	1
8+50E BL	1	13	9	18	.4	3	3	125	6.62	5	<8	<2	2	13	.2	<3	<3	185	.13	.031	4	19	.24	15	.36	<3	2.68	.01	.02	2	5
STANDARD C3/AU-S	26	67	38	168	5.5	34	12	765	3.48	59	22	<2	18	30	23.5	17	26	84	.59	.089	19	168	.63	160	.11	19	1.96	.04	.17	20	44
STANDARD G-1	1	3	3	49	<.3	7	5	580	2.17	<2	<8	<2	4	86	<.2	<3	<3	45	.71	.097	11	17	.66	267	.15	<3	1.11	.10	.55	5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Date___ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
8+50E 0+25S	1	5	16	6	<.3	1	<1	35	.40	<2	<8	<2	<2	10	<.2	<3	<3	67	.09	.019	3	5	.03	4	.24	<3	.61	.01	.02	<2	1
8+50E 0+50S	1	3	7	7	.3	<1	3	74	1.75	<2	<8	<2	<2	10	.3	<3	<3	155	.10	.011	3	8	.03	<1	.22	<3	.41	.01	.02	<2	2
8+50E 0+75S	1	9	12	13	<.3	4	1	73	2.62	<2	<8	<2	2	10	.2	<3	3	150	.11	.025	3	19	.17	7	.47	<3	1.50	.01	.02	<2	2
8+50E 1+00S	1	6	11	10	<.3	5	2	70	.60	<2	<8	<2	<2	11	.4	<3	<3	43	.10	.023	3	10	.14	<1	.18	<3	.94	.01	.02	<2	1
8+75E 1+00N	2	47	6	33	.3	9	13	2469	3.86	<2	<8	<2	2	32	.9	<3	<3	110	.17	.050	5	19	.44	38	.14	<3	2.23	.01	.04	<2	29
8+75E 0+75N	2	78	12	52	.7	9	17	836	5.91	<2	<8	<2	2	14	.9	<3	<3	143	.13	.081	9	38	.73	34	.19	<3	5.83	.01	.07	3	23
8+75E 0+50N	4	57	13	46	.4	28	19	1407	5.52	6	<8	<2	2	41	1.1	<3	<3	142	.14	.055	4	97	1.09	22	.20	<3	3.96	.02	.04	2	5
8+75E 0+25N	<1	8	4	10	.5	<1	2	83	.76	<2	<8	<2	<2	13	.2	<3	<3	24	.11	.024	2	4	.07	2	.03	<3	.51	.01	.03	<2	<1
8+75E BL	1	17	11	12	<.3	3	2	66	4.59	4	<8	<2	<2	11	.7	3	<3	134	.17	.022	3	9	.10	19	.08	<3	2.35	.01	.02	<2	2
8+75E 0+25S	1	9	8	12	<.3	3	2	87	1.51	4	<8	<2	<2	21	.8	<3	<3	168	.22	.019	3	9	.08	3	.27	3	.71	.01	.02	<2	6
8+75E 0+50S	2	14	5	33	<.3	7	8	288	2.56	<2	<8	<2	<2	9	.4	<3	<3	108	.19	.008	3	7	.90	9	.22	3	1.32	.02	.03	<2	1
8+75E 0+75S	1	9	5	12	.4	5	4	72	1.32	2	<8	<2	<2	12	.2	<3	<3	95	.12	.015	3	8	.15	3	.18	<3	.73	.01	.02	<2	31
8+75E 1+00S	1	3	12	4	.3	4	<1	38	.29	2	<8	<2	<2	14	<.2	<3	<3	60	.09	.007	3	6	.04	<1	.24	<3	.59	.01	.02	<2	14
9+00E BL	5	73	11	12	.4	4	10	89	6.29	6	<8	<2	2	10	.7	<3	<3	331	.14	.032	3	12	.19	7	.44	<3	1.15	.01	.02	<2	<1
9+00E 0+25S	<1	8	6	6	<.3	6	5	96	.92	2	<8	<2	<2	9	<.2	<3	<3	114	.12	.006	2	9	.07	<1	.24	<3	.42	.01	.01	<2	2
9+00E 0+50S	1	3	6	4	<.3	2	1	127	.19	2	<8	<2	<2	4	.2	<3	<3	19	.05	.016	3	2	.01	4	.06	<3	.28	.01	.03	<2	10
9+00E 0+75S	<1	7	10	5	<.3	<1	1	73	.24	<2	<8	<2	<2	10	<.2	<3	<3	24	.14	.012	4	3	.02	15	.06	<3	.59	<.01	.02	<2	6
RE 9+00E 0+75S	<1	6	12	4	<.3	3	<1	73	.25	<2	<8	<2	<2	10	<.2	<3	<3	25	.15	.011	4	3	.02	10	.06	<3	.61	<.01	.02	<2	6
9+00E 1+00S	1	5	16	5	.4	2	1	30	.33	<2	<8	<2	<2	7	<.2	<3	4	52	.07	.022	4	8	.04	19	.25	<3	1.01	.01	.01	<2	10
STANDARD C3/AU-S	26	67	34	170	5.6	37	12	785	3.53	57	23	<2	20	31	24.4	20	27	85	.61	.091	19	173	.64	152	.10	22	2.01	.04	.17	22	46
STANDARD G-1	<1	3	<3	44	<.3	5	5	531	1.94	<2	<8	<2	5	75	.2	<3	<3	41	.64	.088	9	15	.61	242	.14	3	.98	.09	.50	5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data___ FA ___

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: OSTLER, MR. JOHN

2224 JEFFERSON AVE.
WEST VANCOUVER, BC
V7V 2A8

A9753078

Comments: ATTN: JOHN OSTLER

CERTIFICATE A9753078

(NF) - OSTLER, MR. JOHN

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 17-DEC-97.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
208	3	Assay ring to approx 150 mesh
226	3	0-3 Kg crush and split
3202	3	Rock - save entire reject

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
999	3	Au g/t: 1 assay ton, AA finish	FA-AAS	0.03	150.00
997	1	Au g/t: 1 assay ton, grav.	FA-GRAVIMETRIC	0.07	1000.0
386	3	Ag g/t: Conc. Nitric-HCL dig'n	AAS	0.3	350
301	3	Cu %: Conc. Nitric-HCL dig'n	AAS	0.01	100.0
312	3	Pb %: Conc. Nitric-HCL dig'n	AAS	0.01	100.0
316	3	Zn %: Conc. Nitric-HCL dig'n	AAS	0.01	100.0
331	3	As %: HClO4-HNO3 digestion	AAS	0.01	100.0

Chemex Labs Ltd.

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British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: OSTLER, MR. JOHN

2224 JEFFERSON AVE.
WEST VANCOUVER, BC
V7V 2A8

Project :
Comments: ATTN: JOHN OSTLER

Page Number : 1
Total Pages : 1
Certificate Date: 17-DEC-97
Invoice No. : 19753078
P.O. Number :
Account : NF

CERTIFICATE OF ANALYSIS A9753078

SAMPLE	PREP CODE		Au g/t	Au FA g/t	Ag g/t	Cu %	Pb %	Zn %	As %			
CO97-1	208	226	2.19	-----	7.5	0.01	< 0.01	< 0.01	< 0.01			
CO97-2	208	226	0.78	-----	1.5	0.02	< 0.01	< 0.01	< 0.01			
ED97-1	208	226	>150.00	192.50	>350	0.06	< 0.01	< 0.01	< 0.01			

CERTIFICATION:

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: OSTLER, MR. JOHN

2224 JEFFERSON AVE.
WEST VANCOUVER, BC
V7V 2A8

A9753545

Comments: ATTN: JOHN OSTLER

CERTIFICATE A9753545

(NF) - OSTLER, MR. JOHN

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 17-DEC-97.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
244	1	Pulp; prev. prepared at Chemex

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
384	1	Ag g/t: Gravimetric	FA-GRAVIMETRIC	3	1000

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: OSTLER, MR. JOHN

2224 JEFFERSON AVE.
WEST VANCOUVER, BC
V7V 2A8

Project :
Comments: ATTN: JOHN OSTLER

Page Number :1
Total Pages :1
Certificate Date: 17-DEC-97
Invoice No. : I9753545
P.O. Number :
Account :NF

CERTIFICATE OF ANALYSIS A9753545

SAMPLE	PREP CODE		Ag FA g/t
ED97-1	244	--	647

CERTIFICATION:_____

APPENDIX 'B'

CERTIFICATE OF QUALIFICATION

I, John Ostler, of 2224 Jefferson Avenue in the City of West Vancouver. Province of British Columbia do hereby certify:

That I am a consulting geologist with business address at 2224 Jefferson Avenue, West Vancouver, British Columbia;

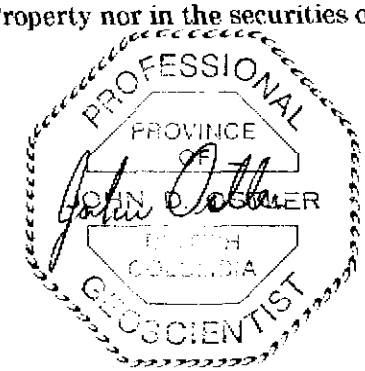
That I am a graduate of the University of Guelph in Ontario where I obtained my Bachelor of Arts degree in Geography (Geomorphology) and Geology in 1973 and that I am a graduate of Carleton University of Ottawa, Ontario where I obtained my Master of Science degree in Geology in 1977;

That registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia and that I am registered as a Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, and that I am a Fellow of the Geological Association of Canada;

That I have been engaged in the study and practice of the geological profession for over 25 years;

That this report is based on data in literature and an examination of the Alexandria Property located near Phillips Arm in the Coast Mountains of British Columbia personally conducted from December 3 to 6, 1997;

That I have no interest in the Alexandria Property nor in the securities of Norwood Resources Limited, nor do I expect to receive any.



West Vancouver,
British Columbia
January 12, 1998

John Ostler; M.Sc., P.Geo.
Consulting Geologist

DORATHA MORTON
L253

COMOX FRACTION
L297

ALEXANDRIA PROPERTY
DORATHA MORTON PROPERTY

ALEXANDRIA PROPERTY

PERCY
L299

DORATHA MORTON PROPERTY
ALEXANDRIA PROPERTY

DORATHA MORTON
TREND

COMOX TREND

COMOX ADIT

DOWN-SLOPE TRANSPORT

BEN 5
345163

COMOX
L296
(EXPIRED)

JEFF
348964

BEN 6
345164

DOWN-SLOPE TRANSPORT

BEN 3
345161

MAIN EMPRESS TREND

EMPRESS ADIT

WEST EMPRESS TREND

BEN 1
345159

BEN 4
345162

BEN 2
345160

EMPRESS
L279
(EXPIRED)

JULIE
L233
(EXPIRED)

ALEXANDRIA PROPERTY

ALEXANDRIA PROPERTY

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
JOHN D. OSTLER
GEOSCIENTIST

LEGEND

- Claim boundary
- Property boundary
- Claim name (BEN 2)
- 345160 ← Record or lot number
- Superimposed claim line
- Trench
- Adit
- Gold trend
- Gold concentration in ppb
- 50 ppb or greater
- 20 ppb or greater
- 11 67 35 12 7 2
- Soil station
- Survey line

N. — 24° N.mag

SCALE

0 25 50 75 100 125 150 175 200 metres

0 100 200 300 400 500 feet

Figure 19

CASSIAR EAST YUKON EXP. LTD.

NORWOOD RESOURCES LTD.

1996 and 1997 BEN SOIL SURVEYS: GOLD in SOILS

ALEXANDRIA PROPERTY

50°29'22"N., 125°22'45"W.

U.T.M. 5595200N., 331250E.

N.T.S. 92 K/6-K/11 — VANCOUVER M.D., B.C.

JOHN OSTLER; M.Sc., P.Geo. — JANUARY, 1998