GEOCHEMICAL AND GEOLOGICAL REPORT

ON THE

ASPEN CLAIM GROUP

GLADYS LAKE, ATLIN AREA

BRITISH COLUMBIA, CANADA

RECEIVED
NOV 1 - 1990
Gold Commissioner's Office
VANCOUVER, B.C.

NTS: 104 N14

Latitude: 59° 51'N
Longitude: 133° 05'W

By

Ronald H. D. Philp, P.Eng.

October 1, 1990

C:\wp50\w90.57/28

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FIGURES

SUMMARY

Between September 13 and 17 a work program consisting of prospecting and soil and rock chip sampling was completed on the Aspen 1 and 2 claims. The purpose of this program was to identify possible gold mineralization on the property.

The Aspen property was located in 1969 as a molybdenum occurrence. In 1970 Amax conducted a detailed program of geological mapping, geochemical sampling, road building, trenching, and rock sampling. They determined that the large area of molybdenum mineralization and a wide zone of hornfelsing was caused by a buried alaskite intrusive. Further work was completed on the property in 1978 by Quest Explorations, but no economic molybdenum mineralization was discovered.

The property is bounded by two placer gold bearing drainages. In the past surveys none of the analyses were for gold mineralization. This current survey covered the northern half of the property with a reconnaissance soil grid. Further samples were also collected from outcrop and old drill core.

Gold values to 1,010 ppb Au were detected in soils from the property and to 801 ppb Au from sampling of molybdenum bearing drill core.

Further work is recommended for this property and a detailed budget totalling $75,000 is included in this report.

INTRODUCTION

During the period September 13 to September 17, 1990 a small party comprising 2 geologists and 2 field assistants built access to the Aspen property, prospected and collected soil samples and rock samples across the property. This report details the history of the property and the current work and is filed for assessment purposes.

LOCATION AND ACCESS

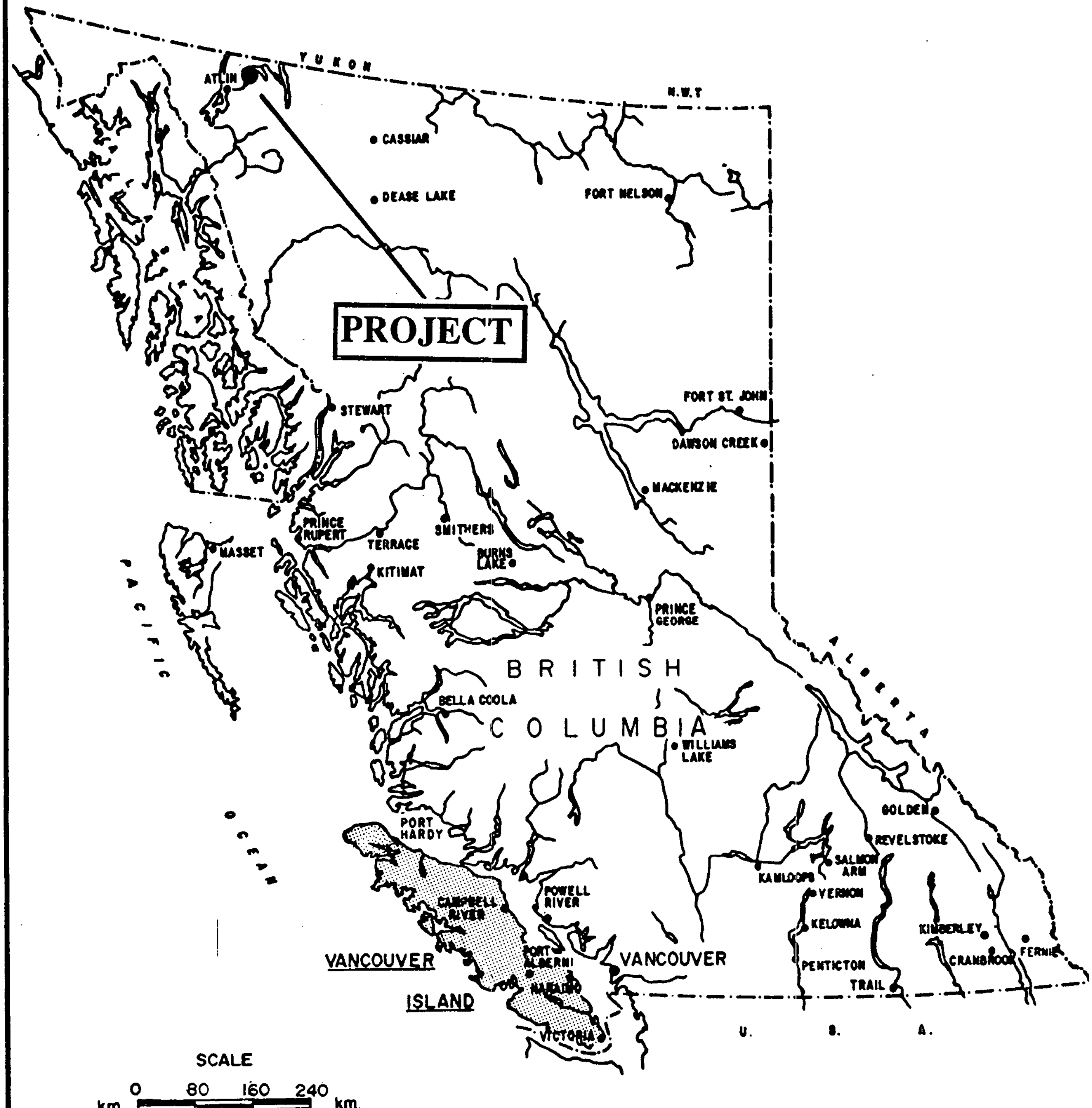
The property is located approximately 30 air miles northeast of the town of Atlin, adjoining the south side of the western end of Gladys Lake (Figures 1 and 2). It is accessible by rough gravel road which leads from the Atlin Road (connecting Atlin with the Alaska Highway) approximately six miles north of Atlin. The access road is passable only during the summer months by 4x4 vehicles. Float planes can land on Gladys Lake. At the commencement of this program one day was spent developing access across Davenport Creek. The old bridge abutments have washed out. A temporary vehicle crossing was constructed to the north of the old bridge, at the start of this work program.

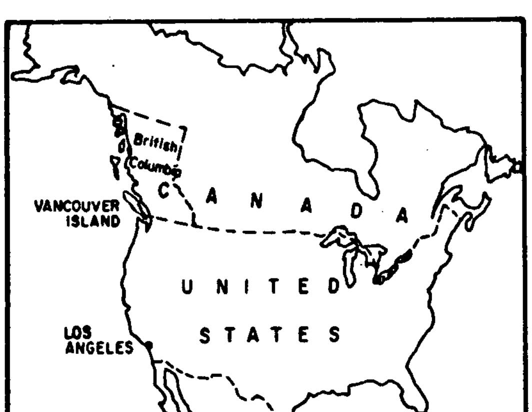
PHYSIOGRAPHY

The property terrain is variable from relatively flat to gently dipping ground at lower altitudes on the north to relatively steep slopes and hilly mountainous terrain at higher altitudes to the south. Relief is in the order of 400 metres from the north boundary south of Gladys Lake at an altitude of approximately 1,100 metres to the south-central portion of the property where altitudes reach 1,500 metres or more. Timberline is at 1,400 metres. Forest cover consists of a relatively open immature growth of pine, spruce and fir. Only locally near Gladys Lake does thick underbrush make for arduous traversing. Vegetation consisting largely of grass and buckbrush extends for a few hundred feet in altitude above timberline.

Numerous glacial features are present on the northern edge of the property; including eskers, morainal lateral terraces, drumlins, kames, outwash valley flats and outwash channels.

Drainage from the property is mainly towards the north into Gladys Lake with headwaters of major streams to the south of the property. Recent stream channels are locally deeply downcut into glacial deposits and occasionally follow old glacial outwash channels.





WARATAH INVESTMENT CORPORATION

ASPEN PROJECT
ATLIN M.D.

LOCATION MAP

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SCALE	DATE	FIG.
As shown	Sept. '90	1

Numerous small intermittent streams are present on the property. Marshy ground to well developed swamps are common at lower altitudes along stream channels and over large portions of the valley flats.

Glacial Deposits

Three characteristically different west-northwesterly trending belts of surficial glacial deposits related to valley glaciation are recognized on and north of the property. These include (i) an upper belt of morainal lateral terraces and eskers lying between altitudes of 1,450 metres and 1,000 metres, (ii) a lower belt of till and outwash valley fill generally lying below altitudes of 1,000 metres and thickening towards Gladys Lake up to indicated maximum thicknesses in the order of 90-100 metres and (iii) a subsidiary lower kame complex belt characterized by hummocky terrain adjacent to Gladys Lake.

PROPERTY

The property consists of 40 units in 2 claims, Aspen 1 Record #3683, and Aspen 2 Record #3682. The claims were staked September 17, 1989 and are owned by Waratah Investment Corporation, registered in the name of the author. The claim location map is shown in Figure 2.

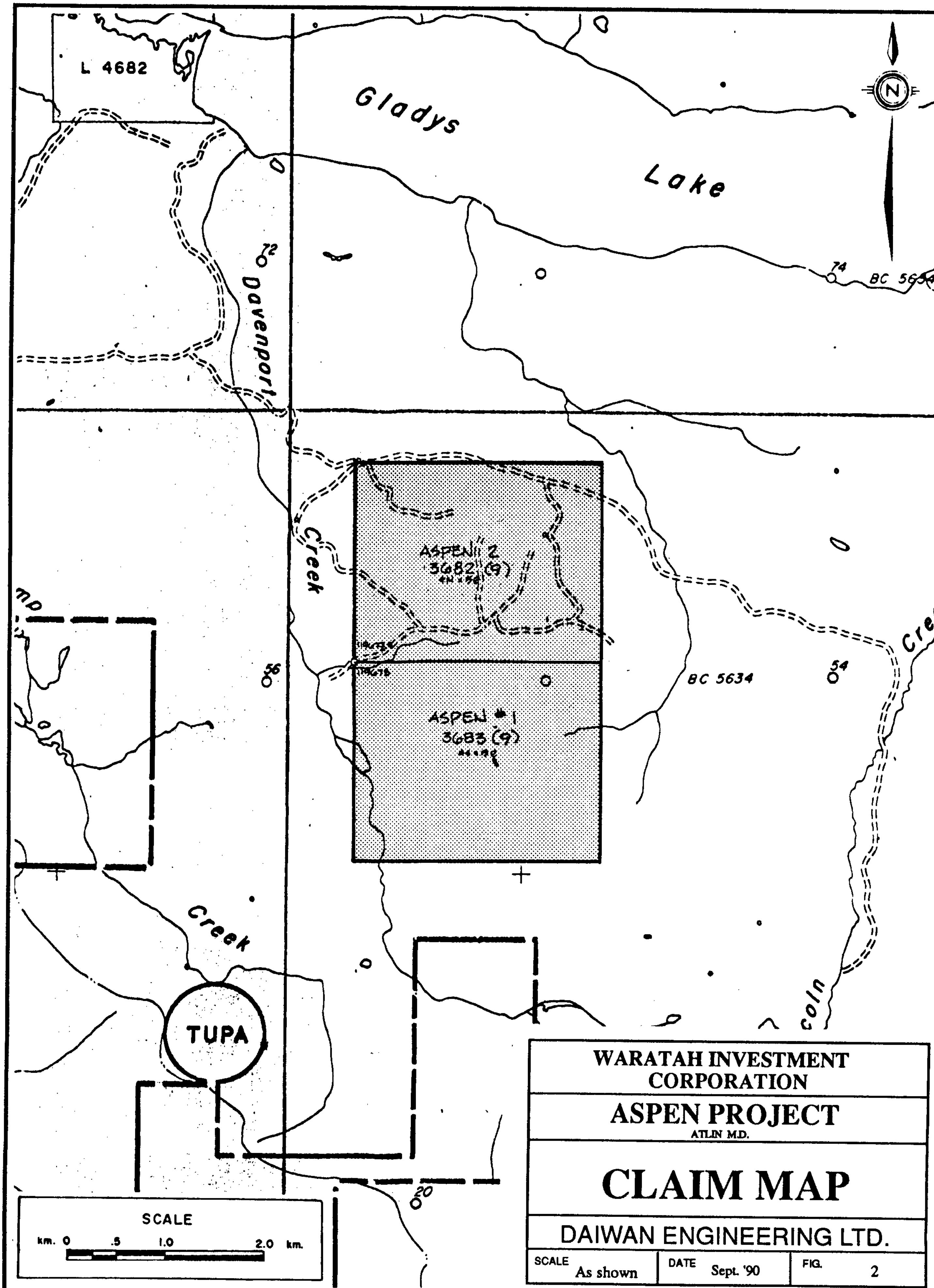
PREVIOUS WORK

The Aspen property covers an original mineral occurrence discovered in 1969, known as the Gladys Lake MOS_2 prospect.

The property was optioned by Amax in 1970 from the original prospectors, and detailed geological mapping, geochemical sampling, road building, trenching and rock samples were carried out on a very large claim block.

Amax did not discover economic molybdenum mineralization, but did identify a wide zone of molybdenum mineralization related to an alaskite intrusive. Silver, copper and zinc also showed wide zones of anomalous soil mineralization. In the molybdenum zone values ran between 0.02 to 0.05% MOS_2.

In 1978 Quest Explorations re-staked the central portion of the property and re-sampled drill core and trenches for molybdenum.



WARATAH INVESTMENT CORPORATION

ASPEN PROJECT
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CLAIM MAP

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SCALE	DATE	FIG.
As shown	Sept. '90	2

The author had the property staked in 1989, primarily for its gold-silver mineralization potential.

REGIONAL GEOLOGY

The property lies within a northwesterly-trending belt of deformed Late Palaeozoic eugeosynclinal sedimentary and volcanic rocks known as the Atlin Horst (Figure 3). Numerous intrusive bodies have been emplaced into the Atlin Horst in the Atlin area., They range in age from Late Palaeozoic to Late Mesozoic and consist of ultrabasic bodies of the Atlin Intrusions, bodies of diorite to quartz monzonite of the Coast Intrusions and an alaskite batholith (Surprise Lake Batholith) and satellitic intrusions. Youngest rocks in the area include Tertiary and Quaternary basalt flows and scoria.

Mineral occurrences of Mo, W, Ag, Pb, Zn, and Cu predominate in the Atlin area. Au placer deposits along Pine and Spruce Creeks have had a long intermittent history of exploration and production. It is of interest to note that both the Adanac MOS_2 deposit and the Gladys Lake MOS_2 prospect (the current Aspen claims) are associated with small alaskite intrusions satellitic to the main alaskite batholith.

PROPERTY GEOLOGY

The area was mapped in detail by Amax personnel in 1970 and the following description is based on Godfreys report with observations by the writer.

The Aspen property is underlain by a generally north-westerly trending and steeply westerly dipping, locally complexly folded, sequence of argillite, chert, limestone and greywacke of the late Palaeozoic Cache Creek Group. Roughly within the east-central portion of the property, these rocks are intruded by small bodies of Late Mesozoic alaskite. These consist of a ring-dyke complex exposed at higher altitudes and a probable stock-like body at lower altitudes.

Roughly centered about the alaskite ring-dyke complex is a quartz vein stockwork zone (one or more quartz veins per square foot) lying within a larger zone of weakly to intensely altered rocks. Both of these zones occur within a larger concordant hornfelsed zone. Both the altered and hornfelsed zones are elongated in a northwesterly direction.

Minor amounts of molybdenite occur in quartz veins and to a lesser extent along fractures throughout the stockwork zone. Up to 3% pyrite and minor amounts of chalcopyrite and pyrrhotite largely occur peripheral to the stockwork zone along fractures and disseminated throughout large portions of the altered and hornfelsed zones. Other minerals recognized include very minor amounts of scheelite and wolframite occurring in quartz veins within the stockwork zone. Surface oxide minerals present include limonite, ferrimolybdate and powellite.

Description of Rock Units

Cache Creek Group:

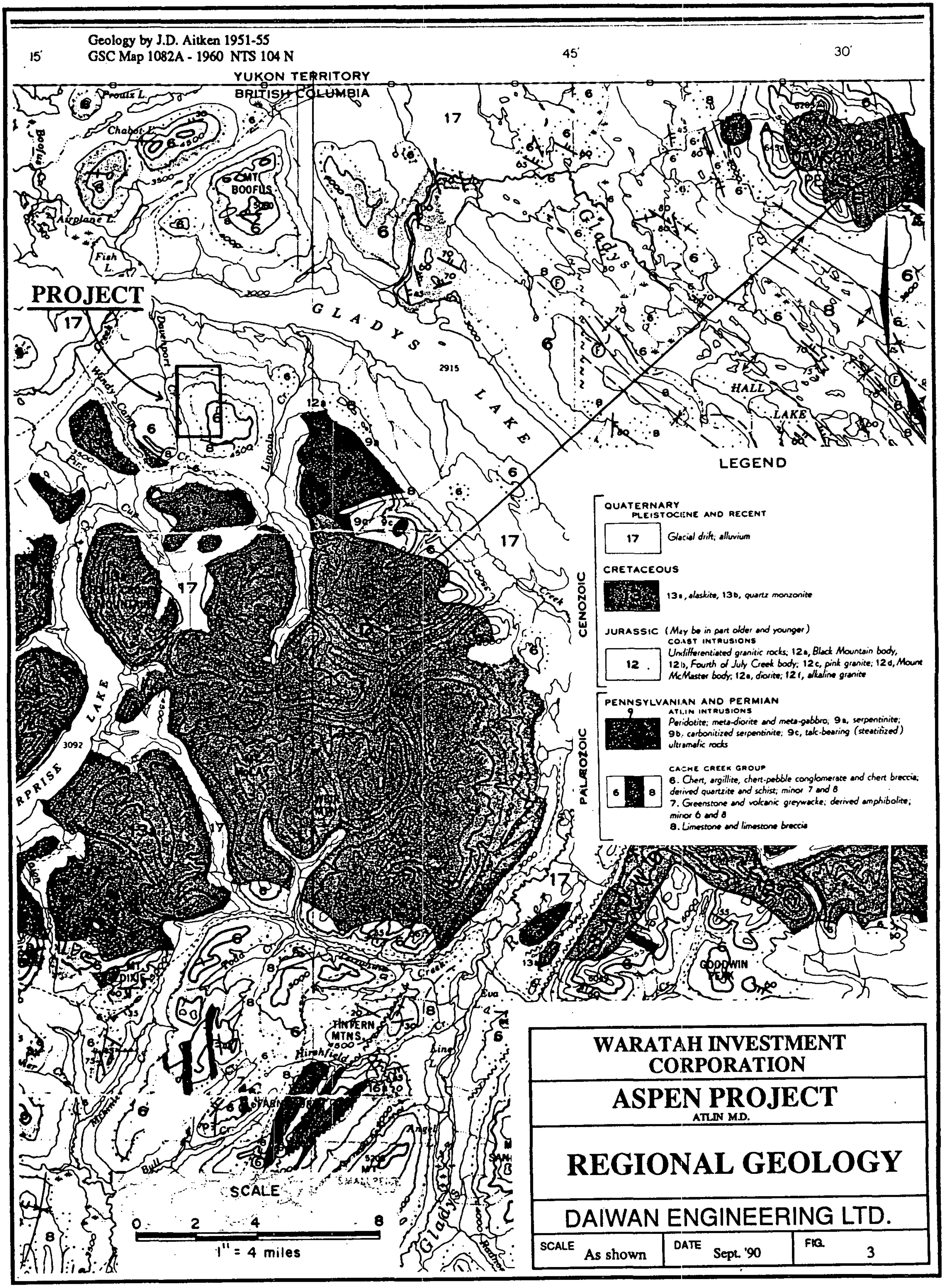
Rocks of the Cache Creek Group have been differentiated into three major units on the property. Folding has complicated working out of the stratigraphic succession with assurance; however a tentative succession from youngest to oldest is as follows:

Unit 3 - limestone, chert, argillite
Unit 2 - massive argillite
Unit 1 - thin bedded argillite and siliceous argillite to chert

Unit 1 is exposed in a roughly north-south trending belt across the east-central portion of the property. It is characteristically thin bedded (beds 2 to 10cm thick) and consists of find grained brownish-black argillite beds grading into lighter-coloured find grained beds of siliceous argillite to chert. Siliceous beds commonly are in part lensoid in nature. Lithologic variations recognized consist of one altered, dark green, porphyritic andesite flow located in the central portion of the grid and thick (up to 10 metres) interbedded grey mottled chert and massive argillite located in the southeast portion of the grid. Massive thick argillite beds are also locally present within Unit 1.

Unit 2 is found on the eastern edge and much of the central to western portions of the property. It consists predominately of very dark coloured, find grained massive argillite. Other horizons recognized within the unit include medium to coarse grained greywacke containing angular rock fragments of argillite and volcanic material and a horizon consisting mainly of thin to thick bedded argillite and chert. Argillites of Unit 2 are commonly pyritic.

Unit 3 is only exposed within the north-central portion of the property. It consists of a sequence of limestone, chert and argillite. Stratigraphy and bedding attitudes within and adjacent to the unit indicate that it lies along the core of a synclinal fold axis. The unit is



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REGIONAL GEOLOGY

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SCALE	DATE	FIG.
As shown	Sept. '90	3

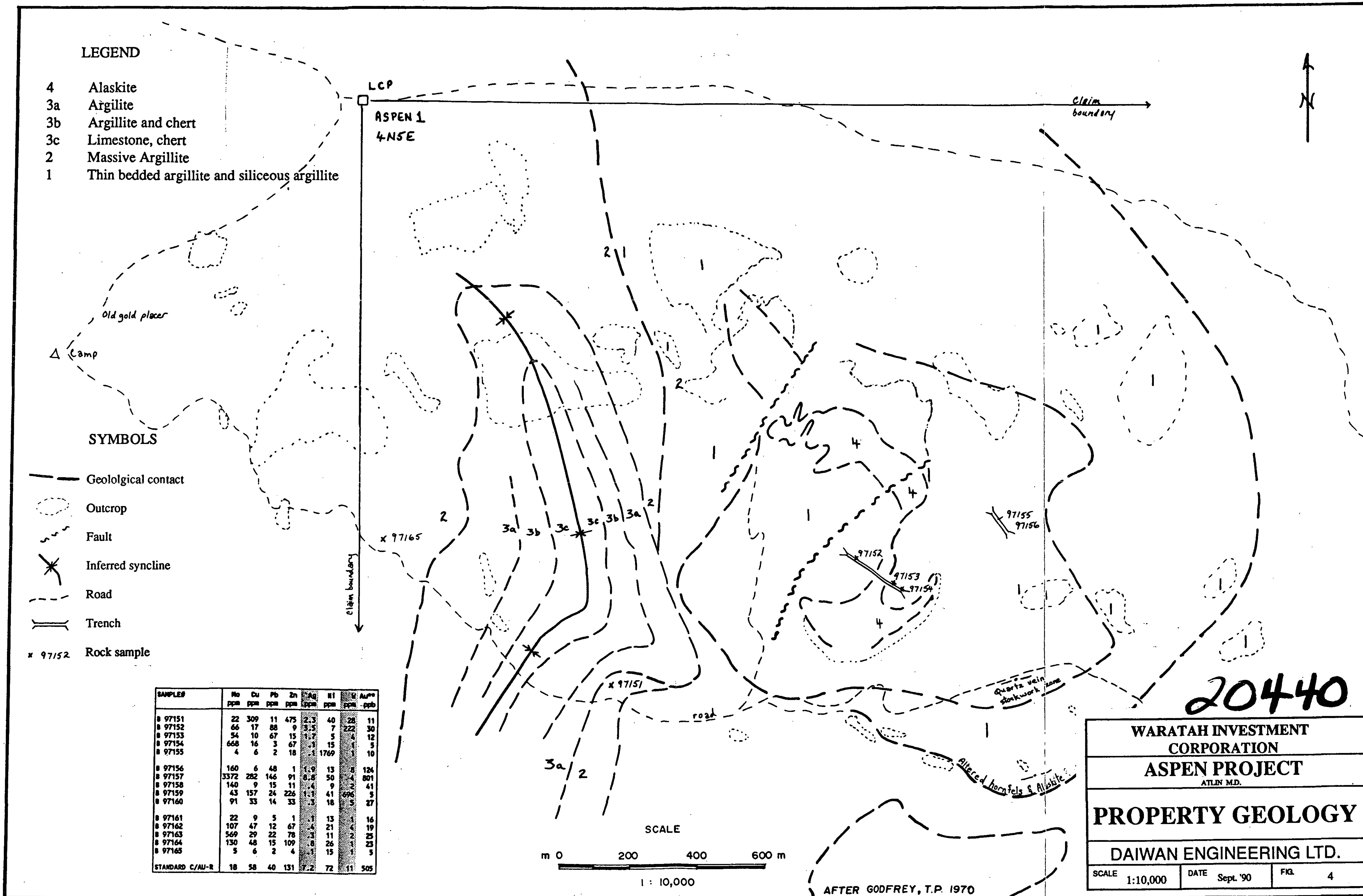
differentiated into a lower horizon consisting of thick beds of interbedded massive argillite, grey mottled chert, massive light-coloured chert and chert breccia; a middle horizon consisting of massive argillite and minor thick beds of grey mottled chert and an upper horizon consisting of partly silicified crinoidal limestone and minor thick beds of massive light coloured chert and chert breccia.

Alaskite:

Alaskite occurs as a ring-dyke complex within the central portion of the property at high altitudes and as a separate stock-like body in the northeastern portion of the grid area at low altitudes. In both bodies, alaskite is leucocratic and commonly porphyritic with a fine grained equigranular graphic-textured groundmass. Phenocrysts consist of approximately 15-25% medium grained, sub-rounded smoky quartz, 20-30% medium to coarse grained, euhedral, cream to flesh coloured alkali feldspar and 2-3% altered to fresh, medium grained flakes of biotite. The groundmass is cream to flesh coloured and consists of approximately 20% quartz and 30% alkali feldspar. Grain size of the groundmass is locally variable from fine to medium grained. Locally present in alaskite are medium to coarse grained and occasionally pegmatitic irregular clots and dykelets of quartz, alkali feldspar and biotite.

The alaskite ring-dyke complex has an outer diameter ranging from 450 metres to 700 metres. It consists of a series of largely discordant annular bodies having a quarter-moon or concavo-convex form in plan. All of these bodies have sharp intrusive contacts with altered hornfels. Contact attitudes are commonly steeply inclined inwards suggesting that the complex has an inverted cone-shaped form at depth. Alaskite at and near contacts in separate bodies of the complex commonly has an aphanitic groundmass. The central portions of bodies comprising the southern half of the complex commonly have wide banded zones characterized by interbedded thin bands (generally ranging from 1 mm to 20 mm comprised mainly of smoky quartz or alkali feldspar. Banded alaskite shows uneven grain size (fine to course grained) and mutual grain relationships between quartz and alkali feldspar. Locally present are bands of quartz with minor seams of alkali feldspar up to three feet wide. Bands often show various degrees of ptygmatic folding undoubtedly due to subsequent deformation caused by magma flow in other parts of the intrusive chamber. Banding in alaskite must be due to cyclical crystallization of quartz and alkali feldspar.

The partially exposed body of alaskite at lower altitudes to the northeast of the ring-dyke complex, appears petrographically homogeneous. Contacts with sediments were not observed. It appears to be a discordant body and is probably a portion of an inferred buried large stock-like body of alaskite underlying the hornfelsed and altered zones centered about the ring-dyke complex.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	W ppm	Au** ppb
R 97151	22	309	11	475	2.3	40	28	11
R 97152	66	17	88	9	3.5	7	222	30
R 97153	54	10	67	15	1.7	5	4	12
R 97154	668	16	3	67	.1	15	1	5
R 97155	4	6	2	18	.1	1769	1	10
R 97156	160	6	48	1	1.9	13	8	124
R 97157	3372	282	146	91	8.8	50	4	801
R 97158	140	9	15	11	.4	9	2	41
R 97159	43	157	24	226	1.1	41	696	5
R 97160	91	33	14	33	.3	18	5	27
R 97161	22	9	5	1	.1	13	1	16
R 97162	107	47	12	67	.4	21	4	19
R 97163	569	29	22	78	.3	11	2	25
R 97164	130	48	15	109	.8	26	1	23
R 97165	5	6	2	4	.1	15	1	5
STANDARD C/AU-R	18	58	40	131	7.2	72	11	505

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PROPERTY GEOLOGY

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SCALE 1:10,000 | DATE Sept. '90 | FIG. 4

Structure:

Structural features present include indicated fold patterns in the Cache Creek Group rocks, jointing and fracturing and faults and shear zones.

Cache Creek Group rocks predominantly strike north-northwesterly and dip steeply to the west. Variations include a predominate north-northeasterly strike and steep westerly dip in the eastern of the property and the indicated presence of the roughly north-south trending, westerly arcuate synclinal fold axis passing through the central portion of the property. These variations and the presence of probable correlative massive argillites (Unit 2) that underlie the east and west portions of the property strongly indicate that the Cache Creek Group rocks have in general been tightly folded.

Jointing occurs throughout the property in all rock types. Two predominant joint systems are present. They include a north-northeasterly trending and generally moderately to steeply east dipping set and a north-northwest to northwest trending and steeply dipping set. Also locally present, particularly within the main area of interest, is a flat to gently dipping joint set. Jointing appears to be best developed in the core and peripheral to the alaskite ring-dyke complex within the quartz vein stockwork zone. However, jointing is quite well developed throughout the altered zone. Fracturing generally is not intense. It is best developed within the more highly jointed area.

A series of northeasterly-trending and steeply-dipping late faults and shear zones with argillized gouge zones up to 10 metres wide cut the quartz veined alaskite ring-dyke complex and adjacent altered rocks. Horizontal displacement along faults is up to 100 metres.

Alteration:

The hornfelsed and altered zones are both roughly centered about the alaskite ring-dyke complex. They are both elliptical in plan and elongated in a north-westerly direction.

The hornfelsed zone measures approximately 3,000 metres and 2,200 metres respectively, along its long and short axis. The zone transgresses all the major differentiated units of the Cache Creek Group and shows different mineralogical and textural changes in each unit. the degree of hornfelsing increases inwards. Thin bedded argillite and siliceous argillite of Unit 1 show slight recrystallization, buff-brown to reddish-brown colour banding and minor secondary biotite occurring disseminated and along fractures. Massive argillites of Unit 2 typically show a spotted texture which is probably due to secondary cordierite.

Limestone in Unit 3 is partly silicified or recrystallized to marble and typically contains abundant clots and irregular veinlets of tremolite. Pure cherts of Unit 3 and other units are unaffected within the hornfelsed zone or show slight recrystallization to quartzite. Hornfelsed argillite in Unit 3 are similar to those of Units 1 and 2.

The wallrock alteration zone lies within the hornfelsed zone. The long and short axis, respectively, are approximately 2,500 metres and 1,650 metres. It occurs within all differentiated units of the Cache Creek Group and within alaskite intrusions. Within all sedimentary rocks alteration is characterized by prevasive weak to intense degrees of bleaching and silicification with attendant development of sericite occurring along fractures and disseminated and along margins of quartz veins. In the outermost portion of the alteration zone, wallrock alteration commonly occurs as wide selvages along individual quartz veins up to a total width of 25 cm or along quartz vein stringer zones up to a total width of 65 metres. The degree of alteration increases towards intensely altered centers located (i) at the northern nose of the synclinal fold in Unit 3, (ii) within the core of, and partly peripheral to the alaskite ring-dyke complex and (iii) towards several small centers located at the south-eastern end of the alteration zone. Sericite is best developed within the quartz vein stockwork zone and in quartz vein stringer zones in the northwestern portion of the alteration zone. Remnants of hornfelsed sediments are relatively common within the alteration zone.

Alteration of alaskite within the alteration zone consists largely of intense sericitization of primary biotite. Alkali feldspars in alaskite are only locally altered to sericite.

Quartz Veining:

Quartz veining occurs widespread throughout the alteration zone within sedimentary rocks and alaskite. Veins commonly range from 1 mm to 20 mm wide and are relatively continuous and sharp walled. Quartz veins occurring in altered sedimentary rocks and alaskite commonly consist, respectively, of clear to white medium grained quartz or of medium grained, sugary, smoky quartz. Locally present are bull-quartz veins commonly up to one foot wide. The quartz vein stockwork zone is roughly centered about the alaskite ring-dyke complex. Here vein frequency is approximately equal to or greater than one vein per square foot and commonly ranges up to five veins per square foot, particularly within the core of the alaskite ring-dyke complex. Several quartz vein stringer zones, up to 100 metres wide, are located to the northwest of the stockwork zone. These zones contain one to two veins per metre. Attitudes of quartz veins throughout the alteration zone show two predominant sets roughly parallel to the orientation of the two predominant joint sets. Locally joint systems were observed to control quartz veining. Also present is a gently dipping quartz vein set, at least within the stockwork zone, which also shows control by a joint system.

Alaskite bodies of the ring-dyke complex are commonly less intensely quartz veined than adjacent altered sedimentary rocks within the quartz vein stockwork zone. At alaskite contacts, quartz veins have been observed to be cut off by alaskite or to transect the contact and to pinch out or grade into alkali feldspar veinlets at various distances (up to 3 metres) within alaskite from the contact. Also, some veins followed from sediments into alaskite have been observed to be off-shoots from a magmatic quartz band at alaskite contacts. Within the stockwork zone, both in altered sedimentary rocks and alaskite, quartz veins often have selvages of sericite and/or alkali feldspar borders. Some grade along strike into alkali feldspar veinlets which are relatively common throughout the stockwork zone.

Various cross-cutting relationships between different types of quartz veins and alkali feldspar veins have been observed within the stockwork zone. However, no significant age difference is believed present between different types of veins since all veins are believed genetically related to the alaskite ring-dyke complex.

Minor amounts of molybdenite and traces of scheelite and wolframite occur in quartz veins within the quartz vein stockwork zone and stringer zones.

Mineralization:

Sulphide minerals recognized on the property include pyrite, molybdenite, chalcopyrite and pyrrhotite. Very minor amounts of scheelite and wolframite have been observed. Also present are surface oxide minerals including limonite, ferrimolybdite and powellite.

Up to 3% pyrite and minor amounts of chalcopyrite and pyrrhotite largely occur along fractures and disseminated throughout large portions of the altered and hornfelsed zones peripheral to the quartz vein stockwork zone. Up to approximately 1% pyrite is estimated to occur within the stockwork zone though it is almost wholly oxidized to limonite.

Minor medium grained flakes, books and rosettes of molybdenite occur along margins of quartz veins within the stockwork zone and in most of the stringer zones. Also, minor fine grained molybdenite occurs along dry fractures within the stockwork zone. Trace amounts of scheelite and wolframite occur disseminated in quartz veins within the stockwork zone. Ferrimolybdite locally occurs along fractures and as pseudomorphs after molybdenite. Powellite has been recognized in a few instances coating flakes of molybdenite. Limonite occurs widespread after pyrite and pyrrhotite.

1990 WORK PROGRAM

A program of rock and soil sampling was carried out on the Aspen property in September 1990.

The rock sampling concentrated on the central stockwork area of molybdenum mineralization with two further samples collected from pyritic quartz veins exposed in the hornfels zone.

A number of samples were also collected from scattered remnants of drill core. These samples are representative of the various types of vein mineralization drilled in Amax's 1970 work program.

ROCK SAMPLES

Results and Interpretation:

The location of rock samples are shown on Figure 4. The drill core samples are not able to be traced to ground locations as the drill core sampled was no longer in boxes, but scattered on the ground.

Several significant trends exist from the rock and core sampling:

1. Silver values are highest (8.8 ppm) with high molybdenum content, but also appear to be high in quartz veins with low molybdenum content (3.5 ppm). It appears that silver bearing quartz veins are more widespread then molybdenum bearing veins.

2. Tungsten values are high (696 ppb W) in molybdenum poor rock samples.

3. Gold values are highest in high molybdenum samples (801 ppb), but there is a significant background of gold mineralization in non-sulphide quartz veins (15-30 ppb).

4. Bismuth is associated with higher gold values.

One sample (#97155) assayed high in nickel 1,769 ppm. It is uncertain if the rock which this sample came from is locally derived. It was a semi angular boulder in the trench on the east side of the central stockwork zone. Other smaller samples of the same rock were seen in the area, but they were all smaller and rounded. At this stage the rock should be regarded as glacially transported.

A full table of assay results and sample descriptions is to be found in Appendix 1.

SOIL SAMPLING

Four grid lines were sampled across the Aspen 1 claim. These lines (0n, 2n, 3n, 4n) corresponded to the southern boundary of the claim; a second line 1000m north; then 1500m north; and finally a line along the northern claim boundary. The lines were flagged and soils were taken at 100m intervals along the east-west lines using a hipchain for distance measurement.

A further 4 sets of soil samples ("A", "B", "C", "D") were taken of "B" horizon soils along traverses in the centre of the alaskite intrusive, and the nearby trenches, and across the hillside in the southeast of the Aspen 1 claim block. The soil sample assays are plotted on Figure 5, and tabulated in Appendix 2.

RESULTS

There is an extremely high background for zinc in the soils on the property. A large number of the soils assay >150 ppm Zn, with a high of 365 ppm Zn. There is however a conspicuous low zinc zone trending north-south across the centre of the property, flanked by higher values in the northeast and northwest.

Molybdenum has a very strong anomalous signature overlying the alaskite centre. Values greater than 20 ppm Mo are common, with a high of 203 ppm Mo.

Copper values are generally <100 ppm Cu, and are not plotted, however there is generally high copper on the west end of lines 0N and 2N. These values peak at 649 ppm Cu.

All of the gold values are plotted on Figure 5. There is extremely consistent gold mineralization along line 4N, and along the east ends of lines 3N and 2N. The highest gold values recorded in 1010 ppb Au on the west end of line 0N, but values >20 ppb are common across the zones mentioned.

There appears to be a good correlation of gold with the eastern half of the molybdenum soil anomaly. However there is no molybdenum associated with the gold on the west end of line 4N. Copper and zinc in this area are high however (to 100 ppm Cu and 334 ppm Zn). An isolated high gold (270 ppb Au) on the east end of line 0N probably represents enrichment in a small draw. This sample could more realistically be termed a silt sample. The high value indicates further sampling should be carried out in this region.

The soil sample traverses (A-D) reinforced the strong molybdenum anomaly in the centre of the property, and also indicated anomalous gold values (up to 47 ppm Au) within the same zone. Gold was also high in the soil sample taken in the trench on the east side of the zone (67 ppb).

On traverse D soils were collected to determine the possibility of gold mineralization away from the alaskite. Values were generally low, except for sample D3 (21 ppb Au) which also had appreciable copper (204 ppm).

CONCLUSIONS

1.0 The reconnaissances sampling on the Aspen 1 claim shows significant molybdenum, zinc and gold mineralization on the property.

2.0 There is a partial correlation of gold values with molybdenum. However there are also very high gold values associated with soils and sediments outside this zone.

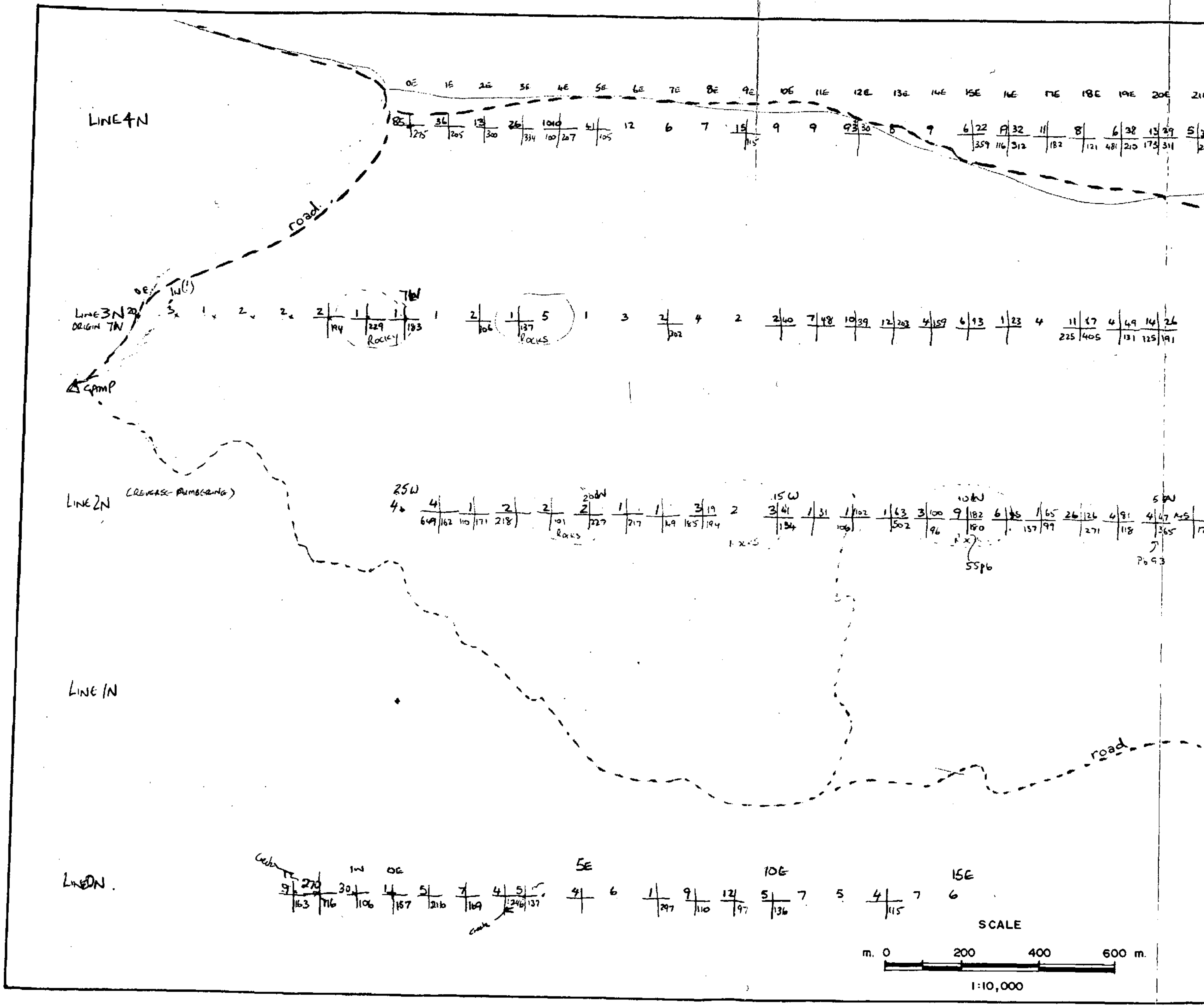
3.0 Molybdenum and tungsten mineralization is associated with quartz veining in the alaskite intrusive. Although elevated gold values occur in some of this quartz veining, the source of the main gold soil values has not been determined.

RECOMMENDATIONS

1.0 Further soil sampling on closer spaced intervals is suggested for lines 3+50N and 2+50N and the west end of 0+50N.

2.0 Heavy mineral samples should be collected from locations along Davenport Creek and Detour Creek to define source areas for placer gold reported in these creeks.

3.0 Prospecting should be carried out on the Aspen 2 claim to look for further mineralized areas.



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WARATAH INVESTMENT CORPORATION

ASPEN PROJECT
ATLIN M.D.

SOIL SAMPLE GRID

DAIWAN ENGINEERING LTD.

SCALE 1:10,000	DATE Sept. '90	FIG. 5

CERTIFICATE OF QUALIFICATIONS

I, Ronald H. D. Philp of 1030 - 609 Granville Street, Vancouver, British Columbia, do hereby certify that:

1.0 I am a registered Professional Engineer of the Province of British Columbia.

2.0 I am a graduate of the University of British Columbia, (B.A.Sc. 1961).

3.0 I have practised my profession since 1961 while in the employ of various companies and as a self-employed consulting geologist.

4.0 My report is based on a review of available maps and reports on the area plus a recent visit to the property where I supervised a geochemical-prospecting program.

Ronald H. D. Philp
October 1, 1990

COST STATEMENT

Labour:		
R. Philp, P.Eng.		
- 4 days @ $450	$ 1,800.00	
P. Dasler, Senior Geologist		
- 5 days @ $380	1,900.00	
C. Philp, Field Assistant		
- 4 days @ $50	200.00	
S. Brockman, Field Assistant		
- 4 days @ $150	600.00	$ 4,500.00
Assays:		
Soils - 120 30 el ICP + geochem au @ $8.60	1,032.00	
Rocks - 15 30 el ICP + geochem Au @ $12.25	183.75	
Food & Accommodations		
- 13 man days @ $35	560.00	
Airfares:		
R. Philp, C. Philp, P. Dasler	2,317.00	
Vehicle Rental + fuel, etc.		
- 4 days @ $92.45	369.80	
Telephone	15.09	
Report Writing		
- 2 days @ $450	900.00	
Drafting	396.00	5,773.64
	TOTAL	**$10,273.64**

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Godfrey, T.P., 1970 — 1970 Geological and Geochemical Report on the Gladys Lake MoS_2 Property for Amax Exploration Inc. B.C.D.M. Assessment Report 2653, September 21, 1970.

Seraphim, R.H., 1978 — Report on Assays and Geology MOK claims. B.C.D.M. Assessment Report 6818, July 11, 1978.

APPENDIX 1

Rock Sample Descriptions
and
Assay Results

ROCK SAMPLE DESCRIPTIONS

Sample No.	
97151	10 cm wide zone of quartz vein in hornfels with abundant limonite stain
97152	selected quartz stringers in north trench (in alaskite)
97153	drusy Qv northeast end of north trench
97154	hornfels with Qv and Mo in eastern end of north trench
97155	mafic boulder from east trench (glacial?)
97156	Qv mid-point of trench in hornfels - very drusy with limonite
97157	selected drill core - Qv with chalco and moly
97158	selected drill core - Qv with specs of moly
97159	selected drill core - 1 piece of alaskite 6" long with 1" of Qv some cp?, Py plus 1 piece of hornfels with 3 mm wide Mo rich stringers
97160	selected drill core - quartz stringers (small) in hornfels
97161	selected drill core - white bull quartz, little pyrite
97162	selected drill core - brecciated hornfels with crossing quartz veinlets, some Mo on fractures with pyrite
97163	selected drill core - mixed sample of hornfels with stringers of pyrite and Mo (Charles sample)
97164	selected drill core - manganese rich hornfels
97165	Qv on road at end of line #3

APPENDIX 2

Soil Sample Results

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Daiwan Engineering Ltd. PROJECT ASPEN File # 90-4523 Page 1

1030 - 609 Granville St., Vancouver BC V7Y 1G5

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
4N 0+00E	13	49	11	275	.8	31	7	429	2.50	27	5	ND	2	25	3.3	3	7	47	.48	.031	14	32	.44	337	.18	3	1.19	.01	.11	2	85
4N 1+00E	5	24	17	205	.6	21	8	366	3.20	31	5	ND	2	16	2.2	2	5	68	.17	.049	11	34	.37	200	.25	6	1.19	.01	.08	1	36
4N 2+00E	4	50	25	300	2.2	63	46	1078	4.70	10	5	ND	4	33	2.7	2	6	57	.46	.080	14	42	.34	480	.29	4	1.96	.02	.10	1	13
4N 3+00E	4	18	11	334	.6	18	12	941	2.54	10	5	ND	2	21	10.3	2	3	54	.27	.027	9	24	.23	267	.20	2	.82	.02	.08	1	26
4N 4+00E	9	100	13	207	.2	49	13	529	2.48	26	5	ND	2	32	2.5	2	9	45	.42	.027	19	34	.53	365	.11	2	1.33	.01	.09	4	1010
4N 5+00E	8	32	10	105	.3	30	7	244	2.16	15	5	ND	1	22	1.2	2	3	39	.39	.038	12	35	.50	176	.09	3	1.29	.01	.15	1	41
4N 6+00E	3	27	7	65	.1	26	7	222	1.98	9	5	ND	3	20	.3	2	2	37	.27	.021	13	31	.47	200	.10	3	1.25	.01	.10	1	12
4N 7+00E	3	28	5	65	1.0	34	3	314	.64	9	5	ND	1	82	2.3	4	2	8	1.84	.131	20	8	.17	533	.01	6	.57	.01	.12	1	6
4N 8+00E	3	18	5	52	.1	21	5	202	1.77	6	5	ND	4	22	.2	2	2	39	.46	.016	12	26	.46	306	.09	4	1.24	.01	.08	1	7
4N 9+00E	3	24	13	115	.3	18	8	193	2.18	11	5	ND	1	34	2.3	2	2	44	.48	.033	10	25	.35	360	.15	2	.96	.01	.06	1	15
4N 10+00E	17	55	7	45	.5	28	2	192	.47	3	5	ND	1	146	1.3	5	2	5	4.75	.084	8	5	.29	269	.01	11	.42	.02	.05	1	9
4N 11+00E	8	22	10	67	.1	24	5	209	1.96	27	5	ND	2	21	.8	4	2	30	.41	.030	12	24	.33	136	.06	2	.80	.01	.08	4	9
4N 12+00E	30	25	15	73	.1	17	5	149	2.22	29	5	ND	2	21	.6	3	2	39	.34	.029	10	26	.26	133	.09	3	.74	.01	.07	5	93
4N 13+00E	7	36	8	93	.1	28	8	350	2.21	11	5	ND	5	25	.7	2	2	38	.36	.024	16	33	.55	345	.10	6	1.47	.02	.13	1	8
4N 14+00E	7	30	14	86	.6	29	8	461	2.49	28	5	ND	3	37	.8	3	2	52	.51	.024	10	31	.59	410	.11	4	1.50	.01	.09	1	9
4N 15+00E	22	29	17	359	2.1	43	18	587	5.60	21	5	ND	3	24	6.8	4	2	88	.34	.044	10	49	.59	356	.49	4	1.96	.03	.08	1	6
4N 16+00E	32	116	20	312	4.3	60	23	1684	3.50	35	5	ND	2	76	4.8	3	3	43	1.29	.048	37	35	.42	819	.18	5	2.10	.03	.14	1	19
4N 17+00E	14	25	11	182	.9	23	6	279	2.05	26	5	ND	2	27	2.8	3	6	43	.43	.024	11	25	.38	286	.11	3	1.04	.01	.09	1	11
4N 18+00E	9	17	11	121	.3	17	6	183	2.15	22	5	ND	2	19	1.5	4	2	52	.22	.019	10	26	.37	275	.13	2	1.00	.01	.07	1	8
4N 19+00E	38	481	15	210	2.3	119	19	1945	1.61	49	7	ND	1	115	10.9	2	6	23	1.95	.089	120	20	.35	836	.03	5	1.46	.02	.10	1	6
4N 20+00E	39	173	17	311	1.4	94	12	358	3.75	46	5	ND	4	51	3.9	2	6	50	.80	.029	15	47	.68	650	.09	5	2.45	.02	.24	1	13
4N 21+00E	30	67	10	242	.8	57	13	1281	2.15	25	5	ND	1	39	6.7	2	8	38	.56	.032	14	31	.53	523	.07	4	1.52	.02	.11	1	5
4N 22+00E	21	356	5	263	6.4	159	9	1034	1.40	17	5	ND	1	193	9.7	2	2	14	3.25	.131	67	23	.45	1283	.02	8	1.76	.02	.10	1	15
4N 23+00E	6	21	12	227	.3	29	12	454	3.73	13	5	ND	4	20	2.9	2	2	73	.32	.023	13	45	.42	354	.25	4	1.59	.01	.09	3	6
4N 24+00E	6	72	17	117	.4	54	15	1740	3.28	13	5	ND	3	41	1.1	2	2	50	.80	.060	18	41	.53	567	.09	6	2.26	.02	.22	1	2
4N 25+00E	4	147	2	314	.7	162	19	4339	1.46	7	5	ND	1	133	17.6	2	4	5	2.71	.090	16	7	.33	703	.01	8	.42	.02	.09	1	2
3N 27+00W	26	125	14	191	2.4	56	10	495	2.11	18	5	ND	1	66	4.3	2	2	34	.88	.071	30	32	.61	479	.07	6	1.66	.02	.15	1	14
3N 26+00W	49	19	8	131	.1	13	3	166	1.24	11	5	ND	2	15	1.1	2	4	32	.20	.010	11	24	.48	139	.14	5	.84	.01	.14	8	4
3N 25+00W	67	255	23	405	2.2	71	10	526	2.41	42	5	ND	3	61	4.8	2	9	34	.92	.063	38	34	.71	380	.08	4	2.39	.02	.17	3	11
3N 24+00W	8	81	6	48	1.5	31	3	116	.91	7	5	ND	1	73	1.3	2	2	10	1.00	.108	21	20	.31	355	.02	4	.87	.02	.05	1	4
3N 23+00W	23	33	9	83	.2	24	6	203	2.44	29	5	ND	2	25	.9	2	7	42	.30	.028	15	38	.44	218	.08	5	.96	.01	.07	2	1
3N 22+00W	93	41	10	77	.9	31	7	253	2.12	81	5	ND	2	21	.8	2	2	32	.22	.037	12	32	.40	198	.05	3	1.12	.01	.08	2	6
3N 21+00W	159	54	8	92	.3	26	11	502	1.91	26	5	ND	1	22	1.2	3	2	31	.28	.044	11	23	.40	154	.04	5	1.04	.02	.07	1	4
3N 20+00W	203	52	15	69	.5	33	9	359	2.42	36	5	ND	2	43	.7	4	2	35	.72	.064	14	34	.49	405	.05	4	1.33	.01	.06	1	12
3N 19+00W	39	27	6	82	.1	16	4	188	1.67	24	5	ND	3	17	.8	2	5	36	.18	.012	13	23	.46	149	.09	6	1.27	.01	.09	1	10
3N 18+00W	48	29	10	76	.1	19	5	175	2.62	15	5	ND	3	14	.4	2	2	51	.13	.020	11	25	.34	160	.12	3	1.36	.01	.10	1	7
STANDARD C/AU-S	18	59	38	132	6.8	70	31	1055	3.98	40	17	7	37	53	18.9	15	22	55	.52	.096	37	55	.91	180	.07	38	1.89	.06	.14	12	47

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. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 18 1990 DATE REPORT MAILED: Sept 24/90 SIGNED BY C. Leong ... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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
3N 17+00W	40	13	9	50	.1	13	3	128	1.32	10	5	ND	2	12	.5	2	3	40	.13	.011	13	27	.58	190	.10	2	1.46	.01	.12	2	2
3N 16+00W	6	12	7	56	.1	18	6	193	1.84	9	5	ND	3	22	.7	3	3	38	.25	.015	11	24	.43	249	.11	4	1.05	.01	.12	1	2
3N 15+00W	6	19	12	84	.3	25	12	410	2.43	11	5	ND	4	25	.5	2	2	44	.30	.034	15	31	.52	273	.12	4	1.36	.01	.12	6	4
3N 14+00W	11	18	15	302	.5	30	16	614	3.52	14	5	ND	4	19	3.0	2	2	56	.20	.030	10	34	.38	215	.23	2	1.31	.02	.07	2	2
3N 13+00W	5	15	11	35	.5	23	4	116	1.47	17	5	ND	3	17	.4	3	2	25	.23	.024	11	27	.46	107	.06	2	.89	.01	.06	1	3
3N 12+00W	11	15	16	81	.4	22	13	417	2.81	8	5	ND	3	18	.8	2	2	59	.20	.027	10	28	.31	261	.17	2	1.11	.01	.09	4	1
3N 11+00W	7	16	9	60	.1	31	9	151	2.42	10	6	ND	6	18	.4	3	3	47	.18	.013	11	28	.39	161	.11	5	1.58	.01	.10	1	5
3N 10+00W	14	19	11	137	1.0	30	9	175	2.46	21	5	ND	4	17	1.2	5	2	53	.17	.022	9	31	.45	258	.16	2	1.24	.01	.10	9	1
3N 9+00W	12	59	11	106	.2	38	9	376	1.84	37	5	ND	2	25	.9	4	2	30	.43	.043	15	27	.47	299	.06	4	1.14	.02	.11	3	2
3N 8+00W	4	35	11	68	.1	32	6	193	1.71	13	5	ND	3	24	.2	2	2	29	.29	.040	16	29	.43	436	.06	2	1.05	.02	.15	3	1
3N 7+00W	8	15	15	183	.5	21	7	195	2.28	5	5	ND	2	30	3.2	2	2	49	.49	.026	10	24	.25	501	.20	3	.85	.01	.07	3	1
3N 6+00W	10	18	14	229	.6	20	11	403	3.81	12	5	ND	4	15	2.7	2	2	77	.18	.037	10	42	.45	312	.32	2	1.31	.01	.08	2	1
3N 5+00W	7	27	13	194	.3	25	8	222	2.76	20	5	ND	5	19	1.3	2	4	57	.10	.030	11	42	.56	277	.27	2	1.34	.01	.11	4	2
3N 4+00W	4	8	7	88	.2	13	8	183	1.75	4	5	ND	4	17	1.5	3	2	40	.19	.016	11	20	.23	163	.12	2	.75	.01	.06	1	2
3N 3+00W	5	20	9	85	.3	18	6	132	1.78	15	5	ND	3	25	1.2	2	4	40	.21	.016	9	25	.36	287	.11	2	.88	.01	.08	4	2
3N 2+00W	6	56	10	84	.1	43	9	370	2.41	25	5	ND	5	26	.3	2	2	43	.53	.020	18	40	.70	434	.09	2	1.57	.02	.15	3	1
3N 1+00W	8	14	8	66	.1	19	7	265	2.01	12	5	ND	3	25	.2	2	5	46	.31	.020	12	29	.62	286	.11	2	1.32	.02	.09	2	3
3N 0+00E	4	21	8	42	.1	19	5	203	1.60	10	5	ND	4	22	.2	2	2	35	.25	.009	13	27	.55	206	.08	2	1.11	.02	.10	4	20
2N 25+00W	2	35	9	53	.3	6	3	177	2.04	21	9	ND	3	67	.3	2	2	31	.05	.023	9	20	.61	640	.06	2	1.04	.01	.15	1	4
2N 24+00W	2	649	2	162	1.9	129	21	345	1.38	20	30	ND	1	104	3.6	3	2	20	3.14	.123	10	25	.42	1096	.03	4	1.17	.02	.03	1	4
2N 23+00W	7	110	11	171	.9	36	13	1026	1.14	21	5	ND	1	62	9.8	2	2	10	1.82	.107	6	7	.16	680	.02	2	.47	.02	.05	1	1
2N 22+00W	4	218	8	48	2.5	46	8	511	.98	37	11	ND	1	90	2.8	5	2	37	4.27	.127	11	21	.55	927	.02	5	1.02	.02	.03	2	2
2N 21+00W	15	58	14	101	.6	18	6	179	1.57	14	5	ND	1	29	1.2	2	2	49	.53	.030	9	54	.52	872	.19	2	1.00	.02	.04	2	2
2N 20+00W	6	31	16	227	.1	26	15	2249	2.37	10	5	ND	1	18	2.3	2	2	32	.50	.040	9	23	.48	319	.13	2	1.12	.01	.06	1	2
2N 19+00W	9	24	20	217	.1	39	15	446	4.03	21	5	ND	3	16	1.3	2	2	84	.45	.024	10	55	1.09	296	.33	6	2.21	.02	.07	8	1
2N 18+00W	2	85	11	149	.8	34	6	590	1.26	13	5	ND	1	29	5.2	3	3	17	1.65	.089	19	15	.33	291	.03	3	1.19	.03	.03	5	1
2N 17+00W	19	185	19	194	.7	68	17	483	3.66	31	5	ND	1	21	1.9	2	5	60	.20	.050	11	52	.75	370	.09	4	2.17	.01	.19	1	3
2N 16+00W	15	27	8	89	.1	30	7	285	2.47	16	5	ND	1	16	.9	2	2	54	.16	.023	10	44	.73	180	.15	3	1.59	.01	.18	1	2
2N 15+00W	41	60	21	134	.1	41	10	400	2.41	25	9	ND	2	21	1.6	2	6	43	.24	.029	13	38	.59	182	.11	2	1.35	.01	.14	4	3
2N 14+00W	31	68	13	53	.4	44	5	174	1.75	19	7	ND	1	24	.5	2	2	35	.30	.032	11	35	.41	233	.07	3	1.10	.01	.11	2	1
2N 13+00W	102	106	33	89	1.4	35	13	399	2.30	27	8	ND	1	11	.9	2	6	43	.10	.053	9	31	.52	309	.08	2	1.18	.01	.17	1	1
2N 12+00W	63	85	56	502	1.0	52	35	1735	4.99	17	5	ND	4	24	3.0	2	6	74	.33	.126	9	44	.31	217	.36	2	1.44	.01	.09	2	1
2N 11+00W	100	31	25	96	.8	13	5	344	2.20	224	5	ND	10	11	.2	2	5	27	.09	.025	9	18	.39	118	.04	2	1.60	.01	.10	3	3
2N 10+00W	182	46	55	180	.4	25	9	516	3.99	53	5	ND	4	16	1.3	2	43	60	.16	.063	11	35	.34	145	.19	2	1.28	.01	.08	3	9
2N 9+00W	45	20	12	45	.1	9	3	132	1.71	30	5	ND	3	4	.2	2	2	47	.03	.021	10	21	.38	82	.15	2	.66	.01	.22	3	6
2N 8+00W	65	157	19	99	1.1	22	6	189	1.97	8	6	ND	1	9	3.4	2	4	30	.06	.050	9	24	.16	112	.05	2	.82	.02	.05	2	1
STANDARD C/AU-S	19	61	38	132	6.8	70	31	1053	3.97	39	18	7	37	53	19.5	15	18	56	.52	.095	38	56	.90	181	.07	34	1.89	.06	.14	13	48

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
2N 7+00W	126	61	13	271	.5	16	6	439	2.71	18	5	ND	1	11	4.1	2	4	56	.09	.034	10	26	.78	157	.16	3	1.19	.02	.14	12	26
2N 6+00W	81	29	98	118	.8	13	3	225	3.10	25	5	ND	3	4	.6	2	2	68	.03	.022	8	48	1.08	134	.26	2	1.82	.01	.38	1	4
2N 5+00W	47	68	93	365	3.7	59	17	689	3.94	42	5	ND	3	11	8.1	2	12	55	.11	.078	10	36	.39	247	.30	2	1.51	.01	.16	3	4
2N 4+00W	4	12	12	175	.5	21	9	301	3.03	10	5	ND	5	19	1.9	2	2	58	.14	.024	12	32	.41	245	.21	3	1.49	.01	.10	1	145
2N 3+00W	11	46	23	29	.9	8	2	54	1.44	22	5	ND	1	12	.8	2	3	28	.08	.049	8	14	.07	172	.03	2	.58	.01	.05	2	9
2N 2+00W	4	29	10	85	.1	40	8	322	2.87	26	5	ND	5	24	.5	2	2	52	.26	.040	14	48	.69	241	.16	2	1.72	.01	.09	1	10
2N 1+00W	6	23	17	84	.8	29	8	272	3.34	38	5	ND	3	20	.3	2	2	54	.18	.045	12	41	.53	266	.17	2	1.63	.01	.11	1	6
2N 0+00W	7	73	9	128	.5	54	45	1432	2.33	21	5	ND	4	38	2.4	2	2	39	.53	.064	18	40	.60	305	.10	3	1.23	.02	.11	1	10
0+00N 2+00W	4	43	10	116	.3	36	11	917	2.24	23	5	ND	1	27	1.0	2	2	40	.28	.056	15	34	.50	361	.07	2	1.39	.01	.08	5	270
ON 100W	3	23	10	106	.3	28	8	387	2.69	25	5	ND	5	13	.8	2	2	49	.20	.059	14	40	.62	183	.13	2	1.42	.01	.10	2	30
ON 2+50W	4	29	11	163	.4	36	11	624	2.30	23	5	ND	2	39	1.9	2	2	43	.45	.041	12	36	.52	479	.11	3	1.30	.01	.11	3	9
ON 0+00E	4	20	17	157	.4	26	8	412	3.08	9	5	ND	5	14	.8	2	4	53	.15	.068	11	38	.56	232	.23	2	1.50	.01	.10	6	1
ON 1+00E	4	23	12	216	.5	30	10	645	3.39	32	5	ND	5	17	1.8	2	2	58	.18	.052	11	40	.53	311	.27	5	1.44	.01	.11	1	5
ON 2+00E	4	35	16	169	.9	41	15	533	4.75	40	5	ND	6	20	.7	2	2	81	.24	.061	13	52	.61	396	.35	2	2.37	.01	.17	1	7
ON 3+00E	4	30	12	62	.4	20	16	1823	1.94	9	5	ND	2	15	.6	2	2	36	.16	.026	15	28	.26	351	.11	2	1.44	.01	.06	1	4
ON 3+50E	10	246	21	137	4.1	73	23	995	2.39	43	9	ND	1	19	3.0	2	2	45	.17	.186	18	36	.32	397	.03	2	2.02	.01	.09	1	5
ON 5+00E	5	40	16	77	.3	26	9	555	2.19	26	5	ND	1	13	.4	2	2	41	.11	.053	14	35	.49	210	.10	2	1.61	.01	.08	2	4
ON 6+00E	8	41	13	64	.2	23	4	180	1.81	40	5	ND	4	11	.4	2	2	34	.09	.021	12	28	.43	157	.09	2	.98	.01	.12	3	6
ON 7+00E	4	23	19	297	.7	32	21	2489	3.47	18	5	ND	4	34	6.3	2	2	66	.36	.047	9	37	.41	593	.35	2	1.05	.01	.10	1	1
ON 8+00E	16	66	16	110	.1	35	8	375	2.05	50	5	ND	4	14	1.0	2	2	33	.12	.029	12	31	.49	270	.09	2	1.27	.01	.20	7	9
ON 9+00E	4	42	17	97	.2	34	10	674	2.54	41	5	ND	2	16	1.6	2	2	43	.16	.045	13	37	.52	215	.13	2	1.43	.01	.10	2	12
ON 10+00E	4	23	13	136	.3	27	8	477	3.23	34	5	ND	4	17	1.0	2	2	62	.17	.031	11	42	.64	209	.24	2	1.48	.01	.11	5	5
ON 11+00E	3	32	23	80	.8	27	7	281	2.72	50	5	ND	4	17	.5	2	2	49	.17	.021	12	38	.58	241	.15	2	1.58	.01	.09	3	7
ON 12+00E	4	40	16	63	.4	16	5	255	2.31	28	5	ND	3	11	.5	2	2	63	.11	.027	12	37	.30	173	.31	3	.99	.01	.09	2	5
ON 13+00E	3	32	14	115	.6	35	11	641	4.19	36	5	ND	4	21	.8	2	2	71	.28	.045	9	51	.57	293	.24	2	1.58	.01	.10	1	4
ON 14+00E	2	57	7	52	.7	17	4	65	1.06	4	5	ND	1	16	4.5	2	2	19	.14	.051	11	20	.07	176	.06	2	.62	.01	.04	2	7
ON 15+00E	2	34	9	80	.2	22	6	323	2.07	30	5	ND	3	14	.6	2	2	37	.17	.042	13	29	.55	144	.10	3	1.16	.01	.08	3	6
STANDARD C/AU-S	17	58	35	131	6.7	68	31	1046	3.96	40	18	7	38	53	18.2	15	18	55	.51	.088	36	56	.89	180	.09	33	1.89	.06	.14	12	48

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
A-1	22	20	15	72	.4	34	8	220	2.64	23	5	ND	4	12	1.1	2	2	49	.14	.017	9	40	.57	143	.14	2	1.43	.01	.16	3	11
A-2	18	57	18	73	.2	40	9	358	2.47	35	5	ND	6	20	.4	2	3	42	.30	.018	15	41	.72	264	.10	4	1.39	.02	.15	2	4
A-3	47	69	19	97	.3	57	13	366	2.55	53	5	ND	6	15	.8	2	3	47	.23	.030	13	36	.79	155	.09	3	1.42	.01	.16	9	7
A-4	252	149	31	150	.6	29	7	202	4.90	64	5	ND	5	28	.3	6	4	178	.02	.023	6	47	2.31	551	.16	2	3.31	.01	1.06	1	2
A-5	160	65	20	80	.3	17	5	146	2.27	43	5	ND	3	4	.8	2	3	37	.03	.016	7	24	.50	215	.11	3	.97	.01	.23	1	12
B-1	77	47	24	85	.2	22	7	267	2.27	42	5	ND	1	10	.3	2	2	44	.09	.027	10	30	.50	191	.11	3	1.35	.01	.15	3	2
B-2	101	39	20	95	.2	27	8	438	2.34	38	5	ND	2	15	.3	2	2	49	.15	.028	10	34	.66	247	.11	2	1.32	.01	.23	2	24
B-3	105	31	16	113	.4	17	8	431	2.73	58	6	ND	2	6	.2	2	3	53	.08	.025	7	31	1.14	341	.13	5	1.63	.01	.34	28	11
B-4	160	122	23	270	.4	39	10	562	3.19	152	5	ND	5	46	1.3	3	2	57	.30	.025	11	33	1.19	668	.09	5	2.35	.01	.48	3	47
C-1	87	64	13	62	.8	32	7	153	2.41	40	5	ND	3	7	.2	2	3	31	.07	.017	7	27	.40	191	.09	3	1.09	.01	.12	4	6
C-2	39	22	13	84	.2	25	6	290	2.32	14	5	ND	3	22	.8	2	2	45	.16	.022	10	32	.49	166	.09	4	1.26	.01	.11	2	14
C-3	29	26	13	113	.1	35	7	322	2.77	37	5	ND	5	19	.5	2	2	46	.15	.028	10	38	.69	190	.11	2	1.83	.01	.22	1	6
C-4	76	53	18	144	.5	69	11	383	3.43	43	5	ND	6	16	1.0	2	28	52	.15	.017	12	59	.79	213	.16	3	2.05	.01	.20	9	67
D-1	7	158	33	170	.5	46	12	389	3.27	115	5	ND	1	21	1.5	2	2	43	.15	.059	12	40	.67	242	.08	2	1.96	.02	.13	8	7
D-2	4	98	15	104	.3	24	9	349	2.89	33	5	ND	1	14	1.3	2	2	49	.11	.068	10	42	.37	185	.10	3	1.53	.01	.10	4	4
D-3	16	204	41	183	.5	63	13	323	3.68	108	5	ND	4	24	1.5	2	4	53	.21	.042	13	52	.83	251	.13	2	2.22	.01	.15	9	21
D-4	4	34	9	105	.2	32	11	551	3.04	27	5	ND	2	15	.9	2	2	53	.17	.038	12	43	.58	157	.13	4	1.57	.01	.11	2	3
D-5	11	196	25	236	1.1	54	14	553	3.44	111	5	ND	4	17	1.2	2	7	58	.13	.040	13	46	.87	290	.13	5	2.52	.01	.22	13	15
D-6	5	58	20	167	.2	32	11	488	3.01	70	5	ND	3	20	.7	2	2	48	.13	.035	13	37	.64	188	.13	5	1.55	.01	.18	5	7
D-7	3	30	12	78	.1	20	7	339	2.09	18	5	ND	1	12	1.2	2	2	36	.15	.050	8	32	.39	101	.08	4	1.13	.01	.07	2	4
D-8	5	53	16	146	.3	45	11	442	2.86	28	5	ND	2	21	1.2	2	2	49	.26	.060	12	48	.75	202	.11	3	1.82	.01	.13	4	7
STANDARD C/AU-S	19	58	36	131	6.8	72	31	1053	3.97	41	21	7	37	53	19.3	15	19	56	.52	.097	37	56	.90	181	.07	39	1.89	.06	.14	13	53

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Daiwan Engineering Ltd. PROJECT ASPEN File # 90-4524

1030 - 609 Granville St., Vancouver BC V7Y 1G5

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
B 97151	22	309	11	475	2.3	40	15	7198	4.50	479	5	ND	3	9	2.9	81	2	19	.20	.081	4	11	.27	2710	.01	6	.55	.01	.11	28	11
B 97152	66	17	88	9	3.5	7	1	60	1.16	19	5	ND	1	12	.2	2	79	4	1.62	.007	3	19	.08	191	.01	3	.18	.06	.12	222	30
B 97153	54	10	67	15	1.7	5	1	60	.68	5	5	ND	1	6	.2	5	61	1	.67	.007	2	4	.01	40	.01	6	.09	.04	.06	4	12
B 97154	668	16	3	67	.1	15	4	691	2.64	7	5	ND	5	5	.6	2	2	22	.48	.018	11	22	.59	262	.08	6	.98	.04	.71	1	5
B 97155	4	6	2	18	.1	1769	75	563	4.81	4	5	ND	1	1	.2	2	2	14	.04	.005	2	573	19.26	21	.01	24	.54	.01	.34	1	10
B 97156	160	6	48	1	1.9	13	1	37	.50	3	5	ND	1	1	.2	3	147	1	.12	.001	2	8	.01	8	.01	3	.02	.01	.01	8	124
B 97157	3372	282	146	91	8.8	50	13	1375	6.02	8	5	ND	3	14	1.4	5	237	25	.48	.009	4	48	.91	52	.13	2	1.20	.06	.95	4	801
B 97158	140	9	15	11	.4	9	1	171	.74	82	7	ND	4	15	.4	2	11	5	.26	.006	2	10	.11	40	.01	2	.23	.01	.12	2	41
B 97159	43	157	24	226	1.1	41	7	578	1.51	28	5	ND	12	28	4.1	5	14	12	.98	.023	31	55	.59	140	.01	3	.63	.03	.27	696	5
B 97160	91	33	14	33	.3	18	4	459	1.51	14	5	ND	2	16	.2	2	2	13	.34	.011	5	12	.37	68	.02	3	.45	.01	.22	5	27
B 97161	22	9	5	1	.1	13	1	47	.42	8	5	ND	1	1	.2	2	13	1	.05	.007	2	9	.01	7	.01	2	.04	.01	.02	1	16
B 97162	107	47	12	67	.4	21	4	248	2.03	20	8	ND	3	5	.4	2	4	49	.16	.075	6	27	.36	205	.05	4	.75	.01	.44	4	19
B 97163	569	29	22	78	.3	11	2	375	1.41	10	8	ND	11	13	.8	2	78	9	.31	.011	8	9	.24	95	.02	2	.52	.02	.27	2	25
B 97164	130	48	15	109	.8	26	7	627	2.70	51	5	ND	3	4	2.0	2	7	30	.04	.023	9	39	.44	249	.07	2	.84	.01	.43	1	23
B 97165	5	6	2	4	.1	15	1	32	.52	15	5	ND	1	4	.2	2	2	1	.01	.001	2	14	.01	1518	.01	2	.10	.01	.02	1	5
STANDARD C/AU-R	18	58	40	131	7.2	72	31	1057	3.99	39	17	7	37	53	18.5	15	20	56	.52	.096	37	60	.90	180	.07	36	1.90	.06	.14	11	505

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. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU** ANALYSIS BY FA\ICP FROM 20 GM SAMPLE.

DATE RECEIVED: SEP 18 1990 DATE REPORT MAILED: Sept 24/90 SIGNED BY C. Leong ...D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS