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Cascadia International Resources Inc.

1998 DRILLING PROGRAM ON THE FAWN 1-7 CLAIMS

Located on the Nechako Plateau
Omineca Mining Division
NTS 93F/3E
53° 12' North Latitude
125° 08' West Longitude

-prepared for-

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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

December, 1998

25,773

1998 DRILLING PROGRAM ON THE FAWN 1-7 CLAIMS

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1.0 INTRODUCTION

The Fawn property is located on the Nechako Plateau, approximately 120 kilometres southwest of Vanderhoof in central British Columbia. It is underlain by felsic and andesitic Hazelton Group volcano-sedimentary rocks cut by the Late Cretaceous Capoose Lake Batholith and by feeder dykes to the Eocene Ootsa Lake Group felsic to andesitic volcanics. BP Minerals Ltd. carried out geological mapping, soil sampling and backhoe trenching on the property from 1981 to 1984, defining coincident zinc-silver-lead soil anomalies over an area of 3000 metres by 700 metres. It was restaked as the Fawn property and Western Keltic Mines Inc. conducted mapping, prospecting, soil sampling, geophysical surveys and 617 metres of diamond drilling from 1991 through 1994. Four open-ended, subparallel VLF-EM conductors, with a total strike length of 6,400 metres, were defined within the soil geochemical anomaly. Drilling on one of these, the Giver Zone, showed it to correspond to epithermal chalcedony stockwork/breccia within a 18-32 metre wide zone sericite-clay alteration; the best intersection assayed 2.0 g/t Au across 8.1 metres.

A 620 metre diamond drilling program was carried out in March and April of 1997, to intersect the Giver Zone conductor along strike from the 1994 drilling and to test one of its splays which had yielded auriferous subcrop mineralization. The best intersection on the Giver Zone was from hole FWN97-06 which intersected 1.08 g/t Au across 10.2 metres. The Giver Zone splay was tested and determined to be a narrow zone that did not warrant further work. Limited mapping and soil sampling were carried out in conjunction with the drillsite reclamation.

The Malaput showing, first reported on in 1994 (Diakow and Webster, 1994) was soil sampled and mapped by Western Keltic Mines Inc. in 1994. Results indicated geochemically anomalous gold, lead, arsenic and zinc values from soil and rocks overlying the zone of silica, sericite and ankerite alteration with drusy quartz veinlets. A 744.0 metre diamond drilling program was carried out in August of 1998 to test the Malaput Showing. Equity Engineering Ltd. conducted this drill program for Cascadia International Resources Inc. and has been retained to report on the fieldwork.

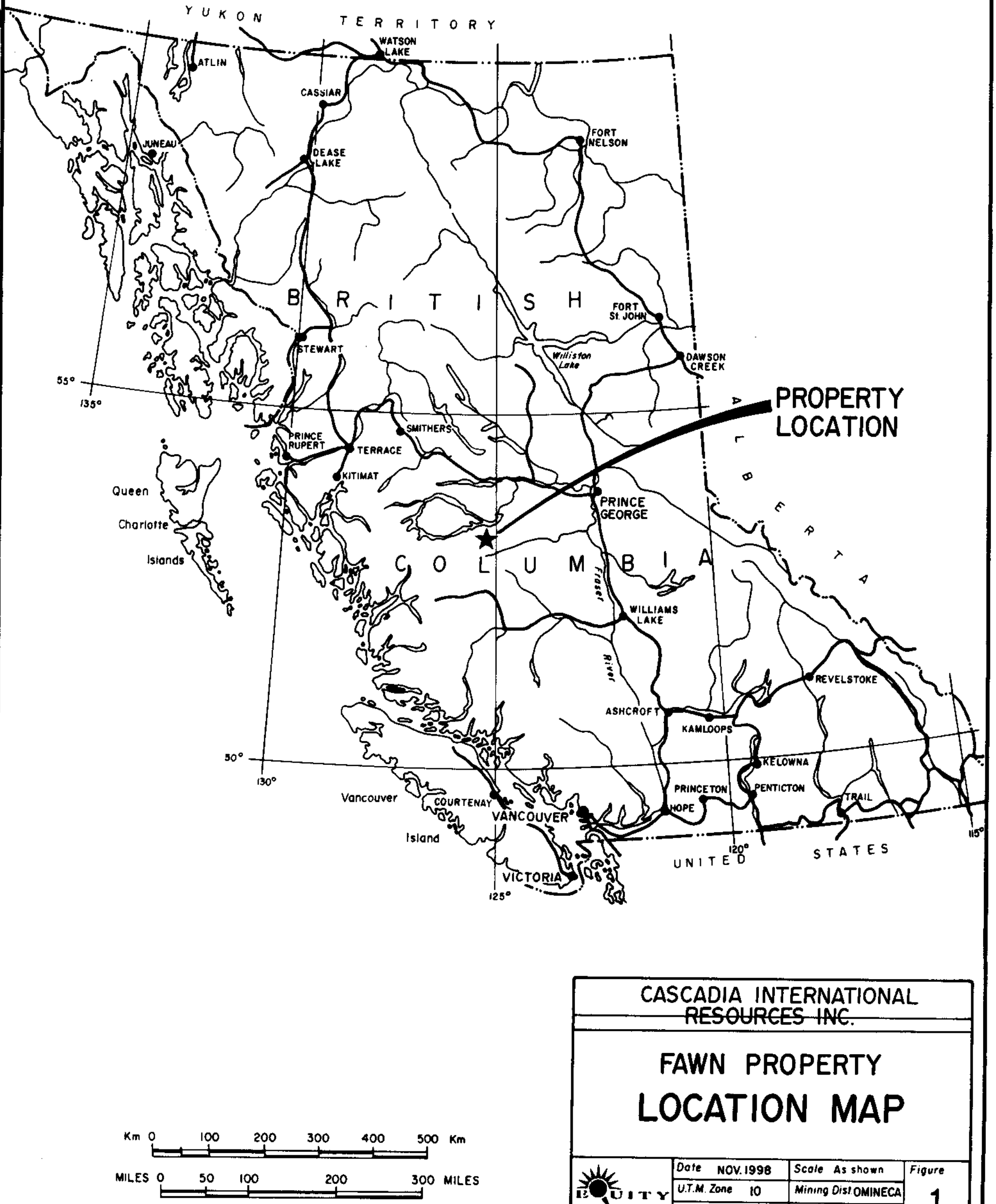
2.0 LIST OF CLAIMS

The Fawn property comprises seven contiguous claims totalling 140 claim units (3,500 hectares), located in the Omineca Mining Division (Figure 2). Records of the British Columbia Energy and Minerals Division indicate that the Fawn 1-7 claims are owned by Western Keltic Mines Inc.. Separate documents indicate that Cascadia International Resources Inc. has an option to earn an interest in them. Claim data for the Fawn property is summarized in Table 2.0.1.

Table 2.0.1
CLAIM DATA

Claim Name	Mineral Tenure No.	No. of Units	Record Date	Expiry Year
Fawn 1	243221	20	March 15, 1991	2008*
Fawn 2	301430	20	June 26, 1991	2008*
Fawn 3	301431	20	June 26, 1991	2008*
Fawn 4	301432	20	June 26, 1991	2008*
Fawn 5	305450	20	October 13, 1991	2007
Fawn 6	322193	20	October 28, 1993	2007
Fawn 7	323869	20	February 26, 1994	2008*
		140		

* Subject to approval of assessment work covered by this report.

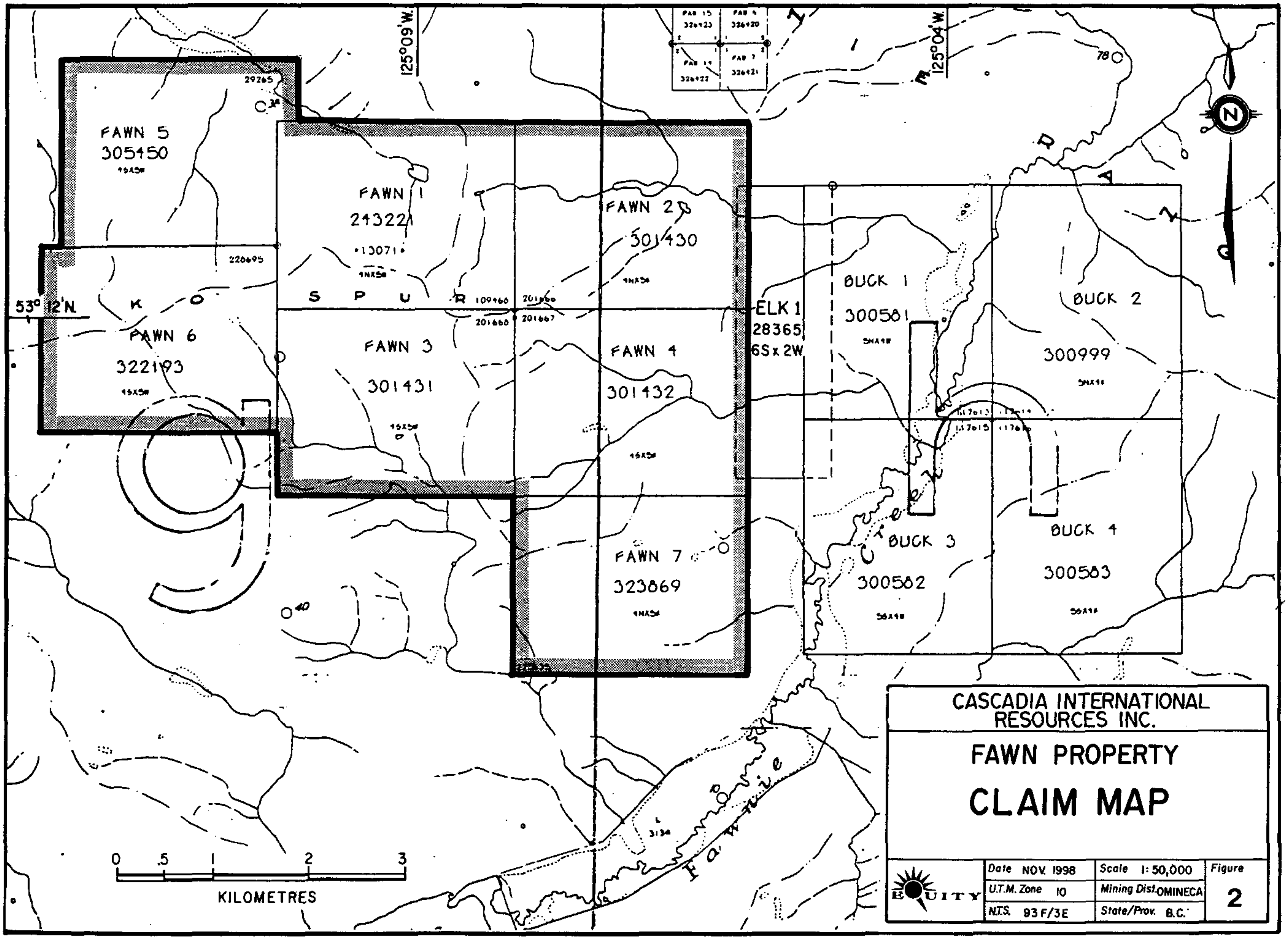


CASCADIA INTERNATIONAL RESOURCES INC.

FAWN PROPERTY

LOCATION MAP

Date NOV. 1998	Scale As shown	Figure
U.T.M. Zone 10	Mining Dist OMINECA	1
NTS 93F/3E	State/Prov B C	



CASCADIA INTERNATIONAL RESOURCES INC.

FAWN PROPERTY

CLAIM MAP

EQUITY

Date NOV. 1998	Scale 1: 50,000	Figure
U.T.M. Zone 10	Mining Dist. OMINECA	2
N.T.S. 93 F/3E	State/Prov. B.C.	

3.0 LOCATION, ACCESS AND GEOGRAPHY

The Fawn property is situated on the Nechako Plateau of central British Columbia, approximately 120 kilometres southwest of Vanderhoof and 180 kilometres west of Quesnel (Figure 1). The claims are located within the Omineca Mining Division, centred at 53° 12' north latitude and 125° 08' west longitude.

The property is accessed by a major logging road, the Kluskus-Malaput Forest Road, which reaches the north side of the property 146 kilometres south of the Plateau Forest Products mill at Engen on Highway 16. The Kluskus-Malaput road angles through the southeastern corner of the property, while a major branch, the Van Tine Forest Road, provides good access through its northern part. The M-4000 Forest Road, another major branch, leaves the Kluskus-Malaput south of the property and angles northwesterly through the southwestern corner of the Fawn 6 claim. Spur roads provide four-wheel drive access throughout each of several recent clear-cuts on the property. The Capoose access road, on the north side of Van Tine Creek, is also accessible by four-wheel drive vehicle but has not been maintained for several years.

The claims cover the eastern portion of Entiako Spur, a range of rolling hills lying south of Van Tine Creek within the Nechako Plateau. Upland surfaces are generally well drained with few lakes or marshes. Lower creek valleys are broad and swampy. Topography is moderate, with elevations ranging from 1,100 metres in the Fawnie Creek valley to 1,739 metres at the highest point of Entiako Spur. Outcrop exposure is fairly good along the ridge top, but is increasingly masked by glacial till at lower elevations. Overall, the property would average less than 5% outcrop. Road cuts along the Van Tine Road expose up to 30 metres of glacial till. Glacial striae trend 060° on the Fawn 2 claim, and Tipper (1963) provides strong evidence regionally for a southwestern ice source.

The property is largely covered by spruce and lodgepole pine with a light undergrowth of huckleberry and alder. Recent clear-cuts at lower elevations on most of the claims have made the sparse outcrops easier to find and examine. The Fawn property is subject to a continental climatic regime, with warm summers and cold winters. Snowfall is moderate with an accumulation of one to two metres during the winter.

4.0 REGIONAL AND PROPERTY EXPLORATION HISTORY

4.1 Previous Work

The area around the Fawn property received little exploration until the late 1960's, when Rio Tinto Canadian Exploration Ltd. carried out stream and lake sediment sampling surveys throughout the Nechako Plateau, searching primarily for copper-molybdenum porphyry deposits (Hoffman, 1976). Follow-up work on one of their anomalies by Rio Canex (1969-71) and Granges Exploration Ltd./Cominco Ltd. (1976-present) led to the discovery in 1979 of the Capoose silver-lead-zinc deposit approximately seven kilometres north of the Fawn property. Reserves at Capoose have been estimated at 28 million tonnes grading 36 g/tonne silver and 0.9 g/tonne gold (Green and Diakow, 1993).

Following the recognition of a major silver resource at Capoose, BP Minerals Limited staked several other nearby high-priority silver-lead-zinc lake sediment anomalies from Rio Canex's data. Their Gran and Laid claims were staked in 1981 to cover the drainages surrounding Square Lake, a small lake at the head of Van Tine Creek near the northern boundary of the present Fawn 1 claim. Square Lake was extremely anomalous in lead, exceeding the values for the lakes which marked the Capoose deposit (Hoffman, 1976).

In 1982, BP Minerals carried out geological mapping over the area now covered by the Fawn property and laid out a compass and hipchain geochemical grid which used three different numbering systems. An east-west baseline was blazed and numbered from 0+00W to 28+00W, just north of the present Fawn 2 southern boundary. Cross-lines were run to the south from this baseline, with station numbering up to 24+00S. A second baseline was blazed to the north from station 28+00W on the first baseline, which was re-labelled 0+00N 0+00W. Cross-lines were run to the east and west from this second baseline (and labelled accordingly), which extended north to 18+00N. A western tie line was blazed north-south 2,600 metres to the west of the second baseline, near the western boundary of the current Fawn 1 and 3 claims. This was used to tie in lines 0+00N to 14+00N, which were run west from the second baseline. Lines were also run and numbered east (Lines 14+00N to 20+00N) and west from the western tie line (and labelled east or west relative to the western tie line). A total of 1,152 soil and stream sediment samples were taken in 1982 and a further 1,517 in 1983 from ground currently covered by the Fawn property (Hoffman and Smith, 1982; Smith and Hoffman, 1983 and 1984). Samples were taken initially at 100 metre intervals on lines spaced 100 metres apart, with later infilling to 50 metre intervals in anomalous areas. The soil geochemistry delineated a northwesterly trend of coincident lead-zinc-silver anomalies measuring approximately 3,000 metres by 700 metres, centred on the Fawn 1 claim.

In 1983, limited trenching and a series of 40 backhoe test pits were excavated at 25 metre intervals near the eastern end of the lead-zinc-silver soil anomaly, exposing three or four "rhyodacite lapilli tuff" units with up to 94.5 ppm silver and 880 ppb gold (Smith and Hoffman, 1984). The following year, another grid was established for mapping purposes over the Fawn 1 soil anomaly. A 3,000 metre baseline oriented at 310° was cut and numbered from 0+00N to 30+00N. Cross-lines were run at 035° from the baseline at 200 metre intervals. Further backhoe trenching was carried out in the area of the 1983 trenching and near the western end of the soil anomaly, without encouraging results (Smith, 1985). BP Minerals allowed their claims to lapse in 1988.

The Fawn 1-4 claims were staked in 1991 over BP Minerals' soil geochemical anomaly. In September and October of that year, Western Keltic Mines Inc. carried out geological mapping, soil and rock geochemistry and geophysical surveying, taking 239 rock, 144 soil and 41 deep overburden samples. The 1984 cut baseline was re-established and extended at 130° for 2,425 metres to the southeast. Cross-lines were run towards 040° at 100 metre intervals from 4+00N to 30+00N and at 200 metre intervals from 4+00N to 24+00S, with stations marked every 25 metres. Cross-lines, 500 metres in length, were run at a bearing of 220° from 5+00N to 27+00N at 100 metre intervals. Five widely-spaced lines were extended further to the southwest, in an area to the south of pre-existing coverage and soil samples were taken along them at 50 metre intervals. The BP Minerals soil anomalies were relocated relative to the new grid and verified by 41 soil samples taken from their most anomalous sample locations. Magnetometer and VLF-EM surveys were carried out over 31 line-kilometres of the grid between 2+00S and 30+00N. Deep overburden sampling and MaxMin EM were tested over the Giver Zone, a mineralized VLF-EM conductor (Awmack, 1991).

Four subparallel, easterly-trending VLF-EM conductors were defined along strike lengths of 700 to 2200 metres by the 1991 program, with each remaining open along strike in at least one direction. Each of the four VLF conductors is accompanied by silver+zinc+lead±arsenic soil geochemistry. Eocene(?) epithermal chalcedony-sulphide breccia was found in subcrop and float along one of the VLF conductors, with assays up to 12.9 g/tonne Au and 637 g/tonne silver in separate samples from the "Giver Zone" and one of its splays, the "Giver Splay" (Awmack, 1991). The Fawn 5 and 6 claims were subsequently staked to cover the projected westward extension of these VLF structures.

Western Keltic performed a 20.7 line-kilometre induced polarization survey on lines spaced 200 metres apart from 3+00N to 29+00N in October and November, 1993. This showed low resistivity and weak chargeability along the Giver VLF-EM structure and outlined a strong chargeability anomaly at the eastern end of the survey. Moderate chargeability and low resistivity anomalies were indicated near the northwestern end of the grid, in an area of strong soil geochemistry and two VLF-EM structures (Ballantyne, 1993).

During the course of regional mapping in 1993, the BC Geological Survey discovered the Malaput Showing, a zone of silicification and sericitization located four kilometres southeast of the Giver Zone (Diakow and Webster, 1994). The Fawn 7 claim was subsequently staked over the Malaput Showing.

The BC Geological Survey undertook regional lake sediment (Cook and Jackaman, 1994) and basal till (Levson et al, 1994) sampling programs throughout portions of the 93F map sheet in 1993, taking three lake sediment samples and 18 till samples from the Fawn property. The lake sediment sample from Square Lake returned the highest lead, zinc and cobalt values for all 237 samples taken from the region, along with anomalous antimony, arsenic and gold. Six of the till samples exceeded the survey's 95th percentile for gold, lead, arsenic or antimony. Four of these anomalous till samples, including the sample with the survey's second highest gold value, were taken from the northeastern portion of the Fawn 7 claim, an area which has received no exploration. In 1994 Diakow and Webster reported on a new prospect, the Malaput occurrence, located on the Fawn 7 claim. The occurrence is located in a logging clear-cut of low topographic relief with very little outcrop. The occurrence is comprised of a series of outcrop and sub-outcrop of intensely silica and sericite alteration crosscut by thin quartz stringers. During Western Keltic's 1994 program, 55 soil samples were taken from a small grid over the Malaput Showing, returning up to 255 ppb Au, 336 ppm As, 226 ppm Pb and 1360 ppm Zn. Mapping showed it to be an easterly-trending, 25-30 metre wide zone of silicification which can be traced along strike for at least 300 metres (Baknes and Awmack, 1994a).

In 1994, Western Keltic drilled 617 metres in six diamond drill holes on geophysical and geochemical targets on the Fawn 1 and Fawn 5 claims. Three of these were drilled across the V2 conductor (Giver Zone) showing it to be a steeply-dipping 18-32 metre wide zone of sericite-clay-pyrite alteration hosting epithermal chalcedony stockworks and breccias. The best intersections were 8.1 metres of 2.0 g/tonne Au in hole FWN94-02 and 4.4 metres of 1.5 g/tonne Au and 63.8 g/tonne Ag in hole FWN94-03.

Cascadia International Ventures Inc. conducted a drill program consisting of 620.0 metres in 7 drill holes on the Giver Zone and Giver Zone splay during March and April of 1997. Best result from the program was 10.2 metres of 1.08 g/t Au and 23.3 ppm Ag in hole FWN97-06. A small soil geochemistry survey as well as limited mapping and grid extension was carried out during the reclamation program in September 1997 (Awmack and Lehtinen, 1997).

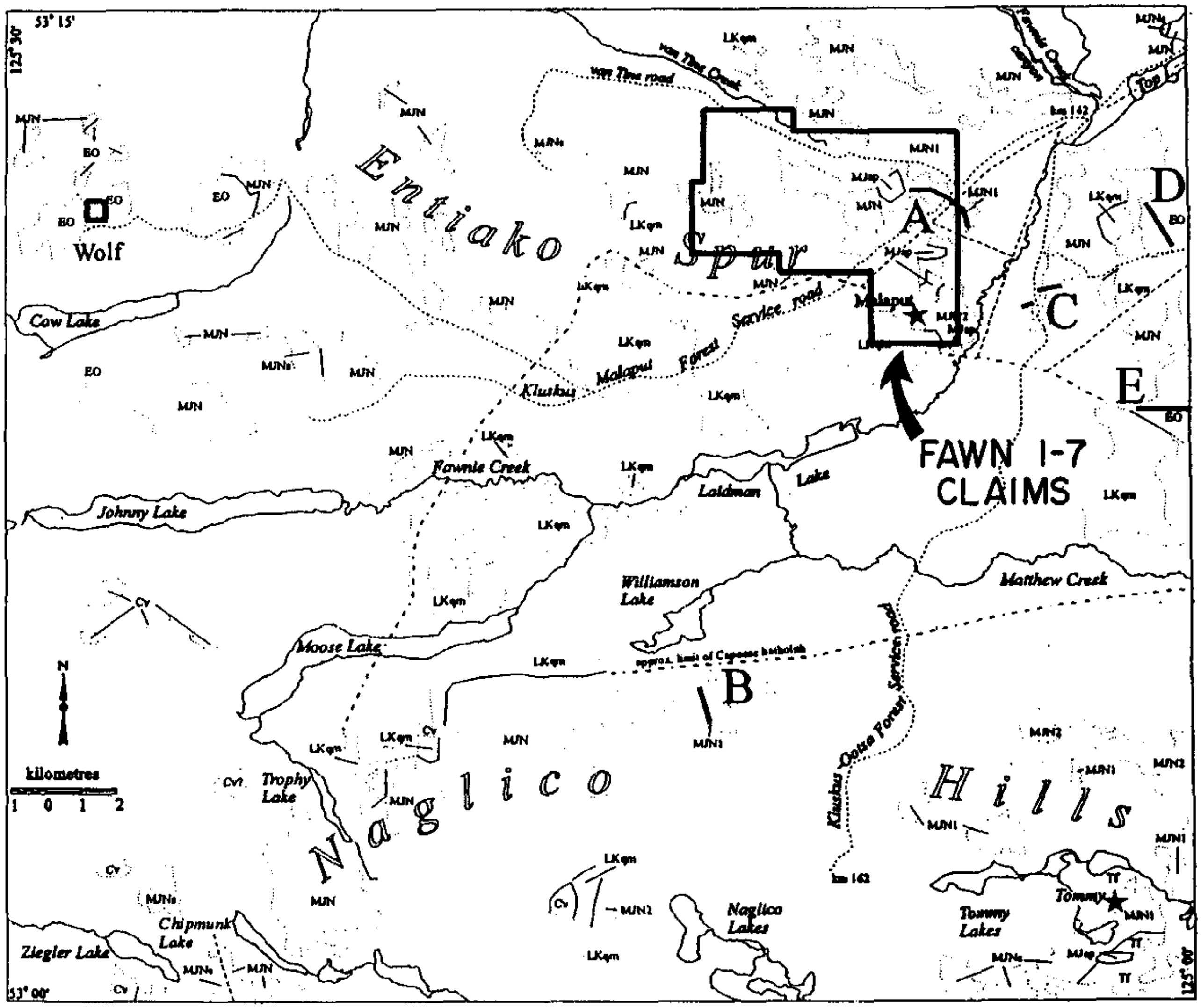
4.2 1998 Diamond Drilling Program

During August of 1998, **Cascadia International Resources Inc.** carried out a third diamond drill program on the Fawn property, targeted at the Malaput Showing on the Fawn 7 claim. Seven holes, totalling 744.0 metres (2441') of BTW core, were drilled by Falcon Drilling Ltd. of Prince George, using their F-1000 drill. Water was supplied to the drill by Gallant Trucking Ltd. of Kamloops, B.C.. Core was logged and split mechanically for geochemical analysis at a facility located on the adjoining Buck property and then stored on the Fawn Property at a storage facility located on the south-west side of the Van-Tine logging road at kilometer 3. Drill sites and access roads were constructed with a D5 cat accessed from the existing haul road and landing. A total of 177 core samples were analyzed geochemically for gold and by ICP for 28 elements by Eco-Tech Laboratories in Kamloops. Appendix D contains analytical certificates while drill logs are attached in Appendix C.

Reclamation of all drill sites and drill roads was carried out in September 1998 immediately following the drill program.

5.0 REGIONAL GEOLOGY

The British Columbia Geological Survey carried out 1:50,000 scale regional mapping over map-



SYMBOLS

Geological contact........................ 〰

Fault.. - - -

Potential epithermal prospect......... ★

Geological section........................ ▬

Outcrop limit................................ ⋯

LEGEND

STRATIFIED ROCKS

MIOCENE TO PLIOCENE

Chilcotin Group

Cv	Olivine basalt

EOCENE

Ootsa Lake Group

EO	Rhyolite and andesite flows, quartz-bearing lapilli tuffs, tuffaceous siltstone

MIDDLE JURASSIC

Hazelton Group (Naglico Formation)

MJNs	Fine to coarse-grained, fossiliferous volcaniclastics
MJN2	Basalt and andesite flows and lapilli tuffs
MJN1	Rhyolite flows, ash-flow tuffs and lapilli tuffs

INTRUSIVE ROCKS

TERTIARY

Tf	Felsite sills

LATE CRETACEOUS

Capoose Lake Batholith

LKqm	Equigranular quartz monzonite, with lesser quartz diorite and quartz porphyry

MIDDLE JURASSIC

MJap	Mafic augite-plagioclase porphyry plugs

Geology modified from Diakow and Webster (1994).

0 5 10
KILOMETRES

CASCADIA INTERNATIONAL
RESOURCES INC.

FAWN PROPERTY

REGIONAL GEOLOGY

EQUITY	Date NOV. 1998	Scale 1:200,000	Figure
	U.T.M. Zone 10	Mining Dist. OMINECA	3
	N.T.S. 93 F/3E	State/Prov. B.C.	

sheet 93F/6 in 1992 (Green and Diakow, 1993; Diakow and Green, 1993). In 1993, this mapping was extended to the south over map-sheet 93F/3, which covers the Fawn property (Diakow and Webster, 1994; Diakow et al, 1994). Their mapping shows Jurassic Hazelton Group volcanics and sediments intruded by the Late Cretaceous Capoose Lake batholith and unconformably overlain by Eocene Ootsa Lake Group subaerial volcanics and younger plateau basalts (Figure 3).

The Early to Middle Jurassic Hazelton Group rocks in the vicinity of the Fawn property have been assigned by Diakow and Webster (1994) to their informal Naglico Formation of silica-bimodal volcanic rocks and Bajocian intravolcanic sediments which are gradationally overlain by Callovian marine sediments. The lower division of this formation consists of "crudely layered fragmental and lesser flow rocks of rhyolitic composition, and local maroon and green andesitic tuffs deposited in a subaerial environment" (**Unit MJN1**). The upper division is dominated by mafic and intermediate lavas (**Unit MJN2**), interpreted by Diakow and Webster (1994, p. 19) to be deposited in a shallow marine environment with local subaerial conditions. Green and Diakow (1993) report that a section of the upper division exceeds 1,000 metres in thickness on Tutiai Mountain, 14 kilometres north of the Fawn property. Augite porphyry plugs (**Unit MJap**) mapped on the Fawn claims are thought to be cogenetic with upper division Naglico Formation augite-phyric volcanics.

Wide-spread, irregularly-distributed, marine sedimentary rocks (**Unit MJNs**) are intercalated with Naglico Formation volcanics, interpreted as basins between coalescing volcanic centres. The marine sediments become dominant in the stratigraphically highest Middle Jurassic exposures. Main lithologies include feldspathic sandstone and siltstone, tuffaceous argillite, locally prominent volcanic conglomerate and scarce limestone. Fossils are common in the sedimentary rocks, with most of indeterminate or probable Middle Jurassic age and at least one early Bajocian collection (Diakow and Webster, 1994).

The Jurassic stratigraphy was intruded by the Late Cretaceous Capoose Lake Batholith (**Unit LKqm**), a 250 km^2 pluton which extends southwesterly for at least 20 kilometres from the Fawn property. The Hazelton volcanics of the southwestern portion of the Fawn property are thought to be underlain by the Capoose Lake Batholith at a fairly shallow depth. Its main phase consists of light coloured, medium- to coarse-grained, equigranular quartz monzonite, although its composition is locally granodioritic and a dioritic phase cuts northerly through the Fawn 2, 4 and 7 claims. Andrew (1988) reports a biotite K-Ar date of 64.3±2.4 Ma for the batholith. Miarolytic quartz porphyry dykes and plugs cut Hazelton Group sediments on the Buck property, immediately east of the Fawn claims. These were interpreted by Diakow and Webster (1994) to be subvolcanic apophyses projecting from the Capoose Lake Batholith.

Flat-lying to moderately dipping, subaerial volcanics of the Ootsa Lake Group (**Unit EO**) unconformably overlie older Mesozoic rocks. Potassium-argon dating of Ootsa Lake rocks at the Wolf prospect gave an age of 48±2 million years (mid-Eocene). The Ootsa Lake volcanics consist of calc-alkaline andesite to rhyolite. North of the Natalkuz Fault, a northeasterly trending fault which passes twenty kilometres northwest of the Fawn claims, Ootsa Lake volcanics cover an extensive area, with a 750 metre stratigraphic section. South of the fault, the Ootsa Lake Group forms thin isolated cappings on older rocks.

Miocene plateau basalts of the Chilcotin Group (**Unit Cv**) unconformably overlie all other units.

Low grade regional metamorphism and weak deformation are pervasive on the Nechako Plateau. Contact metamorphism is pronounced around intrusives. Tipper (1959) observed that the overall lack of structural features may, in part, be attributed to the abundance of often structureless volcanics in the area. The Hazelton volcanics appear more strongly deformed in comparison to other rock types, with dips of up to 70°. At the Capoose deposit, eight kilometres north of the Fawn property, bedding dips moderately (20-40°) to the southwest, with a synclinal fold axis plunging at 10° to the southeast (Andrew and Godwin, 1987). The Ootsa Lake Group volcanics were deposited in a period of extensional tectonism. Another period of deformation during the Oligocene produced broad open folds in the Ootsa Lake Group volcanics and sediments. The relatively undeformed Chilcotin Group consists of generally flat-lying to gently easterly dipping plateau lavas (Tipper, 1963).

Several styles and ages of mineralization have been documented in the vicinity of the Fawn property (Figure 3). Teck Corp.'s Tommy epithermal gold-silver prospect, 17 kilometres south of the Fawn claims, consists of several north to northeast trending veins and silicified stockwork zones hosted by Naglico Formation quartz-phyric felsic crystal lithic and ash tuffs. The veins consist of milky quartz, chalcedony, sparry calcite, ankerite and adularia, with typical epithermal textures such as druse, colloform banding, cockscomb structures and multiple brecciation/veining episodes. Only trace amounts of sulphides, mainly pyrite, chalcopyrite, sphalerite and galena, are present. The Tommy Vein, which has received the most exploration, hosts a geological resource of 478,000 tonnes grading 8.7 g/tonne Au and 82.3 g/tonne Ag across an average width of four metres (J. Pautler, pers. comm., 1997).

The Wolf epithermal gold-silver prospect, located twenty kilometres west of the Fawn property, is hosted by Eocene Ootsa Lake Group rhyolitic flows, tuffs and subvolcanic intrusives. Repeated low-sulphide silicification, brecciation and stockwork veining have been accompanied by up to 8.49 g/tonne gold and 42.2 g/tonne silver across 7.5 metres in trenching (Cann, 1984). It has been suggested that the Wolf deposit may have been related to maar (Andrew et al, 1986), collapse caldera (Andrew, 1988) or hot-spring (Andrew, 1988) paleo-environments.

The Capoose silver deposit, located eight kilometres north of the Fawn property, is hosted by Naglico Formation mafic flows, rhyolite tuff, argillite and lithic wacke intruded by Late Cretaceous quartz-garnet rhyolite sills related to the Capoose Lake Batholith. Mineralization consists of pyrite, sphalerite, galena, chalcopyrite and arsenopyrite in disseminations, fracture-fillings and replacing garnets, and is thought to be Late Cretaceous in age (Andrew, 1988). The Capoose deposit contains 28 million tonnes grading 36 g/tonne silver and 0.9 g/tonne gold (Green and Diakow, 1993). The Capoose Lake Batholith itself has been explored for porphyry-style copper-molybdenum mineralization a few kilometres west of the Capoose deposit.

Immediately east of the Fawn property, the Buck 1-4 claims cover a 3,000 metre long zinc-arsenic-lead soil geochemical anomaly overlying Naglico Formation rocks. Proximal (vent facies) felsic volcanics change laterally to distal felsic volcaniclastics and epiclastics along with marine sedimentary and intermediate volcanic lithologies. Stratabound sphalerite-pyrrhotite mineralization, grading up to 4.69% zinc, is present in felsic ash tuffs. The Christmas Cake Showing, with a 45 centimetre chip sample grading 7.38% Zn, 2.25% Pb and 542 g/tonne Au, consists of coarse sphalerite, iron carbonate, galena, minor chalcopyrite and sugary quartz forming a matrix which supports fragments composed entirely of very fine-grained pyrite and by variably altered, angular, felsic lithic clasts (Baknes and Awmack, 1994). A northeast-trending VLF-EM conductor corresponds to a recessive zone of clay alteration with quartz-calcite veining, accompanied by 2-10% pyrite and lesser arsenopyrite and sphalerite. Although this zone returned only low gold and silver values, its similarities to the Fawn's Giver Zone suggest a genetic link (Caulfield, 1996).

Fifteen kilometres east of the Fawn property, the PEM prospect is underlain by Naglico Formation felsic to intermediate tuffs, lapilli tuffs, breccias and flows, intercalated with argillite, siltstone and sandstone. Disseminated and shear-hosted mineralization occurs in a steeply-dipping, structurally-controlled zone of phyllic and argillic alteration at least 900 metres long, with introduction of 3-4% sphalerite and 1-2% pyrite (Schroeter and Lane, 1994). Zbitnoff (1988) reports drill intersections up to 6.3 metres grading 14.3 g/tonne gold, 27 g/tonne silver and 1.25% zinc. Textural evidence suggests that PEM mineralization may be genetically similar to that of Capoose.

6.0 PROPERTY GEOLOGY

The Fawn property is largely underlain by a sequence of Early to Middle Jurassic Hazelton Group (Naglico Formation) rhyolitic and andesitic volcanics with lesser epiclastic sediments. These have been intruded by a dioritic pluton, thought to form part of the Late Cretaceous Capoose Lake Batholith, and by later felsic dykes which are presumably feeders to the Tertiary Ootsa Lake rhyolites. No geological mapping was carried out on the Fawn property during the 1998 drill program; more detailed descriptions of geology and mineralization can be found in previous reports by Baknes and Awmack (1994a), Awmack (1991), Awmack and Lehtinen (1997). A detailed lithological legend adapted from a report on the Buck claims (Caulfield, 1996), is outlined in Table 6.0.1.

TABLE 6.0.1
DETAILED LITHOLOGICAL LEGEND

JURASSIC-CRETACEOUS

Subvolcanic Intrusions

QP/FP **GRANITE - QUARTZ FELDSPAR PORPHYRY**

Pink to flesh-coloured, variable from medium to coarse-grained, equigranular to crowded quartz-feldspar porphyry with pink aphanitic groundmass. Very minor chloritized mafics, minor muscovite and biotite and local fine-grained specular hematite. Porphyritic to aphanitic near contacts. Intrusive margins variably altered to muscovite/sericite, ankerite and rare epidote, associated with rare disseminated pyrite and sphalerite.

DI **DIORITE**

Medium to light green-grey to grey, fine to medium grained, grainy appearance. Weak chlorite and calcite alteration. Magnetic.

EARLY TO MIDDLE JURASSIC

Hazelton Group (Naglico Formation)

AN **ANDESITES**

ANa Augite Porphyry

Dark green, with 1-5 mm augite phenocrysts (7-15%) in a dark green, often chloritic, fine to medium-grained groundmass. 1-2 mm feldspar crystals (10-50%) prevalent. In rare exposures, augite phenocrysts greater than 1 cm and up to 6 cm.

ANb Amygdaloidal Andesite

Dark-medium green, brown weathering, fine grained with <5% 0.1-1 mm zoned plagioclase phenocrysts and minor chloritized mafics. 1-5% 1-5 mm quartz ± calcite filled flattened amygdules. Also non-porphyritic and massive andesite equivalents.

ANc Augite and Feldspar-Bearing Crystal-Lapilli Tuff

Dark to medium green, brown to grey-green weathering, variable tuff to lapilli and rare breccia tuff or flow breccia. Generally unsorted mixture of ANa and Anb angular to subangular clasts in a chloritic matrix containing feldspar and indistinct augite crystals and crystal fragments. Rarely contains belemnite fossils.

And Maroon Feldspar Porphyritic Andesite Flow

Aphanitic maroon to grey-green matrix with <5% 0.5-1 mm anhedral feldspar phenocrysts. Locally flow-banded.

TABLE 6.0.1 (cont'd.)
DETAILED LITHOLOGICAL LEGEND

Anf Maroon Andesite Crystal-Lapilli Tuff
Dark maroon. Dark maroon matrix with lapilli and crystals varying from white-pink to light green. Chlorite and calcite filled fractures.

RD RHYOLITE-DACITE

RDf Buff to pale greenish grey weathering, medium grey, finely bedded mm to cm thick beds of fine felsic to intermediate ash to coarser sand-sized feldspar crystals and less often lapilli.

ET EPICLASTICS, TUFFS and SILTSTONES

Etc Black Non-Sulphide-Bearing Siltstone and Argillite
Medium to dark grey weathering, black, noncalcareous to weakly calcareous, weakly carbonaceous, fine-grained siltstone and argillite with minor grit and chert pebble layers. Laminated to thin-bedded, wispy sandy layers locally present.

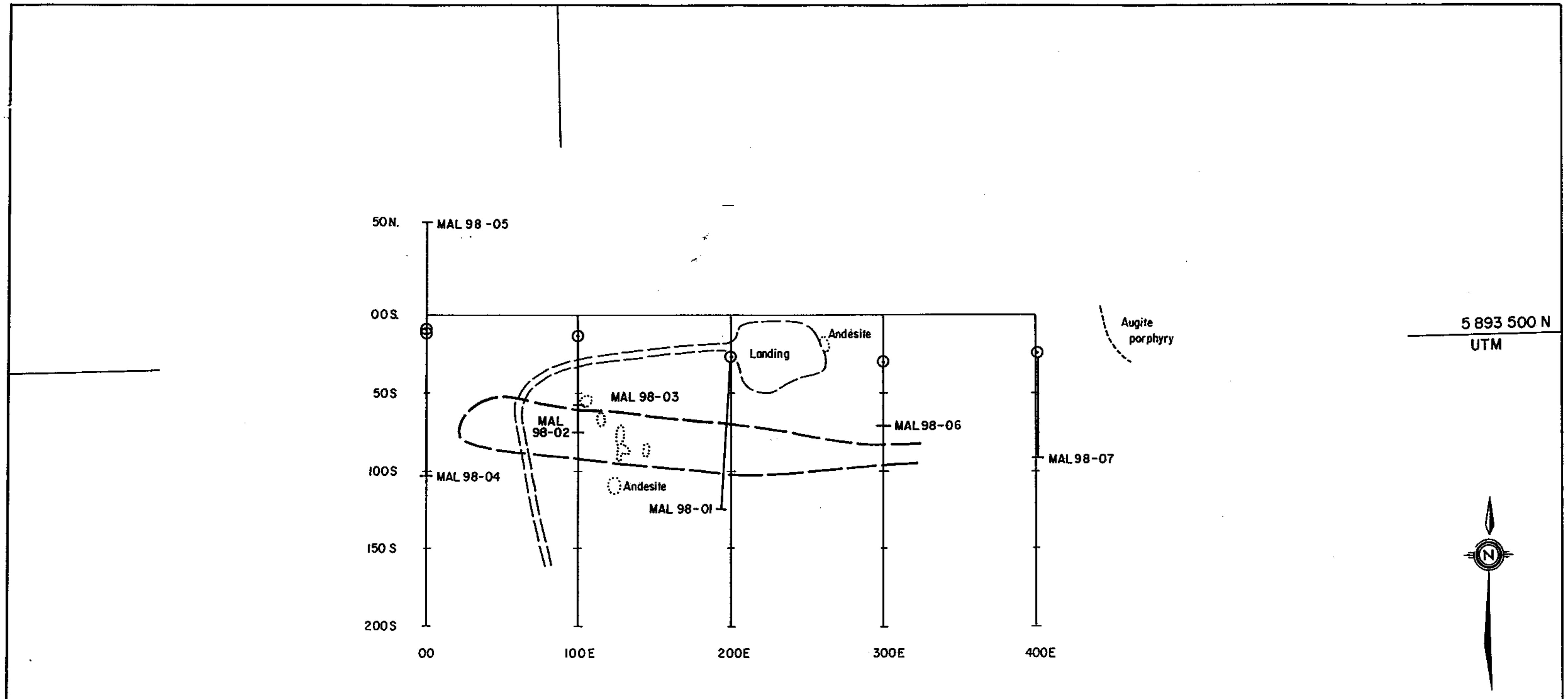
Ete Finely Laminated, Banded Grey Argillite-Siltstone and Felsic Ash Tuff
Striped grey and black, rhythmic, laminated to thin bedded 0.1-2 cm (up to 10 cm) beds of dark grey to black argillite-siltstone and felsic buff weathering ash tuff to crystal tuff and rarely felsic lapilli tuff.

7.0 DIAMOND DRILLING

Seven holes were drilled along the strike of the Malaput Zone from five drill sites. All drill holes were designed to test the strong alteration and to determine the nature and geometry of the alteration zone. Table 7.0.1 summarizes location, orientation and drilling depths for the 1998 holes. The holes are located in plan on Figure 4, with vertical cross-sections in Figures 5-9. Drill logs are attached in Appendix C.

Table 7.0.1
Drill Hole Survey Data

HOLE	AZIMUTH (°)	DIP (°)	DEPTH (metres)	ELEV. (metres)	COLLAR COORDINATES	
					GRID SOUTH	GRID EAST
					Metres	Metres
MAL98-01	183	-45	139.0	1242	0+27	1+99
MAL98-02	180	-45	87.2	1245	0+13	1+02
MAL98-03	180	-65	103.3	1245	0+13	1+02
MAL98-04	180	-50	147.8	1250	0+08	0+01.5
MAL98-05	360	-50	108.2	1250	0+10.6	0+01.5
MAL98-06	180	-50	62.8	1240	0+29.3	3+00.7
MAL98-07	180	-45	95.7	1235	0+23	4+01.5
TOTAL			744.0			



LEGEND

◌	OUTCROP
⊙	1998 DRILL HOLE & HOLE TRACE
⬭	FLOAT/OUTCROP OF INTENSE SERICITE QUARTZ + ALBITE (?) ALTERATION
- - -	GEOLOGICAL CONTACT
═	ROAD

358 500 E
UTM

METRES
0 50 100 150

CASCADIA INTERNATIONAL
RESOURCES INC.

FAWN PROPERTY

MALAPUT SHOWING
1998 DRILLING

Date NOV. 1998	Scale 1:2500	Figure 4
U.T.M. Zone 10	Mining Dist. OMINECA	
NTS. 93 F/3E	State/Prov. B.C.	

MAL 98-01

Drill hole MAL98-01 was collared on the west side of the landing at the terminus of the logging road. The hole was drilled at an azimuth of 183° and a dip of -45° in an attempt to intersect the projected eastern strike of the Malaput showing. The hole cut rocks commonly light to dark green in colour predominated by andesite and/or rhyo-dacite lapilli, ash and crystal tuff (ANc, RDf) with minor intervals of silty argillite (Etc) and maroon andesite crystal-lapilli tuff (Anf). The Malaput alteration Zone, consisting of strong silica, sericite and albite(?) alteration with lesser calcite alteration of protolith(?) rhyo-dacite ash and crystal tuff, was intersected over 32.5 metres from 66.9 to 99.4 metres. The zone was intersected beneath the surface exposure of the strongly altered zone suggesting that the Malaput Zone is a vertical alteration zone in the area of drill hole MAL98-01. Minor sulphide mineralization, predominantly pyrite, and very low gold values were encountered throughout the hole. The highest silver value obtained was from a strongly fractured silica, sericite, albite(?) and calcite altered zone which returned 4.0 ppm silver from 38.0 to 39.5 metres.

MAL 98-02&03

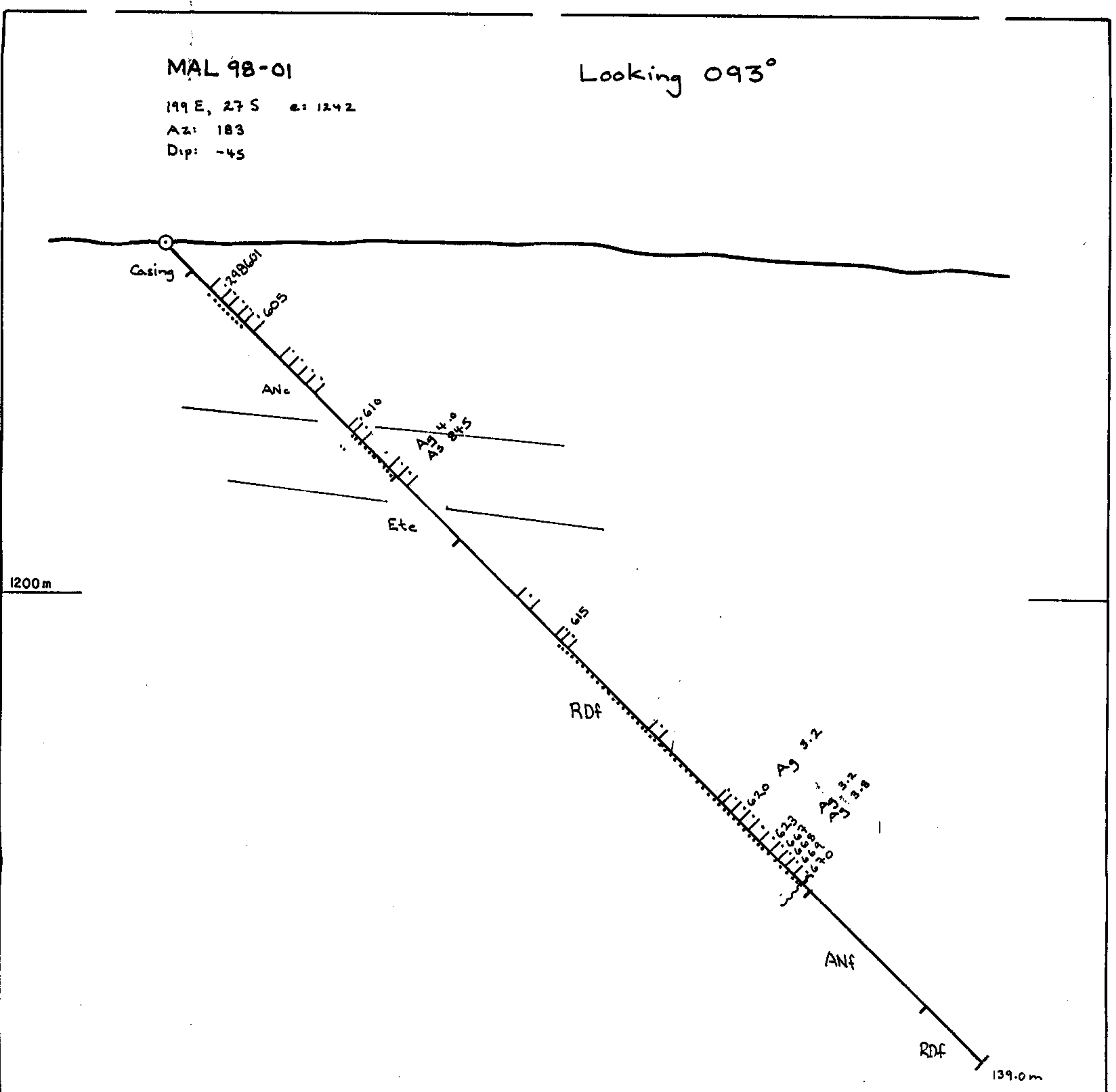
Drill hole MAL98-02 was collared approximately 100 metres west of MAL98-01. The hole, drilled at an azimuth of 180° and a dip of -45°, was directed at the Malaput Showing and intersected a package of rocks similar to those encountered in MAL98-01, in which the predominant rock type is andesitie lapilli, ash and crystal tuff (ANc). The Malaput Zone was intersected from 54.0 to 76.6 metres and consisted of intense silica, sericite, albite(?) and lesser calcite alteration. The entire alteration zone was geochemically analyzed and the results indicate that there is no significant mineralization hosted within the alteration or in any other interval sampled. Mineralization throughout the hole is weak although trace galena and sphalerite occur in the weakly altered rocks away from the main alteration zone.

MAL98-03 was drilled at an azimuth of 180° and a dip of -65° from the same site as the previous hole in an attempt to test the Malaput Zone at a greater depth and to determine the dip of the zone. The hole intersected the Malaput Zone from 38.4 to 91.8 metres which suggests that the zone does not have a tabular geometry. It appears that factors affecting alteration could be related to permeability/porosity of the lithologies, chemical composition of the lithologies and structural controls. No significant mineralization was encountered in MAL98-03.

MAL 98-04&05

MAL 98-04&05 stepped out to the west side of the grid to check the strike extension of the Malaput Alteration Zone. MAL98-04, drilled at an azimuth of 180° and -45°, dip was collared in an intense alteration zone and also drilled through multiple alteration zones of varying intensity throughout the drill hole. Mineralization appears restricted to pyrite, commonly with concentrations of 1-3% with localized concentrations up to 5% pyrite. The width of the Malaput Zone on the west side of the grid appears to have increased significantly as the alteration zones are of significant width and alteration continues to the bottom of the drill hole at 147.8 metres. Alteration is typical for the Malaput Zone with the exception of minor potassic feldspar tentatively identified by the salmon-orange patchy zones within the silica, sericite and albite(?) altered core. No significant assays were returned from the samples submitted for analysis.

Drill hole MAL98-05 was drilled at an azimuth of 360° and -45° dip to intersect the bedding at a perpendicular angle and to determine if the alteration is bedding controlled. Erratic, strong to moderate alteration occurs from the collar to 27.6 metres, then continues to 34.9 metres as strong alteration. Alteration throughout the rest of the hole remains as moderate to weak and is the typical alteration suite associated with the Malaput Zone, with the exception of minor patchy potassic feldspar alteration. No significant mineralization was encountered throughout the hole.



LEGEND

LITHOLOGIES

EARLY TO MIDDLE JURASSIC
Hazelton Group (Naglico Formation)

Andesites

Ana	augite and feldspar porphyry
Anb	amygdaloidal andesite
Anc	augite and feldspar -bearing crystal-lapilli tuff
And	maroon to grey-green, feldspar porphyritic flow
Anf	maroon feldspar crystal-lapilli tuff

Rhyolite -Dacite

Rde	felsic ash-feldspar crystal tuff
RDf	buff, felsic to intermediate, bedded ash -feldspar crystal tuff

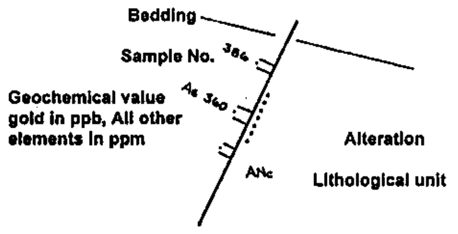
Epiclastics, Tuffs and Siltstones

Etc	black, non-sulphide-bearing, siltstone and argillite
Ete	grey, finely laminated, banded argillite-siltstone and felsic ash tuff

EOCENE
Ootsa Lake Group:

FP	salmon orange, white feldspar phenocrysts and minor quartz eyes in quartz feldspar porphyry
DI	medium to light grey, fine grained, magnetic diorite

DRILL HOLE LEGEND



CASCADIA INTERNATIONAL
RESOURCES INC.

FAWN PROPERTY

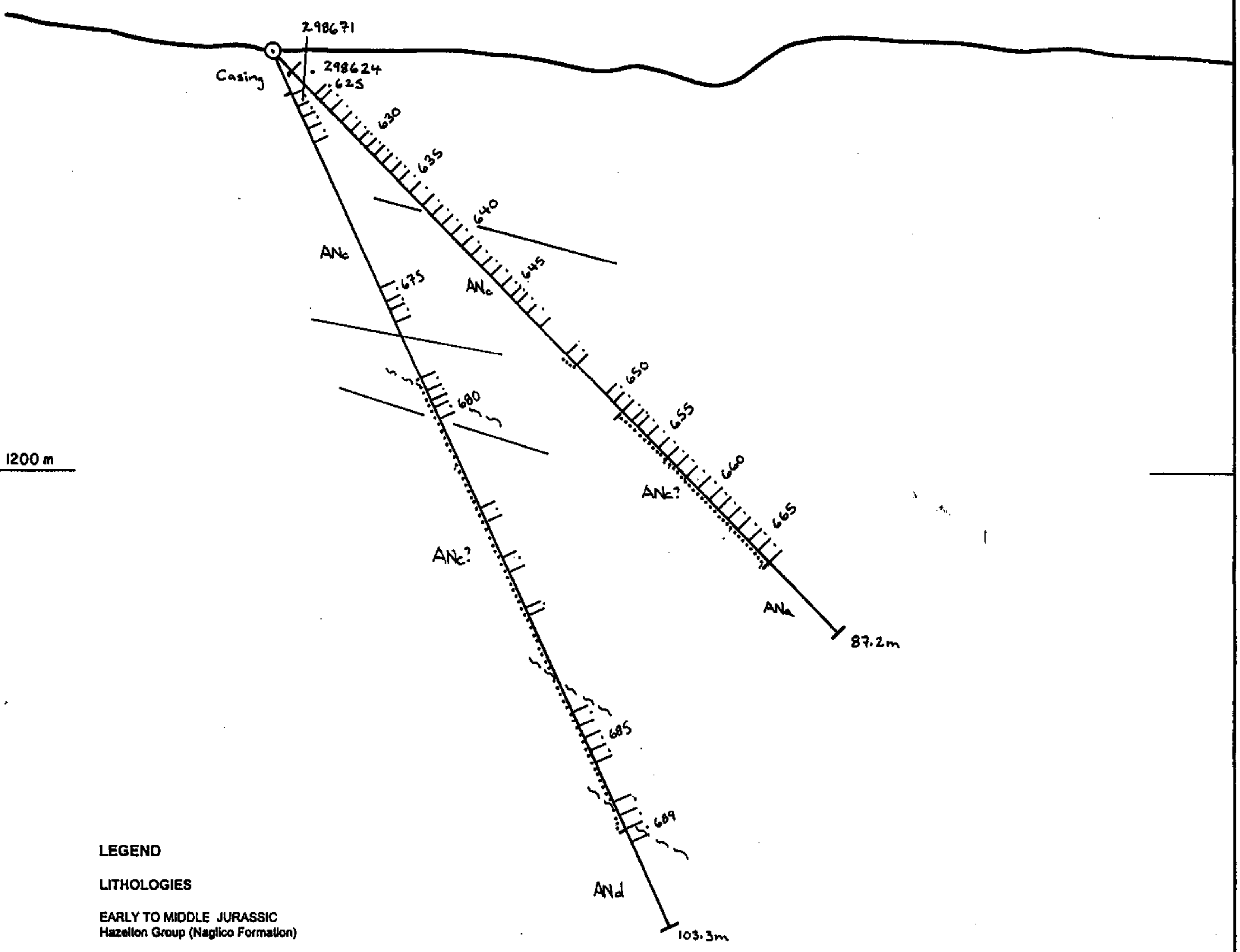
DDH SECTION
MAL 98-01

EQUITY	Date. NOV.1998	Scale. 1:500	FIGURE. 5
	U.T.M. Zone. 10	Mining Dist. OMINECA	
	N.T.S. 93F/3E	State/Prov. B.C.	

MAL 98-03
13 S, 101.6 E e = 1245
Az: 180
Dip: -65

MAL 98-02
13 S, 101.6 E e = 1245 m
Az: 180
Dip: -45

Looking 090°



LEGEND

LITHOLOGIES

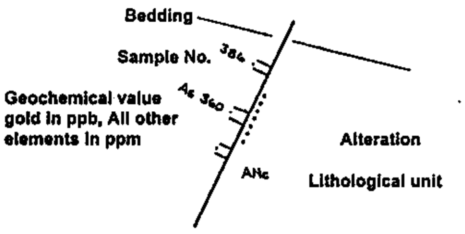
EARLY TO MIDDLE JURASSIC
Hazelton Group (Naglico Formation)

	Andesites
Ana	augite and feldspar porphyry
Anb	amygdaloidal andesite
Anc	augite and feldspar -bearing crystal-lapilli tuff
And	maroon to grey-green, feldspar porphyritic flow
Anf	maroon feldspar crystal-lapilli tuff
	Rhyolite -Dacite
Rde	felsic ash-feldspar crystal tuff
RDf	buff, felsic to intermediate, bedded ash -feldspar crystal tuff
	Epiclastics, Tuffs and Siltstones
Etc	black, non-sulphide-bearing, siltstone and argillite
Ete	grey, finely laminated, banded argillite-siltstone and felsic ash tuff

EOCENE
Ootsa Lake Group:

FP	salmon orange, white feldspar phenocrysts and minor quartz eyes in quartz feldspar porphyry
DI	medium to light grey, fine grained, magnetic diorite

DRILL HOLE LEGEND

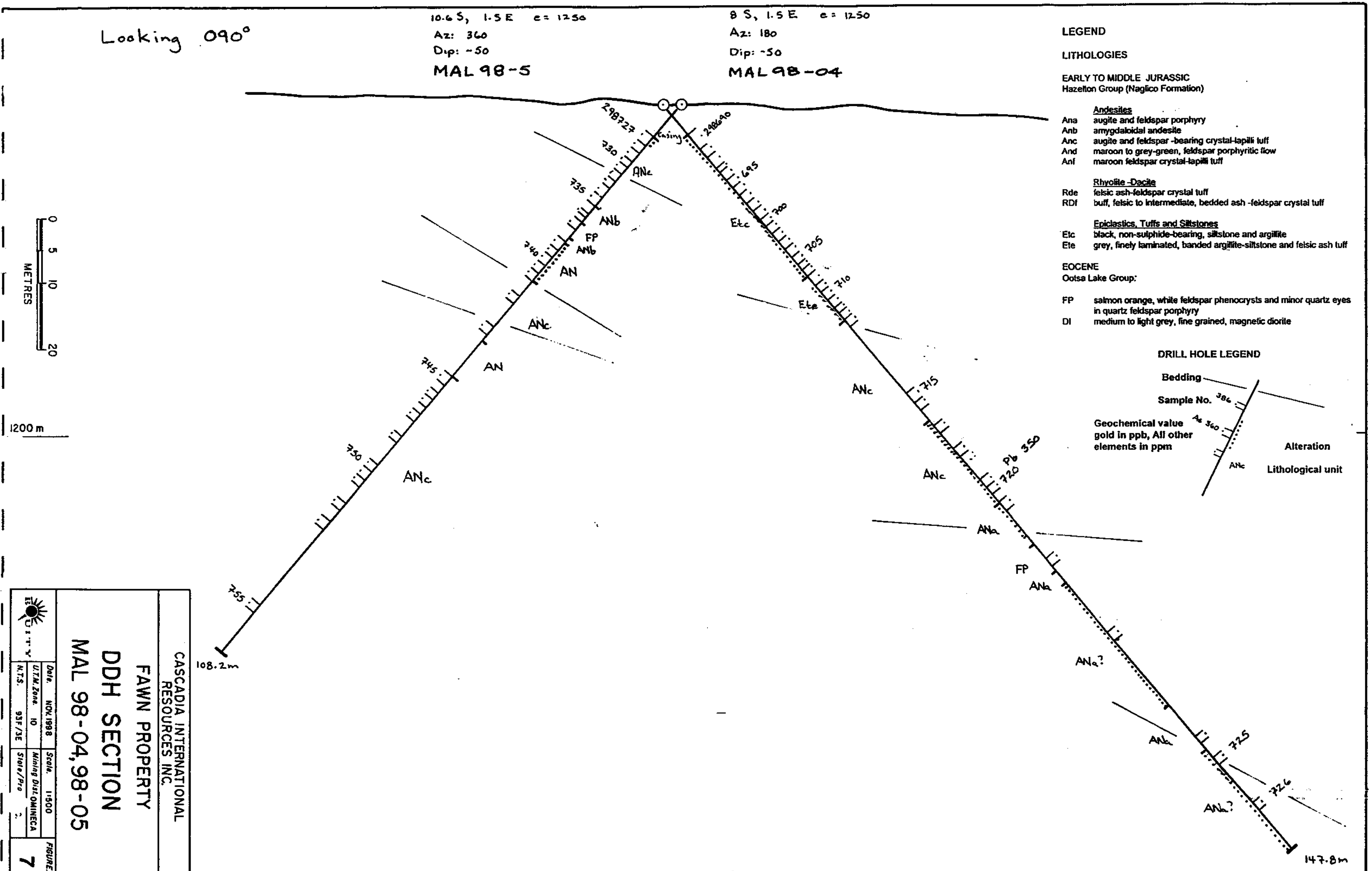


CASCADIA INTERNATIONAL RESOURCES INC.

FAWN PROPERTY

DDH SECTION
MAL 98-02, 98-03

Date. NOV.1998	Scale. 1:500	FIGURE. 6
U.T.M. Zone. 10	Mining Dist. OMINECA	
N.T.S. 93F/3E	State/Prov. B.C.	



LEGEND

LITHOLOGIES

EARLY TO MIDDLE JURASSIC
Hazelton Group (Naglico Formation)

	Andesites
Ana	augite and feldspar porphyry
Anb	amygdaloidal andesite
Anc	augite and feldspar -bearing crystal-lapilli tuff
And	maroon to grey-green, feldspar porphyritic flow
Anf	maroon feldspar crystal-lapilli tuff
	Rhyolite -Dacite
Rde	felsic ash-feldspar crystal tuff
RDf	buff, felsic to intermediate, bedded ash -feldspar crystal tuff
	Epiclastics, Tuffs and Siltstones
Etc	black, non-sulphide-bearing, siltstone and argillite
Ete	grey, finely laminated, banded argillite-siltstone and felsic ash tuff

EOCENE
Ootsa Lake Group:

FP	salmon orange, white feldspar phenocrysts and minor quartz eyes in quartz feldspar porphyry
DI	medium to light grey, fine grained, magnetic diorite

DRILL HOLE LEGEND

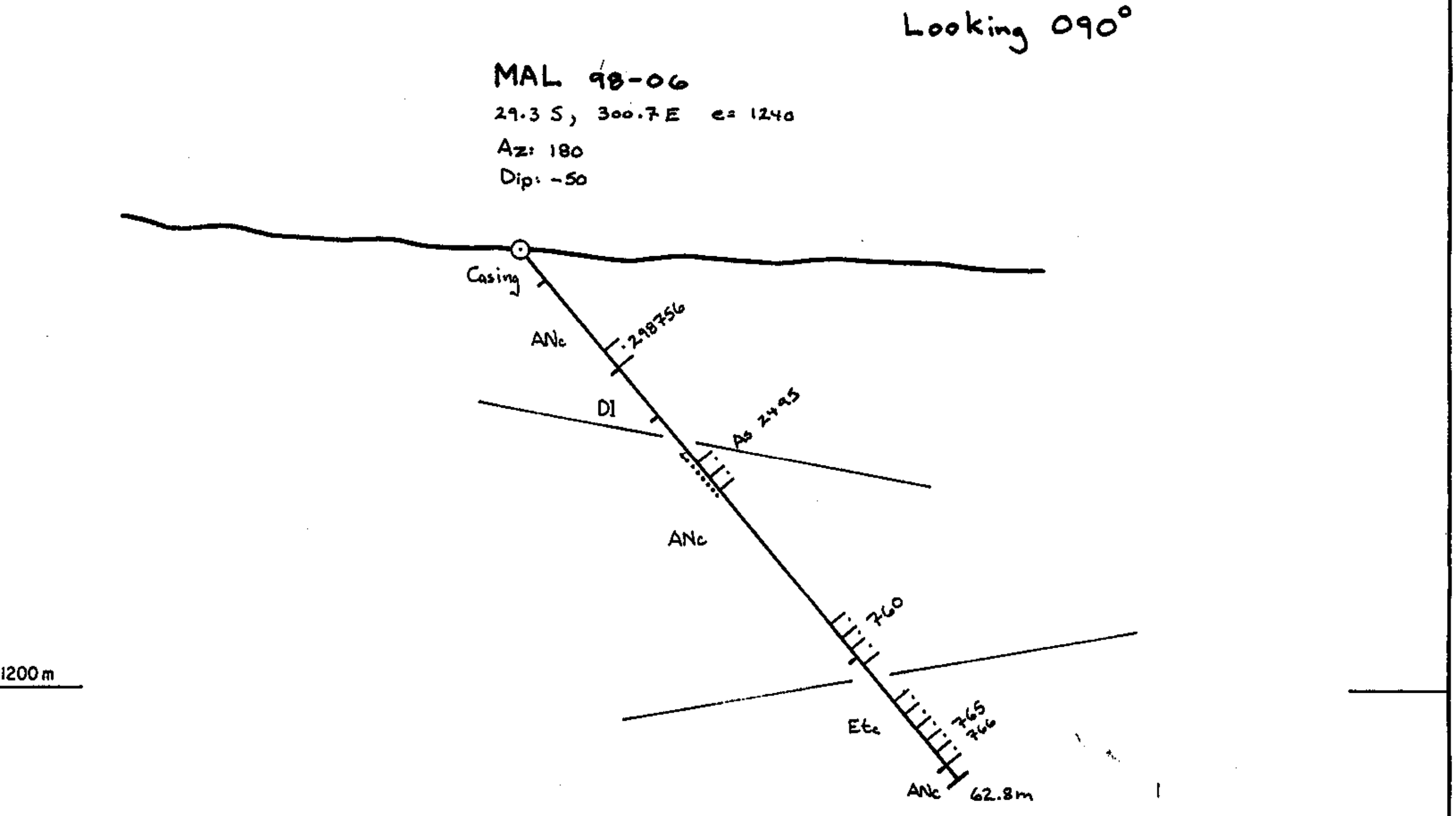
CASCADIA INTERNATIONAL RESOURCES INC.

FAWN PROPERTY

DDH SECTION

MAL 98-04,98-05

Date. NOV.1998	Scale. 1:500	FIGURE.
U.T.M. Zone. 10	Mining Dist. OMINECA	7
N.T.S. 93F/3E	State/Pro	



LEGEND

LITHOLOGIES

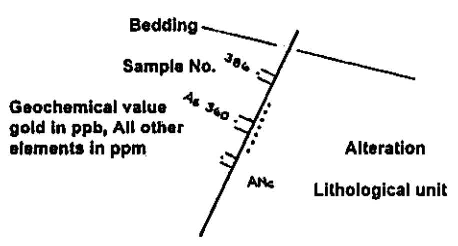
EARLY TO MIDDLE JURASSIC
Hazelton Group (Naglico Formation)

	Andesites
Ana	augite and feldspar porphyry
Anb	amygdaloidal andesite
Anc	augite and feldspar -bearing crystal-lapilli tuff
And	maroon to grey-green, feldspar porphyritic flow
Anf	maroon feldspar crystal-lapilli tuff
	Rhyolite -Dacite
Rde	felsic ash-feldspar crystal tuff
RDf	buff, felsic to intermediate, bedded ash -feldspar crystal tuff
	Epiclastics, Tuffs and Siltstones
Etc	black, non-sulphide-bearing, siltstone and argillite
Ete	grey, finely laminated, banded argillite-siltstone and felsic ash tuff

EOCENE
Ootsa Lake Group:

FP	salmon orange, white feldspar phenocrysts and minor quartz eyes in quartz feldspar porphyry
DI	medium to light grey, fine grained, magnetic diorite

DRILL HOLE LEGEND



CASCADIA INTERNATIONAL
RESOURCES INC.

FAWN PROPERTY

DDH SECTION

MAL 98-06

Date. NOV. 1998	Scale. 1:500	FIGURE.	
U.T.M. Zone. 10	Mining Dist. OMINECA	8	
N.T.S. 93F/3E	State/Prov. B.C.		

EQUITY

MAL 98-06

MAL 98-06 was collared approximately 100 metres east of MAL98-01 and drilled at an azimuth of 180° and a dip of -50° to test the eastern strike extension of the Malaput Zone. Three rock packages were encountered in the drill hole. The predominant rock type is andesite ash tuff (ANc) with lesser banded argillite and ash tuff (Etc) near the bottom of the hole. The andesite ash tuff has been intruded by a light green-grey, medium to fine grained diorite (DI). The Malaput Alteration Zone occurs from 23.7 to 30.1 metres and appears to be reduced in width compared to the intersections to the west. No significant mineralization was observed or results returned from MAL98-06.

MAL 98-07

The final hole was drilled at an azimuth of 180° and a dip of -45° approximately 200 metres east of hole MAL 98-01. The drill hole intersected two intrusive units, a narrow andesite porphyry dike (ANa) and a diorite (DI) similar to the diorite intersected in hole MAL98-06. These intrusive rocks are hosted in banded argillite and ash tuff similar to those rocks intersected in previous drill holes. The drill hole encountered only weak alteration and very minor mineralization.

8.0 DISCUSSION

The 1998 diamond drilling program focused on the Malaput Zone, an east-west trending zone of intense silica, sericite and albite(?) alteration with minor millimetre scale quartz-calcite stringers and stockworks. It is marked on surface by erratic outcrop and sub-outcrop exposure of these altered rocks and by spotty Au, As, Pb and Zn soil geochemistry.

Seven holes tested the Malaput Zone on five sections along 400 metres of its strike length. Each of these holes intersected varying widths and intensity of alteration with a general trend of increased width and intensity of alteration along strike to the west.

The alteration along the Malaput Zone is suggestive of a strong epithermal system. Other than surface anomalous gold results, no significant gold mineralization has yet been discovered along the 400 metres of the zone which has been drill tested. The strength of the alteration to the west is encouraging but the lack of anomalous precious or base metal values suggests that the interval tested at the Malaput showing may be at a non-mineralized vertical depth of an epithermal system or that the system may not be mineralized. Epithermal systems are characterised by strong vertical controls on mineralization. It may turn out that the drilled portion of Malaput Showing is too high (or too low) in the epithermal system.

The Tommy prospect, located 17 kilometres south of the Fawn property, consists of epithermal quartz veins in Hazelton Group (Naglico Formation) quartz-phyric rhyolite tuffs. Teck Corp. has developed a reserve of 478,000 tonnes grading 8.7 g/tonne Au over a width of four metres at Tommy in a geological setting which is very similar to the Fawn property's. Not only does this bode well for the possibility of discovering significant gold mineralization on the Fawn claims, but it suggests a possible rheological control on mineralization. At Tommy, the rhyolite host forms brittle fractures, along which the quartz veins are emplaced. In the Malaput Zone as well as the Giver Zone, the less competent andesitic lapilli tuffs do not form discrete fractures, but rather wide zones of faulting, alteration and quartz stockworks, with more dispersed gold mineralization.

Although no significant mineralization was encountered, the substantial intersection width of the alteration on the west side of the Malaput grid indicates large epithermal alteration zones exist in the area. Combined with anomalous gold values returned from soil samples from the 1994 program, the possibility of a gold mineralized epithermal structure on the Fawn claims exists. Discovery of a mineralized structure on the property is hampered by extensive glacial till cover which limits outcrop exposure and would make soil geochemistry difficult or ineffective. Geophysics has proven partially effective in outlining VLF-EM fault controlled structures as displayed on the Giver Zone, but extensive

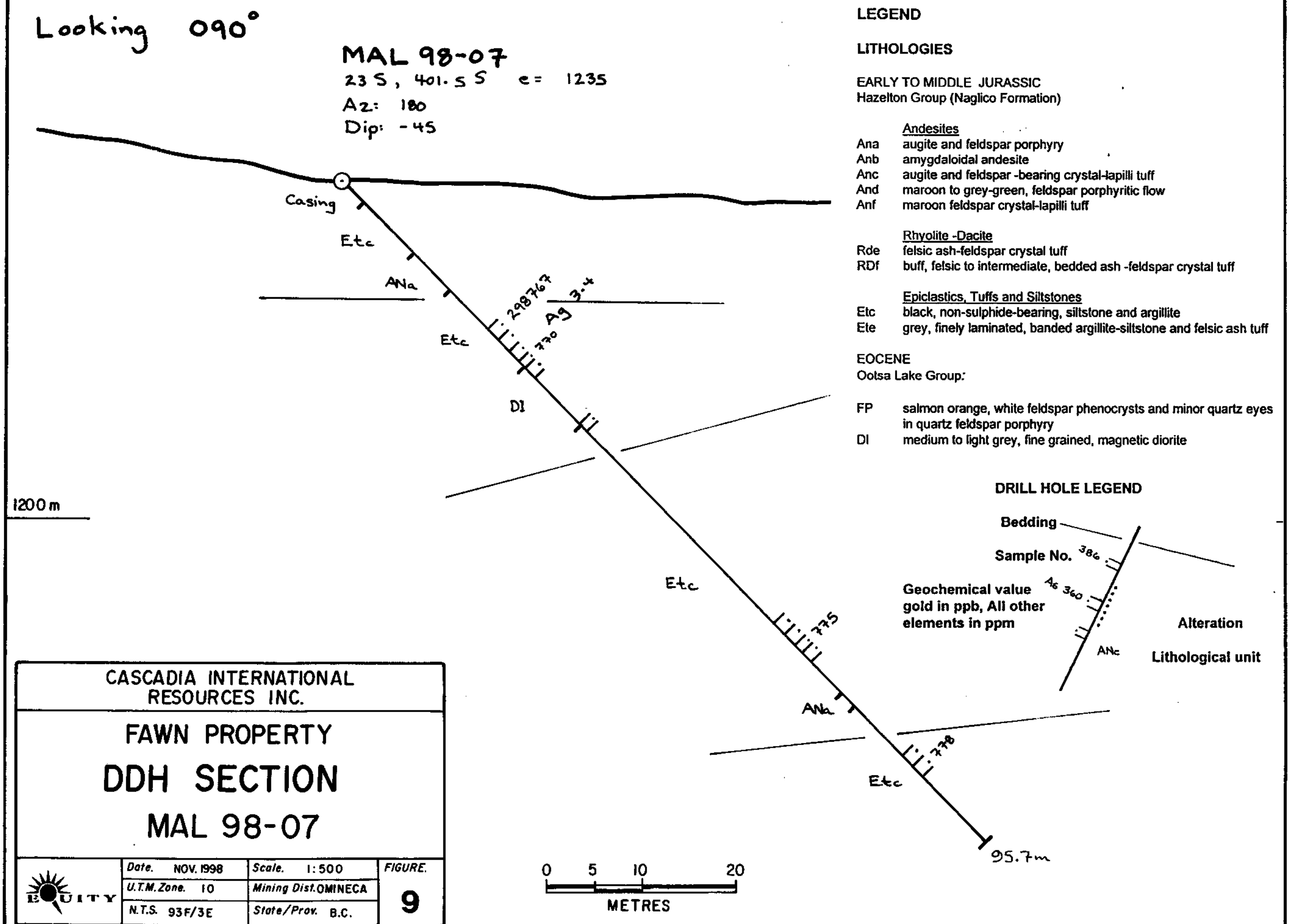
Looking 090°

MAL 98-07

23 S, 401.5 S e = 1235

Az: 180

Dip: -45



LEGEND

LITHOLOGIES

EARLY TO MIDDLE JURASSIC
Hazelton Group (Naglico Formation)

Andesites

Ana	augite and feldspar porphyry
Anb	amygdaloidal andesite
Anc	augite and feldspar -bearing crystal-lapilli tuff
And	maroon to grey-green, feldspar porphyritic flow
Anf	maroon feldspar crystal-lapilli tuff

Rhyolite -Dacite

Rde	felsic ash-feldspar crystal tuff
RDf	buff, felsic to intermediate, bedded ash -feldspar crystal tuff

Epiclastics, Tuffs and Siltstones

Etc	black, non-sulphide-bearing, siltstone and argillite
Ete	grey, finely laminated, banded argillite-siltstone and felsic ash tuff

EOCENE
Ootsa Lake Group:

FP	salmon orange, white feldspar phenocrysts and minor quartz eyes in quartz feldspar porphyry
DI	medium to light grey, fine grained, magnetic diorite

DRILL HOLE LEGEND

CASCADIA INTERNATIONAL
RESOURCES INC.

FAWN PROPERTY

DDH SECTION

MAL 98-07

Date. NOV. 1998	Scale. 1:500	FIGURE.
U.T.M. Zone. 10	Mining Dist. OMINECA	9
N.T.S. 93F/3E	State/Prov. B.C.	

EQUITY

surveys would prove to be costly and are not warranted at this time.

Respectfully submitted,
EQUITY ENGINEERING LTD.

Jim Lehtinen, P.Geo.

Vancouver, British Columbia
December, 1998

APPENDIX A

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BIBLIOGRAPHY

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APPENDIX B

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES
FAWN 1-7 CLAIMS
August 20 - September 2, 1998

PROFESSIONAL FEES AND WAGES:

Dave Caulfield, P.Geo.		
2.63 days @ $425/day	$1,117.75	
Jim Lehtinen, P.Geo.		
26.875 days @ $425/day	11,421.88	
Jason Weber, Geologist		
1.25 days @ $350/day	437.50	
Matt Cleary, Sampler		
14.75 days @ $225/day	3,318.75	
Matt Henry, Logistics Manager		
0.5 days @ $350/day	175.00	
Clerical		
4.75Hr. @25/Hr	118.75	16,589.63

EQUIPMENT RENTAL: (Equity Engineering Ltd.)

Core Splitter		
11 days @ $5/day	55.00	
Firefighting Equipment		
12 days @ $10/day	120.00	175.00

EXPENSES:

Accommodation	$ 4,758.79	
Airfare	322.25	
Automotive Fuel	199.52	
Automotive Expenses	59.27	
Bulk Fuel	1,843.27	
Camp Food	57.31	
Chemical Analyses	2,876.25	
Courier	19.13	
Drafting	120.00	
Ferries	36.45	
Freight	2,273.42	
Hardware and Lumber	2,090.03	
Meals	30.68	
Office supplies	6.89	
Printing and Reproductions	167.32	
Reclamation Seed	53.50	
Taxis, Parking, Tolls	19.63	
Telephone Distance Charges	46.92	
Trucks (crewcab)	4,275.71	19,256.34

SUBCONTRACTS:

Catwork	$1,925.00	
Drilling	53,254.06	
Water truck	7,446.00	62,625.06

STATEMENT OF EXPENDITURES
(Continued)

REPORT:		
Report and Assessment Filing (estimated)	2,000.00	
Assessment filing (Gov't fees)	1,610.00	3,610.00
PROJECT SUPERVISION CHARGE:		
12% on expenditures up to $100,000	$ 12,000.00	
10% on expenditures >$100,000	225.54	12,225.54
	Subtotal:	$114,481.57
GST:		8,013.71
	Total:	122,495.28

APPENDIX C

DIAMOND DRILL LOGS

MINERALS AND ALTERATION TYPES

AS	arsenopyrite	BI	biotite	CA	calcite
CL	chlorite	CP	chalcopyrite	CY	clay
EP	epidote	GE	goethite	GL	galena
HE	hematite	JA	jarosite	MC	malachite
MG	magnetite	MN	Mn-oxides	MS	sericite
PO	pyrrhotite	PY	pyrite	QZ	quartz
SI	silica	SP	sphalerite	TT	tetrahedrite

EQUITY ENGINEERING LTD.

DRILL LOG

PROJECT
FAWN - MALAPUT WKM 98-01

COLLAR ELEVATION
1242

HOLE
MAL 98-01.

AZIMUTH
183°

LOCATION
GRID 199 E
27 S

DIP
-45

LOGGED BY
J. Lehtinen

LENGTH
139.0

DRILLED BY
Falcon Drilling / Gallant Trucking (water)

HORIZONTAL PROJECTION
98.3

ASSAYED BY
Eco-Tech Labs (Kamloops)

VERTICAL PROJECTION
98.3

CORE SIZE
BTW

DATE STARTED
Aug 20/98

DATE COMPLETED
Aug 23/98

DIP TESTS BY

DEPTH	DIP	AZIM	DEPTH	DIP	AZIM
183	-40.5				

ALTERATION SCALE

absent
slight
moderate
intense

SULPHIDE SCALE

traces only
< 1%
1% – 3%
3% – 10%
> 10%

OBJECTIVE
Target intense alteration zone - Malaput Showing

SUMMARY LOG

0 - 4.6 Casing
4.6 - 39.5 - Andesite Ash Tuff, strong MS, AB?, SI
alt'n 7.6 - 9.2m, 30.6 - 39.5
39.5 - 50.2 - Banded argillite / Ash tuff. Strong - mod
MS, AB?, SI alt'n 39.5 - 52.5
50.2 - 66.4 Crystal or ash tuff
66.4 - 66.9 - Silicified Tuff
66.9 - 99.4 - Intense alteration Zone
Pale gn. Intense MS, AB, CA + SI
99.4 - 108.3 - Ash Tuff
108.3 - 109.9 - Crystal Tuff
109.9 - 129.6 - Crystal Lapilli Tuff - maroon
129.6 - 139.0 - Crystal Lapilli Tuff Grey - Green

PAGE 1 OF 7

PROJECT MALAPUT

HOLE MAL 98-01

DEPTH (M)	% CORE REC	% RQD
0	CASING	
5	11	0
	100	0
	100	53
10	63	14
	100	33
15	100	32
	100	57
20	100	72
25	100	66
	100	76
30	100	55
35	85	25
	100	28
	57	0
	100	0
40	100	87
	100	56
45		

LITHOLOGY / STRUCTURE

Py B/50° 40°

B/35° /40° Alt'n Alt'n.

B/57°

Fr Alt'n /30°

B/60°

B/47°

B/60°

ANc

R/40°

CA, Vein BX

40° VN CA BX

50° B

CA BX

B/50°

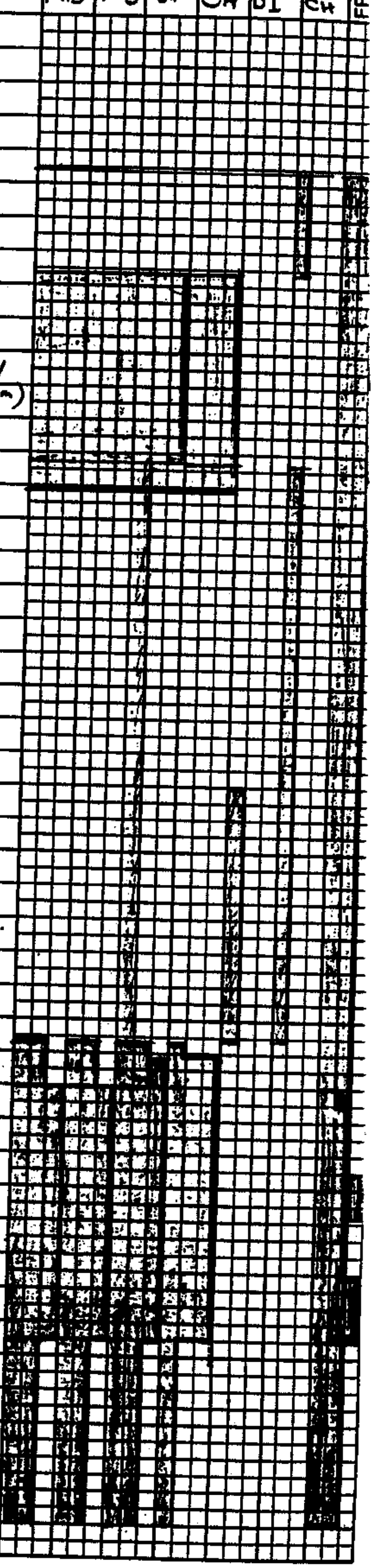
Ete

B/28°

GEOLOGICAL DESCRIPTION

0-4.6	Casing
4.6-7.6	Rubble. Med-dk gn. Aphanitic Minor bands in fragments
7.6-39.5	Andesite Ash Tuff. Mottled colour, med to dark green varying to light green-cream to cream. Aphanitic, very fine with indistinct bedding to 13m. mod. Well bedded (19-29m) Albite/Sericite/± Silica alteration from weak to intense. Tr-1% disseminated + fracture fill pyrite HE on some fr. surfaces, CA on fract.
39.5-50.2	Banded Argillite / Ash Tuff mottled black to pale gn-buff. Beds strongly disrupted by minor slip faults later CA ± PY filled fractures Argillite = black to grey. Ash beds all light gn-buff. (Alt'n = Albite? + CA + MS ± SI Finely diss Py in coarser ash beds Bedding 1-3 cm Mod-well fractured ∥ to bedding. Mod-st. BI/SI hornfels @ basal contact. Top contact = bx + CA.

ALTERATION



PAGE 2 OF 7

PROJECT MALAPUT

HOLE MAL 98-01

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS ppb Au	ASSAYS ppm Ag	ASSAYS ppm Pb	ASSAYS ppm Zn
7.6-9.3 1-3% Py as Fr. fill + diss. wk CA <1mm stringers		7.6	9.3	1.7	298601	5	<0.2	<2	52
9.3-10.5 - 1% Py diss in alt'd, bleached tuff		9.3	10.5	1.2	602	5	<0.2	2	47
10.5-12.2 - As above + Py in fracture @ 11.9-12.0		10.5	12.2	1.7	603	5	0.4	10	53
12.2-13.3 Tr Py as above		12.2	13.3	1.1	604	5	<0.2	4	57
13.3-14.9 - Tr-1% Py as fr. fill + diss.		13.3	14.9	1.6	605	5	<0.2	2	44
19.3-20.8 - 3% Py assoc. wi patchy SI alt'n + Fracture fill		19.3	20.8	1.5	606	5	<0.2	2	37
20.8-22.3 - As above + HE + CH on fr. surfaces		20.8	22.3	1.5	607	5	<0.2	2	50
		22.3	23.8	1.5	608	5	<0.2	4	55
		23.8	25.3	1.5	609	5	<0.2	4	67
31.1-32.0 - 1-3% PY assoc. wi St: SI near alt'n contact		31.1	32.0	0.9	610	5	<0.2	12	92
32.0-33.5 - 1% diss PY in St. alt'n.		32.0	33.5	1.5	611	5	<0.2	6	66
38.0-39.5 - V. Strongly fractured + altered CY in fractures. 1% PY diss.		38.0	39.5	1.5	612	5	4.0	90	195
39.5-41.0 - 5% PY in CA stringers (5mm) Near top contact, Diss + fr. fill PY - Avg = 3% PY		39.5	41.0	1.5	613	5	1.6	18	64

PAGE 3 OF 7

PROJECT MALAPUT

HOLE MAL 98-01

DEPTH (M)	% CORE REC	% RQD	LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION	? AB	MS	ST	CA	BI	CH	FRACTURE
45					50.2-	Crystal Tuff							
	94	29			52.5	Med gy-gn. Crystals up to 3mm							
			Ete			pale gn-white in med-dk gy-gn matrix							
						Diffuse xtal margins numerous CA micro-							
50	93	35		B/40		fractures. Also near base = CY in fractures.							
					52.5-	Ash Tuff							
	100	48			54.4	Mottled gn-buff. Numerous fractures wi							
						CA + PY. Aphanitic + faint preserved bedding							
	100	77		B/40	54.4-	Crystal Tuff.							
55					62.0	Med-light gn with minor bleached intervals							
	100	37				Crystals of pale gy-gn F.S. up to 5mm.							
			RDF			Also intervals with minor lapilli.							
						Strongly fractured with CHl ± PY on fractures.							
	99	44			62.0-	Ash Tuff							
60			1cm	B/45°	66.4	Variably Coloured, Dark Gn to light							
			1cm	/30°		gy-gn. Weakly bedded (alt'n emphasizes							
	82	49				bedding) Ash = coarse with minor							
						intervals of crystal tuff							
				B/48									
65	100	76			66.4-66.9	Silicified Tuff							
						Alt'n diminishes textures.							
						Light-mottled GN, Beige, cream. Minor He-patchy							
	100	79											
			RDF?		66.9-	Intense Alteration Zone							
70					99.4	Pale Pastel. gy-gn.							
	100	76				Aphanitic, minor wispy "ghost"							
						textures = bedding? + Light yellow							
						gn along fractures. Minor qz stringers							
	100	74				with minor epidote.							
75						Alteration = Albite? + CA+MS ± ST							
	100	84											
				B/50									
80	100	65											
	100	83		15°	Rusty Fr								
					Rusty Fr								
					QZ, PY	94.0-99.4							
85						Strongly fractured + CA ± QZ							
	94	44				stingers ± 3cm vein/bx							
				25°	Fr								
	100	35											
90													

PAGE 4 OF 7 | PROJECT MALAPUT | HOLE MAL 98-01

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
45											
50											
55											
60) 60.0-62.0 - 1% Py assoc with Qz		60.0	62.0	2.0	278614	5	0.4	88	120		
Stringers (silicification)											
65) 66.4 - 67.8 - Silicified Contact		66.4	67.0	0.6	615	5	0.4	10	82		
Tr PY as minor clusters + Cldy HE											
67.0 - 68.5 Top contact of		67.0	68.5	1.5	616	5	<0.2	8	9		
intensely altered zone											
<<< Tr. SX-PY											
70											
75											
80											
82.5 - 84.0 - Tr Pyrite along fractures		82.5	84.0	1.5	617	5	<0.2	106	155		
85											
90											

PAGE 5 OF 7

PROJECT MALAPUT

HOLE MAL 98-01

DEPTH (M)	% CORE REC	% RQD
90	96	44
95	100	81
	100	60
	96	49
100	100	68
	100	78
105	100	42
	96	42
110	93	45
	100	62
115	100	64
	98	78
120	87	0
	100	19
125	100	36
	97	73
130	93	58
135	100	90

LITHOLOGY: RDf, RDF, Fr, CA, BX, ANF, CA CY, RDF

STRUCTURE: CA/20 Fr; QZ EA/80 3cm; CA; PY SP CP GW; All gouge; QZ CA EP; CA 4cm; SS; 15° CA, CH; CA 55°; CA+BX; CA; CA

GEOLOGICAL DESCRIPTION

99.4 - 108.3 Ash Tuff ?

Variably coloured from med-light gy-pink to med gn. to buff beige

Weaker alteration than previous interval

Textures not preserved

Intensely fractured + sealed wi CA.

minor QZ stringers

Weak HE alt'n from 99.0 - 102.3

108.3 - 109.9 Crystal Tuff

Light olive gn wi white F.S. crystals

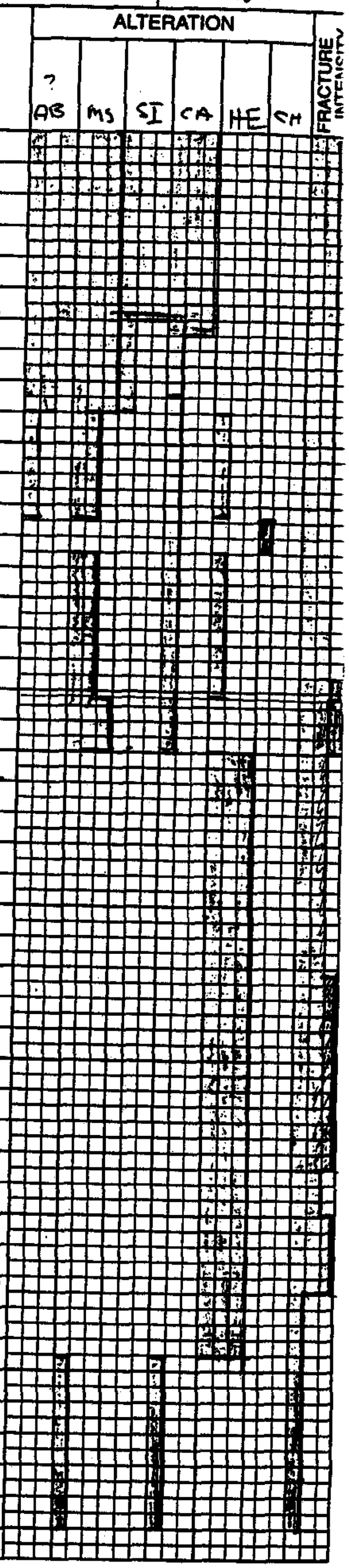
Strong ms alt'n strongly broken

109.9 - 129.6 Crystal Lapilli Tuff.

Dark, maroon. Minor Lapilli + crystal @ top of interval. Becoming coarser downsection. Dark maroon matrix with lapilli + crystals varying from white-pink to light gn. Numerous Chlorite/CA filled fractures.

129.6 - 139.0 Crystal Lapilli Tuff

Med Gy. Creamy - Lt gn F.S. xtals wi diffuse boundarys. Lapilli up to 3cm. generally < 1cm. Lapilli + Crystal Lap Tuff + Ang?



PAGE 6 OF 7 | PROJECT Fawn - Malaput | HOLE MAL 98-01

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn
(90)									
94.1-96.0 - Tr - 1% PY in fr. fill		94.1	95.0	0.9	298618	5	0.8	98	246
95.0-96.4 - As above		95.0	96.4	1.4	·· 619	5	1.0	132	199
(95)									
96.4-97.9 · Tr. PY wi CA stngrs.		96.4	97.9	1.5	298620	5	3.2	318	527
97.9-99.4 - Tr PY wi CA. Stngrs/		97.9	99.4	1.5	: 621	5	2.4	54	208
Minor Diss									
(100) 99.4-101.3 - Tr PY + rusty fractures		99.4	101.3	1.9	622	5	0.8	18	312
- Minor CP, SP, GN along CH Fractures.									
101.3-103.0 Tr-1% PY in		101.3	103.0	1.7	623	5	1.6	120	503
fractures (CH) 3 : 1 : 0.5 : 0.1									
103.0 - 105.5 - Tr-1% PY:SP:CP:GN		103.0	104.3	1.3	298667	15	3.2	140	1378
105 in fracture fill. Fracture cut by late.									
CA. Sx fractures = CA ± SI		104.3	105.5	1.2	668	20	5.8	224	1484
105.5 - 107.0 - Tr PY ± SP in									
minor QZ. Numerous CA stngrs.		105.5	107.0	1.5	669	5	2.2	144	215
107.0 - 108.3. V. Strong fracturing + CA									
110 Stngrs grading into fault gouge ± bx		107.0	108.3	1.3	670	10	1.8	340	866
@ base. Tr. PY + SP.									
115									
120									
125									
130									
135									

PAGE 7 OF 7

PROJECT MALAPUT

HOLE MAL 98-01

DEPTH (M)	% CORE REC	% RQD			LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION						FRACTURE
										Ms	SI	CA		CH	
135	100	90				Fr 15	135			▮		▮			▮
	92	36			RDC		Fu CA			▮		▮			▮
139.0								139.0 : E.O.H.							
							140								

EQUITY ENGINEERING LTD.

DRILL LOG

PROJECT FAWN MALAPUT

HOLE MAL 98-02

LOCATION GRID 13 S, 101.6 E

LOGGED BY J. Lehtinen

DRILLED BY Falcon Drilling /Gallant Trucking

ASSAYED BY Eco-Tech Laboratories

CORE SIZE BTW

DATE STARTED Aug 23/98

DATE COMPLETED Aug 24/98

DIP TESTS BY Acid

DEPTH	DIP	AZIM	DEPTH	DIP	AZIM
87.2	-43.5				

COLLAR ELEVATION 1245 m

AZIMUTH 180

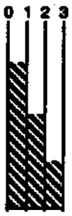
DIP -45

LENGTH 87.2

HORIZONTAL PROJECTION 61.7

VERTICAL PROJECTION 61.7

ALTERATION SCALE



absent
slight
moderate
intense

SULPHIDE SCALE

traces only
< 1%
1% – 3%
3% – 10%
> 10%

OBJECTIVE

Step out 100m west of hole MAL 98-01
Drill on Malaput Showing

SUMMARY LOG

0-3.1 - Casing	
3.1 - 41.3 - Andesite Ash Tuff	6.7 - 29.3 · 1-3% PY
41.3 - 42.5 - Crystal Lapilli Ash Tuff	29.3 - 30.8 - Tr GN + SP.
42.5 - 54.0 - Andesite Ash Tuff	
54.0 - 76.6 - Intense Alteration Zone, CA, MS, SI, AB?	
76.6 - 87.2 - Andesite - med-dark green	

PAGE 1 OF 4

PROJECT MALAPUT

HOLE MAL 98-02

DEPTH (M)	% CORE REC	% RQD	LITHOLOGY
0			
	CAS	ING	
5	47	3	
	88	31	AN
	100	97	
	98	51	
10			
	96	17	CA
	92	24	
15	99	29	
	100	77	
20	96	72	
25	100	65	
	98	63	ANc
30	100	77	
	99	56	
35	100	76	
40	96	68	
	100	56	
45	100	62	

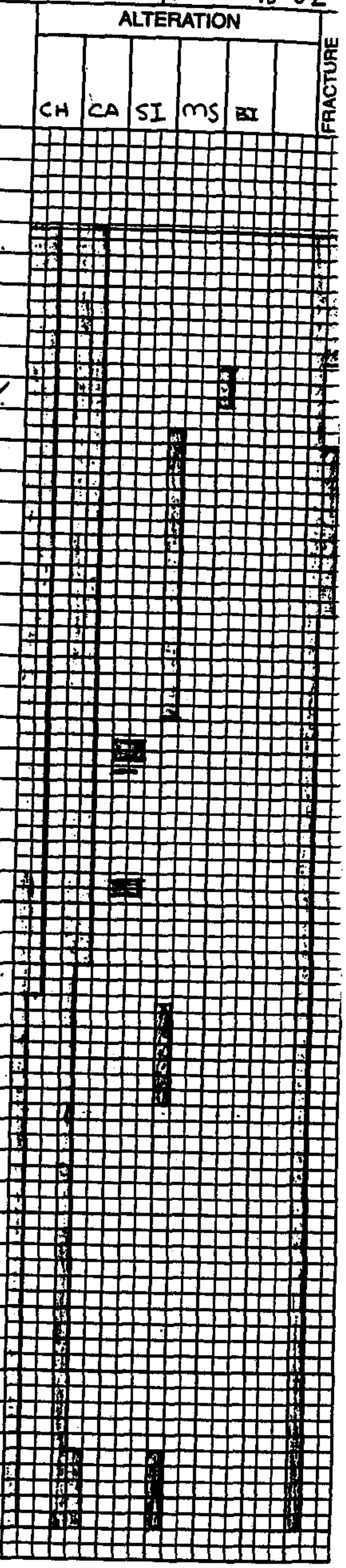
STRUCTURE

B 30°
Fr 37°
F 45°
Fr 25°
B 30°
Fr 17° EP, HE
25° CA vn EP, HE, PY
B 35° HE
Fr 35° +Vuggy +PY
B 30°
Fr, CA
20° PY
PY
CA, CU
B 33° GN, SP, CPY
35° CA, BX, GN, SP
B 70° 35° TALC CA 5mm
PY, Fr
40°
CA
40° Fr-CA
80° - HE CA
B 35°
B 50° 35° 5mm PY
CA
B 20°
35-CA

GEOLOGICAL DESCRIPTION

0 – 3.1	Casing
3.1m – 7.3	Andesite Ash Tuff. (Rubble) Rubbly core. Fragments mottled med-dk gn. Rusty iron stained fractures. Strongly deformed bedding in core fragments.
7.3 – 41.3	Andesite Ash Tuff Mottled dark green to cream coloured. Entire interval is variably altered. from propylitic (CH HE, EP, CA) to MS, SI, CA. Numerous fractures commonly with associated alteration Stringers throughout with CA ± PY - Minor xtal tuff zones. Textures and features of original formation are obliterated by alteration. - Numerous micro faults. + Crackle Bx. 19.5 - 19.7 xtal Tuff.
41.3 - 42.5	Crystal Lapilli Ash Tuff Med-light gn. Variable coloured crystals + lapilli from white to dark gn. -(Possibly Dyke?)

ALTERATION



PAGE 2 OF 4 | PROJECT MALAPUT | HOLE MAL 98-02

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn
3.1-6.7 - Rubble + 1% PY		3.1	6.7	3.6	298624	5	<0.2	34	88
6.7-7.3 Rubble 1-3% PY		6.7	7.3	0.6	298625	5	0.8	26	130
7.3-12.1 - Dominantly 1-3% Py		7.3	9.1	1.8	626	5	0.2	20	71
in fractures + diss. .									
		9.1	10.7	1.6	627	5	0.2	10	54
		10.7	12.1	1.4	628	5	0.6	22	86
12.1 - 13.4 Numerous CA. microfractures		12.1	13.4	1.3	629	5	0.6	78	187
PY dominantly in 1-2mm fractures									
1-3% PY		13.4	14.5	1.1	630	5	0.6	38	270
13.4-18.3 - 1-3% PY in fractures		14.5	15.8	1.3	631	5	0.6	24	177
+ weakly diss in MS/CA alt'd		15.8	17.1	1.3	632	5	0.4	40	124
Zones									
		17.1	18.3	1.2	633	5	0.4	8	67
18.3-19.5 1-3% PY - Dominantly		18.3	19.5	1.2	634	5	0.6	22	84
Fr. fill + diss. PY clustering		19.5	21.3	1.8	635	5	1.2	14	134
near EP. + CH fractures.		21.3	23.2	1.5	636	20	<0.2	4	74
19.5-24.7 - 3-5% PY clustering		23.2	24.7	1.5	637	5	<0.2	16	54
around minor PY-HE-EP		24.7	26.2	1.5	638	5	<0.2	28	52
fractures. Weakly SI zones									
		26.2	27.7	1.5	639	10	<0.2	10	53
24.7-29.3 1-3% PY as fr fill									
± diss. Very fractured/faulted		27.7	29.3	1.6	640	5	0.6	26	151
Swirl textured bedding									
29.3-30.8 - Tr PY + Tr GN±SP		29.3	30.8	1.5	641	5	<0.2	66	247
as small diss in CA Veins <2cm		30.8	32.3	1.5	642	5	0.2	82	281
30.8 - 32.3 - Minor GN+SP in CA		32.3	33.8	1.5	643	5	<0.2	22	122
veining, Tr PY									
32.3 - 41.3. Tr-1% PY as		33.8	35.4	1.6	644	5	<0.2	34	103
fracture fill		35.4	36.9	1.5	645	5	0.2	20	134
		36.9	37.8	0.9	646	5	0.2	18	171
		37.8	39.3	1.5	647	5	<0.2	18	120
		39.3	41.3	2.0	648	5	0.4	42	233

PAGE 3 OF 4

PROJECT MALAPUT

HOLE MAL 98-02

DEPTH (M)	% CORE REC	% RQD
45	100	62
50	99	75
	95	78
55	92	22
	88	27
60	92	45
	100	53
65	100	64
70	94	41
	95	42
75	96	65
80	100	77
	100	78
85	100	72
90		

LITHOLOGY

ANc

Strong CA Stn

CYm Fr.

PY Stngrs

ANa

STRUCTURE

25° CA

B 08 Crackle BX CA

15° CA 4cm

Fr

20°

Gouge Fr + BX 25°

PY in Fr.

Fr 35°

15°-30° PY micro fractures

38

B? 55

25° SI, PY <1mm fr.

B 30 ~Ghost Bedding

Strong Fe Stain/Fe

Gouge

E 35

CA

20° CA, HE

CA

Py,

30° CA, PY

CA 30

20° CA, PY,

GEOLOGICAL DESCRIPTION

42-5-54.0 Andesite Ash Tuff

Variably Coloured, shades of gn - light-med. Bedding appears to be @ a shallow angle to C.A. Extremely microfractured, and crackle brecciated. Variably altered. Numerous CA stringers + PY. Bedding features commonly eliminated by alteration

54.0 - 76.6 Intense Alteration Zone

Pale pastel gy-gn. Aphanitic

Weak wispy primary bedding?

Zones of extremely fractured core w/ rusty stain. <1mm Pyritic fractures ± SI

Alteration - CA, MS, SI + AB?

56.5 - 59.7. Strongly fractured, rusty stained

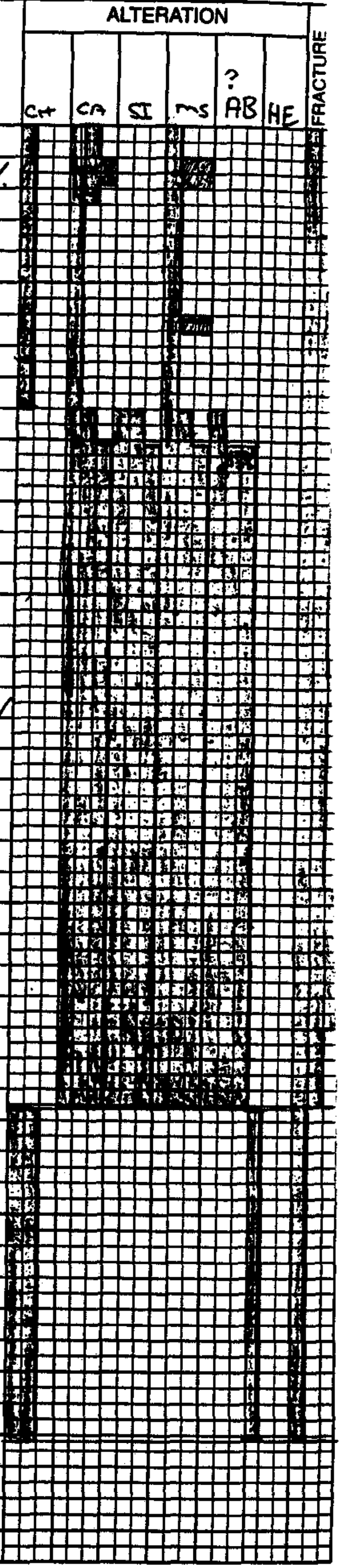
69.7 - 76.6 Strongly fractured, rusty stained

76.6 - 87.2 Andesite

Med.-dk gn. Med-fine grained

Weakly porphyritic. Dark, weakly hematitic "crystals" after augite? Pale green poorly formed F.S.. Minor fragments - This unit could possibly be an andesitic fragmental Numerous 1-2mm CA stringers

87.2. E.O.H.



PAGE 4 OF 4 | PROJECT MALAPUT | HOLE MAL 98-02

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn
45.4-47.4 Tr-1% PY assoc. wi <1cm CA veining in Strong MS/CA alt'd tuff.		45.4	47.1	1.7	298649	5	0.6	64	126
51.6-52.6 - Tr-1% PY in CA. in Strong MS. alt'n zone		51.6	52.6	1.0	650	5	<0.2	38	98
52.6-54.0 - Tr PY in strongly broken + CA Stgr./MS/CA/SI alt'n contact		52.6	54.0	1.4	651	5	0.2	42	149
54.0-55.4 - As Above - Strong MS alt'n.		54.0	55.4	1.4	652	5	0.6	20	159
55.4-56.4 - " "		55.4	56.4	1.0	653	5	0.6	24	143
56.4-58.0 - Rusty - strongly fr. + bx. minor gouge		56.4	58.0	1.6	654	5	0.8	402	291
58.0-59.7 - Tr PY in Rusty fr + PY+SI micro fractures <0.5mm		58.0	59.7	1.7	655	5	0.4	20	161
59.7-61.1 Tr Py in SI microfractures		59.7	61.1	1.4	656	5	<0.2	48	74
61.1-62.5 As Above		61.1	62.5	1.4	657	5	0.4	32	66
62.5-64.1 As Above + Rusty fracture surfaces. Minor PY increase @ 63.3m		62.5	64.1	1.6	658	5	0.6	50	89
64.1-65.8 Tr Py in microfractures		64.1	65.8	1.7	659	5	0.6	68	84
65.8-67.4 " " " " + minor PY in Dark CA+MS patches up to 1cm Avg = 3mm		65.8	67.4	1.6	660	5	0.6	62	127
67.4-68.9 - As Above		67.4	68.9	1.5	661	5	0.6	54	211
68.9-70.4 Tr-1% Py in fr. fill. Strongly broken, rusty fr. Mn stain		68.9	70.4	1.5	662	5	0.2	46	193
70.4-71.9 - As Above		70.4	71.9	1.5	663	5	0.2	118	177
71.9-73.5 - Strongly fr. - Rusty Fr		71.9	73.5	1.6	664	5	<0.2	42	122
73.5-75.0 - Rusty Fr + Tr PY in microfractures		73.5	75.0	1.5	665	5	0.4	62	114
75.0-76.6 Strongly fr. with PY along fr. Rusty surfaces, minor fault gouge near basal alt'n contact		75.0	76.6	1.6	666	5	0.2	18	111

EQUITY ENGINEERING LTD.

DRILL LOG

PROJECT Fawn - Malaput

HOLE MAL 98-03

LOCATION Grid So. 13 E 101.6

LOGGED BY J. Lehtinen

DRILLED BY Falcon Drilling Ltd / Gallant Trucking

ASSAYED BY Eco-Tech Labs Ltd.

CORE SIZE BTW

DATE STARTED Aug 24/98

DATE COMPLETED Aug 25/98

DIP TESTS BY

DEPTH	DIP	AZIM	DEPTH	DIP	AZIM
103.3	-63.5				

OBJECTIVE From the same location as MAL 98-02, steepen the drill hole to determine the dip of the alteration zone.

COLLAR ELEVATION 1245m

AZIMUTH 180°

DIP -65

LENGTH 103.3

HORIZONTAL PROJECTION 43.7

VERTICAL PROJECTION 93.6

ALTERATION SCALE

- absent
- slight
- moderate
- intense

SULPHIDE SCALE

- traces only
- < 1%
- 1% – 3%
- 3% – 10%
- > 10%

SUMMARY LOG

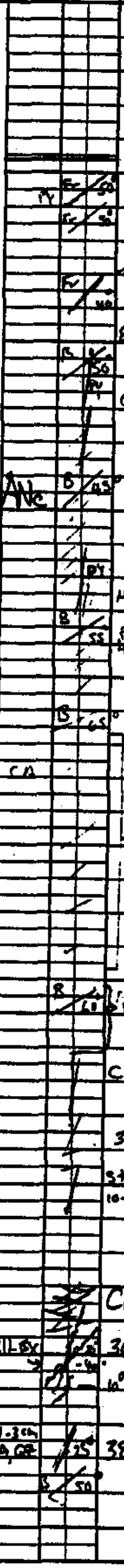
0-4.6 - Casing	
4.6 - 33.3 - Andesite Ash Tuff	4.9 - 10.3 - 1-3% PY
33.3 - 38.4 - Crystal Tuff	27.7 - 30.0 - 1-3% PY
38.4 - 91.8 - Intense Alteration Zone MS±CA, SI, AB	
91.8 - 103.3 - Andesite - Maroon	

PAGE 1 OF 6

PROJECT MALAPUT

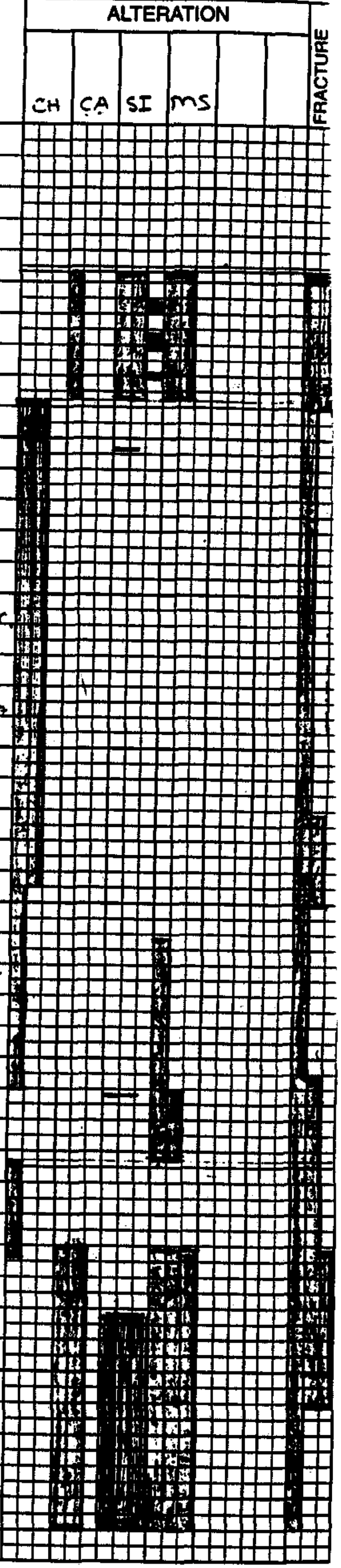
HOLE MAL 98-03

DEPTH (M)	% CORE REC	% RQD
0–4.9	CAS	ING
5	[illegible]	0
	97	47
	87	18
	95	45
10	100	92
	100	51
15	100	59
	93	75
	100	83
20	95	65
	100	39
25	100	53
	98	92
30	97	67
	100	56
	100	17
35	92	71
	96	33
	93	6
40	89	24
	106	83
45		



GEOLOGICAL DESCRIPTION

0- 4.6	Casing
4.6-4.9	Andesite Tuff
	Dark gn with lighter mottled fractures
4.9-8.8	Andesite Tuff =
Rusty Fr	Light gy to creamy gn-gy
	Strongly SI/MS ± CA altered.
Talc	Late SI/CA/PY fracture/stringers
8.8-	Andesite Ash Tuff
33.3	Mottled colour from dark green to cream.
CA Str.	Colour of individual beds extremely variable
≤2mm	due to alteration confined to bedding.
	Also, alteration associated with fractures.
	Micro fractured throughout. Numerous
	1-2mm CA fractures @ various orientations.
	Beds variable from mm scale laminae
HE	to cm thick beds. Py. strgrs commonly
PY HE	‖ to C.A. Displacing CA stringers @ 360° TCA
	minerals)
	29.2 - 31.1 - light purple (replacing beds in f.g.
	tuff. Numerous microfaults.
	Purple = Mix QZ(amethyst) ± MS?
Strongly	or Fluorite?
Distorted	- 32.0 - 33.3 Very strongly microfractured.
bedding	CA stringered and altered - MS.
QZ + .! HE	
C	
33.3-36.2	Crystal Tuff.
St-PY, HE 10-18°	Med. Gn. med grained. Crystals of med-
	light gn-gy f.s. indistinct boundaries
	Minor CY surrounding finer ash in matrix
	Numerous CA ± PY stringers up to 4mm
CA, Broken	throughout. PY+HE in QZ-CA stringers @
36.2-38.4	Crystal Tuff.
10°-Flt PY,HE	Buff, minor gn intervals of CH. Alteration
	increasing towards Flt/bx.
38.4 -	Intense Alteration Zone
91.8	Pale, pastel gy gn. Weak "ghost" bedding
	Numerous CA stringers throughout - with



PAGE 2 OF 6 PROJECT MALAPUT HOLE MAL 98-03

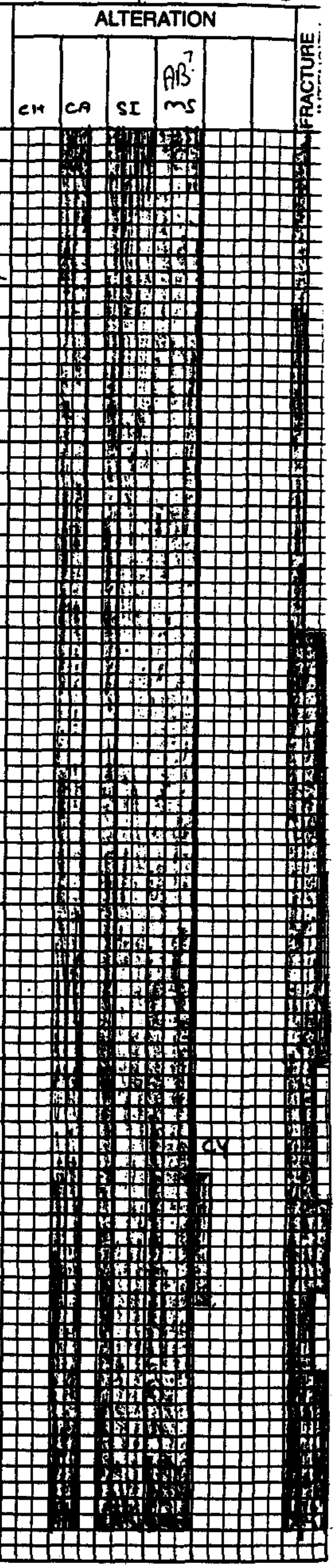
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS ppb Au	ASSAYS ppm Ag	ASSAYS ppm Pb	ASSAYS ppm Zn		
4.9-6.3 Mod MS + SI alt'n wi 1-3% Py as fr. fill + diss		4.9	6.3	1.4	298671	5	0.6	124	164		
6.3-7.6 As above		6.3	7.6	1.3	672	5	<0.2	10	77		
7.6-8.8 As above: End of alt'n @ 8.8.		7.6	8.8	1.2	673	5	0.4	80	159		
8.8-10.3 = 1-3% PY as fr. fill. Numerous fr // T.C.A.		8.8	10.3	1.5	674	15	1.0	66	79		
PY-											
27.7-29.2 - 3% Py as fr. fill + patchy zones + diss. in weakly mottled/altered zone		27.7	29.2	1.5	675	5	0.6	18	119		
29.2-30.0 - 1% Py in fr. fill. Purplish mineral = f.g. qz? + MS? or HE + Si?		29.2	30.0	0.8	676	5	0.4	10	78		
30.0-31.4 - Tr-1% Py in fr. + weak CA Vein. Minor purple mineral (as above) Minor Silicification		30.0	31.4	1.4	677	5	0.8	20	91		
38.4-40.0 Extremely broken, CA Str., talc'd Tr-1% PY along fr.		38.4	40.0	1.6	678	10	1.4	76	123		
40.0-41.1 Fault zone. with Tr. PY		40.0	41.1	1.1	679	5	0.4	176	355		
42.1-43.3 - Tr PY + minor black Qz = sx? Fine PY in Fr's CA + PY		42.1	43.3	1.2	680	5	0.6	44	71		

PAGE 3 OF 6

PROJECT MALAPUT

HOLE MAL 98-03

DEPTH (M)	% CORE REC	% RQD	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	
45	100	76			38.4- 91.8 (Cont'd)	varying orientation. Wispy bedding 50°? @ 43.7m.. 42.8 = Minor bx ‖ to QZ/CA Vn.
50	98	64	Fr PY	15°		
	100	96				
55	100	65	Fr	3cm 40° 20°	CA· PY CA+PY	
	100	43	Fr Tr PY		15-20°	
60	98	51	Fr		CA	61.4 – 71.9 – Strong CA. Fr. ‖ TCA over entire interval.
65	96	81			CA ‖ CA.	
	94	85	ANc PY	22°	Vuggy CA + PY	
70	98	29			QZ + PY	71.8 – 74.2 – Crystal Tuff – xtals up to 2mm – Light gn to HE. alt'd
	94	51				74.2 – 75.2 – Extremely broken & Rusty Fault gouge + bx @ 74.6-74.8
75	100	92	Fr		30°-50° wi PY	Fine hairline fr. wi PY.
80	93	56				78.0 – 79.7 – "Blotchy" Core. = pale gn wi dark gy spots & lines = CA + PY. 79.7 – 82.6 – Rusty fr. + Mn stain. Minor Clay alt'd zones.
	106	56				
85	83	33				91.8 = Sharp, broken contact wi HE andesite
90	97	41			Fr along C.A. + Fr 20-30°	



PAGE 4 OF 6 | PROJECT MALAPUT | HOLE MAL 98-03

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
45											
50											
54.0-55.4 - Tr PY in CA filled fr. @		54.0	55.4	1.4	298681	5	0.6	24	41		
55) 20-40° TCA.											
60) 59.8-61.3 - Tr - 1% PY as fr. fill		59.8	61.3	1.5	682	5	1.0	184	188		
65) 65.8-66.7. Vugg CA veining along C.A.		65.8	66.7	0.9	683	5	0.4	130	232		
1% PY											
75											
78.0 - 79.7 - Tr - 1% PY in hairline		78.0	79.7	1.7	684	5	<0.2	42	151		
80 fractures + patchy CA clusters											
81.1 - 82.6 - Strongly alt'd, rusty, Mn		81.1	82.6	1.5	685	5	0.4	68	149		
stain ± CY, Tr PY											
85) 82.6 - 84.1		82.6	84.1	1.5	686	5	0.2	18	33		
88.7-90.2 - 1% PY in extremely		88.7	90.2	1.5	687	5	2.2	164	117		
fractured + distorted bedding.											
90.2-91.8. 1% PY in fractured		90.2	91.8	1.6	688	10	1.6	36	109		
90 + faulted zone PY in											
fractures.											
		91.									
95											

PAGE 5 OF 6

PROJECT MALAPUT

HOLE MAL 98-03

DEPTH (M)	% CORE REC	% RQD			LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION						FRACTURE
									CH	CA	SI	AB? mS	illite? HE	primary =	
90							PY								
	95	20			Fil.: 25°		91.3								
							91.8 –	Andesite							
	100	32			AND		103.3	Dk maroon with lighter, patchy,							
95					CA	20°		zones of CH, QZ-CA. Porphyritic with							
						30°		lighter (gn-gy) F.S. phenos up to 2mm.							
	89	30			CA	28°		Possibly xtals (xtal tuff component)							
								HE xtals in QZ-CA blebs @ 96.0-96.3							
								Needle-like crystals up to 5mm. Numerous							
100					Fils.		25°, 40° CY	fractures with CA/CH ± Tr PY							
	100	36						Subareal volcanic = HE. maroon							
							10° CH, CA								
	89	20					CH, CA								
								103.3 E.O.H.							
105															
110															

PAGE 6 OF 6 | PROJECT MALAPUT | HOLE MAL98-03

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
91.8 - 93.3 - Tr. PY on CH fracture surfaces.		91.8	93.3	1.5	298689	5	<0.2	26	89		

EQUITY ENGINEERING LTD.

DRILL LOG

PROJECT FAWN - MALAPUT	**COLLAR ELEVATION** 1250
HOLE MAL 98-04	**AZIMUTH** 180°
LOCATION GRID So 8m E. 1.5m	**DIP** -50
LOGGED BY J. Lehtinen	**LENGTH** 147.8
DRILLED BY Falcon Drilling / Gallant Trucking	**HORIZONTAL PROJECTION** 95.0
ASSAYED BY Eco-Tech Labs	**VERTICAL PROJECTION** 113.2
CORE SIZE BTW	

DATE STARTED Aug 25/98

DATE COMPLETED

DIP TESTS BY

DEPTH	DIP	AZIM	DEPTH	DIP	AZIM
147.8	-49.5				

OBJECTIVE

Step out 100m West along Malaput.

ALTERATION SCALE

0 1 2 3

- absent
- slight
- moderate
- intense

SULPHIDE SCALE

0 1 2 3 4

- traces only
- < 1%
- 1% – 3%
- 3% – 10%
- > 10%

SUMMARY LOG

0-6.1 - Casing	
6.1-34.2 Strong Alteration Zone MS, CA, SI ± AB,	6.1-36.1 - 1-3% PY
- Also weak KF alt'n?	
34.2-36.1 Fault Gouge and Breccia	
36.1-42.9 - Strong Alteration Zone (Same as above)	
42.9-62.9 - Andesite Ash Tuff	57.5-60.9 - 1-3% PY
62.9-79.1 - Extremely altered zone MS, CA, ± SI, AB?	- Trace GN
79.1-86.0 - Strong - Extremely altered	
86.0-87.1 - Andesite (Dyke)	
87.1-92.5 - Feldspar Porphyry	
92.5-95.0 - Andesite Dyke	
95.0-119.0 - Strongly Altered Zone MS, CA, ± SI, AB?	
119.0-127.8 - Andesite Augite Porphyry	
127.8-147.8 - Strong Alteration Zone Few SX	
MS, CA ± SI, AB?, KF?	

PAGE 1 OF 8

PROJECT Fawn - Malaput

HOLE MAL 98-04

DEPTH (M)	% CORE REC	% RQD
0–7.8	Casing	
	31	0
	75	17
10	86	39
	93	49
	94	0
	100	42
15	97	55
	99	47
20	99	29
25	90	32
	100	40
30	100	25
	90	18
	92	58
35	91	53
40	99	68
	100	74
45	100	88

LITHOLOGY / STRUCTURE

Slip

Ete

Banding

CA

Ete

1.5cm CA

ANc

PY 10°

PY 25-30°

B 20

60

PY 20-35°

PY 35°

B! 40°

PY

Strong Fc

60°

weak Fe Stain

Extremely fractured + CA Veined

Fault Gouge + BX

40° PY

12°

B 28°

30°-CA Vnsty

GEOLOGICAL DESCRIPTION

0 – 6.1 Casing

6.1–7.8 Rubble
Rusty, rubbly core. Minor MS, CA alt'd rock w/ minor PY stringers
Protolith = Banded Tuff?

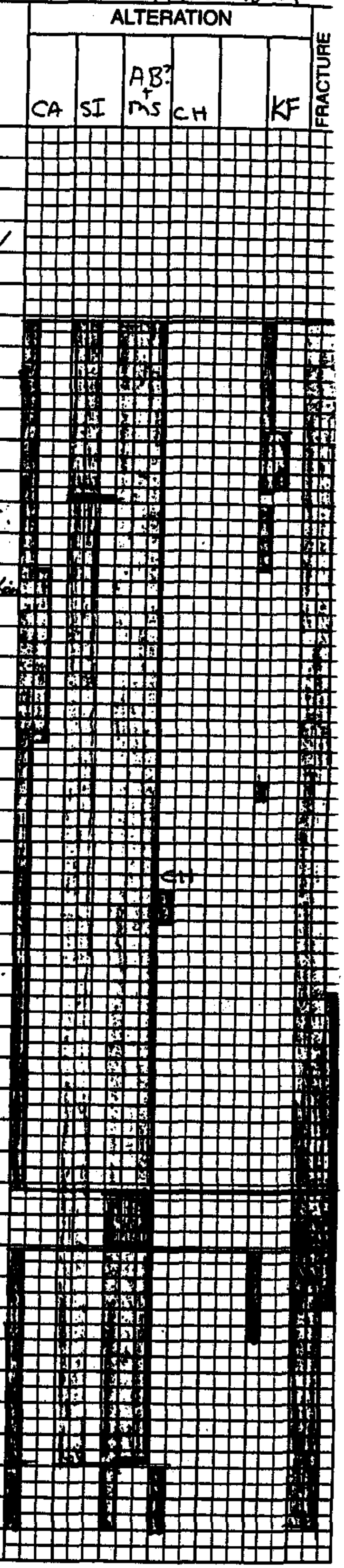
7.8–34.2 Strong Alteration Zone
Protolith = Banded Ash Tuff?
Variably to mottled colour throughout.
Colour varies from light gy to gn-gy to salmon-orange-pink. Dis PY throughout. Strongly broken + CA stringered throughout.
7.8 – 14.1 = Salmon-Orange Pink alteration = MS + Kspar?
Thin ≤1mm Pyrite str. @ 10°-35° TCA. Cut by later CA stngrs.
21.0 - 21.7 : Wk KF alt'n.
24.5 - 25.6 - Remnant texture = Xtal Tuff?
Weak CH alt'n. + St MS alt'n

34.2-36.1 Fault Gouge + Fault Breccia

36.1-42.9 Strong Alteration Zone
Similar to zone above fault.

40.9 - Late PY Stngr x-cutting CA.

42.9 – 62.9 Andesite Ash Tuff
- Mottled dark to light gn.
- Thin beds <1cm (when present)
- Strongly distorted with numerous



PAGE 2 OF 8	PROJECT FAWN. MALARUT	HOLE MAL98-04

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
6.1 - 9.1 - Rubbly core - 3% PY. Diss.		6.1	9.1	3.0	298690	5	0.4	22	124		
9.1 - 10.7 - K-spar Alt'd? 1-3% PY - fr. fill + diss. Strong Salmon - orange		9.1	10.7	1.6	691	5	<0.2	8	53		
10.7 - 11.9. As above ± Sl zone basal 25cm		10.7	11.9	1.2	692	5	0.2	16	115		
11.9 - 13.7 - 3% PY as fr fill + diss as alt'n fronts. in K-spar alt'd zone		11.9	13.7	1.8	693	5	0.4	56	127		
13.7 - 15.2 3% Py - diss as alt'n. + fr. fill		13.7	15.2	1.5	694	15	0.2	16	80		
15.2 - 16.7 - 3% PY as above		15.2	16.7	1.5	695	5	0.2	12	90		
16.7 - 18.2 ≈ 5% PY as alt'n front (diss) + fr. fill		16.7	18.2	1.5	696	20	1.0	16	126		
18.2 - 19.8 1-3% PY as fr. fill - hairline stringers.		18.2	19.8	1.6	697	5	0.4	12	83		
19.8 - 21.3 1-3% PY as above wi weak Kspar? alt'n. Strong MS.		19.8	21.3	1.5	698	5	0.4	10	57		
21.3 - 22.9 - 1% Fr. Fill + diss PY. WK Kspar? alt'n strong MS		21.3	22.9	1.6	699	30	0.2	8	78		
22.9 - 24.4 - 1-3% PY - As above. Strong Rusty Fr along C.A. CA stringers		22.9	24.4	1.5	700	5	0.8	22	120		
24.4 - 25.9 1-3% PY in WK CH ± Sl MS alt'd xtal Tuff PY Diss in clusters.		24.4	25.9	1.5	701	5	1.2	16	153		
25.9 - 27.4 1-3% in hairline stringers, diss + fr. fill		25.9	27.4	1.5	702	5	0.6	14	97		
27.4 - 29.0 - 1-3% PY in strongly fr. + wk Kspar altn, Fe stain on fractures.		27.4	29.0	1.6	703	5	0.8	22	130		
29.0 - 30.5 As Above		29.0	30.5	1.5	704	5	1.2	16	77		
30.5 - 32.0 - Diss PY 1-3% - Altn, ± Fr. fill		30.5	32.0	1.5	705	5	1.2	26	115		
32.0 - 33.0 } Extremely fractured, CA stgrs,		32.0	33.0	1.0	706	5	1.4	110	182		
33.0 - 34.2 } minor Flts. 1-3% Py in fractures		33.0	34.2	1.2	707	5	1.2	28	110		
34.2 - 36.1 Fault gouge + bx. 1% PY in fractures / frag's + in gouge		34.2	36.1	1.9	708	5	0.4	30	907		
36.1 - 37.5 Tr - 1% PY in v. strongly CA stringered + Alt'd. + wk K-spar? - orange alt'n.		36.1	37.5	1.4	709	5	0.6	32	82		
37.5 - 39.0 wk Kspar? orange alt'n + CA/QZ Str Tr - 1% PY as diss + fr. fill.		37.5	39.0	1.5	710	5	0.4	12	88		
39.0 - 42.9. - 1% PY as alt'n + wk fr. fill		39.0	40.5	1.5	711	5	0.4	6	49		
Decreasing MS alt'n downhole.		40.5	41.7	1.2	712	5	<0.2	6	60		
② Str CA/QZ = barren ① PY + QZ - 1st		41.7	42.9	1.2	713	5	0.6	10	55		
42.9 - 44.4 - 1-3% Py in CH ± wk MS alt'd Tuff PY as alt'n + fr. fill Minor HE in fractures		42.9	44.4	1.5	714	5	0.8	18	138		

PAGE 3 OF 8 | PROJECT MALAPUT | HOLE MAL 98-04

DEPTH (M)	% CORE REC	% RQD
45	100	88
	100	62
50	94	30
55	100	50
	93	25
60	99	42
	93	26
65	77	20
70	89	14
	84	13
75	100	5
	25	0
80	100	16
	98	64
	95	0
85	86	17
	100	61
90		

LITHOLOGY: AN (52–57 m); ANa (81 m); Contact; FP (88 m)

STRUCTURE: CA; Slip; 90°; 30° CA+Bx; PY/CA 25°; 25° Flt Gouge; CA; 15° CA 15cm; CA, PY, Vuggy; HE; GN; Tr GN; 45°

GEOLOGICAL DESCRIPTION

fractures, stringers of CA, CA+PY
All at various ∡'s TCA. PY as
diss, fr. fill + strgrs.

52.3 – 60.9 Extremely microfractured/stringered
Stringers as strong stockwork or erratic
(late faulted or following fractures)
Stringers = CA-QZ mix

60.9 – 62.9 : xtal lapilli ash tuff, minor light
gn alt'd frags = Fuchsite? ⇒ Chlorite

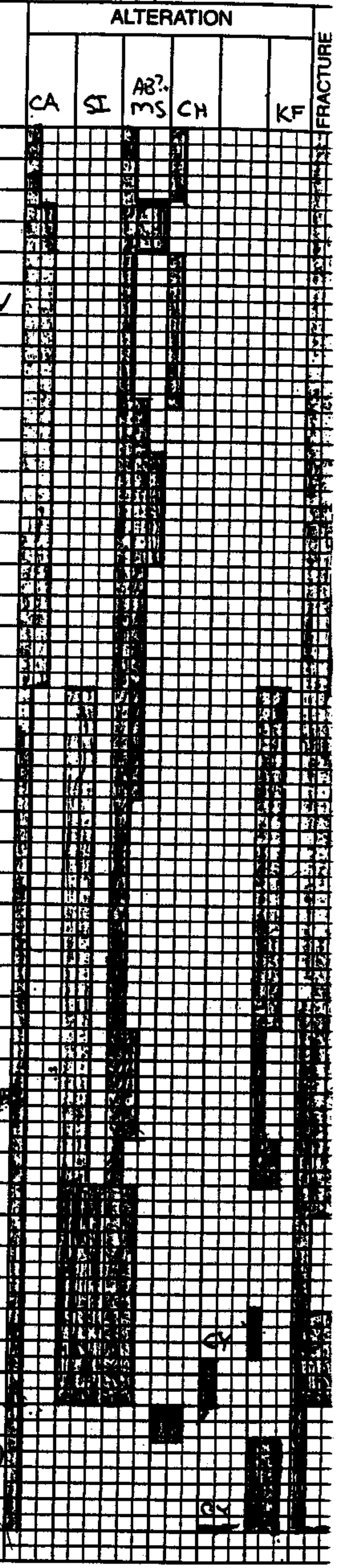
62.9 – 79.1 Extremely Altered Zone
Protolith = Bedded Ash Tuff(?)
Salmon orange – to light grey
Brittle fracture throughout interval
Pyritic, QZ hairline stringers ∥ TCA
+ 10–15° +30° + 50–60°
Tr. GN in fractures + CA stringers
Tr –1% PY in Hairline stringers (QZ)
Salmon Orange alteration = Kspar?
"spotted" zones possibly altered xtal
+/or lapilli Tuff.

79.1 – 86.0 Strong – Extremely Altered
– Protolith = Augite porphyry?/
Crystal Lapilli Tuff?
Light gy – white, minor orange (KF)
seching CY alt'n @ base
Throughout interval = 1mm circular
"spots" or crude ◯ polygons, med
gn in white matrix minor PY
on fractures Tr. GN

86.0 – 87.1 Andesite Dyke. Med – Dk gn.
Clay alt'd upper contact, Sharp basal contact (45°)
Chill margins

87.1 – 92.5 Feldspar Porphyry
Pink – beige – pink

ALTERATION



PAGE 4 OF 8 PROJECT MALAPUT HOLE MAL 98-04

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
57.5 - 59.4 - Strong Alt'n + erratic PY in Fr. Fill. Very erratic. 1-3° PY.		57.5	59.4	1.9	298715	5	1.6	22	160		
59.4 - 60.9 1-3% - Fr. fill + patchy PY erratic CA-QZ stringers		59.4	60.9	1.5	716	5	1.6	24	135		
63.9 - 65.4 - Strongly Fr. - Orange Kspar alt'n Tr PY in Si fractures, MS on frac.		63.9	65.5	1.6	717	5	0.2	30	90		
68.6 - 70.1 As above + 1st appearance of Tr. GN.		68.6	70.1	1.5	718	10	1.2	112	116		
74.7 - 76.2 - Strongly Fr. Tr - 1% PY in hairline QZ stringers. Minor Tr. GN. in CA + QZ stringers		74.7	76.2	1.5	719	20	0.6	350	403		
76.2 - 77.7 - As Above - basal 0.9m = xtremely broken. (WK KF Alt'n)		76.2	77.7	1.5	720	10	<0.2	182	90		
79.1 - 80.8 - Tr PY - Alt'n change to Blended white + SE phases ("spots") Tr. GN in CA Stngrs.		79.1	80.8	1.7	721	5	0.2	170	111		

PAGE 5 OF 8

PROJECT MALAPUT

HOLE MAL 98-04

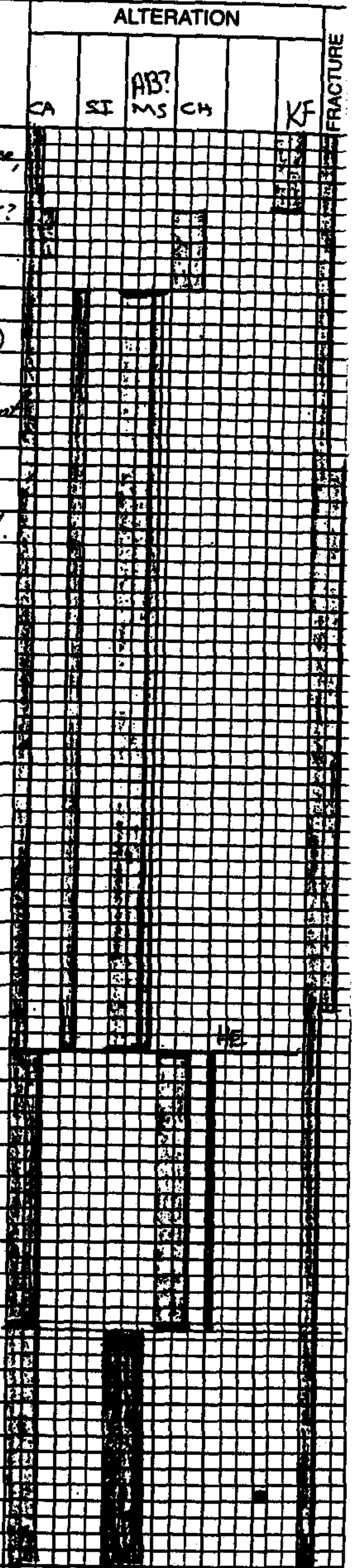
DEPTH (M)	% CORE REC	% RQD
90	97	42
	100	65
95	100	67
	96	22
100	100	42
	95	28
	100	25
	96	41
105	100	32
110	92	37
	100	25
115	100	37
	100	60
120	100	82
125	99	80
	99	69
130	100	82
135	100	65

LITHOLOGY: FP, AN, CA, ?, 15°, AN?, CA, AN, Contact, Fr, AN?, Fr

STRUCTURE: 22°, 20°, 15°, 13°, 12°, 12°, 18°, 25°, 25°, 20°, 80° - 15cm Dyke (andesite)

GEOLOGICAL DESCRIPTION

87.1- 92.5 (cont'd)	Med-coarse grained. Xtal boundaries diffuse, minor QZ eyes. Dark 0.5mm hematite diss throughout. Pink-orange = KF alt'n? or HE? This unit could be a xtal Tuff!
92.5-95.0	Andesite (Dyke) - Dark gn w/ white phenos (F.S.) Competent Core
95.0- 119.0	Strongly Altered Zone (Protolith=?) Light pastel gy-gn = Sericite G.N. Uniform texture - Primary features absent. Strongly broken throughout with CA in fractures. Strong fracture direction 10°-20° TCA. Weak PY throughout - Tr. Gradational Basal contact.
CA Str.	
119.0- 127.8 Banding - Alt'n?	Andesite - Augite Porphyry Dark green. Black Augite phenos up to 2mm. Strong CA, CH alt'n. Weak HE alt'n. Competent core with minor CA stringers < 2mm. Green - Brown over basal 1.5m = weak BI Hornfels Basal contact = Weak HE + CA-CH Stringers @ 23° TCA
127.8- 147.8	Strong Alteration Zone (Protolith=?) Similar to 95.0-119.0 Weakly SI-PY stringered, minor HE. Minor Kspar(?) @ 132.7-133.0 136.8-147.8. Fractures along C.A. and shallow 10-25° TCA. CA along fr. Grey fr = py + QZ. = hairline stringers?



PAGE 6 **OF** 8 | **PROJECT** MALAPUT | **HOLE** MAL 98-04

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm As	ppm Pb	ppm Zn		
90.3-91.8 - 0 Sulphides - HE. diss. KF alt'n? (possibly HE)		90.3	91.8	1.5	298722	25	<0.2	8	28		
105.0-106.5 - Tr. PY in minor Hairline fractures. Spotted patchy band = minor SX + QZ?		105.0	106.5	1.5	723	5	<0.2	22	69		
125.4-126.7 - Chloritic / CA stringers < 3mm with PY PY = Tr-1% minor HE.		125.4	126.7		724	5	0.4	50	120		
129.5-131.0 - 1% PY in fractures @ 10-25° TCA in St. MS. twk KF alt'n.		129.5	131.0		725	5	<0.2	22	24		

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PROJECT MALAPUT

HOLE MAL 98-04

DEPTH (M)	% CORE REC	% RQD			LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION CA	SI	MS			KF	FRACTURE
135							127.8 – 147.8 (cont'd.)								
	91	43													
	100	6				Fe 28°									
140	100	46				18°									
					AN?		Oa								
	99	70													
145	100	69													
								147.8							

PAGE 8 **OF** 8 | **PROJECT** MALAPUT | **HOLE** MAL-98-04

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
138.7 - 140.2 - Tr-1% PY in Fr. wk KF alt'n. CA strgrs w/ PY+HE.		138.7	140.2	1.5	298726	5	<0.2	14	48		

EQUITY ENGINEERING LTD.

DRILL LOG

PROJECT FAWN – MALAPUT

HOLE MAL 98-05

LOCATION GRID So 10.6 E 1.5.

LOGGED BY J. Lehtinen

DRILLED BY Falcon Drilling Ltd. /Gallant Trucking

ASSAYED BY Eco-Tech Labs

CORE SIZE BTW

DATE STARTED

DATE COMPLETED

DIP TESTS BY

DEPTH	DIP	AZIM	DEPTH	DIP	AZIM
108.2	-49.5				

OBJECTIVE

COLLAR ELEVATION 1250

AZIMUTH 360

DIP -50

LENGTH 108.2

HORIZONTAL PROJECTION 69.5

VERTICAL PROJECTION 82.9

ALTERATION SCALE

absent
slight
moderate
intense

SULPHIDE SCALE

traces only
< 1%
1% – 3%
3% – 10%
> 10%

SUMMARY LOG

0-6.7 - Casing
8.4-20.3 - Andesite Ash Tuff
20.3-23.4 Andesite
23.4-26.6 - Feldspar Porphyry
26.6-27.6 - Andesite
27.6- 34.9 - Strong Alteration Zone
34.9-46.9 - Andesite Ash Tuff
46.9-53.9 - Andesite
53.9-56.0 - Andesite Crystal Tuff.
56.0-70.5 - Banded Ash Tuff
70.5-71.3 - Crystal Tuff
71.3-87.4 - Banded Ash Tuff
87.4-92.9 - Crystal Tuff.
92.9-96.2 - Andesite
96.2-108.2 Crystal Tuff

6.7 - 20.3 1-3% PY
23.4-34.9 Tr CP, PY, SP
77.3 - 93.5 Tr GN, SP

PAGE 1 OF 6

PROJECT FAWN – Malaput

HOLE MAL 98-05

DEPTH (M) | % CORE REC | % RQD | LITHOLOGY | STRUCTURE

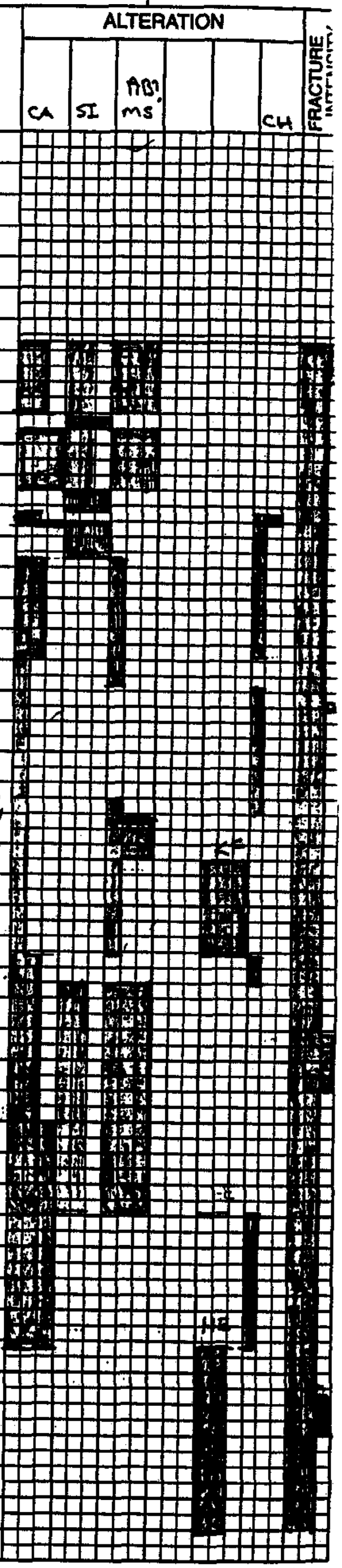
GEOLOGICAL DESCRIPTION

% CORE REC	% RQD
80	27
88	39
100	67
98	79
100	58
98	26
98	49
100	40
100	65
96	34
100	76
100	69
97	71
100	69
100	78

ANc B 35°
CP in CA
80°
PY/CM
QZ,CA SA PY
80°
Contact CY 15
ANb 80° QZ±CA
30 1cm CA
FP
PY
ANb
CA 45°
GN
40°
AN
QZ,CA PY 30
CA 15cm 20
AN
PY 40°
B 80°
ANc
PY
20° CA
B 70°

0-6.7	Casing
6.7-8.4	Rubbly Rusty Ash Tuff. Very Rusty, pyritized. Minor sections of MS alt'd/Pyritized, featureless core.
8.4-20.3	Andesite Ash Tuff Med-Light gn to gn-gy. Colour variable due to ash tuff banding + variable alteration. Strongly crackle bx. Minor CA stringering - multiphase PY strongly diss as alt'n fronts + fr. fill. Minor CP in CA @ 14.8m.
20.3-23.4	Andesite Med-gn over upper 1.5m, becoming increasingly altered (MS + CA) Upper interval with White Dol? Ak. amygdules: CA
23.4-26.6	Feldspar Porphyry -Salmon - Orange Light gn MS alt'd F.S. phenos in salmon orange matrix of K-spar alt'n? Remnant Magnetite alt'd to HE.
26.6-27.6	Andesite - as 20.3 - 23.4
27.6-34.9	Strongly Altered Zone Protolith = Andesite? - Andesite-Tuff Very strongly stringered/fractured with CA Veining up to 15cm. Tr GN Tr-1% PY
34.9-46.9	Andesite Ash Tuff 34.9 - 39.3 = Med GN. fine grained, Strong crackle bx. WK HE (patchy) PY in fr. + diss 39.3 - 45.6 - As above, but strong HE alt'n (erratic distribution) along beds, but non altered by later stringers 45.6 - 46.9 No. HE alt'n, CA along C.A. + Stringered (magnetic throughout)

ALTERATION



PAGE 2 OF 6	PROJECT Fawn-Malaput	HOLE MAL 98-05

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn
6.7-8.4 - Diss Py as alt'n in st. MS. alt'd Andesite tuff?) PY = 1-3%		6.7	8.4	1.7	298727	5	0.4	16	96
8.4-9.9 - 1-3% PY-diss. Si Alt'n 9.1-9.9		8.4	9.9	1.5	728	10	<0.2	12	58
9.9-11.5 3-5% PY as alt'n (diss) + fr. fill		9.9	11.5	1.6	729	30	0.8	14	115
11.5-12.6 - 3-5% Py as above SI from. 11.5-12.2		11.5	12.6	1.1	730	15	0.4	22	106
12.6-13.9 1-3% Py - diss + fr. fill SI from 12.6-13.7		12.6	13.9	1.3	731	5	0.2	10	60
13.9-15.4 Tr-1% PY, Tr CPQ 14.8m (CH alt'd)		13.9	15.4	1.5	732	5	0.4	16	193.
15.4-16.8 1-3% PY in Fr + CA		15.4	16.8	1.4	733	10	<0.2	18	168
16.8-18.3 Dominantly CH Alt'n. MS		16.8	18.3	1.5	734	5	<0.2	12	108
18.3-20.3 @ 17.2-18.6		18.3	20.3	2.0	735	5	<0.4	24	175
21.8-22.5 - Alt'n (MS) surrounding QZ veining. 1-3% Py in veining Tr PY in alt'n.		21.8	22.5	0.7	736	5	0.8	14	187
23.4-24.9 - Tr CP, PY ± SP in hairline stgrs (QZ) in Intrusive. WK CY alt'n		23.4	24.9	1.5	737	5	<0.2	6	50
27.3 - 28.9 - Very Strongly CA veined + alt'd.		27.3	28.9	1.6	738	5	<0.6	18	167
28.9 - 30.4 Tr GN, SP, in CA veining. All		28.9	30.4	1.5	739	5	1.7	102	207
30.4 - 32.0 strong MS alt'd. Veining erratic + x-cutting. Tr - 1% PY		30.4	32.0	1.6	740	5	1.4	38	187
32.0-33.5 - 1% Diss PY-alt'n., 15cm -CA vein, Tr PY ± GN, SP?		32.0	33.5	1.5	741	5	0.6	12	134
33.5-34.9 - 1-3% PY - diss + Fr. fill		33.5	34.9	1.4	742	5	0.2	14	74
38.1 - 39.4 - 1-3% PY as Fr fill in CH + CA Fr. Single 1cm QZ-CA + Py vn.		38.1	39.4	1.3	743	5	0.7	26	138
44.1 - 45.6 - Tr PY in Fr. in strong HE alt'd RX.		44.1	45.6	1.5	744	5	<0.2	30	89

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PROJECT MALAPUT

HOLE MAL 98-05

DEPTH (M): 45, 50, 55, 60, 65, 70, 75, 80, 85, 90

% CORE REC	% RQD
100	78
98	71
100	68
99	73
100	38
96	66
100	72
100	81
100	59
96	49
100	72
100	68
98	66
100	78
100	89

LITHOLOGY: ANc, PY, CA, AN, AN, ANc, AN

STRUCTURE: 15° CA, 20°, 10°, CA, PY, Gouge, BX, B 45°, CA, MS, QZ, 60° SH, CA, PY, B 60° PY, 40° CA., B 57° Vuggy PY in Fr., B 40°, B 15°, Faulted, Broken, B 50°, B 50°, B 40°, 30° - PY, CA/QZ, 35° B, 30° V - PY 5mm

GEOLOGICAL DESCRIPTION

46.9-53.9 Andesite?
Med- light gn med-fine grained
Strongly Crackle bx. + CA/QZ PY
Stringers. Commonly along C.A.
Minor F.G Ash Tuff inclusions. Altered
zones with clusters of CH + PY
(possibly bombs to lapilli) weak HE
alt'n, WK MS alt'n.

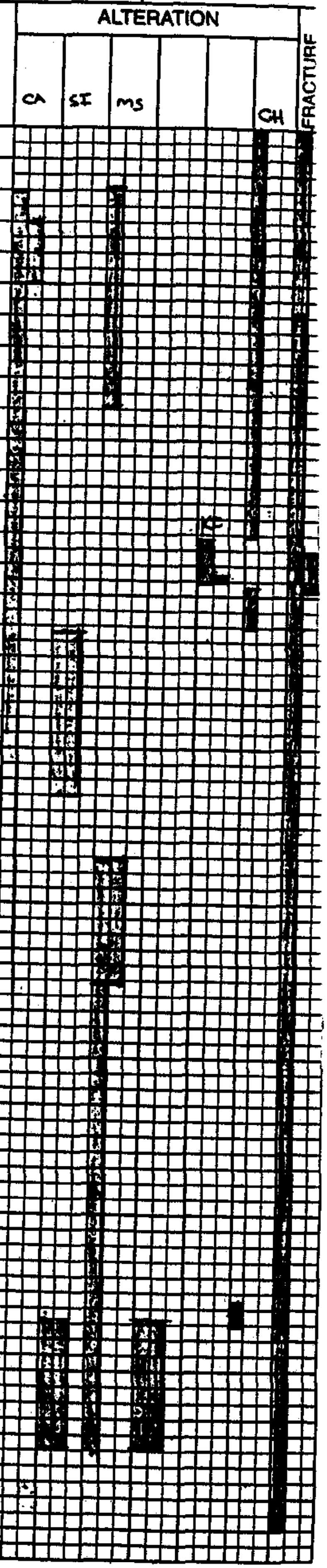
53.9-56.0 Andesite Crystal Tuff
Med-light gn-Gn-gy. xtals in gn matrix
F.S. xtals up to 2mm-densely packed.
Minor PY in Fr.

56.0-70.5 Banded Andesite Ash Tuff
Variably coloured-bed specific/mottled.
Overall = med gn-gy. Variable buff-beige, med
gy + gn. Mod-strongly stringered CA, PY, QZ
59.4 = fault with KF alt'n in HW. (25cm)
Variably CA altered - weak overall, weak MS
alt'n. Minor SI zones 61.3-66.3 (Banded)

70.5-71.3 Crystal Tuff.
Pale gn- Coarse xtals up to 3mm. St MS alt'n
Black mineral = VFG. PY? Broken + QZ-CA @ contacts

71.3-82.4 Banded Andesite Ash Tuff
Variably coloured. Dk gn → pink gy → buff.
Strongly fractured, stringered → CA, PY, QZ
82.3-82.4 = Albite alt'd? / SI - Light Pink gy
V. hard..
Colour variable due to alt'n. Numerous
microfractures & step faults.

82.4-92.9 Crystal Tuff
Med Gn Med.-coarse grained
Lt gn - white F.S. xtals in gn matrix
weak fol'n => bedding. Minor PY
Stgrs. CA stringers <1mm.



PAGE 4 OF 6 | PROJECT MALARUT | HOLE MAL 98-05

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS ppb Au	ASSAYS ppm Ag	ASSAYS ppm Pb	ASSAYS ppm Zn		
53.9-55.7- 5% PY diss & Fr. fill		53.9	55.7	1.6	298745	5	1.2	66	145		
57.2-58.7- Tr-1% PY in CA stngr'd + wk KF alt'n.		57.2	58.7	1.5	746	10	1.2	150	591		
58.7-60.1 - T-1% PY - Flt. with KF - alt'n.		58.7	60.1	1.4	747	5	2.0	322	862		
61.3-62.8- 1% PY in Fr. fill - Silicified Tuffs		61.3-	62.8	1.5	748	5	0.4	32	145		
65.8-66.8 - Fracture subparallel to C.A. = 5mm = Vuggy wi PY 1-3% PY overall		65.8	66.8	1.0	749	20	0.2	50	113		
71.3-72.8 - Tr-1% PY - in QZ-CA Stringered + wk KF altered zone PY in Fr.		71.3	72.8	1.5	750	5	1.4	88	287		
72.8-74.3 - 1-3% in Fr. - Fault zone		72.8	74.3	1.5	751	15	1.6	544	814		
74.3-75.7- 1-3% PY as Fr. fill		74.3	75.7	1.4	752	5	0.8	26	117		
79.0-80.4 - 1% PY as fr. fill (Random sample)		79.0	80.4	1.4	753	5	0.8	28	120		
82.6-84.1 - 1-3% PY - across alt'n change CH → AB. PY diss + F. fill		82.6	84.1	1.5	754	5	<0.2	12	53		

PAGE 5 OF 6

PROJECT MALAPUT

HOLE MAL 98-05

DEPTH (M)	% CORE REC	% RQD	LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION	ALTERATION CA	SI	MS			CH	FRACTURE INTENSITY
90			AN		92.9-96.2	Andesite							
	100	86	Flt/ Bed?	/30		Dyke? or Flow?							
						mod-dk gn. vf.g. to aphanitic							
						Variably altered - CH + HE + CA							
95	100	85	AN			-Magnetic. Weak PY, CA strs							
				/38	96.2-	Crystal Tuff							
			B		108.2	Mod-light gn. Mod-strongly altered							
	98	73				Mottled colour. Crystals distinct to diffuse							
				/20	QZ,PY,CA	to obliterated by alt'n. F.S. up to 5mm.							
100				/20	Kont by CA	PY/CA/QZ stringers up to 4mm.							
	100	88	AN	/25 /40	QZ-PY PY	WK CA alt'n, numerous CA hairline fractures							
			B	/38									
	100	75											
105				/30	PY,QZ,CA								
	99	89									BI		
				/28	PY,QZ								
						108.2 E.O.H.							

PAGE 6 OF 6 | PROJECT MALAPUT | HOLE MAL 98-05

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
98.2 - 108.2 - Tr PY, minor diss + minor fr. fill. Stringers commonly 20-30° TCA											
99.0 -100.5 Tr-1% Py in QZ Stringers (Random Sample)		99.0	100.5	1.5	298755	5	<0.2	24	36		

EQUITY ENGINEERING LTD.

DRILL LOG

PROJECT Fawn Malaput

COLLAR ELEVATION 1240

HOLE MAL 98-06

AZIMUTH 180

LOCATION Grid E 300.7 S 29.3

DIP -50

LOGGED BY J. Lehtinen

LENGTH 62.8

DRILLED BY Falcon Drilling Ltd. / Gallant Trucking

HORIZONTAL PROJECTION 40.4

ASSAYED BY Eco-Tech Labs

VERTICAL PROJECTION 48.1

CORE SIZE BTW

DATE STARTED

DATE COMPLETED

DIP TESTS BY

DEPTH	DIP	AZIM	DEPTH	DIP	AZIM
62.8	-52.5				

ALTERATION SCALE

absent
slight
moderate
intense

SULPHIDE SCALE

traces only
< 1%
1% – 3%
3% – 10%
> 10%

OBJECTIVE Stepout 100 m east of hole MAL 98-01

SUMMARY LOG

0-3.7 Casing
3.7-13.4 - Andesite Ash Tuff
13.4-19.8 - Diorite
19.8-48.3 - Andesite Ash Tuff
48.3-61.1 - Banded Argillite + Ash Tuff
61.1-62.8 - Crystal Tuff

23.7-30.1 = Strong MS, CA alt'n

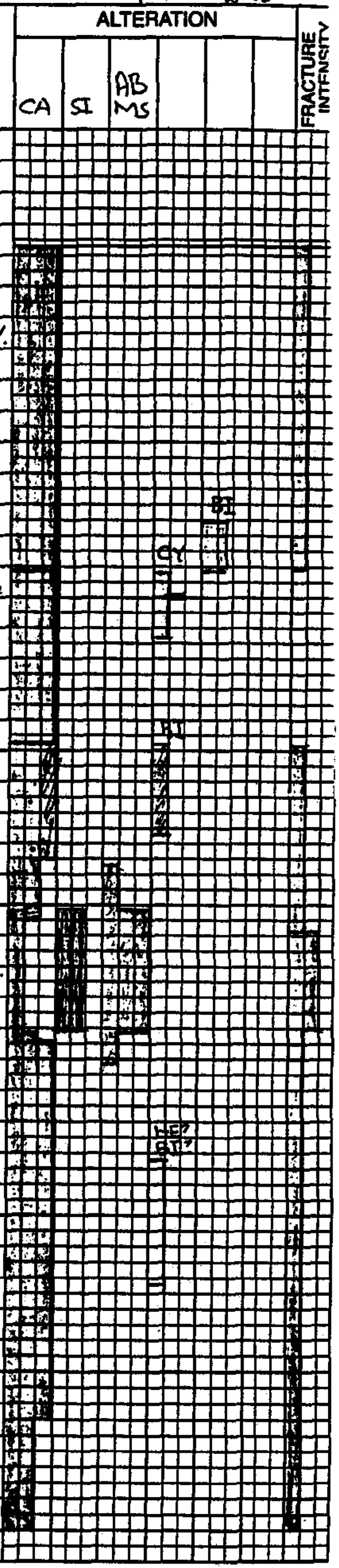
47.5-49.2 - Trace SP.

PAGE 1 OF 4

PROJECT MALAPUT

HOLE MAL 98-06

DEPTH (M)	% CORE REC	% RQD	LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION
0	Casing				0 - 3.7	Casing . .
					EP, CA, CH, HE	
	100	89	B	/50°	3.7-14.1	Andesite Ash Tuff Mottled dark to light gn, beige, buff. V. fine grained. Beds variably altered. Strongly fractured. Numerous stringers + microfaults. Bedding strongly distorted @ contact with diorite below. (Soft sediment?) CA stringers throughout. Strong CA alt'n
5	98	43	B	/60°		
	95	38	B	/55°		
10					Rusty Fr	
	100	83	AN			
			contact	/50	CY 14.1-19.8	Diorite Lt gn-gy. Med-fine grained grainy appearance. Med. to strongly CA alt'd. Bleached @ CY alt'd zone ‖ to fr.
15	100	77				
	100	73	DI	V /15°	CA (3mm)	
20			Contact	/55	19.8-48.3	Andesite Ash Tuff Med-dk gn with pale gn alt'd zones. Dominantly f.g. and thinly bedded to laminated. Beds microfaulted + stringered. Strong MS + SI alt'n from 23.7 - 30.1. Minor argillite bands/inclusions near bottom of interval
	100	88	AN			
			B	/40°		
25	100	67				
			Fol'n? B	/40°		
	100	26				33.3 - 37.2 = Blotchy purple-br alt'n = HE? ≃ BI?
				V	CA	
30	100	89	B	/35°		
	100	75				
35						
	100	79				
			B	/65°		
40	100	94				
			AN			
	98	55	B	V /30° 60°	V - 4cm CA	
45						



PAGE 2 OF 4 | PROJECT MALAPUT | HOLE MAL 98-06

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
12.1-14.1 - Tr-1% PY, + Tr cP in CH, BI altd. tuff		12.1	14.1	2.0	298756	5	<0.2	52	121		
25.4-27.1 - Tr PY in strongly Alt'd tuff. BL mineral = fg PY? carbon? - light grn mica @ 26.8 = MS ⇒ FU. Strongly Fo @ 35 to 60° ra		25.4	27.1	1.7	757	10	0.6	16	77		
27.1-28.6 - Tr PY. str. MS alt'n. Qz stringers ± PY		27.1	28.6	1.5	758	5	0.8	32	104		
44.5-46.1 - Tr-1% PY infr. + minor diss. CA + CH stngrs.		44.5	46.1	1.6	759	5	1.2	62	102		

PAGE · 3 OF 4

PROJECT MALAPUT

HOLE MAL 98-06

DEPTH (M)	% CORE REC	% RQD	LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION
45						
			B	63	48.3-61.1	Banded Argillite + Ash Tuff
	100	67				Variably coloured with black argillite +
			AN			shades of med gy-gn to beige + buff
					ST, CP Tr	Beds from mm laminae to 5-7cm.
50	49	59				commonly 1-2cm. Black argillite
			B	68		generally < 1cm. Some soft sed
						deform = load casts. Weakly microfaulted
	100	74				-Becoming coarser downsection. Py stringers
			B	30		+ fr. fill
55	100	54	Etc			
			B	60	61.1-62.8	Crystal Tuff.
						Med-dk gn. med-coarse grained
	100	66		Py		F.S. crystals diffuse boundaries up to 2mm.
				CA		Weak CA stringering
60					flt I CA	
	100	57	B		70°	
			Anc			
						62.8

GEOLOGICAL DESCRIPTION

ALTERATION			
CA	SI	MS	
			CH

FRACTURE

PAGE 4 OF 4 PROJECT MALAPUT HOLE MAL 98-06

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
46.1-47.5 Tr-1% Py diss + fr. fill Tr. Pø		46.1	47.5	1.4	298760	5	<0.2	24	68		
47.5-49.2 - 1-3% Py - Tr and sphalerite in Mn patch. (Hosted in CH alt'd zone) Tr CP wi Pø Patchy + diss.		47.5	49.2	1.7	761	5	0.4	46	187		
53.6-55.1 Tr-1% Py as fr. fill. Py appears to cluster in CH rich beds.		53.6	55.1	1.5	762	5	<0.2	18	57		
55.1-56.7		55.1	567	1.6	763	5	<0.2	18	54		
56.7-58.2		567	58.2	1.5	764	5	<0.2	22	70		
58.2-59.7 · 1% Py as fr. fill in fr // T.C.A.		58.2	59.7	1.5	765	5	<0.2	22	63		
59.7-61.1 - Tr Py as thin fr. fill		59.7	61.1	1.4	766	5	0.6	136	176		

EQUITY
ENGINEERING LTD.

DRILL LOG

PROJECT Fawn - Malaput

HOLE MAL 98-07

LOCATION Grid E 401.5
S 23.0

LOGGED BY J. Lehtinen

DRILLED BY Falcon Drilling Ltd. / Gallant Trucking

ASSAYED BY Eco-Tech Labs Ltd.

CORE SIZE BTW

DATE STARTED

DATE COMPLETED

COLLAR ELEVATION 1235 m

AZIMUTH 180°

DIP -45

LENGTH 95.7

HORIZONTAL PROJECTION 67.7

VERTICAL PROJECTION 67.7

DIP TESTS BY

DEPTH	DIP	AZIM	DEPTH	DIP	AZIM
92.7	-47.5°				

OBJECTIVE Stepout 200 m. east of MAL 98-01

ALTERATION SCALE

0 1 2 3

absent
slight
moderate
intense

SULPHIDE SCALE

0 1 2 3 4

traces only
< 1%
1% – 3%
3% – 10%
> 10%

SUMMARY LOG

0-3.0 Casing
3.0-10.5 - Banded Argillite + Ash Tuff
10.5-15.9 - Andesite Feldspar Porphyry Dyke
15.9 - 27.2 - Banded Argillite + Ash Tuff
27.2 - 35.5 - Diorite
35.5 - 74.2 - Banded Ash Tuff + Argillite
74.2 - 76.0 - Andesite Feldspar Porphyry (Dyke)
76.0 - 89.5 - Banded Ash Tuff + Argillite
89.5 - 95.7 - Andesite Crystal Lapilli Tuff

23.2 - 27.3 - Tr. SP

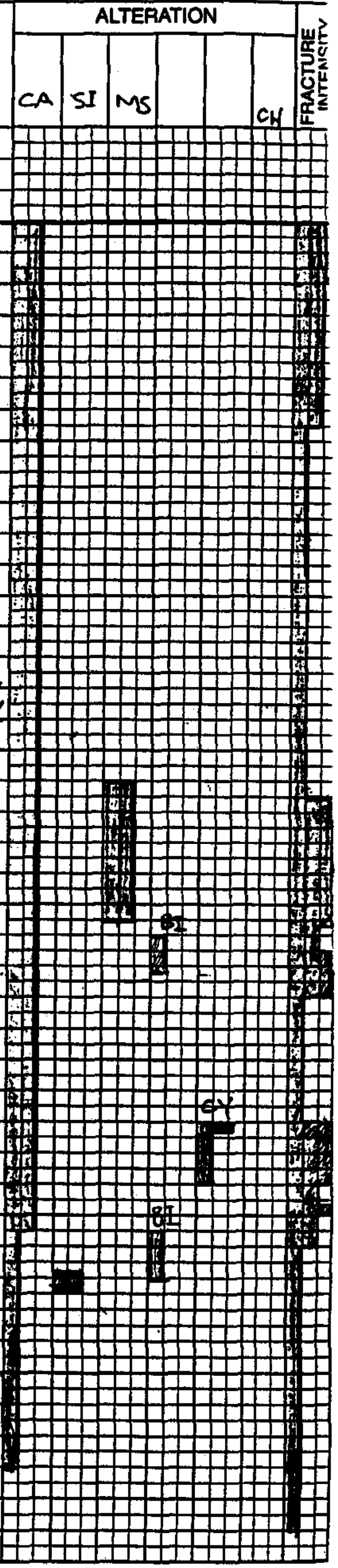
PAGE 1 OF 5

PROJECT MALAPUT

HOLE MAL 98-07

DEPTH (M)	% CORE REC	% RQD
0		
	Cas	ing
	100	44
5	100	52
	98	36
10	100	58
15	98	84
	100	73
20	100	68
25	100	24
	95	36
30	87	73
	100	100
	100	33
	71	92
	89	59
35	97	36
	100	58
40		
	100	54
45	100	73

LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION
		0-3.0	Casing
B	47°	3.0-10.5	Banded Argillite + Ash Tuff Variably coloured beds. Generally med. gn. Thin < 1cm cream coloured beds. Mottled altered zones. Beds up to 1.5cm commonly 3mm - 3 cm. Microfaulted, weakly CA, ~ PY stringered
Etc			
B	43	10.5-15.9	Andesite Feldspar Porphyry (Dyke) - Med-dk gn. with pale gn-gy phenos of F.S. up to 2mm. (This unit could be a xtal Tuff)? Upper + lower contacts = chill margin ⇒ aphanitic weak CA stringers
Contact	38°		
ANa			
Contact	60		
B	55	15.9-27.2	Banded argillite + Ash Tuff. mottled colour - med-light gn-gy. Dominantly Ash tuff. Strongly microfractured + faulted CA ± PY stringers. Strong MS/CA Alt'n marginal to CA vein (25cm) @ 23.2 - 23.5 26.3 = 3cm CA vn wi Tr. Red SP, PY ± Pd
B	45		
Etc			
VISCn	70° CA		
	45 CA		
28°	CA		
B	48	27.2-35.5	Diorite Med-light gy. Grainy textured. Fine grained diorite. Indistinct (crowded) xtals. Magnetic. Strong CY alt'n. 32.6 - 32.9 WK CY 32.0 - 34.0m. WK CH alt'n
	43		
Contact	45 SP-@ 27.2 HS EN		
DI			
	QB, PY Tc SP		
B	53	35.5-74.2	Banded Ash Tuff ± Argillite Well banded f.g. ash tuff. Minor arg.? Dark gn ± brown. BR = RI Hornfels. Bedding / laminae = mm to 2cm. Weak CA, CH Stringering
Etc			
B	60		
	CA, CH		



PAGE 2 OF 5 | PROJECT MALAPUT | HOLE MAL 98-07

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS					
		FROM	TO	WIDTH		ppb Au	ppm Ag	ppm Pb	ppm Zn		
21.7-23.2- 1-3% PY in strongly CA/PY Stringered CA-MS alt'd zone Stgrs 45° TCA		21.7	23.2	1.5	298767	5	1.0	16	73		
23.2-24.8- Top 25 cm = CA vein, - CA stgrs in St. CA-MS alt'n. Tr-1% PY + Tr. red SP.		23.2	24.8	1.6	768	5	2.0	48	110		
24.8-26.3 1% PY + Tr. SP + PO in CA Stgrs + veins <3cm.		24.8	26.3	1.5	769	10	3.4	74	114		
26.3-27.3. Top contact wi Dio Patchy SP, PY @ contact within 10cm zone @ 50° TCA +EP + HE.		26.3	27.3	1.0	770	5	<0.2	34	64		
27.3-28.8 Diorite wi 1% PY @ upper 20 cm 0% below		27.3	28.8	1.5	771	5	<0.2	22	107		
35.4- 36.4 Tr CP, Tr- 1% PY @ contact wi QZ veining,		35.4	36.4	1.0	772	5	0.4	138	59		

PAGE 3 OF 5

PROJECT MALAPUT

HOLE MAL 98-07

DEPTH (M)	% CORE REC	% RQD	LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION	CA	SI	MS	CH	FRACTURE INTENSITY
45	100	73				wk BI alt'n (bedding specific) 46.1-56.1					
				B /40°							
	98	55									
50			B	/45							
	100	69									
			Fx	/20°							
55	91	51									
			B	/55°							
	100	46	Etc								
60			B	/50°							
	100	45									
			B	/50							
	100	70									
65				CA							
			B	/50							
	99	75				67.6 = CA Vein 1cm, with single 1X 0.5cm					
				/46°	CA, SP: Vn 1cm	- patch of SP.					
			B	/40							
70	100	92									
			Etc		74.2-	Andesite Feldspar Porphyry (Dyke)					
	97	82			76.0	Med-dk gn with pale gn-gy F.S.					
			B	/45		phenos, diffuse boundaries upto 2mm					
75					-	(Possible xtal Tuff ?)					
	100	75	And								
					76.0-	Banded Ash Tuff + Argillite					
			B	/50°	89.5	Multi coloured banding from					
	99	75				black to light creamy-gn.					
80						Beds vary from mm scale lamina					
			B	/50°		to 25cm beds. Avg = 2cm					
	100	67	Etc			Minor coarse ash beds					
						Weak PY 83.0 - 8.5 ...					
			B	/40°							
85	98	68									
			B	/30°							
	100	69									
90											

PAGE 4 OF 5	PROJECT MALAPUT	HOLE MAL 98-07

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS ppb Au	ASSAYS ppm Ag	ASSAYS ppm Pb	ASSAYS ppm Zn		
64.2-65.7 Py - 1% diss in crse ash tuff beds		64.2	65.7	1.5	298773	5	<0.2	30	78		
65.7-67.3 - As above + Pb		65.7	67.3	1.6	774	10	<0.2	22	66		
67.3 - 68.3 As above + SP - Tr in CA Vein		67.3	68.3	1.0	775						
68.3 - 69.8 - As above (No SP)		68.3	69.8	1.5	776	5	0.4	94	193		
83.3 - 84.8 - Tr - 1% Pb, PY as replacement in coarse beds.		83.3	84.8	1.5	777	5	<0.2	18	63		
84.8 - 86.2 As above (weaker SX)		84.8	86.2	1.4	778	5	0.2	34	83		

PAGE 5 OF 5 | PROJECT MALAPUT | HOLE MAL 98-07

DEPTH (M)	% CORE REC	% RQD			LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION						FRACTURE INTENSITY
									CA	SI	MS		EP	CH	
90							89.5-95.7	Andesite Crystal Lapilli Tuff.	▮				▮	▮	▮
	100	53						Mod-Dk grn. Mod-crs grained	▮				▮	▮	▮
					Ek	/		with xtal + Lapilli up to 1.5mm modal=1mm	▮				▮	▮	▮
	96	73						Weak CA Stringers.	▮				▮	▮	▮
95									▮				▮	▮	▮
					CA	/45°	0-5cm	95.7. E.O.H.							

APPENDIX D

<u>CERTIFICATES OF ANALYSIS</u>

10-Sep-98

ECO-TECH LABORATORIES LTD.
10041 East Trans Canada Highway
KAMLOOPS, B.C.
V2C 6T4

Phone: 250-573-5700
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 98-517

EQUITY ENGINEERING LTD.
207-675 W. HASTINGS STREET
VANCOUVER, BC
V6B 1NZ

ATTENTION: J. LEHTINEN

No. of samples received: 177
Sample type: Rock
PROJECT #: WKM 98-01
SHIPMENT #: None Given
Samples submitted by: J. Lehtinen

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	298601	5	<0.2	3.08	<5	35	5	2.69	<1	23	154	27	4.21	<10	2.78	571	2	0.20	38	680	<2	5	<20	96	0.06	<10	109	<10	<1	62
2	298602	5	<0.2	1.46	<5	30	<5	2.29	<1	10	69	18	3.38	<10	1.43	351	7	0.05	9	400	2	<5	<20	44	<0.01	<10	41	<10	1	47
3	298603	5	0.4	1.44	<5	30	5	1.94	<1	5	28	20	3.12	<10	1.26	307	5	0.02	3	600	10	10	<20	41	<0.01	<10	13	<10	4	53
4	298604	5	<0.2	1.74	5	40	10	0.88	<1	6	17	12	3.06	<10	1.39	210	4	0.02	2	700	4	5	<20	19	<0.01	<10	10	<10	4	57
5	298605	5	<0.2	3.18	10	40	10	2.87	<1	29	108	68	4.56	<10	2.74	463	3	0.20	41	820	2	10	<20	113	0.04	<10	117	<10	<1	44
6	298606	5	<0.2	1.71	<5	25	<5	2.41	<1	23	74	30	2.93	<10	1.14	391	2	0.16	31	1040	2	10	<20	80	0.04	<10	48	<10	<1	32
7	298607	5	<0.2	2.16	<5	30	<5	2.18	<1	28	98	81	3.99	<10	1.64	499	2	0.17	48	990	2	<5	<20	69	0.05	<10	75	<10	<1	60
8	298608	5	<0.2	1.87	<5	25	<5	2.82	<1	25	78	68	4.21	<10	1.91	631	3	0.09	35	900	4	10	<20	52	0.05	<10	69	<10	<1	65
9	298609	5	<0.2	2.55	<5	45	10	2.72	<1	25	93	27	4.52	<10	2.60	692	2	0.12	35	1000	4	10	<20	54	0.07	<10	99	<10	<1	67
10	298610	5	<0.2	1.72	<5	35	10	4.56	<1	13	56	13	4.47	<10	1.91	1501	6	0.04	10	370	12	5	<20	91	<0.01	<10	68	<10	3	92
11	298611	5	<0.2	0.75	30	30	<5	2.92	<1	12	30	77	4.93	<10	1.46	831	7	0.03	8	470	8	10	<20	94	<0.01	<10	65	<10	2	66
12	298612	5	4.0	0.24	190	45	<5	7.22	2	8	46	103	3.49	<10	1.18	1409	12	0.02	10	440	90	15	<20	171	<0.01	<10	13	<10	8	195
13	298613	5	1.6	1.04	845	40	5	4.53	<1	20	75	71	4.89	<10	1.01	841	17	0.02	19	590	18	<5	<20	130	<0.01	<10	51	<10	2	61
14	298614	5	0.4	1.29	10	40	5	3.36	1	13	78	51	3.82	<10	1.44	2611	8	0.05	11	610	88	10	<20	82	<0.01	<10	61	<10	4	120
15	298615	5	0.4	0.65	<5	85	<5	4.01	<1	6	51	3	2.98	<10	1.34	1333	6	0.05	2	410	10	10	<20	113	<0.01	<10	10	<10	6	82
16	298616	5	<0.2	0.19	<5	140	<5	2.10	<1	<1	78	<1	0.32	10	0.16	318	5	0.03	1	170	8	<5	<20	55	<0.01	<10	<1	<10	3	9
17	298617	5	0.2	0.21	35	65	<5	0.67	3	1	68	3	0.56	<10	0.10	393	5	0.02	2	150	108	<5	<20	16	<0.01	<10	<1	<10	3	155
18	298618	5	0.8	0.17	<5	65	<5	2.75	2	2	98	8	1.02	<10	0.36	1665	7	0.02	4	140	98	5	<20	45	<0.01	<10	<1	<10	2	246
19	298619	5	1.0	0.21	<5	45	<5	2.77	2	4	89	4	1.52	<10	0.65	2912	4	0.02	3	190	132	5	<20	41	<0.01	<10	1	<10	1	199
20	298620	5	3.2	0.21	<5	45	<5	4.58	7	9	69	98	2.64	<10	1.26	6260	7	0.02	3	460	318	15	<20	59	<0.01	<10	5	<10	4	527

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
21	298621	5	2.4	0.34	<5	50	<5	2.53	2	8	24	167	3.48	<10	0.77	7626	5	0.02	4	910	54	10	<20	46	0.01	<10	6	<10	5	206
22	298622	5	0.8	0.38	<5	45	<5	2.02	3	6	27	53	2.79	<10	0.53	4268	7	0.02	7	280	18	<5	<20	45	<0.01	<10	6	<10	4	312
23	298623	5	1.6	1.28	<5	55	<5	3.90	6	17	35	67	5.06	<10	1.57	6997	5	0.02	6	870	120	<5	<20	98	0.01	<10	35	<10	4	683
24	298624	5	<0.2	3.25	<5	55	<5	2.91	<1	22	185	128	4.43	<10	3.01	1211	2	0.16	64	1080	34	10	<20	103	0.05	<10	127	<10	<1	88
25	298625	5	0.8	2.93	<5	35	5	4.77	1	28	147	83	5.57	<10	2.79	2136	4	0.12	31	890	26	<5	<20	85	0.02	<10	136	<10	2	130
26	298626	5	0.2	4.04	<5	50	<5	4.34	<1	31	175	248	6.05	<10	2.98	1301	3	0.27	38	1190	20	10	<20	143	0.04	<10	174	<10	<1	71
27	298627	5	0.2	1.66	10	30	<5	2.89	<1	15	71	43	4.46	<10	1.78	635	6	0.06	12	800	10	<5	<20	57	<0.01	<10	86	<10	1	54
28	298628	5	0.6	1.78	<5	30	<5	2.94	<1	13	101	24	4.78	<10	1.78	860	9	0.07	15	500	22	<5	<20	57	0.01	<10	60	<10	<1	86
29	298629	5	0.6	0.88	<5	20	5	2.44	2	7	80	9	3.15	<10	1.14	763	5	0.04	7	350	78	5	<20	41	<0.01	<10	17	<10	<1	187
30	298630	5	0.6	1.45	10	35	5	1.51	2	9	78	16	4.41	<10	1.28	1211	8	0.04	7	590	38	<5	<20	29	<0.01	<10	20	<10	<1	270
31	298631	5	0.6	1.78	5	40	10	2.07	<1	8	49	10	4.50	<10	1.38	2515	6	0.03	7	870	24	<5	<20	33	<0.01	<10	29	<10	2	177
32	298632	5	0.4	1.42	<5	35	5	2.36	<1	7	46	21	3.04	<10	1.22	1046	6	0.03	4	1090	48	10	<20	44	<0.01	<10	12	<10	6	124
33	298633	5	0.4	1.07	<5	35	<5	3.15	<1	9	84	23	2.61	<10	1.17	791	6	0.04	9	320	8	10	<20	78	<0.01	<10	30	<10	3	67
34	298634	5	0.6	1.90	10	40	10	4.74	<1	16	99	19	4.28	<10	2.15	1276	5	0.05	47	780	22	10	<20	106	<0.01	<10	70	<10	2	84
35	298635	5	1.2	2.12	<5	35	10	4.58	2	41	168	53	6.56	<10	2.83	1448	7	0.04	75	510	14	5	<20	116	0.01	<10	67	<10	<1	134
36	298636	20	<0.2	2.41	<5	40	10	3.98	<1	22	118	32	5.36	<10	2.56	734	7	0.08	42	710	4	5	<20	104	0.02	<10	99	<10	<1	74
37	298637	5	<0.2	2.51	10	50	5	3.06	<1	28	109	37	4.14	<10	2.35	683	2	0.16	48	1040	10	5	<20	95	0.05	<10	110	<10	<1	54
38	298638	5	<0.2	1.84	10	35	<5	3.80	1	17	79	38	4.24	<10	1.84	694	6	0.10	17	380	28	10	<20	100	0.02	<10	70	<10	3	52
39	298639	10	<0.2	2.90	10	40	<5	3.83	<1	32	131	111	6.16	<10	2.67	751	6	0.13	42	430	10	<5	<20	123	0.02	<10	127	<10	<1	53
40	298640	5	0.6	3.06	5	55	<5	5.77	<1	32	129	100	6.36	<10	3.33	1589	5	0.13	52	860	26	20	<20	159	0.02	<10	134	<10	1	151
41	298641	5	<0.2	2.95	10	55	<5	5.07	<1	33	104	38	6.15	<10	3.37	1478	4	0.08	61	960	60	5	<20	129	0.01	<10	97	<10	1	247
42	298642	5	0.2	3.38	<5	85	10	6.77	4	29	107	79	6.79	<10	4.20	1818	5	0.08	45	850	82	10	<20	187	0.02	<10	135	<10	<1	281
43	298643	5	<0.2	3.50	5	60	5	5.27	<1	39	98	71	6.78	<10	4.21	1086	5	0.05	46	970	22	10	<20	143	0.01	<10	139	<10	<1	122
44	298644	5	<0.2	3.17	<5	65	10	5.32	<1	32	86	58	5.97	<10	3.92	1209	5	0.07	42	1010	34	10	<20	138	0.01	<10	120	<10	<1	103
45	298645	5	0.2	3.14	5	70	10	5.44	<1	36	84	78	6.34	<10	4.17	1139	5	0.05	44	1090	20	15	<20	150	<0.01	<10	112	<10	<1	134
46	298646	5	0.2	3.26	10	60	<5	4.90	<1	37	76	112	7.03	<10	3.65	1122	6	0.05	49	1180	18	5	<20	131	<0.01	<10	105	<10	<1	171
47	298647	5	<0.2	3.24	25	75	<5	5.39	1	39	88	106	5.99	<10	4.09	1104	4	0.06	39	1020	18	15	<20	155	<0.01	<10	114	<10	<1	120
48	298648	5	0.4	3.59	10	65	<5	4.84	1	34	103	70	6.67	<10	4.35	1412	5	0.05	45	1100	42	15	<20	133	<0.01	<10	119	<10	<1	233
49	298649	5	0.6	1.39	<5	70	<5	8.31	2	27	44	42	5.52	<10	3.48	2539	5	0.04	27	930	64	15	<20	168	<0.01	<10	47	<10	3	126
50	298650	5	<0.2	1.33	<5	70	<5	6.93	1	22	47	68	4.95	<10	2.61	1662	4	0.06	29	1070	38	10	<20	131	<0.01	<10	54	<10	3	98
51	298651	5	0.2	2.13	10	60	<5	6.31	<1	30	70	68	6.42	<10	3.27	1334	5	0.04	42	1150	42	5	<20	140	<0.01	<10	91	<10	2	149
52	298652	5	0.6	1.24	50	65	<5	8.50	<1	54	50	100	7.20	<10	3.24	2159	6	0.05	47	1240	20	10	<20	151	<0.01	<10	66	<10	2	159
53	298653	5	0.6	0.66	<5	55	<5	4.22	<1	19	66	30	3.71	<10	1.36	1426	6	0.03	17	830	24	10	<20	76	<0.01	<10	27	<10	2	143
54	298654	5	0.8	0.29	5	230	<5	2.50	3	10	62	8	2.36	<10	0.34	2174	11	0.02	14	280	402	<5	<20	26	<0.01	<10	8	<10	3	291
55	298655	5	0.4	0.23	<5	90	<5	0.96	2	2	89	3	0.91	<10	0.04	603	8	0.02	2	160	70	<5	<20	15	<0.01	<10	2	<10	2	161

EQUITY ENGINEERING LTD. ICP CERTIFICATE OF ANALYSIS AK 98-517 ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
56	298656	5	<0.2	0.20	<5	60	<5	1.69	1	1	61	<1	0.47	<10	0.03	429	2	0.02	2	150	48	<5	<20	48	<0.01	<10	<1	<10	2	74
57	298657	5	0.4	0.22	<5	40	<5	2.03	<1	<1	83	<1	0.49	<10	0.03	496	6	0.02	5	110	32	<5	<20	49	<0.01	<10	<1	<10	2	66
58	298658	5	0.6	0.19	<5	65	<5	1.45	1	1	55	1	0.63	<10	0.06	493	2	0.02	3	180	58	<5	<20	27	<0.01	<10	<1	<10	2	89
59	298659	5	0.6	0.19	<5	50	<5	1.44	2	2	72	1	0.69	<10	0.06	407	5	0.02	3	130	68	<5	<20	30	<0.01	<10	<1	<10	2	84
60	298660	5	0.6	0.21	<5	55	<5	2.21	2	3	60	1	0.94	<10	0.07	454	2	0.03	2	180	62	<5	<20	53	<0.01	<10	<1	<10	2	127
61	298661	5	0.6	0.20	<5	60	<5	3.04	4	3	63	1	0.90	<10	0.10	775	4	0.02	2	220	54	<5	<20	84	<0.01	<10	<1	<10	3	211
62	298662	5	0.2	0.23	<5	75	<5	1.72	3	2	62	1	0.87	<10	0.04	485	3	0.02	2	210	46	<5	<20	49	<0.01	<10	<1	<10	2	193
63	298663	5	0.2	0.20	<5	135	<5	0.10	<1	2	71	1	0.69	<10	<0.01	309	6	0.02	3	160	118	<5	<20	8	<0.01	<10	<1	<10	2	177
64	298664	5	<0.2	0.20	<5	105	<5	0.13	1	<1	65	<1	0.38	<10	<0.01	254	3	0.02	4	190	42	<5	<20	7	<0.01	<10	<1	<10	2	122
65	298665	5	0.4	0.24	<5	85	<5	0.91	2	1	65	2	0.61	<10	0.02	372	5	0.02	2	150	62	<5	<20	8	<0.01	<10	<1	<10	2	114
66	298666	5	0.2	0.25	<5	140	<5	2.60	1	3	39	11	1.06	<10	0.07	1015	5	0.02	1	330	18	<5	<20	20	<0.01	<10	3	<10	4	111
67	298667	15	3.2	0.30	<5	40	<5	3.90	14	9	30	295	3.00	<10	0.96	5365	4	0.02	4	430	140	15	<20	67	<0.01	<10	14	<10	7	1338
68	298668	20	3.8	0.31	<5	45	<5	2.71	13	8	19	254	3.29	<10	0.69	3166	3	0.02	4	290	224	10	<20	64	<0.01	<10	10	<10	2	1464
69	298669	5	2.2	0.36	15	55	<5	3.91	2	10	30	86	3.36	<10	1.00	3670	5	0.02	7	950	144	25	<20	67	<0.01	<10	16	<10	6	215
70	298670	10	1.8	0.21	25	45	<5	4.30	11	12	25	40	2.90	<10	1.20	3672	10	0.02	6	760	340	20	<20	69	<0.01	<10	8	<10	6	866
71	298671	5	0.6	0.57	<5	40	5	2.48	2	10	80	22	2.64	<10	0.89	839	7	0.05	7	530	124	5	<20	43	<0.01	<10	20	<10	1	164
72	298672	5	<0.2	3.16	10	50	15	4.50	<1	31	149	29	5.48	<10	3.25	1080	<1	0.12	62	610	10	5	<20	89	0.06	<10	141	<10	<1	77
73	298673	5	0.4	0.88	<5	40	<5	1.77	2	6	57	20	2.57	<10	0.88	857	5	0.04	3	440	80	10	<20	30	<0.01	<10	10	<10	1	159
74	298674	15	1.0	0.71	<5	40	10	3.13	<1	10	68	26	3.74	<10	1.06	1094	6	0.03	7	450	66	<5	<20	49	<0.01	<10	15	<10	2	79
75	298675	5	0.6	1.95	5	50	10	4.32	<1	18	55	58	5.25	<10	1.72	2206	16	0.04	8	600	18	<5	<20	77	<0.01	<10	57	<10	1	119
76	298676	5	0.4	1.04	5	50	<5	2.82	<1	19	63	34	3.55	<10	1.15	1037	29	0.03	17	720	10	<5	<20	51	<0.01	<10	46	<10	2	78
77	298677	5	0.8	1.03	<5	45	10	3.18	<1	14	75	14	3.87	<10	1.22	2153	29	0.03	18	780	20	<5	<20	52	<0.01	<10	51	<10	3	91
78	298678	10	1.4	0.23	<5	50	10	3.84	2	12	59	11	3.08	<10	1.12	3799	17	0.02	5	400	76	5	<20	46	<0.01	<10	6	<10	4	123
79	298679	5	0.4	0.19	<5	45	5	2.62	4	3	97	3	1.74	<10	0.70	1961	12	0.02	2	130	176	10	<20	39	<0.01	<10	2	<10	2	365
80	298680	5	0.6	0.20	<5	275	<5	3.45	<1	<1	57	9	1.20	<10	0.82	3034	15	0.02	2	240	44	15	<20	46	<0.01	<10	2	<10	5	71
81	298681	5	0.6	0.23	<5	180	<5	2.74	<1	2	56	9	1.04	<10	0.41	1689	3	0.02	4	180	24	5	<20	66	<0.01	<10	<1	<10	2	41
82	298682	5	1.0	0.18	<5	85	<5	1.34	2	2	59	10	0.84	<10	0.14	795	9	0.01	1	120	184	10	<20	22	<0.01	<10	<1	<10	2	188
83	298683	5	0.4	0.18	<5	30	<5	0.85	2	<1	65	2	0.55	<10	0.22	545	6	0.01	<1	130	130	<5	<20	13	<0.01	<10	<1	<10	2	232
84	298684	5	<0.2	0.25	<5	115	<5	2.14	2	2	55	7	0.91	<10	0.14	522	4	0.02	<1	320	42	<5	<20	53	<0.01	<10	<1	<10	3	151
85	298685	5	0.4	0.40	<5	220	<5	2.53	1	<1	46	2	0.65	20	0.05	1067	4	0.02	<1	190	68	<5	<20	15	<0.01	<10	<1	<10	3	169
86	298686	5	0.2	0.21	<5	195	<5	1.81	<1	<1	61	2	0.44	<10	0.09	437	3	0.03	1	180	18	<5	<20	49	<0.01	<10	<1	<10	2	33
87	298687	5	2.2	0.25	5	45	<5	2.71	1	7	56	364	2.60	<10	0.40	1453	5	0.03	<1	150	164	<5	<20	38	<0.01	<10	2	<10	1	117
88	298688	10	1.6	0.34	<5	50	<5	3.69	1	13	50	476	3.26	<10	0.80	1673	5	0.03	2	160	36	<5	<20	69	<0.01	<10	3	<10	<1	109
89	298689	5	<0.2	0.96	<5	45	5	1.42	<1	12	25	3	3.81	<10	0.66	897	2	0.02	8	540	26	<5	<20	47	0.04	<10	27	<10	<1	89
90	298690	5	0.4	0.36	<5	40	10	4.61	1	16	50	44	4.70	<10	0.90	944	9	0.03	15	770	22	5	<20	71	<0.01	<10	16	<10	1	124

EQUITY ENGINEERING LTD. **ICP CERTIFICATE OF ANALYSIS AK 98-517** **ECO-TECH LABORATORIES LTD.**

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
91	298691	5	<0.2	0.32	<5	20	5	1.85	<1	12	43	32	3.04	<10	0.42	384	8	0.04	15	690	8	10	<20	20	<0.01	<10	9	<10	<1	53
92	298692	5	0.2	0.23	<5	60	5	7.28	2	5	39	6	3.53	<10	2.42	2228	7	0.03	4	290	16	15	<20	64	<0.01	<10	5	<10	6	116
93	298693	5	0.4	0.33	<5	25	10	2.85	2	14	45	29	4.19	<10	0.79	531	8	0.05	11	710	56	10	<20	42	<0.01	<10	13	<10	<1	127
94	298694	15	0.2	1.14	5	40	10	6.85	1	31	66	90	7.02	<10	1.87	1387	7	0.05	35	1060	16	<5	<20	112	<0.01	<10	71	<10	<1	80
95	298695	5	0.2	0.77	15	40	<5	8.92	<1	26	42	91	6.37	<10	1.91	1500	6	0.05	31	1140	12	10	<20	159	<0.01	<10	51	<10	1	90
96	298696	20	1.0	0.67	15	40	<5	6.95	2	34	39	106	8.57	<10	1.91	1437	11	0.05	26	870	16	15	<20	113	<0.01	<10	46	<10	<1	126
97	298697	5	0.4	0.39	10	40	<5	6.47	<1	22	40	72	5.82	<10	1.78	1161	7	0.05	12	750	12	<5	<20	94	<0.01	<10	25	<10	2	63
98	298698	5	0.4	0.31	<5	30	5	3.76	<1	14	48	32	4.14	<10	1.07	646	8	0.05	13	520	10	10	<20	47	<0.01	<10	17	<10	1	57
99	298699	30	0.2	0.30	<5	20	15	3.55	1	14	57	20	4.03	<10	1.20	879	8	0.05	11	540	8	10	<20	36	<0.01	<10	16	<10	<1	78
100	298700	5	0.6	0.30	<5	35	10	6.74	1	15	43	40	4.58	<10	2.28	2132	6	0.04	13	550	22	25	<20	68	<0.01	<10	16	<10	3	120
101	298701	5	1.2	1.05	5	40	25	6.48	1	45	82	62	8.42	<10	2.46	2066	8	0.04	66	700	16	5	<20	65	<0.01	<10	77	<10	<1	153
102	298702	5	0.6	0.41	35	35	<5	4.74	<1	36	37	131	5.28	<10	1.52	1507	6	0.05	44	1020	14	15	<20	52	<0.01	<10	36	<10	<1	97
103	298703	5	0.6	0.24	<5	45	5	6.07	2	11	38	28	3.39	<10	2.04	3301	6	0.03	13	510	22	20	<20	51	<0.01	<10	10	<10	5	130
104	298704	5	1.2	0.23	<5	40	10	6.41	<1	12	64	30	4.31	<10	2.15	3631	10	0.03	19	690	16	20	<20	56	<0.01	<10	15	<10	3	72
105	298705	5	1.2	0.27	5	35	15	6.10	1	16	48	11	4.57	<10	2.05	5022	7	0.03	18	760	76	15	<20	53	<0.01	<10	16	<10	2	115
106	298706	5	1.4	0.19	<5	30	5	7.16	2	17	54	13	4.57	<10	2.36	9045	9	0.02	22	580	110	20	<20	66	0.01	<10	27	<10	4	182
107	298707	5	1.2	0.25	<5	35	15	8.17	2	15	36	14	4.12	<10	2.80	4957	8	0.03	16	570	26	15	<20	99	<0.01	<10	18	<10	3	110
108	298708	5	0.4	0.33	<5	35	10	9.07	10	18	33	29	4.38	<10	3.01	2600	3	0.04	22	540	30	20	<20	119	<0.01	<10	33	<10	2	907
109	298709	5	0.6	0.25	<5	30	5	4.93	<1	16	55	19	4.00	<10	1.74	1264	6	0.03	14	450	32	5	<20	66	<0.01	<10	11	<10	1	82
110	298710	5	0.4	0.27	<5	30	15	5.03	1	11	39	13	3.76	<10	1.74	1692	7	0.03	7	430	12	15	<20	63	<0.01	<10	7	<10	3	86
111	298711	5	0.4	0.35	<5	30	15	2.54	<1	9	56	17	3.28	<10	0.83	601	6	0.04	7	490	6	<5	<20	34	<0.01	<10	7	<10	<1	49
112	298712	5	<0.2	0.29	<5	50	5	4.37	<1	6	39	6	2.70	<10	1.40	1094	4	0.03	3	620	6	10	<20	59	<0.01	<10	5	<10	3	60
113	298713	5	0.6	0.37	<5	30	10	6.50	<1	19	40	35	4.61	<10	2.13	2048	5	0.04	42	580	10	10	<20	87	<0.01	<10	16	<10	2	56
114	298714	5	0.8	1.45	5	45	10	6.04	<1	35	96	97	6.54	<10	2.71	1643	5	0.05	63	510	18	<5	<20	123	<0.01	<10	84	<10	<1	138
115	298715	5	1.6	0.61	<5	35	10	6.23	1	30	49	25	5.79	<10	2.94	4481	5	0.02	36	620	22	15	<20	184	<0.01	<10	41	<10	1	160
116	298716	5	1.6	0.28	<5	45	10	7.03	2	22	44	36	4.94	<10	2.79	6306	5	0.02	22	510	24	25	<20	164	0.01	<10	28	<10	3	135
117	298717	5	0.2	0.19	<5	25	10	1.83	1	5	59	11	2.04	<10	0.49	779	16	0.02	2	150	30	10	<20	28	<0.01	<10	2	<10	2	90
118	298718	10	1.2	0.26	<5	50	<5	1.09	2	2	62	5	1.52	<10	0.31	471	4	0.02	<1	160	112	<5	<20	23	<0.01	<10	1	<10	1	116
119	298719	20	0.6	0.22	<5	105	<5	1.70	5	2	75	6	0.77	<10	0.13	494	5	0.02	2	190	350	5	<20	36	<0.01	<10	<1	<10	2	402
120	298720	10	<0.2	0.25	<5	125	10	0.72	1	2	57	3	0.74	<10	0.20	439	6	0.02	1	170	162	<5	<20	13	<0.01	<10	<1	<10	2	90
121	298721	5	<0.2	0.22	<5	95	<5	1.60	2	1	64	2	0.60	<10	0.11	477	4	0.02	<1	190	170	<5	<20	41	<0.01	<10	<1	<10	2	111
122	298722	25	<0.2	0.27	<5	250	<5	3.07	<1	4	57	8	1.54	<10	0.57	751	5	0.03	1	760	8	10	<20	87	<0.01	<10	10	<10	6	28
123	298723	5	<0.2	0.24	<5	80	<5	1.77	1	1	70	4	0.48	<10	0.15	518	4	0.01	<1	180	22	<5	<20	29	<0.01	<10	<1	<10	3	69
124	298724	5	0.4	3.33	<5	105	10	5.38	<1	20	45	63	5.60	<10	1.95	2170	4	0.28	7	1140	80	5	<20	255	0.02	<10	114	<10	5	120
125	298725	5	<0.2	0.27	<5	100	<5	2.58	<1	2	77	5	0.85	<10	0.26	726	5	0.02	<1	180	22	<5	<20	74	<0.01	<10	2	<10	2	24

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
126	298726	5	<0.2	0.34	<5	105	5	0.98	<1	5	77	14	1.18	<10	0.23	751	4	0.02	<1	240	14	<5	<20	15	<0.01	<10	2	<10	2	48
127	298727	5	0.4	0.50	<5	45	<5	2.26	<1	12	53	21	3.67	<10	0.42	604	8	0.03	10	740	16	<5	<20	39	<0.01	<10	13	<10	<1	98
128	298728	10	<0.2	0.59	<5	45	10	3.46	1	14	46	28	4.11	<10	0.77	848	6	0.05	14	910	12	10	<20	84	<0.01	<10	13	<10	2	88
129	298729	30	0.8	1.43	<5	45	15	5.64	1	28	73	73	7.34	<10	1.62	1525	8	0.05	29	1030	14	<5	<20	118	<0.01	<10	66	<10	<1	115
130	298730	15	0.4	1.44	10	55	<5	5.69	<1	19	65	57	5.10	<10	1.08	1529	7	0.05	10	1180	22	<5	<20	148	<0.01	<10	35	<10	3	108
131	298731	5	0.2	0.86	<5	35	5	4.16	<1	19	79	44	4.43	<10	1.47	893	7	0.07	18	650	10	5	<20	103	<0.01	<10	44	<10	<1	60
132	298732	5	0.4	3.07	<5	45	5	5.62	<1	33	145	108	7.14	<10	4.33	2001	5	0.04	47	870	16	<5	<20	156	0.01	<10	147	<10	<1	193
133	298733	10	<0.2	2.39	5	50	10	5.53	<1	32	75	54	6.49	<10	3.06	1945	6	0.05	30	950	18	<5	<20	141	<0.01	<10	97	<10	<1	168
134	298734	5	<0.2	1.47	<5	55	5	6.14	<1	27	66	44	5.78	<10	2.33	1718	6	0.05	41	1760	12	15	<20	124	<0.01	<10	45	<10	3	108
135	298735	5	0.4	2.02	<5	55	10	5.19	1	33	84	47	6.18	<10	2.15	1696	5	0.05	49	1160	24	<5	<20	95	<0.01	<10	73	<10	1	176
136	298736	5	0.8	0.55	10	50	10	7.38	2	34	64	79	6.34	<10	2.42	2914	7	0.05	31	910	14	30	<20	88	<0.01	<10	61	<10	2	182
137	298737	5	<0.2	0.38	<5	460	<5	2.73	<1	3	105	46	1.94	<10	0.70	869	8	0.04	4	830	6	10	<20	47	<0.01	<10	9	<10	6	50
138	298738	5	0.6	0.43	15	70	<5	3.87	2	8	63	14	3.11	<10	1.29	1386	8	0.03	5	560	18	10	<20	47	<0.01	<10	10	<10	3	167
139	298739	5	1.2	0.41	<5	65	10	7.80	2	23	48	46	5.06	<10	2.57	3356	10	0.04	34	500	102	15	<20	91	<0.01	<10	27	<10	2	202
140	298740	5	1.4	0.80	<5	60	5	6.87	2	27	50	57	5.12	<10	2.13	2177	6	0.06	44	810	38	16	<20	96	<0.01	<10	45	<10	3	187
141	298741	5	0.6	0.32	10	55	5	7.69	2	18	61	25	4.17	<10	2.60	2435	7	0.04	19	750	12	25	<20	95	<0.01	<10	15	<10	1	134
142	298742	5	0.2	1.52	<5	35	<5	4.10	<1	28	105	58	5.42	<10	2.55	893	7	0.05	31	910	14	15	<20	74	<0.01	<10	67	<10	2	74
143	298743	5	0.2	3.20	10	50	5	5.13	1	45	124	106	7.82	<10	4.51	1205	6	0.06	56	1070	26	5	<20	117	<0.01	<10	120	<10	<1	138
144	298744	5	<0.2	4.41	5	115	10	3.83	<1	30	137	34	6.07	<10	4.49	1246	2	0.21	40	1160	30	10	<20	168	0.03	<10	189	<10	2	89
145	298745	5	1.2	0.93	<5	40	5	4.86	<1	17	44	20	5.13	<10	1.05	2180	6	0.07	4	1520	66	<5	<20	107	<0.01	<10	24	<10	2	145
146	298746	10	1.2	0.52	10	40	10	4.48	7	10	64	31	4.07	<10	1.27	3070	16	0.04	13	580	150	10	<20	66	<0.01	<10	16	<10	6	591
147	298747	5	2.0	0.32	15	40	<5	5.68	11	11	64	44	3.62	<10	1.53	2745	24	0.04	12	540	322	15	<20	107	<0.01	<10	19	<10	6	962
148	298748	5	0.4	0.85	20	30	<5	4.00	2	14	46	47	4.64	<10	0.99	1277	9	0.04	15	790	32	<5	<20	85	<0.01	<10	29	<10	1	145
149	298749	20	0.2	1.43	10	40	<5	3.70	<1	21	72	54	6.73	<10	1.96	1106	18	0.09	32	770	50	<5	<20	145	<0.01	<10	105	<10	<1	113
150	298750	5	1.4	0.51	10	45	10	3.67	4	16	58	57	4.55	<10	1.10	1490	9	0.04	11	660	88	<5	<20	101	<0.01	<10	20	<10	4	287
151	298751	15	1.6	1.01	20	35	5	4.31	9	19	56	45	5.72	<10	1.47	2001	8	0.05	12	700	544	10	<20	119	<0.01	<10	38	<10	3	814
152	298752	5	0.8	1.01	10	50	5	3.75	<1	19	56	52	5.96	<10	1.25	1448	8	0.06	12	730	26	<5	<20	108	<0.01	<10	39	<10	<1	117
153	298753	5	0.8	0.71	10	40	10	2.63	1	14	65	46	4.67	<10	0.72	1039	10	0.05	16	740	28	5	<20	85	<0.01	<10	19	<10	3	120
154	298754	5	<0.2	0.94	10	40	10	3.08	<1	10	44	33	4.46	<10	1.41	824	7	0.05	9	880	12	10	<20	106	<0.01	<10	21	10	4	53
155	298755	5	<0.2	1.80	10	85	5	2.09	<1	4	92	3	1.99	<10	1.06	493	4	0.14	<1	790	24	10	<20	159	<0.01	<10	10	10	6	36
156	298756	5	<0.2	5.06	35	120	10	5.58	<1	42	153	128	7.78	<10	3.94	1428	6	0.17	43	940	52	20	<20	134	0.08	<10	211	<10	<1	121
157	298757	10	0.6	0.43	2495	40	5	5.20	<1	16	46	43	3.42	<10	1.27	782	8	0.02	31	610	16	125	<20	99	<0.01	<10	22	10	5	77
158	298758	5	0.8	0.39	165	35	10	6.28	<1	25	73	58	4.50	<10	1.87	1174	6	0.02	40	720	32	30	<20	112	<0.01	<10	42	<10	6	184
159	298759	5	1.2	1.74	185	40	5	4.23	<1	13	44	88	4.52	<10	1.44	1101	7	0.03	8	850	62	5	<20	88	<0.01	<10	72	<10	3	102
160	298760	5	<0.2	1.36	45	35	<5	3.84	<1	15	69	92	4.19	<10	1.24	1023	11	0.04	14	610	24	<5	<20	90	<0.01	<10	75	<10	2	66

EQUITY ENGINEERING LTD. ICP CERTIFICATE OF ANALYSIS AK 98-517 ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
161	298761	5	0.4	2.04	30	56	<5	4.11	1	27	68	174	4.94	<10	1.56	1332	11	0.11	38	770	46	10	<20	124	0.03	<10	94	<10	<1	187
162	298762	5	<0.2	2.21	25	45	<5	2.63	<1	20	57	80	5.18	<10	1.67	952	5	0.13	16	680	18	<5	<20	93	0.08	<10	164	<10	2	89
163	298763	5	<0.2	1.95	10	45	<5	2.37	<1	17	80	87	4.67	<10	1.27	847	7	0.15	14	590	18	<5	<20	80	0.07	<10	122	10	4	64
164	298764	5	<0.2	2.13	25	35	10	3.08	<1	19	76	90	5.46	<10	1.86	944	5	0.09	10	760	22	<5	<20	79	0.05	<10	131	<10	4	70
165	298765	5	<0.2	1.93	45	35	10	3.15	<1	34	59	82	5.97	<10	1.76	830	5	0.09	12	790	22	<5	<20	89	0.05	<10	130	<10	4	63
166	298766	5	0.6	1.58	30	45	<5	2.42	2	8	91	28	2.95	<10	1.23	701	6	0.05	11	660	136	10	<20	79	<0.01	<10	58	<10	5	176
167	298767	5	1.0	2.93	90	65	10	9.13	<1	24	101	32	6.45	<10	1.98	1215	4	0.02	46	1130	16	<5	<20	197	<0.01	<10	88	<10	4	73
168	298768	5	2.0	1.97	40	35	10	>10	<1	12	63	17	3.74	<10	1.38	1510	6	0.02	14	610	48	10	<20	193	<0.01	<10	49	<10	8	110
169	298769	10	3.4	2.13	90	70	15	4.79	<1	12	40	29	3.98	<10	1.10	529	6	0.04	6	600	74	<5	<20	82	0.02	<10	42	<10	4	114
170	298770	5	<0.2	1.86	25	50	15	5.10	<1	10	37	38	3.81	<10	1.10	599	6	0.04	7	790	34	<5	<20	73	0.04	<10	24	10	7	64
171	298771	5	<0.2	2.33	5	60	10	4.23	<1	22	61	65	4.84	<10	1.89	779	5	0.05	24	2210	22	5	<20	96	0.01	<10	64	<10	2	107
172	298772	5	0.4	1.85	15	80	5	3.53	<1	10	65	44	3.00	<10	1.04	467	6	0.04	10	970	138	10	<20	55	0.05	<10	33	<10	5	89
173	298773	5	<0.2	1.71	30	30	10	3.27	<1	14	64	45	4.84	<10	1.07	925	13	0.08	21	650	30	<5	<20	74	0.03	<10	112	<10	4	78
174	298774	10	<0.2	1.68	45	25	<5	2.32	<1	15	60	46	4.86	<10	1.06	755	12	0.07	20	680	22	<5	<20	55	0.04	<10	117	<10	4	60
175	298775	5	0.4	1.87	55	35	10	2.72	3	14	63	37	4.85	<10	1.31	757	7	0.06	13	810	94	10	<20	109	0.02	<10	69	<10	6	193
176	298776	5	<0.2	2.03	30	30	5	1.81	<1	18	60	65	5.36	<10	1.37	689	12	0.11	21	850	18	<5	<20	69	0.06	<10	123	<10	3	63
177	298777	5	0.2	1.90	45	55	<5	2.22	<1	14	55	53	4.57	<10	1.42	699	9	0.05	14	740	34	5	<20	110	<0.01	<10	80	<10	4	83
QC DATA:																														
Resplit:																														
1	298601	5	<0.2	3.18	<5	30	10	2.77	<1	24	145	29	4.27	<10	2.80	570	2	0.21	41	910	2	10	<20	100	0.08	<10	109	<10	<1	61
36	298636	20	<0.2	2.21	<5	40	<5	3.74	<1	22	107	31	5.15	<10	2.37	701	6	0.07	36	710	10	<5	<20	98	0.02	<10	91	<10	<1	76
71	298671	5	0.4	0.50	5	30	10	2.53	2	10	82	18	2.63	<10	0.87	857	8	0.04	9	560	134	10	<20	40	<0.01	<10	18	<10	2	172
106	298706	5	1.4	0.23	<5	30	15	7.13	2	18	59	16	4.57	<10	2.37	9042	7	0.02	20	580	122	15	<20	68	0.01	<10	27	<10	4	198
141	298741	5	0.6	0.36	10	55	10	8.21	2	20	54	27	4.53	<10	2.77	2598	6	0.04	21	810	14	20	<20	95	<0.01	<10	17	<10	2	142
176	298776	5	<0.2	2.00	30	30	15	1.76	<1	18	58	54	5.39	<10	1.37	683	11	0.10	19	840	18	<5	<20	66	0.05	<10	121	<10	3	56
Repeat:																														
1	298601	5	<0.2	3.15	<5	35	5	2.74	<1	24	158	31	4.34	<10	2.85	572	2	0.20	41	920	2	15	<20	98	0.08	<10	112	<10	<1	54
10	298610	5	<0.2	1.78	<5	40	<5	4.67	<1	13	56	15	4.58	<10	1.98	1554	5	0.04	9	370	12	10	<20	94	<0.01	<10	70	<10	3	98
19	298619	5	0.8	0.22	<5	50	<5	2.85	3	4	92	4	1.58	<10	0.67	2996	4	0.02	3	190	134	10	<20	42	<0.01	<10	1	<10	2	207
36	298636	20	<0.2	2.43	<5	40	10	4.05	<1	24	117	33	5.43	<10	2.58	737	6	0.08	39	750	8	5	<20	102	0.02	<10	99	<10	<1	76
45	298645	5	0.2	3.13	<5	70	5	5.42	1	36	84	74	6.33	<10	4.16	1137	4	0.05	43	1090	20	10	<20	149	<0.01	<10	111	<10	<1	137

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
QC DATA:																														
Repeat:																														
54	298654	5	0.4	0.27	<5	225	5	2.52	3	10	72	9	2.41	<10	0.34	2206	13	0.02	16	290	410	<5	<20	23	<0.01	<10	8	<10	3	297
71	298671	5	0.4	0.56	<5	40	5	2.50	2	10	80	21	2.66	<10	0.86	851	6	0.05	5	540	130	10	<20	41	<0.01	<10	19	<10	2	173
80	298680	5	0.6	0.20	<5	275	<5	3.50	<1	1	55	9	1.22	<10	0.83	3074	15	0.02	1	250	48	15	<20	45	<0.01	<10	2	<10	5	74
89	298689	5	<0.2	0.97	<5	45	15	1.46	<1	12	25	3	3.95	<10	0.67	916	2	0.02	8	570	28	<5	<20	45	0.04	<10	28	<10	<1	93
106	298706	5	1.8	0.20	<5	25	15	6.85	2	17	49	11	4.37	<10	2.27	8640	7	0.02	20	550	106	15	<20	62	0.01	<10	28	<10	4	179
115	298715	5	1.4	0.67	<5	35	10	6.55	2	32	52	25	6.03	<10	3.06	4657	6	0.02	37	660	22	15	<20	176	<0.01	<10	44	<10	<1	167
124	298724	5	0.4	3.34	<5	105	15	5.32	<1	20	42	63	5.58	<10	1.94	2154	4	0.29	7	1110	46	<5	<20	257	0.03	<10	114	<10	5	118
141	298741	5	0.6	0.34	<5	55	<5	8.06	2	19	63	28	4.39	<10	2.71	2557	6	0.04	21	780	10	15	<20	97	<0.01	<10	16	<10	1	143
150	298750	5	1.0	0.51	10	45	<5	3.76	4	17	58	57	4.66	<10	1.12	1526	10	0.04	13	670	90	5	<20	105	<0.01	<10	20	<10	8	285
159	298759	5	1.4	1.82	200	50	<5	4.34	<1	13	48	91	4.63	<10	1.49	1132	8	0.04	7	890	64	<5	<20	89	<0.01	<10	74	<10	3	105
Standard:																														
GEO'98		130	1.2	1.80	65	160	<5	1.82	<1	20	62	79	3.82	<10	0.96	650	<1	0.02	22	630	20	<5	<20	54	0.07	<10	78	<10	5	79
GEO'98		125	1.4	1.79	65	165	<5	1.86	<1	19	66	80	3.82	<10	0.94	689	1	0.02	24	650	22	5	<20	56	0.08	<10	70	<10	6	75
GEO'98		135	1.0	1.70	65	160	<5	1.78	<1	20	59	80	4.04	<10	0.94	703	<1	0.03	22	710	22	<5	<20	57	0.10	<10	74	<10	5	77
GEO'98		130	0.8	1.80	65	150	5	1.86	<1	18	66	79	3.85	<10	0.96	661	<1	0.03	25	650	22	5	<20	55	0.10	<10	72	<10	5	85
GEO'98		130	0.8	1.76	65	165	5	1.76	<1	19	64	79	3.99	<10	0.96	695	<1	0.02	25	700	22	<5	<20	57	0.10	<10	72	<10	6	81
GEO'98		-	1.2	1.80	70	155	15	1.73	<1	19	66	80	4.01	<10	0.96	687	<1	0.02	24	710	22	<5	<20	52	0.10	<10	73	10	5	77

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

df/517
XLS/98
cc: Western Keltic Mines Inc.

APPENDIX E

GEOLOGIST'S CERTIFICATE

GEOLOGIST'S CERTIFICATE

I, Jim Lehtinen, of 4317 Briardale Road, Royston in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist with Equity Engineering Ltd. with offices at Suite 207, 675 West Hastings Street, Vancouver, British Columbia.
2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology.
3. THAT I am a Professional Geoscientist registered in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
4. THAT this report is based on a diamond drilling program I supervised in August and September of 1998, and on publicly available reports.

DATED at Vancouver, British Columbia, this ___ day of ____________, 1998.

____

Jim Lehtinen, P.Geo.