

DIAMOND DRILLING REPORT

on behalf of

MACMILLAN ENERGY CORPORATION

BUBBLE CLAIM  
BLACK DOME MOUNTAIN AREA  
CLINTON MINING DIVISION

Lat.  $51^{\circ}20'N$ ; Long.  $122^{\circ}27'W$   
NTS. 92 0/8W

Date of Work: September 15 to October 14, 1982

Date of Report: January 7th, 1983

by .

JAMES G. AGER, B.Sc.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

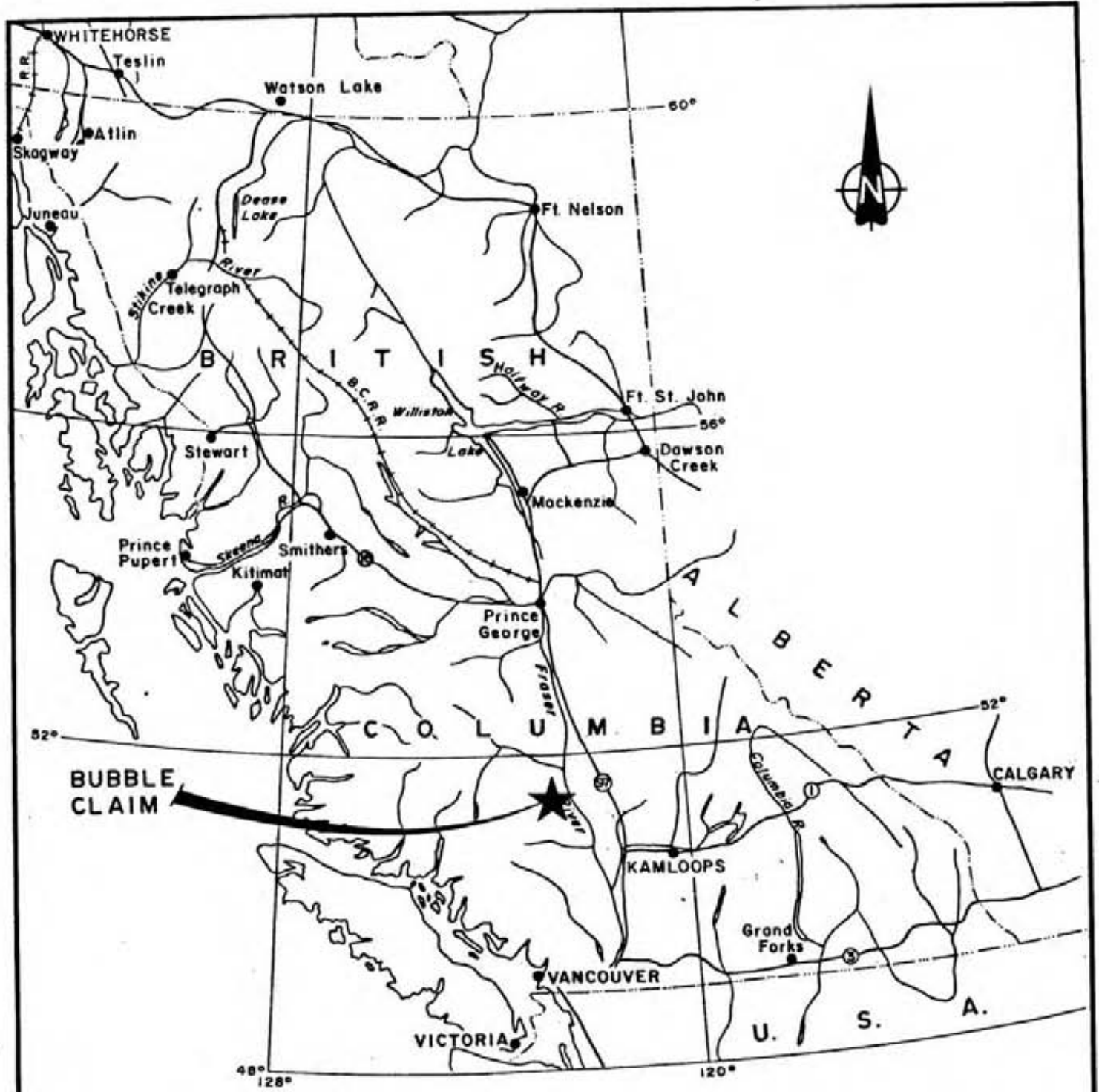
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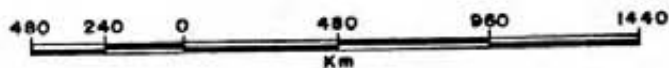
ILLUSTRATIONS

FIGURE 1	Location Map of Bubble Claim
FIGURE 2	Claim Map
FIGURE 3	Drill Hole Location Map and Gold Geochemistry



MACMILLAN ENERGY CORP.

LOCATION MAP  
OF  
— BUBBLE CLAIM —



INTRODUCTION

MacMillan Energy Corporation carried out a shallow diamond drill program in the fall of 1982. The holes were drilled to test a previous soil sampling program (1981) that outlined numerous gold anomalies. The following report outlines the locations and depth, with a summary of the drill logs and results.

PROPERTY

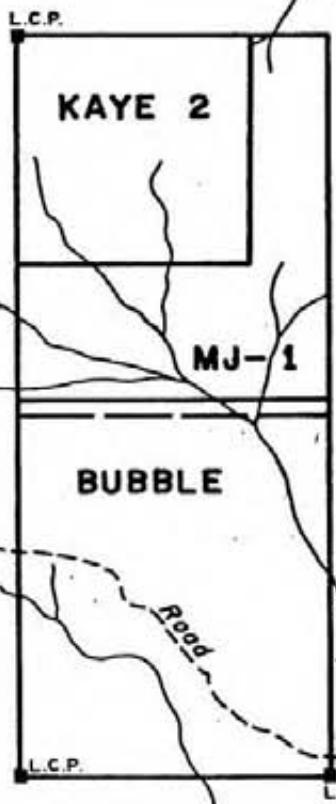
The property is located seventy (70) kilometres west of Clinton, B.C., and consists of one twenty (20) unit Bubble claim.

<u>CLAIM NAME</u>	<u>NO. OF UNITS</u>	<u>RECORD NO.</u>	<u>MIN.DIV.</u>	<u>EXPIRY DATE</u>
Bubble	20	352	Clinton	June 29,1983

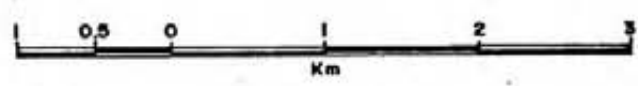
The recorded owner of the claim is Malabar Mines Ltd., who have an agreement for lease to MacMillan Energy Corp. for ninety-nine years. This lease, signed November 14,1980, requires a cash payment of \$1,000 per annum and in case of production, ten per cent (10%) of the net profits or \$1,000 per annum whichever is greater.

Malabar Mines Ltd. performed a limited amount of gold geochemistry in 1979 on a road traverse and from a grid using the road as a baseline. They collected one hundred and seventy-two (172) soil samples and ten (10) silt samples.

The assessment on the claim was paid in cash, in lieu of, work in June 1980, so no physical work was carried out in the 1980 season.



J.G. AGER CONSULTANTS LTD.  
CLAIM MAP



In 1981, J.G. Ager Consultants Ltd. established 43.3km of grid lines on the property and collected a total of 1575 soil samples. Gold was analyzed in each sample and twenty three (23) samples were above 100 ppb Au. A VLF-EM survey was also conducted over the grid. This outlined a number of small anomalies in the southwest portion of the property but showed no direct correlation between VLF-EM anomaly and the soil geochem anomaly.

Further detailed soil sampling was performed in 1982. Another 298 samples were collected in the western portion of the property. Close spaced lines were run between the more anomalous areas and assayed for gold.

#### LOCATION & ACCESS

The Bubble Claim is located on the eastern slopes of Black Dome Mountain at the headwaters of Porcupine Creek at 51°20' N and 122°27' W.

Access to the property is available by gravel road leaving Highway #97, eighteen (18) kilometres north of Clinton. The initial fifty (50) kilometres to the Empire Valley Ranch are on well-maintained government road. The last thirty (30) kilometres to the property is over the Black Dome Mine's access road and requires 4 Wheel Drive in wet weather.

Local precipitous cliffs occur in the Porcupine Creek and tributaries, with relief on the property from 1,460 metres in the Valley to over 1,750 metres along the western boundary.

### REGIONAL GEOLOGY

The Black Dome Mountain area is underlain by a sequence of Tertiary volcanic rocks which range in composition from basalt to rhyolite. Recent basaltic flows overly and cap many of the hills and lower valleys. The rocks are domed into a shallow, north by northeast plunging anticline in the volcanic centre to the west. Fracturing along zones of tension caused by this doming has acted as the loci for infilling of epithermal silver-gold mineralization.

### PROPERTY GEOLOGY

The Bubble Claim covers part of the eastern flank of Black Dome Mountain. Detailed mapping is hindered by extensive overburden in much of this area. However, a number of outcrops have allowed a basic outline of the rock in the claim area.

The lower most units are exposed in the creek bottom and along some of the cliffs. They are composed mainly of ignimbrites or ash flows. The colour varies from white to light red brown and varies from hard silicified, flow banded tuff to soft and porous ash beds.

These ignimbrites have a rounded texture (possibly due to re-absorption) and angular coarse fragments (possibly airborne) and seem to be a combination of both tectonic and sedimentary origin.

Overlying these volcanoclastic sediments is a sequence of dacite, andesite and basalt. On the contact between the rhyolite and basalt, a thin layer of oxidized material, consists of fine jasper and small veinlets of hematite.

The general area appears to have been subjected to complex

block faulting. The units in the Bubble Claims are similar in sequence to the Black Dome Mountain, but appear to be in a down faulted block.

No epithermal quartz veins were observed in place, but the areas of most interest are covered with heavy overburden.

#### DRILLING

Fourteen holes were drilled on the property using a Winkie drill with a core size of IEX-S. The drilling contract was awarded to James Bavalis Drilling of Abbotsford, B.C. All the holes were drilled with collar dip angles of 45<sup>o</sup> to intersect any steeply dipping mineralized vein systems.

The holes varied from 22.5 feet to 101 feet in depth and totaled 1,009 feet of drilling over fourteen holes. The targets were located near gold soil anomalies. (See location map).

#### DRILL LOGS

A summary of the drill logs are given on pages 7 - 21. The core was logged by Andrew Wilkins, B.Sc., Geologist and is stored at 33078 Bevan Avenue, Abbotsford, B.C.



SUMMARY

The diamond drill program was initiated to test at depth the gold anomalies. Stripping of the area was impractical due to the deep overburden.

Holes 82-7 (to 52.5 ft.), 82-8 (to 57 ft.) and 82-11 (to 22.5 ft.) were in overburden and never reached underlying rock.

Various rock float samples recovered from the holes consisted of andesitic flows, tuffs, (lappilli, rhyolitic) and basaltic flows. Some of these were cut by small quartz veins and were probably transported from the mountain downwards.

The contact between rock and overburden was commonly weathered to a medium brown to rusty orange colour. Institute rock consisted of medium to dark green andesite tuffs (fragments varying from fine ash up to 3cm) cut by calcite veins and contained some angular fracturing. No major quartz veining or sulphides were visible except in Hole 82-12.

Drill Hole 82-12 was mostly through overburden (42 ft.) but intersected a light grey andesite tuff with quartz and calcite veining over the last five feet. Cave-in problems caused the hole to be abandoned at this point (47 ft.).

RECOMMENDATIONS AND CONCLUSIONS

The soil <sup>g</sup>od anomalies have been difficult to trace due to the depth of overburden and difficulty of drilling. D.D. Hole 82-12 encountered quartz veins in the bottom section and this area should be investigated further.

A larger drill should be brought in to better penetrate the overburden and give a better sample to depth.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-1

PAGE 1 of 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.  
 COORDINATES: Line B.S. 0+23S CORE SIZE IEX-S CORE DIP 45°  
 OBJECTIVES: To test a Au soil geochem anomaly for Ag-Au mineralization

COMMENCED: Sept. 18, 1982  
 TRUE BRG: 180°

COMPLETED: Sept. 20 1982  
 LENGTH: 80 feet 24.4. metres

FOOTAGE	NOTES (25' of casing)
00' 04'	Overburden ( no core )
04' 19'	Overburden - broken up pebbles and rock ANDS and TUFF
19' 54' (40% recovery)	100% weathered and altered TUFF. Alteration products include clay, lm, hm, pr (black mineral). There are no visible sulphides. The core is mostly lightly coloured orange "mud" with occasional visible volcanic fragments. There are visible fractures (core 's <u>N</u> 45°) and shear zones (core 's <u>N</u> 0°).
54' 62' (80% recovery)	Lithic TUFF. In places the core is "rotten" and altered to clay and cl especially around fractures. The core is a dark green colour and the contact with the above orange alteration zone is sharp (core <u>N</u> 45°). Fractures are common and vary from 40°-70°.
62' 66' (40% recovery)	Unconsolidated orange coloured "sand" with an average grain size of ½mm.
66' 70' (100% recovery)	Lithic TUFF with fragments up to 2mm and a dark green colour. The core is soft. Fractures are common (core <'s 40 -70 ) and and the core is altered to clay and cl along fracture walls.
70.5' 73' (100% recovery)	Lappilli TUFF with pink, purple and light green rhyolitic clasts up to 1cm and a dark green (soft) matrix.
73' 73.5' (50% recovered)	Unconsolidated orange coloured "sand" as above.
73.5' 74.5' (100% recovered)	Lappilli TUFF as above.
74.5' 78' (100% recovery)	Lithic TUFF - dark green colour and fresh with layers of different grain sizes. The layers (bedding) have core <'s of 45°. Fragments are generally less than 2mm but can be up to 4mm. Fractures are rare.
78' 80' (100% recovery)	Lappilli TUFF - with light green, dark green, grey and white fragments up to 1cm and a dark green matrix. Most of the core is soft including the larger fragments. Fractures are rare (core 's <u>N</u> 45°).
80'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-2-A

PAGE 1 of 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Sept. 22, 1982

COMPLETED: Sept. 23, 1982

COORDINATES: Line B.S. BL

CORE SIZE IEX-S

CORE DIP 45°

TRUE BRG: 180°

LENGTH: 87 feet ( 26.5 metres)

OBJECTIVES: To test a Au soil geochem anomaly for Au-Ag mineralization

FOOTAGE	NOTES (30 feet of casing)
00' 08'	Overburden (no core)
08' 23'	Overburden and broken up pebbles of ANDS
23' 55' (80% recovery)	Weathered andesitic TUFF. Alteration products include lm, clay, Hm, Pr. The core is a light orange colour and is soft and competent to rotten.
55' 84' (100% recovery)	Green andesitic lappili TUFFS and lithic TUFFS. Bedded with grain sizes ranging from fine grained ash to lcm lithic fragments. The bedding core $\angle$ 's are 45°. The core is cut by occasional fractures (core 40°-60°) sometimes lined with ca and lm.
84'	6cm of black coal bearing (?) shale cut by small Ca veins.
84' 86½' (100% recovery)	Green andesitic lappili TUFF with fragments up to 3cm.
86½' 87'	Rotten green andesitic TUFF - clay alteration.
87'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-2-B

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PROPERTY: BUBBLE CLAIMS, BLACK DOME MTN. DISTRICT: Clinton, B.C.

COMMENCED: Sept. 24, 1982

COMPLETED: Sept. 25, 1982

COORDINATES: Line B.S. -BL

CORE SIZE IEX-S

CORE DIP 45°

TRUE BRG: 000°

LENGTH: 101 feet (30.8 metres)

OBJECTIVES: To test a Au soil geochem anomaly for Ag - Au mineralization.

FOOTAGE	NOTES (28 feet of casing)
00' 08'	Overburden (no core)
08' 23'	Overburden and broken up pebbles of ANDS and TUFF.
23' 47' (50% recovery)	Weathered andesitic (?) TUFFS. Alteration products include lm, clay, Hm, and Pr. The core is a light orange colour and soft. It is also rotten to competent. Fractures are common and vary from core $\angle$ 's 00° to 60° and are lined with lm, pr and hm.
47' 54' (100% recovery)	Rust coloured andesitic lappili TUFFS becoming less weathered than above (N 50% alteration). Grain fragments vary from fine ash to 2cm. some of the larger fragments are rhyolitic in composition (hard and light coloured). The core is an orange-green colour. There are numerous fractures of various core angles.
54' 56½' (100% recovery)	Andesitic TUFF - in places rust coloured especially around fractures. Predominately a dark green colour. Grain size varies from fine ash to 2cm. There were numerous fractures of various attitudes.
56½'	5cm of rusty andesitic lappili TUFF with assorted lithic fragments up to 1cm.
56½' 58½' (100% recovery)	Andestic TUFF as above
58½' 66' (100% recovery)	Andesitic lappili TUFF with assorted lithic fragments from fine grained ash to 1cm. The core is mostly soft with some of the rhyolitic fragments hard, and is a dark green colour. The core is commonly rusty around fractures. Fractures are common and have varying attitudes.
66'	4cm of black coal bearing (?) shale cut by small Ca veins.
66' 70.5' (100% recovery)	Andesitic lappilli TUFF with lithic fragments up to 5cm and some Ca in the matrix. The core is cut by numerous fractures, some with Ca or lm.
70.5'	5cm of rusty unconsolidated sand with an average grain size of N ½mm.
70.5' 75' (100% recovery)	Andesitic TUFF with the occasional fragment up to 3cm and cut by fractures of various attitudes.
75' 78' (100% recovery)	Andesitic lappili TUFF with dark green lithic fragments from 1mm to 8mm with a calcarious white matrix.

FOOTAGE	NOTES
78'      87' (100% recovery)	Andesitic lappilli TUFF as above, but highly fractured with Lm Hm and Pr staining associated with the fractures.
87'      99½' (100% recovery)	Andesitic lappilli TUFF with dark green to grey lithic fragments from ½mm to 1cm and a calcarious white matrix. Cut by rusty and sometimes calcarious fractures of various attitudes.
99½'     100' (100% recovery)	Andesitic lappilli TUFF as above, but broken up and highly fractured with Lm Hm and Pr staining associated with the fractures.
100'     100½' (100% recovery)	Fresh andesitic lappilli TUFF as above.
100½'   101'	Broken up and fractured andesitic lappilli TUFF.
101'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-3

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PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Sept 20, 1982

COMPLETED: Sept 21, 1982

COORDINATES: Line B.S. 0+25N CORE SIZE IEX-S CORE DIP 45°

TRUE BRG: 000°

LENGTH: 43 feet (13.1 metres)

OBJECTIVES: To test an Au soil geochem anomaly for Ag-Au mineralization

FOOTAGE		NOTES (27 feet of casing)
00'	05'	Overburden (no core)
05'	27'	Overburden and broken up pebbles of ANDS, RHYL and TUFF.
27'	43'	Weathered andesitic TUFFS - Alteration minerals include Lm, clay, minor Hm, Pr and Ga. The core is soft and a medium orange brown colour. It is broken up and in places "rotten". Cave in's at the bottom of the hole prevented further drilling.
	43'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-4

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PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Sept. 26, 1982

COMPLETED: Sept. 27, 1982

COORDINATES: 1-95E 0-50S

CORE SIZE IEX-S

CORE DIP 45°

TRUE BRG: 000°

LENGTH: 80 feet (24.4 metres)

OBJECTIVES: To test an Au soil geochem anomaly for Ag-Au mineralization

FOOTAGE	NOTES (27 feet of casing)
00' 05'	Overburden (no core)
05' 16'	Overburden and broken up pebbles of ANDS, TUFF, RHYL and weathered TUFF.
16' 32' (50% recovery)	70%-100% weathered TUFF and lappilli TUFF. Alteration products include lm clay, Hm and Pr. The core is a rusty orange colour and broken up or rotten.
32' 46' (80% recovery)	gradational 50% weathered lappilli TUFF. Alteration products include lm, clay, Hm and Pr as above. The core is medium orange brown colour and is mostly competent but soft. The TUFF is composed of fragments varying from fine ash to 1cm. The matrix is commonly white calcite. The core is cut by many fractures of varying attitudes.
46' 56' (100% recovery)	Lappilli TUFF weathered around fractures. Weathered core (50%) is a medium orange brown colour and is associated with fractures. The fresh core is a medium green-grey colour and is composed of andesitic fragments varying from ash size to 1cm and a matrix of white calcite. Fractures are fairly common.
56' 66' (100% recovery)	Andesitic lappilli TUFF composed of andesitic fragments varying from ash size to 1cm and a matrix of white calcite. The core is cut by 4 fractures and is a light brown colour around fractures.
66' 69' (100% recovery)	Andesitic lappilli TUFF composed of sausage shaped fragments up to 3cm in size. The core is cut by 7 fractures and the core is light brown colour around some of the fractures.
69' 72' (100% recovery)	Andesitic TUFF. The core is medium green-grey colour composed of andesitic fragments up to 3cm in size and is cut by 6 fractures with core angles of 2x45°, 1x60°, 3x80°. The core is a medium to light brown colour around fractures. There is calcite in the matrix.
72' 81' (100% recovery)	Andesitic lappilli TUFF with fragments up to 1cm and a white calcite matrix.
81'	E.O.H.



## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-5

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PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.  
 COORDINATES: 1-8SE -BL CORE SIZE IEX-S CORE DIP 45°  
 OBJECTIVES: To test an Au soil geochem anomaly for Ag-Au mineralization

COMMENCED: Sept.30, 1982  
 TRUE BRG: 270°

COMPLETED: October, 1982  
 LENGTH: 88.5 feet (27.0 metres)

FOOTAGE	NOTES (27 feet of casing)
00' 05'	Overburden (no core)
05' 17'	Overburden and pebbles of ANDS and weathered ANDS TUFF.
17' 46' (70-100% recovery)	Weathered andesitic lappilli TUFF: Alteration products include lm clay, hm and pr. The core is a medium orange brown colour and contains andesitic and rhyolitic fragments up to 2cm in size. Calcite is present in the matrix. Most of the core is competent, but some spots are highly fractured and broken up. Fractures are common. There are andesitic fragments greater than 3cm in size at 39' and 40'.
46' 63' (90-100% recovery)	Layered andesitic TUFF and lappilli TUFF, in places (50%) altered to lm, clay, hm and pr. The altered core is a light brown colour and the fresh core is a greenish grey colour. The coarse lappilli TUFFs are a lighter colour whereas the finer TUFFs are a darker colour. The layers have a core angle of N 45°. The coarser lappilli TUFFs contain volcanic fragments up to 2cm in size and the fragments are generally elongated with the long axis parallel to bedding. The contacts between different layers are sometimes gradational and sometimes sharp. There are a few minute (1mm thickness) coal lenses.
63' 88.5' (100% recovery)	Andesitic lappilli TUFF with fragments commonly up to 1cm with the occasional fragment to 2cm and a calcarious matrix. The core is a greenish grey colour and is cut by the occasional fracture, sometimes associated with brownish alteration of the core.
88.5'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-6

PAGE 1 of 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Oct. 2, 1982

COMPLETED: Oct. 2, 1982

COORDINATES: 1+8SE 0+SON

CORE SIZE IEX-S

CORE DIP 45°

TRUE BRG: 000°

LENGTH: 96.5 feet (29.4 metres)

OBJECTIVES: To test an Au soil geochem anomaly for Ag-Au mineralization

FOOTAGE		NOTES (25 feet of casing)
00'	06'	Overburden (no core)
06'	18'	Overburden and broken up pebbles of ANDS, BASL, TUFF.
18'	41'	Weathered andesitic lappilli TUFF - broken up and fractured. Alteration products include Ln, clay, Hm and Pr. The core is a medium orange brown colour and is cut by the occasional calcite vein. Fragments up to 1cm are common with the occasional up to 2cm. There is calcite in the matrix.
41'	49'	Weathered and unweathered lappilli TUFF - N 50% medium orange brown weathered colour associated with fractures - The remaining, green grey colour with calcite in the matrix.
49'	55'	Weathered and broken up lappilli TUFF cut by 2cm calcite vein (core angle 00°).
55'	63'	Weathered and unweathered lappilli TUFF - 30% of the core is a medium brown weathered colour associated with fractures.
63'	67'	Weathered lappilli TUFF.
67'	75'	Weathered and unweathered andesitic lappilli TUFF - 30% of the core is a medium brown weathered colour associated with fractures.
75'	80'	Andesitic lappilli TUFF with lithic fragments up to 5mm and calcite in the matrix.
80'	92'	Alternating zones of andesitic lappilli TUFFs and finer grained TUFFs. Most of the lappilli TUFFs contain fragments up to 5mm, however, some zones contain fragments up to 1cm. The contacts are sometimes gradational, sometimes sharp and the core angles between zones are -45°.
92'	95'	Andesitic lappilli TUFF with lithic fragments up to 5mm in size.
95'	96.5'	Andesitic lappilli TUFF with fragments up to 2cm in size.
	96.5'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-7

PAGE 1 of 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Oct. 3, 1982

COMPLETED: Oct. 4, 1982

COORDINATES: Line DN D+SON

CORE SIZE IEX-S

CORE DIP 45°

TRUE BRG: 000°

LENGTH: 52.5 feet ( 16.0 m)

OBJECTIVES: To test an Au soil geochem anomaly for Ag-Au mineralization

FOOTAGE		NOTES (27 feet of casing)
00'	06'	Overburden (no core)
06'	28'	Overburden and broken up andesitic volcanic pebbles.
28'	48'	Medium orange brown mud with clay, (m and Hm and rusty andesitic pebbles.
(30% recovery)		Rusty coloured sand with an average grain size of 1 mm.
50'	52.5'	Broken up rusty andesitic pebbles and sand.
	52.5'	E.O.H.
	NOTE:	Cave in problem at 49'

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-B

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PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Oct. 5, 1982

COMPLETED: Oct. 8, 1982

COORDINATES: Line DN 0-80N

CORE SIZE IEX-S

CORE DIP 45°

TRUE BRG: 000°

LENGTH: 57 feet (17.4 metres)

OBJECTIVES: To test an Au geochem anomaly for Ag-Au mineralization

FOOTAGE	NOTES (27 feet if casing)
00' 06'	Overburden (no core)
06' 12' (30% recovery)	Overburden; mud and large boulders (15cm) of andesitic lavas and tuffs (dark purple, blue or grey in colour).
10'	2cm rock chip of rhyolite cut by a 4mm quartz vein.
12' 46'	Overburden; mud and small andesitic rock chips, some rust coloured.
46' 57'	Overburden; mud and boulders of greenish or purplish andesitic lavas and tuffs.
57'	E.O.H.
NOTE:	Cave ins.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-10

PAGE 1 OF 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Oct. 9, 1982

COMPLETED: Oct. 10, 1982

COORDINATES: 3+05E 1+90N

CORE SIZE IEX-S

CORE DIP 45°

TRUE BRG: 180°

LENGTH: 72 feet *22 metres*

OBJECTIVES: To test an Au geochem anomaly for Ag-Au mineralization

FOOTAGE	NOTES (27 feet of casing)
00' 02'	Overburden (no core)
02' 30' (20% recovery)	Overburden and andesitic pebbles and boulders.
30' 38' (0% recovery)	No core - 0% recovery - fine grained and mud and sand.
38' 62' 50% recovery)	Unconsolidated dark green coloured sand with grain sizes varying from mud to 2mm. The sand is composed of white calcite and green volcanics.
62' 72' 100% recovery)	Green andesitic tuff with fragments up to 2mm in size and calcite in the matrix. The grains are generally sub-rounded. There are the occasional fragments to 5mm. The core is cut by fractures with Lm, or calcite on fracture surfaces.
72'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-11

PAGE 1 of 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.  
 COORDINATES: 3+0SE 1+60N CORE SIZE IEX-S CORE DIP 45°  
 OBJECTIVES: To test an Au soil anolally for Ag-Au mineralization

COMMENCED: Oct 10, 1982  
 TRUE BRG: 180°

COMPLETED: Oct , 1982  
 LENGTH: 22.5 feet (6.9 metres)

FOOTAGE		NOTES
00'	04'	Overburden (no core)
04'	22.5	Overburden and boulders of andesite and rusty andesite.
	9'	Quartz veins cutting rhyolitic float.
	22.5'	E.O.H.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-12

PAGE 1 of 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: Oct. 11, 1982

COMPLETED: October 12, 1982

COORDINATES: Line CN - 1480N CORE SIZE IEX-S CORE DIP 45°

TRUE BRG: 020°

LENGTH: 47 feet (14.3 metres)

OBJECTIVES: to test an Au soil geochem anomaly for Ag-Au mineralization

FOOTAGE		NOTES (26 feet of casing)
00'	05'	Overburden (no core)
05'	42'	Overburden, mud and assorted boulders and pebbles of basalt-to andesite flows, breccias and tuffs. A 4cm basaltic rock is cut by two rusty 3mm quartz veins (7.5 feet).
	42'	Red coloured tuffaceous volcanic boulder (4cm long).
* 42'	47'	Subcrop - outcrop ? Light grey coloured andesitic lapilli tuff with some small vesicles and lithic fragments up to 5mm, but most fragments around 1 to 2mm. There is calcite in the matrix. The core is cut by numerous fractures with 1m, sericite and calcite on fracture surfaces as well as pyrite. The core is also cut by quartz and calcite veins with 1m, sericite, pyrite and fragments of the host rock. The core angle of the veins is hard to tell, but seems to be around 45°. The width of the veins vary from 2mm to 10mm. The fracture core angles are variable.
	47'	E.O.H.
	NOTE:	Cave in problems resulting in short hole.

## DIAMOND DRILL HOLE RECORD

HOLE NUMBER: 82-13

PAGE 1 of 1

PROPERTY: Bubble Claims, Black Dome Mtn. DISTRICT: Clinton, B.C.

COMMENCED: October 12, 1982 COMPLETED: October 13, 1982

COORDINATES: Line CN 0+35N CORE SIZE IEX-S CORE DIP 45°

TRUE BRG: 000° LENGTH: 88 feet (26.8 metres)

OBJECTIVES: To test an Au soil geochemistry anomaly for Ag-Au mineralization

FOOTAGE	NOTES (19 feet of casing)
00' 02'	Overburden ( no core)
02' 11'	Overburden and andesitic float.
11' (50 % recovery improving to 100% down the hole)	Weathered andesitic lappilli tuff and tuff. Weathered alteration products included Lm, clay and Pr. The core is a light to medium orange brown colour and is rotten to competent. There are visible lithic fragments to 1cm in size.
43' 64' (90% recovery)	Green coloured andesitic lappilli tuff with lithic fragments to 1cm and minor clay alteration. There is calcite in the matrix.
64' 88' (50% recovery)	Clay altered green coloured andesitic tuff or lappilli tuff.
88'	E.O.H.
	E.O.D.

- 2 -



STATEMENT OF QUALIFICATIONS

I, James G. Ager, B.Sc., of Vancouver, British Columbia, do hereby state that:

1. I am a Consulting Geologist. I graduated from the University of British Columbia, Canada in 1972.

2. I have worked in the exploration field as follows:

-Jayco Syndicate; summer season, 1967.

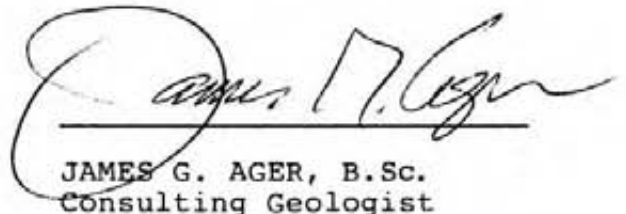
-Magnetron Mining Ltd.; May 1968-September 1970.

-Magnetron Mining Ltd.; summer season, 1971.

-Sibola Mines Ltd.; May 1972-October 1974.

-Self-employed Consulting Geologist; October 1974 to present, as Geologist and Project Supervisor for various Mining Companies throughout British Columbia and the Yukon including Pryme Energy Resources Ltd., Lansdowne Oil & Minerals Ltd., West-Bank Resources Inc., and Canuck Petroleum Corp.

DATED at VANCOUVER, B.C. this 7th day of January, 1983.

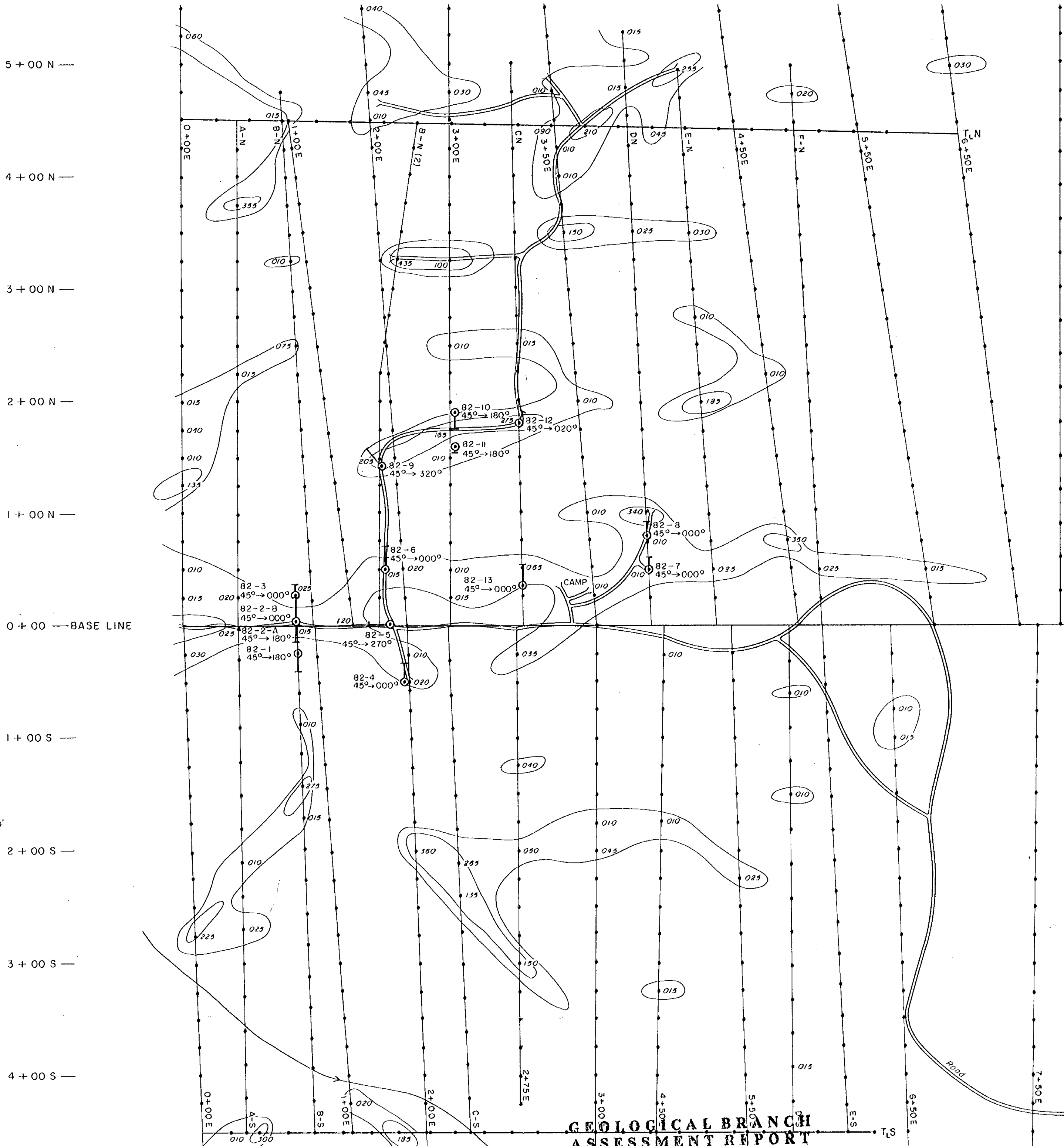


JAMES G. AGER, B.Sc.  
Consulting Geologist

STATEMENT OF COSTS

The following expenditures were made on behalf of MacMillan Energy Corporation on the Bubble CLaim in the Clinton Mining Division. Field work was carried out during the period of September 15, 1982 to October 14, 1982, under the supervision of Andrew Wilkens, Geologist.

Camp maintenance:	\$ 1,226.00
Caterpillar rental:	1,725.00
Diamond drilling:	
307.5 meters @ \$82.02 per meter	25,225.00
Mobilization costs:	1,100.00
Salary and wages:	
A. Wilkens - 21 days @ \$250.00 per day	5,250.00
Truck rental:	<u>2,100.00</u>
<u>TOTAL:</u>	<u>\$36,626.00</u>

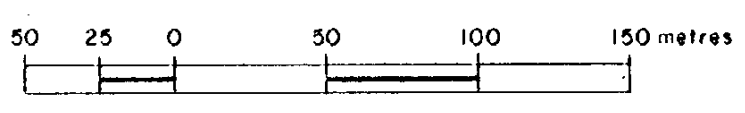


GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**11,261**

MACMILLIAN ENERGY CORP.  
- BUBBLE CLAIMS -  
CLINTON MINING DIVISION - BRITISH COLUMBIA

DRILL HOLE LOCATIONS  
and  
GOLD GEOCHEMISTRY (ppb)



**LEGEND**  
 Road  
 Drill hole location, number and orientation  
 82-1  
 45° → 180°

*James Agger*  
 J.S. AGER  
 CONSULTANTS LTD  
 VANCOUVER B.C.

DRAFTED BY  
 J.M. STAFFORD & ASSOCIATES  
 NOV. 1982

SCALE  
 1:2500

Map to accompany Diamond Drilling

FIG 3