

A4. Supplemental Diamond Drilling, December 1983

During the period December 3-8, 1983 an additional 62.5 m of drilling was done in three holes on the Horsefly property. The holes were located to the southwest of the collars for 74-1 and 2 and were drilled to check for a possible extension of the higher grade mineralization, i.e. 1.25 gms Au/tonne. The work was done by Northspan Exploration Limited using a truck mounted drill.

Drilling Results

Hole 83-12 intersected mainly volcanic breccia with short intervals of volcanic grits and sandstones and minor tuff. Gold values were very low.

Hole 83-13 encountered hypabyssal volcanic breccia identical to that found in the top sections of holes 74-1 and 2. The core contained chalcopyrite as disseminations and in the occasional small quartz vein. Gold values were less than 1 gm/tonne.

Hole 83-14, located as a further step-out to the southwest, was abandoned at 19.8 m in overburden.

!PROJ PLACER DEVELOPMENT HORSEFLY  
HOLE DDH83-12 NO GRID NORTH10830.00 GRID EAST11020.00  
GRID AZIMUTH OF HOLE 360.00 VERTICAL ANGLE -90.00  
TRUE AZIMUTH OF HOLE 360  
TOTAL DEPTH OF HOLE: 30.48mt.  
Logged by: BMB on (day/mo/yr)...83DEC03

FROM 0.00MT. TO 11.60MT.  
OVERBURDEN

FROM 11.60MT. TO 13.60MT.  
medium VOLCANIC BRECCIA  
Textures noted: BRECCIATED , VEINED  
Structures noted: MACROVEINING dip 90,  
.1% CHALCOPYRITE as microveins  
.3% PYRITE as microveins  
10% HEMATITE as breccia fillings

CORE IS COARSELY VEINED WITH MASSIVE HEMATITE AND CHALCOPYRITE  
ROCK IS PALE GREEN, SOFT PROBABLY HEAVY SERICITE ALTERATION

FROM 13.30MT. TO 13.60MT.  
50% of this subinterval is the same as 11.60MT. to 13.60MT. except as noted  
.01% HEMATITE as disseminations and scattered crystals

FROM 13.60MT. TO 14.12MT.  
medium VOLCANIC SANDSTONE  
Textures noted: BEDDED  
Structures noted: BEDDING dip 020,

FROM 14.12MT. TO 17.17MT.  
medium VOLCANIC GRIT  
Textures noted: BEDDED  
Structures noted: MACROVEINING dip 045, BEDDING dip 020  
5% CHLORITE as veins  
5% CARBONATE as veins

GRIT BECOMES FINER DOWN SECTION; GRAYISH GREEN BANDED GRIT AND  
SANDSTONE

FROM 15.05MT. TO 15.24MT.  
100% of this subinterval is  
medium FAULT  
Structures noted: FAULT dip 060,  
10% HEMATITE as massive  
10% CARBONATE as massive

FROM 17.17MT. TO 20.84MT.  
medium VOLCANIC BRECCIA  
5% CHLORITE as pervasive mineralization  
.01% CHALCOPYRITE as blebs  
1% PYRITE as disseminations and scattered crystals  
.3% HEMATITE as veins  
5% CARBONATE as veins

IS A REDDISH SANDSTONE. MICROVEINS OF HEMATITE WITH A FEW BLEBS  
OF CHALCOPYRITE AND HEMATITE, SOME PERVASIVE WHITE BLEBS SOFT;  
CORE : POSSIBLE LIGHT CARBONATE ALTERATION

FROM 20.84MT. TO 21.80MT.

dark VOLCANIC BRECCIA  
Textures noted: VEINED  
1% CHLORITE as pervasive mineralization  
.01% PYRITE as disseminations and scattered crystals  
5% CARBONATE as veins

BASICALLY SAME ROCK AS ABOVE BUT DARKER GREEN

FROM 21.80MT. TO 23.40MT.

dark TUFF  
Textures noted: , VEINED  
5% CHLORITE as pervasive mineralization  
.01% PYRITE as disseminations and scattered crystals  
.1% CARBONATE as veins

OCCASIONAL SMALL CLASTS ABOUT .5 CM.

FROM 23.40MT. TO 24.38MT.

medium VOLCANIC BRECCIA  
Textures noted: VEINED  
1% CHLORITE as pervasive mineralization  
.01% PYRITE as blebs  
1% CARBONATE as veins

FRAGMENTS UP TO 15 CM. OF GRIT MATERIAL, SOME DRABY BROWN  
STAINING, CARBONATE PODS AND VEINS UP TO 3 CM.

FROM 24.38MT. TO 27.40MT.

dark TUFF  
Textures noted: VEINED  
Structures noted: MACROVEINING dip 055,  
1% EPIDOTE as veins  
1% CHLORITE as pervasive mineralization  
.01% HEMATITE as veins  
1% CARBONATE as veins

BANDS OF ALTERATION AROUND THE VEINS, EPIDOTE , VEINS ARE ABOUT  
2-3 MM. WIDE . AT 25.4 2 CM. WIDE VEIN OF CARBONATE, QTZ AND  
BLEBS OF PYRITE AND CHALCOPYRITE

FROM 27.40MT. TO 30.48MT.

medium VOLCANIC BRECCIA  
1% CHLORITE as pervasive mineralization  
1% CARBONATE as veins

PYROCLASTIC FRAGMENTS UP TO 5MM, FRAGMENTS ARE DARK AND FINE  
GRAINED

FROM 27.60MT. TO 28.20MT.

100% of this subinterval is the same as 27.40MT. to 30.48MT. except as noted  
pale  
Structures noted: SHEAR dip 060.

OVERBURDEN SAMPLE FROM REVERSE CIRCULATION DRILLING

ADD1	AUMM	ALAB	ATYP	ANTH	RASY	% SAMPLE	PPMAU	PPMAU	% CU
						SPLIT	NO		
A001	000	200				25HF1850			
A001	200	400				25HF1851			
A001	400	600				25HF1852			

ADD1	AUMM	ALAB	ATYP	ANTH	RASY	SAMPLE	PPMAU	PPMA6	% CU
						NO			
A002	1160	1500				74891	0.24	10.0	0.406
A002	1500	1800				74892	0.20	1.5	0.041
A002	2100	2400				74893	0.20	1.5	0.044
A002	2700	3000				74894	0.27	2.0	0.046

/END

HOLE DDH83-13 NO GRID NORTH10866.00 GRID EAST10984.00  
 GRID AZIMUTH OF HOLE VERTICAL ANGLE -90.00  
 TRUE AZIMUTH OF HOLE 0  
 TOTAL DEPTH OF HOLE: 12.04mt.  
 Logged by: BMB on (day/mo/yr)...83DEC08

FROM 0.00MT. TO 2.13MT.  
 OVERBURDEN

FROM 2.13MT. TO 12.04MT.  
 Textures noted: PORPHYRITIC , MICROVEINED  
 .3% EPIDOTE as patches  
 .01% CHLORITE as pervasive mineralization  
 .03% POTASSIUM FELDSPAR as envelopes  
 .3% CHALCOPYRITE as vns, microvns, selv. envel.& perv./dis. min'l  
 .03% PYRITE as disseminations and scattered crystals  
 .1% QUARTZ as vns, microvns, selv. envel.& perv./dis. min'l  
 .1% CARBONATE as pervasive mineralization

CHALCOPYRITE IS DISSEMINATED AND OCCURS IN MICROVEINS.  
 FRAGMENTS AND MATRIX CONTAIN FELSPAR PORPHYRY. THESE FELDSPAR  
 ARE EPIDOTIZED. FEW BLACK APHANITIC FRAGMENTS. LIMONITE OCCURS  
 ON FRACTURE. K-SPAR ENVELOPES SOME QUARTZ MICROVEINS.

FROM 4.57MT. TO 6.10MT.  
 100% of this subinterval is the same as 2.13MT. to 12.04MT. except as noted  
 medium  
 .1% CHALCOPYRITE as vns, microvns, selv. envel.& perv./dis. min'l  
 .03% HEMATITE as patches

FROM 4.58 TO 6.10 M. LESS VISIBLE CHALCOPYRITE. MATRIX MORE  
 GREY THAN GREENISH.

FROM 10.91MT. TO 10.92MT.  
 100% of this subinterval is  
 VEIN  
 Structures noted: MACROVEINING dip 045,  
 90% EPIDOTE as veins

A001	ALUM	FROM	TO	SAMPLE	PPMAU	PPMA6	I	CU
A001		213	300	74895	0.94	1.5	0.128	
A001		300	600	74896	0.78	1.5	0.111	
A001		600	900	74897	0.87	2.0	0.115	
A001		900	1204	74898	0.66	3.5	0.098	

/END

HOLE DDH83-14 NO GRID NORTH10834.00 GRID EAST10910.00  
GRID AZIMUTH OF HOLE VERTICAL ANGLE -90.00  
TRUE AZIMUTH OF HOLE 0  
TOTAL DEPTH OF HOLE: 19.81m.  
Logged by: BNB on (day/mo/yr)...83DEC08

FROM 0.00MT. TO 19.81MT.  
OVERBURDEN

DRILLED ONLY OVERBURDEN , BEDROCK NOT REACHED!

/END

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 1234567890123456789012345678901234567890123456789012345678901234567890

IDEN6B0201 V-192DDH83-12 NQ83DEC03BWBWSPNORTDEC83REC 7 MCG 0.00  
 IPRJ PLACER DEVELOPMENT HORSEFLY  
 S000 0 3048 30.48360.00-90.00 10830.00 11020.00 992.00  
 /NAM EPCLKFCPPYHM  
 /SCL MT.2  
 LSCL  
 LNAM

/ 000 1160 OVER P QZCB MGPO  
 R  
 / 1160 1360 VOLC BRVV P >> 90 <<(\*#1  
 L 5 G  
 R  
 R

CORE IS COARSELY VEINED WITH MASSIVE HEMATITE AND CHALCOPYRITE  
 ROCK IS PALE GREEN, SOFT PROBABLY HEAVY SERICITE ALTERATION

/ 1330 1360 5 D D.  
 R  
 / 1360 1412 VLSN BD P BD 020  
 L 5 G  
 R  
 / 1412 1717 VLGT BD P >> 045 V=  
 L 5 GA BD 020 V=  
 R  
 R

GRIT BECOMES FINER DOWN SECTION; GRAYISH GREEN BANDED GRIT AND  
 SANDSTONE

/ 1505 1524 XFALT R F/ 060 M1  
 L 5 GA M1  
 R  
 / 1717 2084 VOLC P P= B.D)V\*  
 L 5 GA V=  
 R  
 R

FRAGMENTS UP TO 10CM. OF GREY GRIT, FINE MATRIX, ONE FRAGMENT  
 IS A REDDISH SANDSTONE. MICROVEINS OF HEMATITE WITH A FEW BLEBS  
 OF CHALCOPYRITE AND HEMATITE, SOME PERVASIVE WHITE BLEBS SOFT;  
 CORE : POSSIBLE LIGHT CARBONATE ALTERATION

/ 2084 2180 VOLC VV P P) D.  
 L 3 G V=  
 R  
 R

BASICALLY SAME ROCK AS ABOVE BUT DARKER GREEN

/ 2180 2340 TUFF P P= D.  
 L 3 G VV V(  
 R  
 R

OCCASIONAL SMALL CLASTS ABOUT .5 CM.

/ 2340 2438 VOLC VV P P) B.  
 L 5 UG V)  
 R

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R FRAGMENTS UP TO 15 CM. OF GRIT MATERIAL, SOME ORANGY BROWN  
 R STAINING, CARBONATE PODS AND VEINS UP TO 3 CM.  
 R

/ 2438 2740 TUFF VV P >> 055V)P) V.  
 L 3 G V)

R BANDS OF ALTERATION AROUND THE VEINS, EPIDOTE , VEINS ARE ABOUT  
 R 2-3 MM. WIDE . AT 25.4 2 CM. WIDE VEIN OF CARBONATE, QTZ AND  
 R BLEBS OF PYRITE AND CHALCOPYRITE  
 R

/ 2740 3048 VOLC P P)  
 L 5 AG V)

R PYROCLASTIC FRAGMENTS UP TO 5MM, FRAGMENTS ARE DARK AND FINE  
 R GRAINED  
 R

/ 2760 2820 X D S/ 060  
 L 8 BG V2

R STRONGLY ALTERED SHEAR SOFT PALE GREEN ALTERATION= SERICITE?  
 R OVERBURDEN SAMPLE FROM REVERSE CIRCULATION DRILLING  
 R

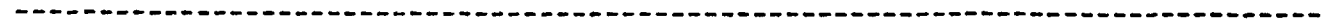
A001  
 AUMM %.0SAMPLE  
 ALAB SPLIT NO  
 ATYP  
 AMTH

RASY  
 A001 000 200 25HFX850  
 A001 200 400 25HFX851  
 A001 400 600 25HFX852

A002  
 AUMM SAMPLE PPMAG PPMAG %CU  
 ALAB NO  
 AMTH

RASY  
 A002 1160 1500 74891 0.24 10.0 0.406  
 A002 1500 1800 74892 0.20 1.5 0.008  
 A002 2100 2400 74893 0.20 1.5 0.041  
 A002 2700 3000 74894 0.27 2.0 0.046

/END





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IDEN6B0201 V-192DDH83-13 NQ 83DEC08BWBWSPNORTDEC83 MCG 0.00  
 IPRJ PLACER DEVELOPMENT LIMITED HORSEFLY  
 S000 000 1204 12.04 -90.00 10866.00 10984.00 996.00

/NAM EPCLKFCPPYHM  
 /SCL MT.2  
 LSCL  
 LNAM QZCB MGPO

R  
 / 000 213 OVER P  
 R  
 / 213 1204 AL HYVL PP<<4657 P Q\*P.E-7\*D- LI  
 L 5 AG 44MO 7(P( <\*

CHALCOPYRITE IS DISSEMINATED AND OCCURS IN MICROVEINS.  
 FRAGMENTS AND MATRIX CONTAIN FELDSPAR PORPHYRY. THESE FELDSPAR  
 ARE EPIDOTIZED. FEW BLACK APHANITIC FRAGMENTS. LIMONITE OCCURS  
 ON FRACTURE. K-SPAR ENVELOPES SOME QUARTZ MICROVEINS.

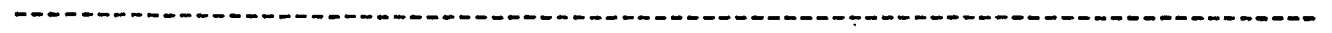
R  
 / 457 610 X D 7( Q-  
 L 5 GA  
 R FROM 4.58 TO 6.10 M. LESS VISIBLE CHALCOPYRITE. MATRIX MORE  
 R GREY THAN GREENISH.

R  
 / 1091 1092 XVEIN R >> 045V9

A001  
 AUMM

SAMPLE	PPMAU	PPMAG	% CU
A001 213 300	74895	0.94 1.5	0.128
A001 300 600	74896	0.78 1.5	0.111
A001 600 900	74897	0.87 2.0	0.115
A001 900 1204	74898	0.66 3.5	0.098

/END



Project HORSEFLY

Drill-hole: DDH83-14

DATE: 83-12-14

PAGE 1

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1234567890123456789012345678901234567890123456789012345678901234567890

IDEN6B0201 V-192DDH83-14 NQ 83DEC08BWBWSPNORTDEC83 MCG 0.00  
IPRJ PLACER DEVELOPMENT LIMITED HORSEFLY  
S000 000 1981 19.81 -90.00 10834.00 10910.00 997.00  
/NAM EPCLKFCPPYHM  
/SCL MT.2  
LSCL  
LNAM QZCB MGPO  
R  
/ 000 1981 OVER P  
R  
R DRILLED ONLY OVERBURDEN , BEDROCK NOT REACHED!  
R  
/END

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