

LOG NO:	JUL 16 1992	RD.
ACTION:		
FILE NO:		



LAC

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1991 DIAMOND DRILL  
LOGS

APPENDIX C

PART 3 OF 5  
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

22,417

FILE NO.	MC91-63	NORTHING	250 N	DH COMP. BEAR	97	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	-203 E	GRID ORIENT.	360	91.4	- 77	103	SFER	182.9	- 77	097	SFER
LOCATION	MARC ZONE	ELEVATION	2132.5	DH GRID AZ.	97	247.3	- 77	098	SFER	356.6	- 77	100	SFER
LAIM NO.	ORD 1	SURV. E.		DIP-COLLAR	-78	447.5	- 77	094	SFER				
PROJECT		SURV. N.		LENGTH (m)	447.45								
STARTED	Aug. 9/91	LOGGED BY	G. MACMILLAN	DRILL CO.	FALCON								
FINISHED	Aug. 14/91	CHECKED BY		DRILL NO.	1000/1								
SECTION		CORE	BQ TW	FOREMAN	K. Hillen								
COMMENTS													

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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## SUMMARY

0.00	1.52	CASING						
1.52	33.91	VERY FINE GRAINED ASH TUFF \ INTERCALATED ARGILLITE AND TUFF (IAT\162k2)						
31.91	35.20	Andesite Sill (11A2)						
35.20	38.80	FINE GRAINED ASH TUFF (164d)						
38.80	40.19	ANDESITE DIKE (11A1k)						
40.19	44.08	FINE GRAINED ASH TUFF (164)						
44.08	44.20	FAULT (FZ)						
44.20	46.00	STRONGLY OXIDIZED TUFF (17B)						
46.00	52.40	FAULT ZONE (FZ\17B)						
52.40	79.00	COARSE ASH TUFF (276m3)						
79.00	79.10	FAULT ZONE (FZ)						
79.10	83.32	FINE GRAINED DISRUPTED TUFF (1\876a)						
83.32	106.15	FINE GRAINED ASH TUFF (IAT\162k2)						
106.15	119.11	BRECCIATED FINE GRAINED ASH TUFF (BX\104m2)						
119.11	148.21	COARSE ASH TUFF \ CRYSTAL TUFF (2\5A6m1)						
148.21	148.21	GROUND CORE - FAULT ZONE (FZ)						
148.21	153.68	HBL\PLAG PORPHYRY (868d1)						
151.79	152.54	GROUND CORE - FAULT ZONE (FZ\FZ)						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
132.54	203.28	COARSE ASH \ CRYSTAL TUFF (Z15A6a3)						
201.10	203.28	40-50% ARGILLACEOUS SECTION (13\184d5)						
203.28	203.46	FAULT ZONE (FZ)						
203.46	207.90	SILICIFIED TUFF (Z15D6a3)						
207.90	219.73	ARGILLITE (UTEM\1306a6)						
219.73	224.89	COARSE ASH TUFF \ CRYSTAL TUFF (Z15F3a3)						
224.89	245.38	ARGILLITE BRECCIA \ UTEM ZONE (UTEM\1306t8)						
245.38	255.30	CONTACT ZONE (CZ\886t6)						
255.30	277.30	MEDIUM GRAINED HBL \ PLAG PORPHYRY (884a5)						
277.30	304.08	MEDIUM GRAINED HBL \ PLAG PORPHYRY (8A3a2)						
.08	332.28	COARSE HBL \ PLAG PORPHYRY (882a2)						
332.28	336.56	ANDESITE DIKE (11H6a1)						
336.56	345.98	HBL \ PLAG PORPHYRY (886a1)						
345.98	362.44	HBL \ PLAG PORPHYRY (802a2)						
362.44	367.40	BRECCIATED ARGILLITE AND HBL \ PLAG PORPHYRY (BX\13\807a8)						
367.40	388.17	MINERALIZED ZONE - MARC ZONE (MZ\8x\89d10)						
388.17	411.57	FOOTWALL MARC ZONE - SPHALERITE ZONE (MZ\887k7)						
411.57	447.45	MEDIUM GRAINED PLAG \ HBL PORPHYRY (8F6a3)						
447.45	447.45	E.O.H.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	1.52	CASING						
1.52	33.91	VERY FINE GRAINED ASH TUFF \ INTERCALATED ARGILLITE AND TUFF (IAT\I&K2)						
		<ul style="list-style-type: none"> <li>- medium grey-green colour, very fine grained, well banded, bedded, hard, nonmagnetic</li> <li>- Bedding\Banding up to 1 cm in width</li> <li>- &gt; 1% argillic silicified bands randomly throughout</li> <li>- minor faulting\tectonically disrupted beds with up to 5 cm displacement</li> <li>- 1-2% Quartz-Carbonate fractures, parallel, cross cutting bedding and along the core axis - some of the fractures are oxidized</li> <li>- Tr.-1% py disseminated</li> <li>- Tr-0.5% po blebs up to 1 cm in size disseminated throughout</li> <li>- Tr epidote along fractures</li> <li>- Tr chlorite along fractures</li> <li>- Bedding: 2 m - 57°            14 m - 45°            26 m - 40°</li> <li>                  6 m - 38°            16 m - 52°            29 m - 35°</li> <li>                  8 m - 70°            20 m - 37°</li> <li>                  12 m - 45°            23 m - 58°</li> </ul>						
52	6.80	- strongly fractured, broken core - pieces up to 6 cm long						
18.92	19.20	Andesite Sill						
		<ul style="list-style-type: none"> <li>- medium green colour, medium fine grained, massive, mottled appearance with no to little sulphides, nonmagnetic</li> <li>- Quartz-Carbonate micro-fractures along the core axis</li> <li>- weak foliation with some remnant fragments - Fo - 38°</li> </ul>						
21.00	23.77	- up to 5% Quartz-Carbonate fractures at all angles to the core axis						
		- Fe alteration on the fracture surfaces						
23.77	26.00	Andesite Sill ???						
		<ul style="list-style-type: none"> <li>- very mottled appearance with remnant bedding in some locations</li> <li>- coarse grained with 1-2% Quartz clots</li> <li>- 0.5-1% po disseminated</li> <li>- possibly at the edge of a sill ???</li> </ul>						
27.30	27.60	Andesite Sill along the core axis						
29.30	30.50	Broken core with Fe Oxidation along the fracture surfaces						
30.87	31.20	Breccia						
		<ul style="list-style-type: none"> <li>- mottled breccia fragments up to 2 cm in size, rounded, in a very fine grained matrix</li> <li>- weak epidote and chlorite alteration</li> </ul>						
32.70	32.70	75% Andesite Sill						
		<ul style="list-style-type: none"> <li>- medium dark green colour, medium grained with irregular contacts</li> <li>- composition - Feldspar, Hornblende, +/- Chlorite</li> <li>- Tr sulphides</li> </ul>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
33.91	35.20	<b>Andesite S111 (11A2)</b>  - medium dark green colour, medium grained, massive, nonmagnetic - composition - Feldspar, Hornblende, Chlorite - weak chloritic alteration - 2-3% Hornblende euhedral crystals up to 1 mm in size - 7% Feldspar crystals up to 1 mm in size - 1% calcite patches						
33.20	38.80	<b>FINE GRAINED ASH TUFF (184d)</b>  - medium grey-green colour, fine grained, massive appearance with weak to moderate foliation, nonmagnetic - composition - Feldspar - up to 0.5 mm in size - Tr Quartz-Carbonate micro-fractures - weak silicification - Tr sulphides - primarily py and po - Foliation = 62°						
38.22	38.80	-sections of andesite with very irregular contacts at low core angles						
38.80	40.19	<b>ANDESITE DIKE (11A1k)</b>  - medium green colour, medium grained, porphyritic, massive, nonmagnetic - 10-15% feldspar - euhedral to subhedral phenocrysts up to 1 mm in size - 5-10% Hornblende - subhedral to anhedral phenocrysts up to 1.5 mm in size - Tr sulphides py and po - up to 1% Quartz-Carbonate fractures and micro-fractures along the core axis and at 50° and 40° to the core axis						
40.19	44.08	<b>FINE GRAINED ASH TUFF (184)</b>  - medium grey-green colour fine grained, mottled appearance, silicified, nonmagnetic - up to 3% Quartz-Carbonate micro-fractures at 70° and along the core axis - Tr-2% Chlorite along fractures						
42.42	44.08	- increase in the abundance of the oxidation along the fractures - core textures are being obliterated by the oxidation						
44.08	44.20	<b>FAULT (FZ)</b>						
44.20	46.00	<b>STRONGLY OXIDIZED TUFF (178)</b>  - medium to dark orange colour, very fine grained with 5% Quartz-Carbonate micro-fractures at all angles to the core - fractures are commonly oxidized						
46.00	52.40	<b>FAULT ZONE (FZ\178)</b>  - the core is broken into pieces up to 6 cm long and strongly oxidized						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
52.40	79.00	<b>COARSE ASH TUFF (276a3)</b>						
		- fine grained, massive, medium grey colour with sections of strong limonitic oxidation decreasing down the hole						
		- sections of ground core up to 30 cm in length						
		- up to 10% feldspar shards						
		- 10% Quartz-Carbonate veins with oxidation often haloing the fractures						
		- 1% py and po disseminated and in fractures creating stringers						
		- 8% feldspar phenocrysts up to 1 mm in size - subhedral to anhedral habit						
56.70	57.03	Ground Core						
60.07	61.40	Ground-Broken Core						
62.90	63.40	Ground Core						
52.40	63.40	Intense Limonitic Alteration						
63.40	79.00	Moderate limonitic alteration confined to haloing Quartz-Carbonate fractures						
67.90	68.30	- up to 5% py within fracture fillings with 5% chlorite and 1% po						
67.10	73.80	- 75 bluish colour mineral mixed in with the Quartz-Carbonate veins						
		- core is strongly silicified, mottley looking with a few areas of breccia up to 10 cm in length						
		- Quartz-Carbonate micro-fractures at 60° and along the core axis						
79.00	79.10	<b>FAULT ZONE (FZ)</b>						
		- limonitic ground core and gouge						
79.10	83.32	<b>FINE GRAINED DISRUPTED TUFF (11876a)</b>						
		- medium grey colour, very fine grained disrupted tuff with limonitic fractures, mottled appearance, nonmagnetic						
		- strongly fractured - approx. 130 fractures per 1 m						
		- fractures are infilled with Quartz-Carbonate and Limonite						
		- Tr bluish colour mineral commonly associated with the fractures						
		- fracture angles trend @ 15°, 42° and 50° to the core axis						
		- Tr py and po along the odd fracture plane						
79.56	79.94	- ground core with a limonitic alteration						
			20001	79.10	80.50	1.40	0.03	1.6
			20002	80.50	82.00	1.50	0.12	1.2
			20003	82.00	83.32	1.32	0.02	1.1
83.32	106.15	<b>FINE GRAINED ASH TUFF (1AT\162&amp;2)</b>						
		- medium grey-green colour, very fine grained, bedded, spotty magnetism						
		- sections up to 1 m where the bedding has been disrupted and/or is no longer evident. These sections have a more mottled appearance.						
		- alternating bands of tuffaceous and argillic material						
		- 2-3% po disseminated and as stringers						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- 1-2% py disseminated and as stringers - Tr sphalerite in fractures - 4-5% Quartz-Carbonate veins and micro-veins infilling fractures - commonly limonitic - at 60° and 40°						
			20004	83.32	84.50	1.18	0.03	1.3
			20005	84.50	86.00	1.50	0.03	1.5
			20006	86.00	87.50	1.50	0.03	1.0
			20007	87.50	89.00	1.50	0.02	1.1
			20008	89.00	90.50	1.50	0.02	1.0
			20009	90.50	92.00	1.50	0.02	1.2
			20010	92.00	93.50	1.50	0.03	1.3
			20011	93.50	95.00	1.50	0.03	1.2
			20012	95.00	96.50	1.50	0.04	0.7
			20013	96.50	98.00	1.50	0.02	0.8
			20014	98.00	99.50	1.50	0.02	0.6
100.13	100.17	Vuggy Quartz-Carbonate Vein						
100.69	100.99	Intrusive Sill - medium green-grey colour, medium grained, massive, nonmagnetic - 1% py as discrete blebs						
			20015	99.50	101.00	1.50	0.01	1.1
			20016	101.00	102.50	1.50	0.02	0.8
			20017	102.50	104.00	1.50	0.01	1.5
			20018	104.00	105.50	1.50	0.02	1.4
			20019	105.50	106.15	0.65	0.02	1.2
106.15	119.11	<b>BRECCIATED FINE GRAINED ASH TUFF (BX\104m2)</b>  - very fine grained, medium green colour, spotty magnetism - Angular to subangular fragments tend to demonstrate bedding while the matrix in places demonstrates a weak to moderate argillaceous alteration - fragment supported with fragments up to 30 cm in size. - some of the fragments demonstrate micro-faulting with a displacement in the order of 1 cm - argillic alteration is more prevalent at the bottom of the unit - 3-10% Quartz-Carbonate micro-fractures at 41°, 45° and 15° - Tr limonitic alteration within the Quartz-Carbonate Veins - Tr Sphalerite blebs - 0.5-1% py disseminated - 0.5-1% co disseminated						
			20020	106.15	107.50	1.35	0.02	1.0
			20021	107.50	109.00	1.50	0.02	0.5
109.47	109.85	Argillic Section						
			20022	109.00	110.50	1.50	0.01	0.8
			20023	110.50	112.00	1.50	0.01	0.9
			20024	112.00	113.50	1.50	0.01	1.1
			20025	113.50	115.00	1.50	0.02	1.2
			20026	115.00	116.50	1.50	0.01	1.5
117.10	117.54	Limonitic alteration due to the abundance of fractures and micro-fractures						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20027	116.50	116.00	1.50	0.01	1.1
118.30	119.11	- up to 5% po finely disseminated - up to 3% py finely disseminated	20028	118.00	119.11	1.11	0.01	0.4
<b>119.11</b>	<b>148.21</b>	<b>COARSE ASH TUFF \ CRYSTAL TUFF (215M6d1)</b>						
		- medium green-grey colour, fine grained, massive, with spotty magnetism usually caused by po						
		- 10-15% Feldspar, shards or crystals up to 1 mm in size, euhedral habit						
		- 3% Hornblende euhedral phenocrysts						
		- 3-5% Quartz-Carbonate fracture fillings up to 2 cm in size- commonly 1 mm in size						
		- 0.5-1% py disseminated and along fractures						
		- 0.5% po disseminated and along fractures						
		- Tr limonite on fracture planes						
		- alteration is weakly chloritic						
		- UCT = 58°						
75	119.80	K alteration - pinkish cast to the core	20029	119.11	120.50	1.39	0.01	0.9
			20030	120.50	122.00	1.50	0.01	0.5
123.00	124.00	Ground Core - 50% loss	20031	122.00	123.50	1.50	0.01	0.4
			20032	123.50	125.00	1.50	0.03	0.5
			20033	125.00	126.50	1.50	0.01	0.6
			20034	126.50	128.00	1.50	0.02	0.4
			20035	128.00	129.50	1.50	0.01	0.7
130.17	130.67	Quartz-Carbonate Vein with moderate limonitic alteration						
134.98	135.37	Bleached section with Limonitic alteration						
137.74	137.94	Bleached area due to the abundance of quartz-carbonate veining - minor limonitic alteration						
141.54	142.25	Breccia - angular to subangular fragments up to 10 cm in size supported in a medium grained matrix of similar composition						
<b>148.01</b>	<b>148.21</b>	<b>GROUND CORE - FAULT ZONE (FZ)</b>						
<b>148.21</b>	<b>153.68</b>	<b>HBLVLAG PORPHYRY (888d1)</b>						
		- medium green colour, coarse grained, massive porphyritic, nonmagnetic						
		- 8-10% Hornblende euhedral to subhedral phenocrysts up to 1-2 mm in size altered to Chlorite						
		- 8-10% Plagioclase euhedral to subhedral phenocrysts 1-2 mm in size sausseritized						
		- Tr sulphides in fractures, py						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- pervasive silica alteration						
151.79	152.54	GROUND CORE - FAULT ZONE (#V7)						
		- limonite along the fractures						
152.54	203.28	COARSE ASH \ CRYSTAL TUFF (215A6a3)						
		- medium green-grey colour, medium grained, massive, spotty, magnetic						
		- 8% Feldspar euhedral phenocrysts and shards up to 1 mm in size commonly found in sections greater than 30 cm.						
		- Tr-1% hornblende subhedral phenocrysts up to .25 mm in size, commonly altered to chlorite						
		- moderate chlorite alteration						
		- 2% py disseminated and along fractures						
		- 1% po disseminated and along fractures						
		- Tr Quartz-Carbonate micro-fractures at 50° and along the core axis						
		- Tr limonitic alteration around fractures						
156.56	156.86	Breccia						
		- rounded fragments of tuff material in a darker (black) matrix						
		- up to 5% sulphides, py and po - primarily within the matrix						
			20036	156.00	157.00	1.00	0.01	0.8
			20037	157.00	158.50	1.50	0.01	0.2
			20038	158.50	160.00	1.50	0.01	0.3
			20039	160.00	161.50	1.50	0.02	0.7
			20040	161.50	163.00	1.50	0.01	1.0
			20041	163.00	164.00	1.00	0.01	1.2
164.00	167.00	- up to 5% Quartz-Carbonate micro-fracture fillings with limonitic alteration and a limonitic halo	20042	164.00	165.50	1.50	0.01	0.7
			20043	165.50	167.00	1.50	0.03	0.8
167.00	169.00	- 5% py and po along fractures and micro-fractures - fractures are chlorite rich - weakly silicified	20044	167.00	168.50	1.50	0.04	0.2
167.67	167.74	Massive Fo Vein						
169.00	172.93	- 10% euhedral feldspar phenocrysts and shards up to 2 mm in size - Tr - 1% chlorite along fractures - weak Chlorite and silica alteration	20045	168.50	170.00	1.50	0.02	0.4
			20046	170.00	171.50	1.50	0.03	0.7
172.93	174.30	- dark grey colour with 3-5% py and po primarily along fractures and disseminated - moderate to strong Chlorite alteration	20047	171.50	173.00	1.50	0.03	0.2
			20048	173.00	174.50	1.50	0.03	0.2
			20049	174.50	176.00	1.50	0.03	0.3
176.17	176.60	- moderate limonitic alteration around fractures						
			20050	176.00	177.50	1.50	0.02	0.6
			20051	177.50	179.00	1.50	0.02	0.8

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
179.22	179.70	- chloritic rich fracture along the core axis with 5% py						
			20052	179.00	180.50	1.50	0.01	0.5
			20053	180.50	182.00	1.50	0.02	0.5
182.88	182.95	- chloritic rich section with 5% py						
			20054	182.00	183.50	1.50	0.02	0.3
184.00	185.00	- limonitic alteration around fractures (50')						
			20055	183.50	185.00	1.50	0.02	0.7
			20056	185.00	186.50	1.50	0.03	0.9
			20057	186.50	188.00	1.50	5.00	0.6
189.00	191.00	Agglomeritic fragments up to 30 cm in length						
			20058	188.00	189.50	1.50	0.07	0.6
			20059	189.50	191.00	1.50	0.03	0.7
			20060	191.00	192.50	1.50	0.01	0.5
			20061	192.50	194.00	1.50	0.03	0.3
			20062	194.00	195.50	1.50	0.01	0.6
			20063	195.50	197.00	1.50	0.02	0.5
			20064	197.00	198.50	1.50	0.02	0.2
			20065	198.50	200.00	1.50	0.02	0.6
10	203.28	<b>40-50% ARGILLACEOUS SECTION (13\164d5)</b>						
		- fine grained tuffaceous and argillaceous bands intercalated with a coarse ash tuff						
		- 5% py and po disseminated						
			20066	200.00	201.50	1.50	0.02	0.2
			20067	201.50	203.28	1.78	0.03	0.6
203.28	203.46	<b>FAULT ZONE (FZ)</b>						
		- ground core with graphite gouge along the edges						
			20068	203.28	203.46	0.18	0.02	1.6
203.46	207.90	<b>SILICIFIED TUFF (2\506a5)</b>						
		- medium grey-green colour, fine grained, moderate silicification with brecciated sections, spotty magnetism						
		- Tr calcite along micro-fractures						
		- 2% po disseminated						
		- 2-3% py disseminated and along fracture planes						
		- Tr-0.5% hornblende phenocrysts up to 1 mm in size at the edge of the Quartz-Carbonate veinlets						
			20069	203.46	205.00	1.54	0.03	0.5
205.70	206.00	Blocky Ground						
25	206.75	Blocky Ground - Ground Core						
			20070	205.00	206.50	1.50	0.02	0.2
			20071	206.50	207.90	1.40	0.15	
207.90	219.73	<b>ARGILLITE (UTEM\1306a6)</b>						
		- dark grey to black colour, very fine grained, well foliated\bedded						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		<ul style="list-style-type: none"> <li>- 60% of the core is ground</li> <li>- 5% py disseminated blebs and stringers commonly along foliation planes</li> <li>- 3% po disseminated blebs and stringers commonly along foliation planes</li> <li>- no apparent sphalerite stockwork</li> <li>- Tr limonite along fractures</li> <li>- UCT - brecciated      LCT - 40'      Bedding - 60'</li> </ul>						
			20072	207.90	209.00	1.10	0.02	
209.30	217.46	Ground Core	20073	209.00	210.50	1.50	0.05	
			20074	210.50	212.00	1.50	0.02	
			20075	212.00	213.50	1.50	0.02	
			20076	213.50	215.00	1.50	0.01	
			20077	215.00	216.50	1.50	0.06	
			20078	216.50	218.00	1.50	0.01	
			20079	218.00	219.00	1.00	0.01	
			20080	219.00	219.73	0.73	0.01	
219.73	224.89	COARSE ASH TUFF \ CRYSTAL TUFF (215F363)						
		<ul style="list-style-type: none"> <li>- medium light green colour, massive, weakly porphyritic, spotty magnetism</li> <li>- 5% Feldspar phenocrysts up to 1 mm in size, euhedral habit, weakly to moderately altered to sericite</li> <li>- 2% py fine grained disseminated and along fractures</li> <li>- 1% po fine grained disseminated and along fractures</li> <li>- Tr Quartz-Carbonate micro-fracture fillings</li> <li>- Tr Chlorite along fractures</li> </ul>						
			20081	219.73	221.00	1.27	0.03	
			20082	221.00	222.50	1.50	0.02	
			20083	222.50	224.00	1.50	0.04	
			20084	224.00	224.89	0.89	0.01	
224.89	245.38	ARGILLITE BRECCIA \ UTEH ZONE (UTEN\130668)						
		<ul style="list-style-type: none"> <li>- medium to dark grey colour, fine grained argillite fragments in a medium grained matrix of slightly lighter grey colour material</li> <li>- angular fragments - predominantly argillite (80%) up to 20 cm in size and coarse ash tuff fragments up to 15 cm in size</li> <li>- 7% py and po disseminated and along fractures forming sulphide stringers</li> <li>- 1% Carbonate within micro-fractures</li> <li>- Tr-1% Sphalerite as stringers and disseminated within the matrix</li> </ul>						
			20085	224.89	226.00	1.11	0.01	
			20086	226.00	227.50	1.50	0.04	
			20087	227.50	229.00	1.50	0.05	
			20088	229.00	230.50	1.50	0.06	
			20089	230.50	232.00	1.50	0.06	
			20090	232.00	233.00	1.00	0.03	
			20091	233.00	234.00	1.00	0.07	
			20092	234.00	235.00	1.00	0.05	
			20093	235.00	236.00	1.00	0.05	
			20094	236.00	237.50	1.50	0.26	
			20095	237.50	239.00	1.50	0.76	
			20096	239.00	240.50	1.50	0.39	

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20097	240.50	242.00	1.50	0.63	
			20098	242.00	243.50	1.50	0.08	
			20099	243.50	245.00	1.50	0.42	
			20100	245.00	245.38	0.38	1.21	
<b>245.38</b>	<b>255.30</b>	<b>CONTACT ZONE (CZ\866t6)</b>						
		- medium grey-green colour, medium grained, massive, blotchy appearance, with magnetic sections due to a concentration of po						
		- moderate silicification \ albitization						
		- 2% py disseminated blebs and as stringers within fractures						
		- 3% po disseminated blebs and as stringers within fractures						
		- up to 1% Sphalerite as disseminated blebs						
		- Tr Quartz-Carbonate micro-fractures						
		- LCT - 31°						
			20101	245.38	247.00	1.62	0.23	
			20102	247.00	248.50	1.50	0.07	
			20103	248.50	250.00	1.50	0.20	
			20104	250.00	251.50	1.50	0.14	
			20105	251.50	253.00	1.50	0.37	
			20106	253.00	254.50	1.50	0.91	
254.40	254.50	Py and Po Vein with Tr Sphalerite at the edges						
			20107	254.50	255.30	0.80	1.42	
<b>255.30</b>	<b>277.30</b>	<b>MEDIUM GRAINED HBL \ PLAG PORPHYRY (864m5)</b>						
		- medium grey-green colour, medium grained, massive with magnetic sections due to concentration of po						
		- up to 3% remnant Hornblende phenocrysts replaced by po - up to 1 cm in size						
		- 2-3% plagioclase phenocrysts, euhedral habit up to 2 mm in size						
		- 5% py and po disseminated blebs and as fracture fillings forming sulphide stringers						
		- Tr Quartz-Carbonate fracture and micro-fracture fillings						
		- Tr, -0.5% Chlorite along micro-fractures and on fracture surfaces						
		- weakly silicified and/or albitized						
			20108	255.30	256.50	1.20	0.13	
257.89	258.40	Miss-Latch 25% core recovery	20109	256.50	258.00	1.50	0.06	
			20110	258.00	259.50	1.50	0.16	
			20111	259.50	261.00	1.50	0.53	
			20112	261.00	262.50	1.50	1.01	
			20113	262.50	264.00	1.50	0.46	
			20114	264.00	265.50	1.50	0.34	
			20115	265.50	267.00	1.50	0.28	
			20116	267.00	268.50	1.50	0.19	
			20117	268.50	270.00	1.50	0.31	
			20118	270.00	271.50	1.50	0.12	
			20119	271.50	273.00	1.50	0.21	
			20120	273.00	274.50	1.50	0.11	

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20121	274.50	276.00	1.50	0.05	0.1
			20122	276.00	277.30	1.30	0.04	0.2
<b>277.30</b>	<b>304.08</b>	<b>MEDIUM GRAINED HBL \ PLAG PORPHYRY (8A3m2)</b>						
		- medium green colour, medium grained, massive with hornblende and plagioclase phenocrysts, spotty magnetism						
		- 3-5% Hornblende euhedral phenocrysts up to 1 mm in size, commonly altered to chlorite and/or po						
		- Plagioclase phenocrysts are euhedral to subhedral shape, up to 1 mm in size with some being demonstrating a weak sericite alteration.						
		- Tr Quartz-Carbonate micro-fractures						
		- Tr chlorite filled micro-fractures						
		- 1% py disseminated and along fracture planes						
		- up to 1% po fine grained disseminated, blebs and along fractures						
		- Tr Bluish mineral within Quartz-Carbonate veins and micro-veins						
		- Tr argillic sections with 10% py disseminated - up to 2 cm in width						
			20123	277.30	278.50	1.20	0.04	0.2
			20124	278.50	280.00	1.50	0.12	0.3
			20125	280.00	281.50	1.50	0.07	0.2
			20126	281.50	283.00	1.50	0.07	0.4
			20127	283.00	284.50	1.50	0.03	0.1
			20128	284.50	286.00	1.50	0.04	0.3
			20129	286.00	287.50	1.50	0.02	0.3
			20130	287.50	289.18	1.68	0.03	0.3
289.18	290.74	Intermediate Sill	20131	289.18	290.74	1.56	0.04	0.1
		- buff brown, massive, very fine grained matrix with hornblende up to 1 mm in size						
290.74	291.11	Ground Core						
			20132	290.74	292.00	1.26	0.05	0.3
			20133	292.00	295.50	1.50	0.03	0.5
			20134	293.50	295.00	1.50	0.03	0.1
			20135	295.00	296.50	1.50	0.02	0.1
			20136	296.50	298.00	1.50	0.02	0.2
			20137	298.00	299.50	1.50	0.04	0.3
			20138	299.50	301.00	1.50	0.02	0.3
			20139	301.00	302.50	1.50	0.03	0.1
			20140	302.50	304.08	1.58	0.07	0.1
<b>304.08</b>	<b>332.28</b>	<b>COARSE HBL \ PLAG PORPHYRY (862m2)</b>						
		- medium green colour, fine grained matrix, massive, porphyritic, spotty magnetism due primarily to a concentration of po						
		- 3-8% altered euhedral Plagioclase phenocrysts up to 3 mm in size						
		- 2% Hornblende - remnant phenocrysts, subhedral, altered to chlorite and po - po centres						
		- Tr-0.5% Quartz-Carbonate veins and veinlets as fracture fillings up to 1 cm in width						
		- Tr-1% argillic sections with up to 5% py						
		- 2% py and po as blebs, disseminated and as stringers along fractures						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- Tr chlorite along fracture planes						
			20141	304.08	305.50	1.42	0.05	0.1
			20142	305.50	306.35	0.85	0.06	0.1
306.35	309.47	10% Quartz-Carbonate Veins	20143	306.35	307.50	1.15	0.04	0.2
		- angles vary from 60° at the top of the section to along the core axis near the bottom of the section	20144	307.50	308.50	1.00	0.09	1.4
		- 10% argillic alteration in sections up to 10 cm in length						
			20145	308.50	309.50	1.00	0.06	0.5
			20146	309.50	311.00	1.50	0.06	0.4
			20147	311.00	312.50	1.50	0.15	0.5
			20148	312.50	314.00	1.50	0.12	0.5
			20149	314.00	315.50	1.50	0.03	0.1
			20150	315.50	317.00	1.50	0.02	0.1
			20151	317.00	318.50	1.50	0.03	0.2
			20152	318.50	320.00	1.50	0.03	0.4
			20153	320.00	321.50	1.50	0.02	0.3
			20154	321.50	323.00	1.50	0.08	0.7
			20155	323.00	324.00	1.00	0.06	0.6
			20156	324.00	325.00	1.00	0.12	0.9
325.00	332.28	- Strongly fractured with argillic alteration infilling the fractures	20157	325.00	326.50	1.50	0.10	0.5
		- moderately silicified and bleached to a buff brown colour	20158	326.50	328.00	1.50	0.04	0.3
		- 3-5% Quartz-Carbonate fracture filling up to 1 cm in width	20159	328.00	329.50	1.50	0.03	0.1
		- 1-2% py and po disseminated	20160	329.50	331.00	1.50	0.05	0.5
			20161	331.00	332.28	1.28	0.12	0.4
332.28	336.56	<b>ANDESITE DIKE (11%ml)</b>						
		- medium green colour, fine grained matrix with hornblende phenocrysts altered to chlorite						
		- 5-10% Quartz-Carbonate stockwork with at 45° to 60° to the core axis						
		- Tr chlorite along fracture planes						
		- up to 1% py and po disseminated						
			20162	332.28	333.00	0.72	0.06	1.3
333.30	333.65	Quartz-Carbonate Vein						
			20163	333.00	334.00	1.00	0.03	1.8
			20164	334.00	335.50	1.50	0.05	1.3
			20165	335.50	336.56	1.06	0.10	1.2
336.56	345.98	<b>HBL \ PLAG PORPHYRY (86%ml)</b>						
		- medium grey-green colour, massive, porphyritic, moderately silicified, hard						
		- 8-10% euhedral feldspar phenocrysts up to 5 mm in size with weak alteration						
		- 3% remnant Hornblende up to 5 mm in size						
		- 3-5% chlorite within matrix and along fracture planes						
		- up to 1% py and po disseminated, along fracture planes and as ties						
			20166	336.56	338.00	1.44	0.12	0.2
			20167	338.00	339.50	1.50	0.04	0.4

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20168	339.50	341.00	1.50	0.06	1.9
			20169	341.00	342.50	1.50	0.02	0.1
			20170	342.50	344.00	1.50	0.02	0.1
			20171	344.00	345.00	1.00	0.01	0.6
			20172	345.00	345.98	0.98	0.03	0.2
<b>345.98</b>	<b>362.44</b>	<b>HBL \ FLAG PORPHYRY (802m2)</b>						
		- medium grey-green colour, fine grained, weakly porphyritic, weakly brecciated and moderately silicified						
		- 5-8% Feldspar crystals up to 1 mm in size with a euhedral habit						
		- Argillic matrix to the brecciated sections - very weak						
		- 2% py and po disseminated, along fracture planes and as blebs						
		- Tr-1% Chlorite on fracture planes						
		- Tr Quartz-Carbonate fracture fillings						
		- Tr greenish mineral in fractures, soft - sericite ? or Talc?						
			20173	345.98	347.50	1.52	0.04	0.2
			20174	347.50	349.00	1.50	0.03	0.5
			20175	349.00	350.50	1.50	0.12	0.1
			20176	350.50	352.00	1.50	0.06	0.1
			20177	352.00	353.50	1.50	0.18	0.1
			20178	353.50	355.00	1.50	0.69	6.3
			20179	355.00	356.50	1.50	1.51	1.0
			20180	356.50	358.00	1.50	0.57	0.8
358.00	362.44	Increase in the Argillic Alteration Intensity	20181	358.00	359.50	1.50	0.56	0.1
			20182	359.50	361.00	1.50	0.68	0.5
			20183	361.00	362.44	1.44	1.11	1.5
<b>362.44</b>	<b>367.40</b>	<b>BRECCIATED ARGILLITE AND HBL \ FLAG PORPHYRY (8X\13\807m8)</b>						
		- dark grey to black colour, fine grained, strongly brecciated with argillite and porphyry subangular fragments up to 5 cm in size						
		- matrix supported						
		- 5% py coarse grained within matrix and along fractures						
		- 3% po coarse grained within matrix and along fractures						
			20184	362.44	363.50	1.06	9.23	64.5
			20185	363.50	365.00	1.50	11.55	70.7
366.00	367.00	- less intense brecciation, stronger porphyritic appearance, possibly sericite altered	20186	365.00	366.50	1.50	3.20	11.1
			20187	366.50	367.40	0.90	11.29	17.4
<b>367.40</b>	<b>388.17</b>	<b>MINERALIZED ZONE - MARC ZONE (N2\8\169m10)</b>						
		- medium grey-blue colour, generally fine grained, brecciated, strongly silicified						
		- fragments are commonly angular argillaceous or tuffaceous and porphyry - some of the argillic fragments have been altered to py						
		- 7-10% py coarse grained disseminated to semi massive in places						
		- Tr greenish colour mineral along fractures - Talc						
		- sections up to 30 cm in length are weakly altered - sericitized and or						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		albitized - Tr Tourmaline within the altered sections						
367.40	368.90	- softer section, weakly foliated with quartz grains - weak to moderate sericitization	20188	367.40	368.90	1.50	2.95	2.5
368.90	372.18	- medium blue grey colour, very fine grained, silicified and brecciated - 5-8% py coarse grained within the matrix	20189	368.90	370.00	1.10	5.95	4.3
			20190	370.00	371.00	1.00	2.13	3.2
			20191	371.00	372.18	1.18	3.63	2.9
			20192	372.18	373.50	1.32	1.66	2.1
			20193	373.50	375.00	1.50	2.70	8.7
			20194	375.00	376.50	1.50	2.31	8.4
377.34	377.50	- greenish cast - weakly sericitized						
			20195	376.50	378.00	1.50	5.23	5.5
			20196	378.00	379.50	1.50	8.30	4.7
379.80	379.90	- Tourmaline crystals up to 0.5 mm in size						
			20197	379.50	381.00	1.50	6.78	4.2
			20198	381.00	382.50	1.50	5.23	11.2
			20199	382.50	384.00	1.50	1.88	6.9
384.00	388.17	- Tuffaceous breccia fragments that are well bedded	20200	384.00	385.50	1.50	2.99	5.2
			20201	385.50	387.00	1.50	2.97	6.2
			20202	387.00	388.17	1.17	5.84	14.5
388.17	411.57	<b>FOOTWALL MARC ZONE - SPHALERITE ZONE (K2\867\7)</b>  - medium grey colour, massive, medium grained, porphyritic - 7% feldspar subhedral to euhedral phenocrysts - weakly sericitized with a weak foliation developing - 5-7% sulphide mineralization - 4% py coarse grained within the fractures - 2% po coarse grained within the fractures - Tr- 1% sphalerite within fractures and disseminated - Tr Chalcopyrite predominantly found within po stringers - Tr green mineral, soft, disseminated and within fractures - Talc?						
			20203	388.17	389.50	1.33	2.94	5.7
			20204	389.50	391.00	1.50	4.05	13.6
			20205	391.00	392.50	1.50	0.85	3.8
			20206	392.50	394.00	1.50	3.41	7.0
394.00	395.25	- 5% Argillite fragments, subangular, up to 3 cm in size	20207	394.00	395.00	1.00	2.16	2.4
			20208	395.00	396.00	1.00	5.64	7.4
396.00	396.55	- dark grey colour, 8% po with 1% Chalcopyrite stringers						
			20209	396.00	397.00	1.00	9.20	18.1
			20210	397.00	398.50	1.50	1.27	1.9
398.68	411.57	- dark grey colour, mottled appearance with 3% sphalerite - 5% Hornblende commonly being replaced by po (centres)	20211	398.50	400.00	1.50	2.42	31.5
			20212	400.00	401.50	1.50	2.71	37.3



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20213	401.50	403.00	1.50	2.33	28.0
			20214	403.00	404.50	1.50	1.04	3.2
			20215	404.50	406.00	1.50	0.62	1.4
			20216	406.00	407.50	1.50	0.47	0.8
			20217	407.50	409.00	1.50	0.43	0.2
			20218	409.00	410.50	1.50	0.79	0.2
			20219	410.50	411.57	1.07	0.80	0.1
<b>411.57</b>	<b>447.45</b>	<b>MEDIUM GRAINED PLAG \ HBL PORPHYRY (BF663)</b>						
		- medium grey-green colour, medium grained, massive with some coarser grained porphyritic sections towards the bottom of the hole, hard, silicic and moderate sericite alteration						
		- 2% py disseminated and along fracture planes						
		- 1% po along fracture planes						
		- up to 2% euhedral Hornblende phenocrysts altered to po and chlorite						
		- Tr Sphalerite blebs						
		- Tr fragments, mafic composition, subrounded up to 3 cm in size						
		- Tr-0.5% Quartz-Carbonate fracture fillings						
		- Tr Chlorite along fractures						
			20220	411.57	413.00	1.43	0.54	0.5
			20221	413.00	414.50	1.50	0.32	0.4
			20222	414.50	416.00	1.50	0.56	0.2
			20223	416.00	417.50	1.50	0.08	0.3
			20224	417.50	419.00	1.50	0.06	0.1
			20225	419.00	420.50	1.50	0.05	0.1
			20226	420.50	421.50	1.00	0.12	0.1
			20227	421.50	423.00	1.50	0.36	0.6
			20228	423.00	424.50	1.50	0.43	0.4
			20229	424.50	426.00	1.50	0.46	0.7
425.90	428.45	- Coarse Grained	20230	426.00	427.50	1.50	0.16	0.9
		- 5% Feldspar phenocrysts anhedral shape, up to 3 mm in size						
		- 3% Hornblende phenocrysts up to 3 mm in size altered to chlorite and po						
			20231	427.50	429.00	1.50	0.07	1.3
			20232	429.00	430.50	1.50	0.02	1.4
			20233	430.50	432.00	1.50	0.04	0.9
			20234	432.00	433.50	1.50	0.03	0.5
			20235	433.50	435.00	1.50	0.08	0.9
			20236	435.00	436.50	1.50	0.04	0.9
			20237	436.50	438.00	1.50	0.05	0.8
			20238	438.00	439.50	1.50	0.03	0.6
			20239	439.50	441.00	1.50	0.03	0.9
			20240	441.00	442.50	1.50	0.04	1.1
			20241	442.50	444.00	1.50	0.03	1.2
			20242	444.00	445.50	1.50	0.05	1.7
			20243	445.50	446.50	1.00	0.07	2.3
			20244	446.50	447.45	0.95	0.11	0.9
<b>447.45</b>	<b>447.45</b>	<b>E.O.H.</b>						

WELL NO.	MC91-64	NORTHING	125	DH COMP. BEAR	90	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	-270	GRID ORIENT.	360	91.4	- 66	088	SPER	182.9	- 65	092	SPER
LOCATION	MARC ZONE	ELEVATION	2075	DH GRID AZ.	90	289.6	- 66	098	SPER	404.8	- 65	100	SPER
WELL NO.	DRD 1	SURV. E.		DIP-COLLAR	-65								
TARGET		SURV. N.		LENGTH (m)	404.77								
STARTED	AUG 17, 1991	LOGGED BY	G.MacMillan	DRILL CO.	FALCON								
FINISHED	AUG 22, 1991	CHECKED BY		DRILL NO.	1000/1								
SECTION		CORE	88 TW	FOREMAN	K.Hillen								
COMMENTS													

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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SUMMARY

- 0.00 1.52 CASING
- 1.52 58.30 FINE TO MEDIUM GRAINED ASH TUFF (#1\2A7m1)
- 58.30 58.58 FAULT BOUGE (FZ)
- 58.58 110.85 FINE TO MEDIUM GRAINED ASH TUFF (#1\2A7m1)
- 110.85 127.16 MEDIUM GRAINED ASH TUFF (2A7m1)
- 127.16 127.41 LINDONITIC FAULT (FZ)
- 127.41 159.13 CHLORITIZED COARSE ASH TUFF \ PORPHYRY (2\8A7m)
- 159.13 159.46 LINDONITIC FAULT (FZ)
- 159.46 170.16 HBL\PLAG PORPHYRY (888d5)
- 170.16 183.92 COARSE ASH TUFF \ ALTERED HBL\PLAG PORPHYRY (2\888d3)
- 183.92 185.25 FAULT ZONE (FZ)
- 185.25 192.52 ALTERED HBL \ PLAG PORPHYRY (867d3)
- 192.52 201.05 ANDESITE DIKE \ SILL (11A7m1)
- 201.05 204.26 ALTERED PORPHYRY (887m6)
- 204.26 205.66 SEMI-MASSIVE SULPHIDE SECTION (MS)
- 205.66 206.76 FOOTWALL ALTERATION OF THE SULPHIDE ??
- 206.76 207.00 GROUND CORE (#)
- 207.00 220.74 HBL \ PLAG PORPHYRY (8FBm3)

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	As g_ton	Ag g_ton
220.74	235.88	HBL \ PLAG PORPHYRY (8D68m5)						
235.88	240.08	BRECCIA (BX)						
240.08	245.91	HBL \ PLAG PORPHYRY (8FD6m3)						
245.91	267.39	BRECCIA (BX 0A6m2)						
267.39	269.90	HBL \ PLAG PORPHYRY (8FD6m3)						
269.90	273.00	BRECCIA (BX AD6m1)						
273.00	275.35	HBL \ PLAG PORPHYRY (8AGk3)						
275.35	275.35	FAULT ZONE (FZ)						
275.45	307.00	HBL \ PLAG PORPHYRY (8DF6m3)						
307.00	308.22	SULPHIDE BRECCIA (BX)						
.22	313.00	HBL \ PLAG PORPHYRY (KZ\8F7d6)						
313.00	313.33	FAULT ZONE (FZ)						
313.33	316.45	K-ALTERED HBL \ PLAG PORPHYRY (8AK6k6)						
316.45	321.52	HBL \ PLAG PORPHYRY (8AH7o10)						
321.52	326.35	ALTERED HBL \ PLAG PORPHYRY (8FB8d5)						
327.35	327.50	FAULT ZONE (FZ)						
327.50	336.35	BRECCIATED ASH TUFF (BX\IAT\167m5)						
336.35	362.47	INTERCALATED ARGILLITE AND TUFF (IAT\1308m8)						
362.47	365.40	FINE GRAINED BEDDED ASH TUFF (IAT\164d4)						
365.40	374.75	HBL \ PLAG PORPHYRY (8FBm2)						
374.75	382.75	BRECCIA (BX\866m6)						
382.75	387.35	FINE GRAINED ASH TUFF (IAT\167m2)						
387.35	391.10	HBL \ PLAG PORPHYRY (8F6k3)						
.10	395.10	FINE GRAINED ASH TUFF (IAT\167m1)						
395.10	404.77	HBL \ PLAG PORPHYRY (8F6k3)						
404.77	404.77	E.O.H.						

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FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	1.52	CASING						
1.52	58.30	<b>FINE TO MEDIUM GRAINED ASH TUFF (#01\2A7m1)</b>						
		- medium green colour, massive, medium grained, strongly fractured, blocky (drilling along a fault??), strongly chloritized						
		- 1-2% Quartz-Carbonate veins as fracture fillings and vuggy sections						
		- Tr-1% py disseminated and along fracture planes						
		- Tr-1% po disseminated and along fracture planes						
		- fractures are commonly oxidized and chloritized with some MnO						
1.52	3.77	Broken Core, Ground Core with oxidation along the fractures						
6.29	8.35	Axinite Vein \ Fracture Filling						
17.65	21.00	Mislatch						
17.65	21.00	Very Blocky - core up to 5 cm in length						
29.00	38.00	Blocky Ground - limonitic and MnO alteration on all fracture surfaces						
45.50	58.30	Blocky Ground - core lengths not greater than 10 cm						
58.30	58.58	<b>FAULT GOUGE (FZ)</b>						
		- limonitic fault gouge						
		- section so far appears to be parallel with this fault						
58.58	110.85	<b>FINE TO MEDIUM GRAINED ASH TUFF (#01\2A7m1)</b>						
		- similar to 1.52 to 58.30						
58.58	60.85	Blocky Ground - core fragments commonly 2 cm in length with limonitic and MnO coatings						
66.50	67.30	Ground Core						
68.55	69.70	Ground Core						
72.00	110.85	Ground Core						
81.30	81.50	Fault						
110.85	127.16	<b>MEDIUM GRAINED ASH TUFF (2A7m1)</b>						
		- similar to 1.52 to 58.30						
		- medium grained, massive, moderately fractured with limonite along the fractures						
		- Tr-1% Quartz-Carbonate micro-fractures						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- Tr-1% py and po disseminated - Tr Hornblende phenocrysts in albitized sections						
125.60	125.72	Limonitic Fault						
127.16	127.41	LIMONITIC FAULT (FZ)						
127.41	159.13	CHLORITIZED COARSE ASH TUFF \ PORPHYRY (2\8A7a)						
		- medium green colour, medium-coarse grained, massive, spotty magnetite - alteration - strongly chloritized - sections of weak albitization up to 30 cm in length - Tr-1% Hornblende phenocrysts up to 1 mm in length - Tr py and po predominantly along fractures and disseminated - 1-2% Quartz-Carbonate fracture fillings at all angles to the core axis						
155.14	155.40	Ground Core						
159.13	159.46	LIMONITIC FAULT (FZ)						
169.65	170.16	HBLVLAG PORPHYRY (888d3)						
		- medium grey colour, medium grained, massive, strongly silicified or albitized - weak to moderate brecciation primarily of the angular porphyritic material - 5-10% Plagioclase euhedral phenocrysts up to 4 mm in size - 1-3% Hornblende phenocrysts up to 5 mm in size - 3-5% py disseminated and along fracture planes -very fine grained						
			20351	159.65	161.00	1.35	0.13	0.5
			20352	161.00	162.50	1.50	0.06	0.2
			20353	162.50	164.00	1.50	0.03	0.7
			20354	164.00	165.50	1.50	0.03	0.4
			20355	165.50	167.00	1.50	0.02	0.6
			20356	167.00	168.50	1.50	0.04	0.2
169.20	170.16	Breccia	20357	168.50	169.50	1.00	0.07	1.3
			20358	169.50	170.16	0.66	0.01	0.2
170.16	183.92	COARSE ASH TUFF \ ALTERED HBLVLAG PORPHYRY (2\888d3)						
		- medium grey colour, massive, medium coarse grained, silicic with sections of weak albite alteration - 8-10% Feldspar phenocrysts/shards up to 1 mm in size, subhedral - 2-3% Hornblende phenocrysts up to 1 mm in size - 2-3% py fine grained, disseminated and within fractures - Tr Chlorite and MnO along fractures - Tr-1% Quartz-Carbonate micro-fracture fillings - some bleaching of the core around the fractures						
			20359	170.16	171.50	1.34	0.06	0.5
			20360	171.50	173.00	1.50	0.15	0.5

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20361	173.00	174.50	1.50	0.05	0.5
			20362	174.50	176.00	1.50	0.04	0.4
			20363	176.00	177.50	1.50	0.08	0.7
			20364	177.50	179.00	1.50	0.04	0.2
			20365	179.00	180.50	1.50	0.05	0.2
			20366	180.50	182.00	1.50	0.07	0.6
			20367	182.00	183.00	1.00	0.11	0.2
			20368	183.00	183.92	0.92	0.10	0.3
183.92	185.25	<b>FAULT ZONE (FZ)</b>						
		- angular porphyry fragments in a Quartz-Carbonate matrix						
			20369	183.92	185.25	1.33	0.05	1.3
185.25	192.52	<b>ALTERED HBL \ PLAG PORPHYRY (867d3)</b>						
		- medium grey-green colour, massive, porphyritic, medium grained with sections that are very fine grained						
		- strongly silicified						
		- 3% py and po disseminated						
		- 3% Apatite? veins up to 3 cm in width as fracture fillings						
		- 3% Quartz-Carbonate fracture fillings - cut Apatite Veins						
			20370	185.25	186.50	1.25	0.05	1.2
			20371	186.50	188.00	1.50	0.05	0.3
			20372	188.00	189.50	1.50	0.07	0.8
190.00	192.52	Apatite Veins up to 3 cm in width	20373	189.50	191.00	1.50	0.11	1.0
			20374	191.00	192.52	1.52	0.01	0.5
192.52	201.05	<b>ANDESITE DIKE \ SILL (11A7m1)</b>						
		- medium green colour, fine grained, massive, weakly porphyritic						
		- 3% Quartz-Carbonate fracture fillings						
		- Chloritized with Tr py and po disseminated and within fractures						
		- LCT - 45°      LCT - 35°						
			20375	192.52	194.00	1.48	0.01	0.5
			20376	194.00	195.50	1.50	0.02	1.6
			20377	195.50	197.00	1.50	0.02	3.5
			20378	197.00	198.50	1.50	0.01	3.2
			20379	198.50	200.00	1.50	0.03	1.9
			20380	200.00	201.05	1.05	0.02	1.2
201.05	204.26	<b>ALTERED PORPHYRY (867m6)</b>						
		- medium green colour, fine grained, silicic ground mass with feldspar phenocrysts up to 1.5 mm in size commonly sausseritized						
		- up to 5% py fine grained disseminated within fractures and as cubes up to 1 mm in size						
		- 1% po generally with silica within fracture fillings						
		- Tr-1% Quartz-Carbonate fracture fillings generally up to 1 mm in width and as clots						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20381	201.05	202.00	0.95	0.04	0.4
			20382	202.00	203.00	1.00	0.08	0.6
			20383	203.00	204.26	1.26	0.17	1.0
<b>204.26</b>	<b>205.66</b>	<b>SEMI-MASSIVE SULPHIDE SECTION (NS)</b>						
		- brownish green colour, motley looking, massive, fine grained, with numerous fractures up to 1 cm in width						
		- 10% po						
		- 7% py						
		- 8% Sphalerite						
		- UCT - 12'						
			20384	204.26	205.66	1.40	0.84	8.0
<b>205.66</b>	<b>206.76</b>	<b>FOOTWALL ALTERATION OF THE SULPHIDE ??</b>						
		- strongly altered rock, Apatite green colour, massive, strongly fractured						
		- fractures are infilled with Quartz-Carbonate, chlorite and sulphides						
		- up to 8% sulphides disseminated and as stringers - 6% py 2% po						
106.00	106.76	- purplish colour possibly due to axinite veins						
<b>.76</b>	<b>207.00</b>	<b>GROUND CORE (#0)</b>						
			20385	205.66	207.00	1.34	0.43	3.8
<b>207.00</b>	<b>220.74</b>	<b>HBL \ PLAG PORPHYRY (8FB#3)</b>						
		- medium grey colour massive, porphyritic, moderate to strongly altered						
		- up to 3% py and po in fractures and disseminated						
		- 8-10% Feldspar phenocrysts up to 2 mm in size, euhedral						
		- 3% Hornblende phenocrysts up to 1 mm in size, euhedral, altered to chlorite						
		- Tr Quartz-Carbonate fracture fillings at all angles to the core axis						
207.00	209.50	Intensely Porphyritic - Feldspar phenocrysts to 5 mm, green colour alteration	20386	207.00	208.50	1.50	0.06	1.2
209.00	209.12	Ground Core						
			20387	208.50	210.00	1.50	0.06	0.7
			20388	210.00	211.50	1.50	0.02	0.6
			20389	211.50	213.00	1.50	0.02	0.8
			20390	213.00	214.50	1.50	0.03	0.8
			20391	214.50	216.00	1.50	0.03	0.7
			20392	216.00	217.50	1.50	0.05	0.6
			20393	217.50	219.00	1.50	0.05	0.7
			20394	219.00	220.00	1.00	0.08	0.6
			20395	220.00	220.74	0.74	0.03	0.7
<b>220.74</b>	<b>255.88</b>	<b>HBL \ PLAG PORPHYRY (8DNG#5)</b>						
		- medium grey brown colour, fine grained ground mass, porphyritic, weakly brecciated, massive, hard						
		- 5-8% Plagioclase euhedral phenocrysts up to 2 mm in size						
		- up to 2% Hornblende phenocrysts up to 2 mm in size, commonly altered to po						
		- 3% py disseminated cubes and along fractures						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
- Z% py disseminated and along fractures			20396	220.74	222.00	1.26	0.07	0.4
			20397	222.00	223.50	1.50	0.08	0.6
			20398	223.50	225.00	1.50	0.17	0.5
			20399	225.00	226.00	1.00	0.09	0.7
			20400	226.00	227.00	1.00	0.01	0.3
227.00	227.59	Argillic Alteration - Quartz clots and fragments within an argillite matrix - 5% py and po disseminated	20401	227.00	228.00	1.00	0.10	0.7
228.67	229.32	Argillic alteration - similar to 227 to 227.59 with po vein of 20 cm	20402	228.00	229.32	1.32	0.05	0.2
			20403	229.32	230.50	1.18	0.13	0.5
			20404	230.50	232.00	1.50	0.09	0.5
			20405	232.00	233.50	1.50	0.10	0.3
			20406	233.50	235.00	1.50	0.08	0.5
			20407	235.00	236.50	1.50	0.05	0.3
			20408	236.50	238.00	1.50	0.09	0.7
239.00	243.00	5% Hornblende phenocrysts, euhedral, altered to chlorite	20409	238.00	239.50	1.50	0.05	0.6
			20410	239.50	241.00	1.50	0.66	1.0
			20411	241.00	242.50	1.50	0.07	0.5
243.00	255.88	Mottled looking - porphyritic texture is completely obliterated	20412	242.50	244.00	1.50	0.09	0.6
			20413	244.00	245.50	1.50	0.05	0.7
			20414	245.50	247.00	1.50	0.16	0.5
			20415	247.00	248.50	1.50	0.04	0.5
			20416	248.50	250.00	1.50	0.06	0.6
			20417	250.00	251.50	1.50	0.04	0.7
			20418	251.50	253.00	1.50	0.04	0.5
			20419	253.00	254.50	1.50	0.07	0.5
			20420	254.50	255.88	1.38	0.09	0.3
255.88	260.08	<b>BRECCIA (BX)</b>  - medium grey matrix supported breccia with up to Z% py and po within the matrix, fragments and along fractures - Fragments are subrounded, up to 20 cm in length, composed primarily of porphyry material with some tuffaceous and argillaceous fragments - fractures within the fragments are commonly coated with py	20421	255.88	257.00	1.12	0.01	0.7
			20422	257.00	258.50	1.50	0.06	0.3
			20423	258.50	260.08	1.58	0.10	1.0
260.08	265.91	<b>HBL \ PLAG PORPHYRY (BFD6m3)</b>  - medium green grey colour, medium coarse grained, massive, spotty magnetism - 15% Feldspar euhedral phenocrysts up to 3 mm in size - up to 5% Hornblende phenocrysts up to 3 mm in size altered to chlorite and						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		<ul style="list-style-type: none"> <li>or po</li> <li>- alteration is moderate, obliterating textures in some areas               <ul style="list-style-type: none"> <li>- primarily albite or sericite</li> </ul> </li> <li>- 1.5% py disseminated and along fractures</li> <li>- 1.5% po disseminated and along fractures</li> <li>- Tr Quartz-Carbonate micro-fracture fillings</li> </ul>						
			20424	260.08	261.50	1.42	0.01	1.0
			20425	261.50	263.00	1.50	0.01	0.6
			20426	263.00	264.50	1.50	0.01	0.7
			20427	264.50	265.91	1.41	0.02	0.5
265.91	267.39	<b>BRECCIA (BX 0A6m2)</b>						
		<ul style="list-style-type: none"> <li>- medium green colour, very fine grained matrix and fragments</li> <li>- almost fragment supported</li> <li>- Fragments are angular to sub angular               <ul style="list-style-type: none"> <li>- composition primarily altered porphyry and tuff</li> </ul> </li> <li>- Matrix is argillaceous \ chloritic</li> <li>- 1-2% py disseminated along fractures</li> <li>- 1 po disseminated along fractures</li> <li>- Tr Quartz-Carbonate micro-fracture filling</li> </ul>						
			20428	265.91	267.39	1.48	0.02	0.7
267.39	269.90	<b>HBL \ PLAG PORPHYRY (BFD6m3)</b>						
		<ul style="list-style-type: none"> <li>- similar to 260.08 to 265.91</li> <li>- up to 2% hornblende phenocrysts</li> </ul>						
			20429	267.39	268.50	1.11	0.01	1.0
			20430	268.50	269.90	1.40	0.05	1.1
269.90	273.00	<b>BRECCIA (BX AD6m1)</b>						
		<ul style="list-style-type: none"> <li>- medium green grey colour, medium to fine grained matrix, angular to subrounded fragments, matrix supported</li> <li>- alteration is primarily albitization and chlorite</li> <li>- Fragment composition is primarily porphyry, argillite and tuff</li> <li>- Tr Quartz-Carbonate fracture filling</li> <li>- up to 1% py and po disseminated</li> </ul>						
			20431	269.90	270.50	0.60	1.03	1.2
			20432	270.50	272.00	1.50	0.10	0.8
			20433	272.00	273.00	1.00	0.03	0.7
273.00	275.35	<b>HBL \ PLAG PORPHYRY (BAG65)</b>						
		<ul style="list-style-type: none"> <li>- medium green colour, fine grained, massive, with few remnant textures</li> <li>- 2% chlorite along fracture surfaces</li> <li>- 3-5% py and po disseminated</li> </ul>						
			20434	273.00	274.00	1.00	0.08	0.2
275.35	275.35	<b>FAULT ZONE (FZ)</b>						
		<ul style="list-style-type: none"> <li>- rounded fragments in a gouge matrix</li> <li>- LCT - 48'                      UCT - 55'</li> </ul>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
275.45	307.00	HBL \ PLAG PORPHYRY (BDF6m3)	20435	274.00	275.45	1.45	0.11	2.2
		- medium buff brown colour, fine grained, porphyritic, massive, spotty magnetism						
		- primary alteration - albite and sericite						
		- 5-8% Feldspar phenocrysts up to 4 mm in size, euhedral, commonly concentrated within intervals of up to 20 cm in length						
		- Tr-1% Hornblende phenocrysts up to 2 mm in size, often altered to chlorite or po						
		- 3% py and po disseminated and along fractures						
		- Tr-0.5% Quartz-Carbonate micro-fracture fillings						
		- Tr Sphalerite primarily within Quartz-Carbonate veins						
			20436	275.45	276.50	1.05	0.09	1.4
			20437	276.50	278.00	1.50	0.01	0.1
			20438	278.00	279.50	1.50	0.01	0.4
			20439	279.50	281.00	1.50	0.01	0.5
			20440	281.00	282.50	1.50	0.01	0.6
			20441	282.50	284.00	1.50	0.01	0.7
			20442	284.00	285.50	1.50	0.02	0.7
			20443	285.50	287.00	1.50	0.01	0.4
			20444	287.00	288.50	1.50	0.03	0.5
			20445	288.50	290.00	1.50	0.02	0.7
			20446	290.00	291.50	1.50	0.01	0.4
			20447	291.50	293.00	1.50	0.31	0.4
			20448	293.00	294.50	1.50	0.10	0.4
			20449	294.50	296.00	1.50	0.03	0.5
			20450	296.00	297.50	1.50	0.03	0.4
			20451	297.50	299.00	1.50	0.10	0.2
			20452	299.00	300.50	1.50	0.08	0.2
			20453	300.50	302.00	1.50	0.20	0.2
			20454	302.00	303.50	1.50	0.44	0.6
			20455	303.50	305.00	1.50	0.25	0.4
			20456	305.00	306.00	1.00	0.50	0.4
			20457	306.00	307.00	1.00	1.93	0.7
307.00	308.22	SULPHIDE BRECCIA (BX)						
		- angular silicified porphyry fragments in a coarse grained pyrite and chloritic matrix						
		- up to 15% py predominantly within the matrix and within fragments						
		- 1% Sphalerite within the matrix						
			20458	307.00	308.22	1.22	8.23	3.1
308.22	313.00	HBL \ PLAG PORPHYRY (HZ18F766)						
		- medium green colour, coarse grained, massive, strongly altered with few remnant textures, spotty magnetism						
		- alteration is primarily sericite						
		- 5% coarse pyrite within fractures and disseminated						
		- 1% po within fractures						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g/ton	Ag g/ton
			20459	308.22	309.50	1.28	14.59	2.7
			20460	309.50	311.00	1.50	4.44	2.0
			20461	311.00	312.00	1.00	1.05	0.5
			20462	312.00	313.00	1.00	0.27	0.5
<b>313.00</b>	<b>313.33</b>	<b>FAULT ZONE (FZ)</b>						
		- Ground core within a chloritic matrix						
<b>313.33</b>	<b>316.45</b>	<b>K-ALTERED HBL \ PLAG PORPHYRY (BWK666)</b>						
		- reddish mauve colour, medium grained, massive						
		- 3-5% py disseminated						
		- 1-2% po disseminated and along fractures						
		- 3-5% Hornblende phenocrysts altered to chlorite and or po						
		- 8% Plagioclase phenocrysts up to 2 mm in size euhedral shape, sausseritized						
		- 3% Chlorite along fractures and as an alteration product of the Hornblende						
			20463	313.00	314.00	1.00	0.69	3.1
			20464	314.00	315.00	1.00	0.22	2.2
80	316.45	Broken\Fractured Core along the core axis	20465	315.00	316.45	1.45	0.11	1.4
<b>316.45</b>	<b>321.52</b>	<b>HBL \ PLAG PORPHYRY (BWH7010)</b>						
		- dark green colour, medium grained, massive, magnetic, hard						
		- 8% po disseminated and along fractures forming veins						
		- 2% py disseminated						
		- Tr-1% chalcopyrite disseminated, intermixed with the po						
		- Tr schalerite within the Quartz-Carbonate veinlets						
			20466	316.45	318.00	1.55	0.05	0.3
			20467	318.00	319.50	1.50	0.04	0.2
			20468	319.50	320.50	1.00	9.25	1.0
			20469	320.50	321.52	1.02	25.60	3.0
<b>321.52</b>	<b>326.35</b>	<b>ALTERED HBL \ PLAG PORPHYRY (BFB605)</b>						
		- medium green colour, medium grained, massive, strongly altered, mottled appearance in places						
		- alteration is primarily sericite + - apatite						
		- up to 2% py disseminated and as stringers						
		- up to 3% po disseminated and as stringers						
		- Tr Sphalerite disseminated and as stringers						
			20470	321.52	323.00	1.48	0.46	0.2
323.00	323.70	Numerous Quartz-Carbonate Fracture Fillings						
323.70	326.35	Silicified	20471	323.00	324.50	1.50	0.21	2.1
			20472	324.50	325.50	1.00	0.33	4.0
			20473	325.50	326.50	1.00	0.45	1.1
<b>327.35</b>	<b>327.50</b>	<b>FAULT ZONE (FZ)</b>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
327.50	336.35	<b>BRECCIATED ASH TUFF (BX\IAT\167m5)</b>	20474	326.50	327.50	1.00	3.49	2.7
		- medium to dark grey colour very fine grained, brecciated tuffaceous in a fine grained matrix						
		- 2% py disseminated and within fractures						
		- 3% po disseminated and within fractures						
		- 1% Quartz-Carbonate micro-fracture vein filling						
		- 1% apatite - green veins up to 1 cm in width						
		- Tr Sphalerite disseminated						
			20475	327.50	329.00	1.50	0.65	0.3
			20476	329.00	330.50	1.50	0.82	0.9
			20477	330.50	332.00	1.50	4.20	1.9
			20478	332.00	333.50	1.50	0.87	1.3
			20479	333.50	335.00	1.50	0.37	0.6
			20480	335.00	336.35	1.35	0.03	0.5
336.35	362.47	<b>INTERCALATED ARGILLITE AND TUFF (IAT\1308m8)</b>						
		- medium to dark grey black colour fine grained fragments in a lighter colour matrix to massive sections with moderate foliation that varies from along the core axis to steep						
		- 3-5% py as coarse cubes to 2 mm in size and along fractures						
		- 5% po along fractures and disseminated						
		- Tr Quartz-Carbonate veins as fracture fillings						
			20481	336.35	337.50	1.15	0.04	0.2
			20482	337.50	339.00	1.50	0.03	0.3
340.26	340.63	<b>Breccia</b>	20483	339.00	340.50	1.50	0.05	0.5
		- silica rich matrix with angular argillic fragments up to 2 cm in size						
		- 20% fragments						
			20484	340.50	342.00	1.50	0.22	0.2
342.45	343.00	<b>Breccia</b>						
		- similar to 340.26 to 340.63						
			20485	342.00	343.50	1.50	0.28	0.2
			20486	343.50	345.00	1.50	0.32	0.4
			20487	345.00	346.50	1.50	1.02	0.7
			20488	346.50	348.00	1.50	0.60	0.6
			20489	348.00	349.50	1.50	0.27	0.4
			20490	349.50	351.00	1.50	0.18	0.5
			20491	351.00	352.50	1.50	0.32	0.5
			20492	352.50	354.00	1.50	0.16	0.7
			20493	354.00	355.50	1.50	0.28	0.2
			20494	355.50	357.00	1.50	0.10	0.3
			20495	357.00	358.50	1.50	0.02	0.8
			20496	358.50	360.00	1.50	0.01	0.6
			20497	360.00	361.50	1.50	0.05	0.2
			20498	361.50	362.47	0.97	0.04	0.8
362.47	365.40	<b>FINE GRAINED BEDDED ASH TUFF (IAT\164m4)</b>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		<ul style="list-style-type: none"> <li>- medium grey colour very fine grained, bedded, hard</li> <li>- some of the bands exhibit slump features</li> <li>- 3% po along fractures</li> <li>- 1% py along fractures</li> <li>- Tr Quartz-Carbonate micro-fracture fillings</li> <li>- bedding = 55°</li> </ul>						
			20499	362.47	364.00	1.53	0.11	0.4
			20500	364.00	365.40	1.40	0.12	0.2
<b>365.40</b>	<b>374.75</b>	<b>HBL \ PLAG PORPHYRY (BFB#2)</b>						
		<ul style="list-style-type: none"> <li>- light green colour, medium coarse grained, massive, moderate to strong alteration</li> <li>- Alteration is primarily sericite</li> <li>- 1-2% Feldspar euhedral phenocrysts up to 1 mm in size</li> <li>- 1-2% py and po disseminated</li> <li>- Tr Quartz-Carbonate veins</li> </ul>						
			20501	365.40	366.50	1.10	0.85	0.9
<b>365.40</b>	<b>367.92</b>	<b>Contact Zone</b>						
		<ul style="list-style-type: none"> <li>- very silicic, mottled appearance, massive with porphyritic sections</li> <li>- up to 3% po and py in fractures</li> <li>- Chlorite on fracture planes</li> </ul>						
			20502	366.50	368.00	1.50	0.28	0.5
			20503	368.00	369.50	1.50	0.06	0.7
			20504	369.50	371.00	1.50	0.38	1.0
			20505	371.00	372.50	1.50	0.16	0.4
			20506	372.50	374.00	1.50	0.07	0.4
			20507	374.00	374.75	0.75	0.10	0.5
<b>374.75</b>	<b>382.75</b>	<b>BRECCIA (BX\86#6)</b>						
		<ul style="list-style-type: none"> <li>- medium grey colour, primarily porphyry fragments up to 10 cm in size in a matrix of similar composition that ranges from fine to medium grained.</li> <li>- The fragments are matrix supported</li> <li>- 5% py disseminated and along fractures in fragments and disseminated within the matrix</li> <li>- 1% po disseminated and along fractures</li> <li>- 10% fragments are tuffaceous</li> </ul>						
			20508	374.75	376.00	1.25	0.28	0.4
			20509	376.00	377.50	1.50	2.09	1.2
			20510	377.50	379.00	1.50	0.70	1.5
			20511	379.00	380.50	1.50	0.64	1.1
			20512	380.50	382.00	1.50	0.42	1.2
			20513	382.00	382.75	0.75	0.32	0.7
<b>382.75</b>	<b>387.35</b>	<b>FINE GRAINED ASH TUFF (IAT\167#2)</b>						
		<ul style="list-style-type: none"> <li>- light grey colour, very fine grained, well bedded, with small scale slump faulting</li> <li>- 2% py + Tr po disseminated</li> <li>- some bands of lime green colour mineral - Apatite</li> <li>- Tr Chlorite along fractures</li> </ul>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Hg g_ton
		- BN 40*						
			20514	382.75	384.00	1.25	0.48	1.2
			20515	384.00	385.50	1.50	0.35	2.6
			20516	385.50	386.50	1.00	0.37	1.0
			20517	386.50	387.35	0.85	0.51	1.1
<b>387.35</b>	<b>391.10</b>	<b>HBL \ PLAG PORPHYRY (BF&amp;K3)</b>						
		- light green to buff colour, fine grained ground mass with plagioclase phenocrysts up to 6 mm. in size						
		- 2% py disseminated						
		- 1% po disseminated and as an alteration product of the hornblende phenocrysts						
			20518	387.35	388.50	1.15	0.16	0.8
			20519	388.50	390.00	1.50	0.07	0.4
			20520	390.00	391.10	1.10	0.46	0.4
<b>391.10</b>	<b>395.10</b>	<b>FINE GRAINED ASH TUFF (IAT\167ml)</b>						
		- very fine grained, light grey colour, massive to weakly bedded						
		- similar to 382.75 to 387.35						
			20521	391.10	392.50	1.40	0.31	1.0
			20522	392.50	394.00	1.50	0.19	0.5
			20523	394.00	395.10	1.10	0.16	1.1
<b>395.10</b>	<b>404.77</b>	<b>HBL \ PLAG PORPHYRY (BF&amp;K3)</b>						
		- similar to 387.35 to 395.10						
			20524	395.10	396.50	1.40	0.11	0.7
			20525	396.50	398.00	1.50	0.14	0.6
			20526	398.00	399.50	1.50	0.12	0.8
			20527	399.50	401.00	1.50	0.10	0.7
			20528	401.00	402.50	1.50	0.02	0.8
<b>403.54</b>	<b>403.60</b>	<b>Fault</b>						
		- gouge with ground porphyry fragments						
			20529	402.50	404.00	1.50	0.37	0.8
			20530	404.00	404.77	0.77	0.16	0.6
<b>404.77</b>	<b>404.77</b>	<b>E.O.H.</b>						

HOLE NO.	MC71-65	NORTHING	050	DH COMP. BEAR	90	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	-240	GRID ORIENT.	360	111.3	- 79	085	SPER	182.9	- 78	087	SPER
LOCATION	MARC ZONE	ELEVATION	2010	DH GRID AZ.	90	285.0	- 78	087	SPER	365.8	- 78	095	SPER
CLAIM NO.	DRD 1	SURV. E.		DIP-COLLAR	-79	439.6	- 78	091	SPER				
TARGET		SURV. N.		LENGTH (m)	439.52								
STARTED	Aug 23, 1991	LOGGED BY	G.MacMillan	DRILL CO.	FALCON								
FINISHED	Aug 28, 1991	CHECKED BY		DRILL NO.	1000/1								
SECTION		CORE	BQ TW	FOREMAN	K.Hillen								
COMMENTS													

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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SUMMARY

0.00	1.52	CASING						
1.52	9.63	HBL \ PLAG PORPHYRY (8T7a1)						
9.63	18.45	HBL \ PLAG PORPHYRY (8G611)						
18.45	19.44	FAULT (F7)						
19.44	27.22	HBL \ PLAG PORPHYRY (8A3a1)						
27.27	32.85	ARGILLIC \ CHLORITE ALTERED HBL \ PLAG PORPHYRY (80A7a1)						
32.85	33.80	ANDESITE DIKE (11A8)						
33.80	39.89	ARGILLIC \ CHLORITE ALTERED HBL \ PLAG PORPHYRY (80A7a1)						
39.89	44.42	COARSE ASH TUFF (2S6a1)						
44.42	48.00	HBL \ PLAG PORPHYRY (8FA7a1)						
48.00	58.21	COARSE ASH TUFF (2A3a1)						
58.21	62.40	HBL \ PLAG PORPHYRY (8F88a)						
62.40	69.75	CHLORITE ALTERED HBL \ PLAG PORPHYRY (8A67a2)						
69.75	76.15	HBL \ PLAG PORPHYRY (8G8a1)						
76.15	87.44	BRECCIA(BX)						
87.44	105.16	COARSE ASH TUFF (2M4d1)						
105.16	108.20	BRECCIA \ FAULT ZONE (BxV7)						
108.20	136.00	SILICIFIED AND CHLORITIZED HBL \ PLAG PORPHYRY (8GA7a6)						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
136.00	149.51	CHLORITIZED AND SILICIFIED HBL \ PLAG PORPHYRY (BAG718)						
149.51	150.00	GROUND CORE \ FAULT ZONE (#1VZ)						
150.00	151.14	40% QUARTZ-CARBONATE VEINS \ ALTERED PORPHYRY (B1\BAG63)						
151.14	181.38	HBL \ PLAG PORPHYRY (BAG715)						
154.20	156.00	Ground Core						
181.38	216.68	MINERALIZED ZONE \ HANGING WALL \ ALTERED PORPHYRY (NZ\88818)						
216.68	221.67	BRECCIA (NZ\BX\1\88810)						
221.67	270.28	MINERALIZED ZONE - ALTERED PORPHYRY (NZ\8F8819)						
270.28	270.75	MASSIVE SULPHIDE (MS)						
270.75	271.00	FAULT ZONE (FZ)						
.00	288.04	VERY SILICEOUS ROCK \ HBL \ PLAG PORPHYRY (NZ\88810)						
288.04	303.00	MINERALIZED ZONE \ HBL \ PLAG PORPHYRY (NZ\88810)						
303.00	331.68	MINERALIZED ZONE \ SILICIFIED PORPHYRY (NZ\88818)						
331.68	381.07	HBL \ PLAG PORPHYRY \ MINERALIZED ZONE (NZ\88718)						
381.07	386.86	SILICIFIED BRECCIA (BX8818)						
386.86	400.25	HBL \ PLAG PORPHYRY (BAG65)						
400.25	419.75	SILICIFIED FRACTURE ZONE (BX\CZ\88815)						
419.75	439.52	ALTERED HBL\PLAG PORPHYRY (BAG65)						
439.52	439.52	E.O.H.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Ag g_ton	Ag g_ton
0.00	1.52	CASING						
1.52	9.63	HBL \ PLAG PORPHYRY (8T7a1)						
		- medium grey colour, coarse grained, massive, porphyritic						
		- core is strongly oxidized along fractures and very blocky						
		- 10 - 15% hornblende euhedral phenocrysts altered to chlorite						
		- Tr Manganite on fracture surfaces						
		- Tr-1% py generally along fracture planes						
9.63	18.45	HBL \ PLAG PORPHYRY (86&11)						
		- medium green grey colour, medium grained, massive with porphyritic sections of feldspar up to 30 cm in length, very hard						
		- 3% plagioclase phenocrysts up to 2 mm in size, euhedral shape						
		- 2-3% Limonite and Manganite along fracture surfaces						
		- Tr Quartz-Carbonate micro-fracture fillings						
		- Tr-0.5% py and po along fracture surfaces						
18.45	19.44	FAULT (FZ)						
		- blocky ground with limonite staining						
19.44	27.22	HBL \ PLAG PORPHYRY (8A3a1)						
		- medium grey colour, medium to coarse grained, massive in appearance, hard						
		- 8% Feldspar euhedral phenocrysts and shards up to 1 mm in size						
		- up to 3% Hornblende phenocrysts altered to chlorite, euhedral shape, 2mm in size						
		- 1% Quartz-Carbonate fracture and micro-fracture filling						
		- Tr-1% Limonite along fracture planes						
		- Tr-1% py and po within fractures						
27.27	32.85	ARGILLIC \ CHLORITE ALTERED HBL \ PLAG PORPHYRY (80A7a1)						
		- medium dark grey colour, coarse grained, massive, weakly porphyritic						
		- Tr py and po along micro-fractures						
		- 3-5% Feldspar shards/phenocrysts, angular						
		- Tr Chlorite altered hornblende						
		- Tr Limonite along fractures						
32.85	33.80	ANDESITE DIKE (11A8)						
		- medium green colour, massive, porphyritic with limonitic and manganite staining along fractures						
		- 3-5% Feldspar phenocrysts up to 1 mm in size, euhedral habit						
0	39.89	ARGILLIC \ CHLORITE ALTERED HBL \ PLAG PORPHYRY (80A7a1)						
		- similar to 27.27 to 32.85						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
39.89	44.42	<b>COARSE ASH TUFF (266k1)</b>  - medium grey colour, coarse grained, well banded or bedded - upper and lower contacts are brecciated, and weakly porphyritic - Tr po along fracture surfaces - Banding is irregular and wispy in appearance - BN - 67°						
44.42	48.00	<b>HBL \ PLAG PORPHYRY (8FA7m1)</b>  - medium green colour, massive, porphyritic, moderate to strongly altered, hard - 6% feldspar phenocrysts up to 3 mm in size, euhedral habit - 3-5% Hornblende phenocrysts up to 3 mm in size with a euhedral appearance and commonly altered to chlorite - Tr Limonite along fracture planes - Tr py and po disseminated and along fracture planes						
46.80	48.00	-strong Chlorite alteration of the Hornblende phenocrysts						
47.24	47.50	Fault - ground core with limonite alteration						
48.00	58.21	<b>COARSE ASH TUFF (2A3m1)</b>  - medium green grey colour, medium grained, massive, spotty magnetism, gritty feel - 5-6% feldspar shards/phenocrysts up to 1 mm in size - 2-3% Hornblende phenocrysts up to 1 mm in size - Tr Quartz-Carbonate fracture fillings - Tr-1% Chlorite as an alteration product of the Hornblende and along fractures - Tr limonite on fracture planes						
54.71	54.80	Breccia - Chlorite rich matrix with coarse ash tuff fragments						
55.11	55.18	Breccia - Chlorite rich matrix with coarse ash tuff fragments						
56.13	56.30	Breccia - Chlorite rich matrix with coarse ash tuff fragments						
57.60	58.21	Breccia - Chlorite rich matrix with coarse ash tuff fragments - lower contact						
21	62.40	<b>HBL \ PLAG PORPHYRY (8F88m)</b>  - medium green colour, medium grained, massive, porphyritic with spotty magnetism - dominant alteration is sericite and silica - strong						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		<ul style="list-style-type: none"> <li>- remnant porphyritic texture in a few sections</li> <li>- 3-5% Feldspar euhedral phenocrysts up to 2 mm in size</li> <li>- 1% Hornblende phenocrysts up to 1 mm in size pseudomorphed to Chlorite</li> <li>- Tr Quartz-Carbonate veins</li> <li>- Tr py and po disseminated</li> </ul>						
62.40	69.75	<b>CHLORITE ALTERED HBL \ PLAG PORPHYRY (0967m2)</b>						
		<ul style="list-style-type: none"> <li>- dark grey to black colour, fine grained, mottled looking with chlorite altered sections</li> <li>- unaltered sections demonstrate the characteristic porphyritic texture of the HBL\PLAG Porphyry</li> <li>- 2% py and po in fractures and disseminated - in close association with the chlorite alteration</li> </ul>						
63.48	63.53	Po Massive Sulphide Vein	20601	62.40	63.53	1.13	0.16	1.4
			20602	63.53	65.00	1.47	0.14	1.1
			20603	65.00	66.50	1.50	0.11	0.7
			20604	66.50	68.00	1.50	0.15	0.6
			20605	68.00	69.75	1.75	0.14	0.4
75	76.15	<b>HBL \ PLAG PORPHYRY (068m1)</b>						
		<ul style="list-style-type: none"> <li>- medium grained, massive, weakly porphyritic, spotty magnetism, siliceous</li> <li>- 3-4% Plagioclase euhedral phenocrysts up to 2 mm in size commonly sausseritized</li> <li>- Tr Quartz-Carbonate fracture filling</li> <li>- Tr po primarily along fractures</li> <li>- Tr Chlorite as an alteration along fractures</li> </ul>						
76.15	87.44	<b>BRECCIA(BX)</b>						
		<ul style="list-style-type: none"> <li>- medium grey colour, matrix supported, subangular clasts up to 5 cm in size of varying composition</li> <li>- 10% Clasts of Argillite, Tuff and Porphyry</li> <li>- primary component of the matrix is Chlorite</li> <li>- Tr Quartz-Carbonate Veins as fracture fillings</li> <li>- Tr limonite on fractures</li> <li>- 1-2% py along fractures and disseminated within the matrix</li> <li>- up to 1% po along fractures and disseminated within the matrix</li> <li>- Tr Sphalerite in fractures</li> </ul>						
			20606	76.15	77.50	1.35	0.03	0.4
			20607	77.50	79.00	1.50	0.03	0.7
			20608	79.00	80.50	1.50	0.06	0.3
			20609	80.50	82.00	1.50	0.03	0.7
			20610	82.00	83.50	1.50	0.01	0.6
			20611	83.50	85.00	1.50	0.04	0.7
			20612	85.00	86.50	1.50	0.02	0.9
			20613	86.50	87.44	0.94	0.06	0.5
87.44	105.16	<b>COARSE ASH TUFF (204d1)</b>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		<ul style="list-style-type: none"> <li>- medium grey colour, medium-coarse grained, equigranular, massive, spotty magnetism, hard</li> <li>- Tr py and po on fracture surfaces</li> <li>- 1% Chlorite along fractures and as a breccia filling near the lower contact</li> <li>- Tr Quartz-Carbonate fracture filling</li> <li>- Tr Limonite along fractures</li> <li>- alteration - weakly chlorite + sericite + silica</li> <li>- near the lower contact the Tuff becomes brecciated and silicified</li> </ul>						
105.16	108.20	<b>BRECCIA \ FAULT ZONE (BxVFZ)</b>						
		<ul style="list-style-type: none"> <li>- the recovered core is strongly chloritized and brecciated with up to 10% sulphides (py and po) within the matrix, moderately silicified</li> <li>- rubble sections up to 30 cm long are oxidized on all edges</li> </ul>						
105.16	105.76	Strongly Oxidized						
			20614	105.16	106.50	1.34	0.08	0.9
107.27	107.50	Ground Core - strongly oxidized						
107.90	108.20	Ground Core - strongly oxidized	20615	106.50	108.20	1.70	0.43	0.8
108.20	136.00	<b>SILICIFIED AND CHLORITIZED HBL \ PLAG PORPHYRY (BGA7m6)</b>						
		<ul style="list-style-type: none"> <li>- medium grey to buff brown colour, massive, porphyritic, strongly brecciated/fractured, very hard</li> <li>- 10% Chlorite as matrix/fracture filling</li> <li>- strongly silicified and/or albitized</li> <li>- 6% py and po disseminated within the matrix                             <ul style="list-style-type: none"> <li>- sections up to 10 cm of semi-massive sulphide</li> </ul> </li> <li>- Tr Sphalerite within the matrix</li> <li>- Tr Quartz-Carbonate microfracture fillings</li> </ul>						
108.20	110.00	Blocky	20616	108.20	109.50	1.30	0.41	2.1
		<ul style="list-style-type: none"> <li>- core lengths of up to 10 cm</li> <li>- strongly brecciated</li> </ul>						
			20617	109.50	111.00	1.50	0.05	2.4
			20618	111.00	112.50	1.50	0.28	1.0
113.00	115.00	Semi-Massive Sulphide Breccia Filling	20619	112.50	114.00	1.50	0.11	1.1
			20620	114.00	115.50	1.50	0.08	0.2
			20621	115.50	117.00	1.50	0.04	1.2
			20622	117.00	118.50	1.50	0.04	0.2
			20623	118.50	120.00	1.50	0.02	0.4
			20624	120.00	121.50	1.50	0.01	0.2
			20625	121.50	123.00	1.50	0.06	0.5
123.20	123.50	Ground Core - Fault						
			20626	123.00	124.50	1.50	0.04	1.8
			20627	124.50	126.00	1.50	0.10	0.5

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20628	126.00	127.50	1.50	0.05	0.7
			20629	127.50	129.00	1.50	0.02	0.6
			20630	129.00	130.50	1.50	0.06	0.2
131.00	132.00	10% po in the matrix	20631	130.50	132.00	1.50	0.02	0.2
			20632	132.00	133.50	1.50	0.09	0.2
			20633	133.50	135.00	1.50	0.05	0.8
			20634	135.00	136.00	1.00	0.13	0.9
<b>136.00</b>	<b>149.51</b>	<b>CHLORITIZED AND SILICIFIED HBL \ FLAG PORPHYRY (BAG718)</b>						
		- dark grey colour, massive, mottled appearance due to the intensity of the alteration						
		- The chlorite alteration is predominantly along the fractures						
		- 5% po disseminated and within Chloritic fractures						
		- 3% py disseminated and within the Chloritic fractures						
		- Tr Sphalerite disseminated						
		- 1% sulphide veins up to 2 cm wide						
		- Tr-0.5% Quartz-Carbonate microfracture fillings						
			20635	136.00	137.50	1.50	0.18	0.8
			20636	137.50	139.00	1.50	0.04	0.9
			20637	139.00	140.50	1.50	0.06	0.9
			20638	140.50	142.00	1.50	0.07	2.0
			20639	142.00	143.50	1.50	0.05	1.8
			20640	143.50	145.00	1.50	0.04	6.6
			20641	145.00	146.50	1.50	0.02	0.8
			20642	146.50	148.00	1.50	0.02	0.2
			20643	148.00	149.51	1.51	0.03	0.5
<b>149.51</b>	<b>150.00</b>	<b>GROUND CORE \ FAULT ZONE (HVFZ)</b>						
<b>150.00</b>	<b>151.14</b>	<b>40% QUARTZ-CARBONATE VEINS \ ALTERED PORPHYRY (BAG813)</b>						
		- 3-5% sulphides,py and po, within quartz-carbonate fracture filling						
		- primary fracture direction is along the core axis						
			20644	149.51	151.14	1.63	0.12	1.7
<b>151.14</b>	<b>181.38</b>	<b>HBL \ FLAG PORPHYRY (BAG715)</b>						
		- medium grey colour, medium to coarse grained, massive, chloritic and silicic alteration that tends to obliterate the texture, weakly porphyritic, spotty magnetism						
		- strong chloritic and silica alteration has obliterated the porphyritic texture - mottled appearance						
		- the chlorite is generally confined to the fracture surfaces and as a pseudomorph of the hornblende						
		- 5-8% Hornblende remnant phenocrysts pseudomorphed to chlorite and po - euhedral shape						
		- 2% py generally along fractures and disseminated						
		- 3% po generally along fractures, disseminated and as sulphide veins						
		- Tr Sphalerite disseminated						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20645	151.14	152.50	1.34	0.67	1.0
			20646	152.50	154.00	1.50	0.53	0.7
154.20	156.00	Ground Core - fractures primarily along the core axis						
			20647	154.00	155.50	1.50	0.04	0.6
			20648	155.50	157.00	1.50	0.02	0.5
			20649	157.00	158.50	1.50	3.07	0.9
			20650	158.50	160.00	1.50	0.41	0.5
161.06	161.86	Ground Core	20651	160.00	161.50	1.50	0.34	1.2
			20652	161.50	163.00	1.50	0.36	0.6
			20653	163.00	164.50	1.50	0.32	0.7
			20654	164.50	166.00	1.50	0.31	1.3
			20655	166.00	167.50	1.50	0.24	0.9
			20656	167.50	169.00	1.50	0.17	0.8
169.00	169.20	Po Massive sulphide vein						
			20657	169.00	170.50	1.50	0.10	0.9
			20658	170.50	172.00	1.50	0.06	0.7
173.00	174.00	Ground Core	20659	172.00	173.50	1.50	0.04	0.9
			20660	173.50	175.00	1.50	0.13	0.7
			20661	175.00	176.50	1.50	0.08	1.0
			20662	176.50	178.00	1.50	0.06	0.3
			20663	178.00	179.50	1.50	0.11	1.1
			20664	179.50	180.50	1.00	0.04	1.7
			20665	180.50	181.38	0.88	0.14	0.5
181.38	216.68	MINERALIZED ZONE \ HANGING WALL \ ALTERED PORPHYRY (MZ\BGBt8)						
		- medium grey colour, strong alteration obliterating remnant textures, massive, strongly fractured						
		- alteration is primarily silica saturation						
		- 7% py disseminated, along fractures and as sulphide veins up to 2 cm wide						
		- 2% sphalerite disseminated						
		- 5% Chlorite along fractures						
		- Tr Quartz-Carbonate Veins and fracture fillings						
		- 3-5% Feldspar euhedral phenocrysts up to 2 mm in size						
		- Tr-1% Hornblende euhedral phenocrysts altered to chlorite						
			20666	181.38	182.50	1.12	0.05	0.8
183.00	185.00	Broken Core - Ground Core - core lengths generally no longer than 5-10 cm	20667	182.50	184.00	1.50	0.07	1.7
			20668	184.00	185.50	1.50	0.09	1.8
			20669	185.50	187.00	1.50	0.09	0.8
			20670	187.00	188.50	1.50	0.32	0.8
			20671	188.50	190.00	1.50	0.07	0.8
			20672	190.00	191.50	1.50	0.05	1.0

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20673	191.50	193.00	1.50	0.12	0.9
			20674	193.00	194.50	1.50	0.06	1.2
			20675	194.50	196.00	1.50	0.09	1.2
			20676	196.00	197.50	1.50	0.13	1.0
			20677	197.50	199.00	1.50	0.34	0.9
			20678	199.00	200.50	1.50	0.08	1.2
			20679	200.50	202.00	1.50	0.18	0.6
			20680	202.00	203.50	1.50	0.30	0.9
204.00	216.68	- increasing number of sulphide veins (py) - weak pinkish cast to the core - K alteration	20681	203.50	205.00	1.50	2.35	1.3
			20682	205.00	206.50	1.50	2.54	1.2
			20683	206.50	208.00	1.50	0.14	1.2
			20684	208.00	209.50	1.50	0.37	1.1
			20685	209.50	211.00	1.50	0.13	1.4
212.00	212.40	Massive Sulphide veins up to 5 cm infilling fractures - composition is primarily py						
			20686	211.00	212.50	1.50	0.68	0.4
213.78	213.83	Po and Py Massive Sulphide Vein						
			20687	212.50	214.00	1.50	0.54	0.4
			20688	214.00	215.50	1.50	0.29	0.7
			20689	215.50	216.68	1.18	2.66	0.8
216.68	221.67	<b>BRECCIA (NZ\BX\1\88810)</b>  - medium grey green colour, very fine grained, tuffaceous fragments and altered porphyry fragments in a fine grained matrix - Fragment supported - 60% fragments are fine grained angular tuffaceous fragments - the hornblende within the porphyry fragments has been altered to py - strongly altered - Silica - 10% py disseminated and as veins within the matrix - 1% Chlorite as fracture filling						
			20690	216.68	218.00	1.32	0.47	0.4
			20691	218.00	219.50	1.50	0.38	0.9
			20692	219.50	220.50	1.00	0.18	0.6
			20693	220.50	221.67	1.17	0.14	0.8
221.67	270.28	<b>MINERALIZED ZONE - ALTERED PORPHYRY (NZ\BF6819)</b>  - medium grey green colour, fine to medium grained, glassy appearance, massive with spotty magnetite - strongly altered - Sericite + Silica - weakly porphyritic sections where the amphiboles have been pseudomorphed to chlorite and then po - 3% Feldspar euhedral phenocrysts in isolated sections - 7-8% py disseminated and as veins - 0.5 - 1% po disseminated and as fracture fillings - 1-2% Quartz-Carbonate veins as fracture fillings up to 1 cm wide - Tr sphalerite disseminated - 1-2% Chlorite on fracture planes						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20694	221.67	222.50	0.83	0.90	1.9
			20695	222.50	223.50	1.00	0.35	0.5
			20696	223.50	225.00	1.50	1.49	2.2
			20697	225.00	226.50	1.50	2.75	7.7
			20698	226.50	228.00	1.50	1.28	0.9
			20699	228.00	229.50	1.50	0.33	4.1
			20700	229.50	231.00	1.50	0.09	0.5
			20701	231.00	232.50	1.50	0.31	0.4
233.17	233.41	Massive Sulphide Py Vein						
			20702	232.50	234.00	1.50	2.51	5.3
235.15	235.35	Massive Sulphide Py Vein						
233.00	235.00	1- 2% Sphalerite						
			20703	234.00	235.50	1.50	2.40	0.4
236.00	240.00	5-6% Quartz-Carbonate Veins as fracture fillings up to 2 cm wide	20704	235.50	237.00	1.50	1.03	1.3
			20705	237.00	238.50	1.50	0.16	0.8
237.00	247.00	- decrease in the sulphide content to 5-7% and an increase in the abundance of po to 2%	20706	238.50	240.00	1.50	0.23	1.3
			20707	240.00	241.50	1.50	0.51	1.5
			20708	241.50	243.00	1.50	0.13	1.7
			20709	243.00	244.50	1.50	0.08	0.9
			20710	244.50	246.00	1.50	0.08	0.8
			20711	246.00	247.50	1.50	0.13	0.7
248.00	252.00	- banded, very fine massive, strongly fractured with 10% py in fillings and a light green hue	20712	247.50	249.00	1.50	0.30	0.6
			20713	249.00	250.50	1.50	0.40	0.6
			20714	250.50	252.00	1.50	0.25	0.5
			20715	252.00	253.50	1.50	0.68	1.0
254.50	256.65	- very fine massive, strongly fractured with py, po and chlorite along the fractures	20716	253.50	255.00	1.50	0.31	1.3
			20717	255.00	256.50	1.50	0.48	1.0
			20718	256.50	258.00	1.50	0.44	0.3
259.00	259.18	Quartz-Carbonate Vein						
259.18	259.55	Breccia - matrix supported with angular felsic fragments up to 1 cm in size	20719	258.00	259.50	1.50	0.30	2.6
			20720	259.50	261.00	1.50	0.32	2.8
			20721	261.00	262.50	1.50	0.37	0.4
262.50	262.75	Quartz-Carbonate Vein at a low angle to the core axis						
			20722	262.50	264.00	1.50	0.14	1.1
265.00	265.59	- Porphyry with angular resorbed fragments up to 2 cm in size that have been altered to py - 3-5% Feldspar subhedral phenocrysts up to 5 mm. in size - 8-10% py disseminated and as an alteration product	20723	264.00	265.50	1.50	0.35	1.3
			20724	265.50	267.00	1.50	0.25	1.0
			20725	267.00	268.50	1.50	0.38	0.8

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20726	268.50	269.50	1.00	3.86	6.7
			20727	269.50	270.25	0.75	0.64	1.9
<b>270.28</b>	<b>270.75</b>	<b>MASSIVE SULPHIDE (MS)</b>						
		- massive pyrite with quartz clots						
			20728	270.28	270.75	0.47	27.40	55.0
<b>270.75</b>	<b>271.00</b>	<b>FAULT ZONE (FZ)</b>						
		- gouge mixed with ground core						
<b>271.00</b>	<b>288.04</b>	<b>VERY SILICEOUS ROCK \ HBL \ PLAG PORPHYRY (MZ\888d10)</b>						
		- very fine grained, massive, siliceous, cherty appearance, very hard						
		- porphyritic sections up to 1 m in length include 8% feldspar euhedral phenocrysts						
		- weak to moderate foliation at 45°						
		- 7-10% py disseminated and along fractures						
		- 3% Quartz-Carbonate fracture fillings						
			20729	270.75	272.00	1.25	0.77	2.0
			20730	272.00	273.50	1.50	0.68	1.2
			20731	273.50	275.00	1.50	0.50	0.9
			20732	275.00	276.50	1.50	0.17	1.0
<b>276.50</b>	<b>276.89</b>	<b>Blocky Ground</b>	20733	276.50	276.00	1.50	0.17	0.5
		- core lengths of no greater than 10 cm						
			20734	278.00	279.50	1.50	0.19	1.3
			20735	279.50	281.00	1.50	0.34	1.3
			20736	281.00	282.50	1.50	0.31	1.4
			20737	282.50	284.00	1.50	0.22	1.5
			20738	284.00	285.50	1.50	0.19	1.5
<b>286.50</b>	<b>288.04</b>	<b>Blocky Ground</b>	20739	286.50	287.00	1.50	0.22	1.5
		- ground core	20740	287.00	288.04	1.04	0.23	1.2
<b>288.04</b>	<b>303.00</b>	<b>MINERALIZED ZONE \ HBL \ PLAG PORPHYRY (MZ\888d10)</b>						
		- light grey colour, medium to coarse grained, massive, porphyritic, blocky						
		- strong alteration - silica						
		- 6% remnant Hornblende phenocrysts pseudomorphed to py						
		- 10% Feldspar euhedral sausseritized phenocrysts						
		- 7-10% py disseminated along fractures and as sulphide veins						
		- 1-2% Quartz-Carbonate microfracture fillings						
		- Tr Chlorite along fracture and as an alteration product of the hornblende						
			20741	288.04	289.50	1.46	0.46	0.6
			20742	289.50	291.00	1.50	0.39	0.7
<b>292.00</b>	<b>295.00</b>	<b>The core is strongly fractured with core lengths no longer than 10 cm</b>	20743	291.00	292.50	1.50	0.41	0.3
			20744	292.50	294.00	1.50	0.66	1.1

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20745	294.00	295.50	1.50	0.47	1.1
			20746	295.50	297.00	1.50	0.62	1.0
			20747	297.00	298.50	1.50	0.61	1.1
			20748	298.50	300.00	1.50	0.56	1.3
			20749	300.00	301.50	1.50	0.68	1.0
			20750	301.50	303.00	1.50	0.40	1.0
<b>303.00</b>	<b>331.68</b>	<b>MINERALIZED ZONE \ SILICIFIED PORPHYRY (N2\86808)</b>						
		- light grey colour, very fine grained, massive, strongly silicified obliterating most of the remnant textures, few porphyritic sections remain, very cherty						
		- 5-8% py disseminated and along fractures, as sulphide veins						
		- 1% Quartz-Carbonate microfracture filling						
			20751	303.00	304.50	1.50	1.65	0.9
			20752	304.50	306.00	1.50	0.24	2.2
			20753	306.00	307.50	1.50	0.70	1.3
			20754	307.50	309.00	1.50	0.35	0.4
			20755	309.00	310.50	1.50	0.12	1.0
			20756	310.50	312.00	1.50	1.09	4.3
			20757	312.00	313.50	1.50	0.23	1.9
			20758	313.50	315.00	1.50	0.25	1.9
			20759	315.00	316.50	1.50	0.28	2.0
			20760	316.50	318.00	1.50	0.44	0.2
			20761	318.00	319.50	1.50	0.24	1.5
			20762	319.50	321.00	1.50	0.15	1.1
			20763	321.00	322.50	1.50	0.09	1.4
			20764	322.50	324.00	1.50	0.10	1.1
			20765	324.00	325.50	1.50	0.13	0.9
			20766	325.50	327.00	1.50	0.17	0.8
			20767	327.00	328.45	1.45	0.18	1.1
328.45	329.05	Semi massive Pyrite	20768	328.45	329.05	0.60	0.48	0.2
329.05	331.68	20% Pyrite - massive to semi-massive sections	20769	329.05	330.50	1.45	0.23	0.2
			20770	330.50	331.68	1.18	0.31	0.2
<b>331.68</b>	<b>381.07</b>	<b>HBL \ PLAS PORPHYRY \ MINERALIZED ZONE (N2\86708)</b>						
		- light grey to buff colour, medium grained, strongly altered, moderately porphyritic, hard						
		- alteration is primarily silica						
		- stronger porphyritic texture in comparison with the previous unit						
		- 7-8% py disseminated, as sulphide veins, massive sections, and as a pseudomorph product of the hornblende phenocrysts						
		- Tr-0.5% Tourmaline in sections up to 0.5 m in length						
		- Tr-1% Quartz grains						
		- Tr Quartz-Carbonate fracture filling						
			20771	331.68	332.27	0.59	0.31	0.9
332.27	333.38	Massive Sulphide - Py	20772	332.27	333.38	1.11	0.42	0.2

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20773	333.38	334.50	1.12	0.07	0.2
			20774	334.50	336.00	1.50	0.15	0.2
			20775	336.00	337.50	1.50	0.15	0.2
			20776	337.50	339.00	1.50	0.14	0.2
			20777	339.00	340.50	1.50	0.12	1.3
			20778	340.50	342.00	1.50	0.25	0.3
			20779	342.00	343.50	1.50	0.17	0.6
			20780	343.50	345.00	1.50	0.15	0.7
			20781	345.00	346.50	1.50	0.06	1.4
			20782	346.50	348.00	1.50	0.07	1.4
			20783	348.00	349.50	1.50	0.13	0.9
			20784	349.50	351.00	1.50	0.12	1.2
			20785	351.00	352.50	1.50	0.17	0.4
			20786	352.50	354.00	1.50	0.10	1.1
			20787	354.00	355.50	1.50	0.49	1.4
			20788	355.50	357.00	1.50	0.23	0.3
			20789	357.00	358.50	1.50	0.15	0.7
			20790	358.50	360.00	1.50	0.34	1.4
			20791	360.00	361.50	1.50	0.17	0.9
			20792	361.50	363.00	1.50	0.12	1.0
364.50	364.50	Massive Sulphide Vein	20793	363.00	364.50	1.50	0.19	0.2
365.50	367.00	Epidote and Axinite Veins at all angles to the core	20794	364.50	366.00	1.50	0.14	1.3
365.00	381.07	- Light to medium green colour, possibly Apatite or Chlorite alteration - finer grained with a weak porphyritic texture	20795	366.00	367.50	1.50	0.30	2.0
			20796	367.50	369.00	1.50	0.44	1.2
			20797	369.00	370.50	1.50	0.26	0.9
			20798	370.50	372.00	1.50	0.17	2.3
			20799	372.00	373.50	1.50	0.04	1.2
			20800	373.50	375.00	1.50	0.07	1.2
			20801	375.00	376.50	1.50	0.06	0.6
			20802	376.50	378.00	1.50	0.03	1.1
			20803	378.00	379.50	1.50	0.02	1.1
			20804	379.50	381.07	1.57	0.04	1.2
381.07	386.86	<b>SILICIFIED BRECCIA (BAGB)</b>  - light grey colour, very fine grained fragments in a fine grained matrix, very silicic, fragment supported, strongly fractured - Contact Zone?? - angular fragments up to 5 cm in size - 7-8% py along fractures - Tr-1% Quartz-Carbonate fracture fillings - fractures are at all angles to the core axis	20805	381.07	382.50	1.43	0.01	1.2
			20806	382.50	384.00	1.50	0.18	1.6
			20807	384.00	385.50	1.50	0.17	1.3
			20808	385.50	386.86	1.36	0.12	1.5
386.86	400.25	<b>HBL \ PLAS PORPHYRY (BA345)</b>  - medium grey colour, medium-coarse grained, massive, porphyritic, spotty magnetism						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- 10% Hornblende euhedral phenocrysts up to 5 mm in size commonly altered to chlorite - 2-3% Feldspar phenocrysts, sausseritized - 3-5% py disseminated and as sulphide veinlets - 0.5-1% Quartz-Carbonate microfracture fillings - 2-3% Chlorite along fractures and as veins	20809	386.86	388.00	1.14	0.22	1.1
			20810	388.00	389.50	1.50	4.36	1.4
			20811	389.50	391.00	1.50	0.32	0.2
			20812	391.00	392.50	1.50	0.18	1.5
			20813	392.50	394.00	1.50	0.12	1.1
			20814	394.00	395.50	1.50	0.10	1.0
396.00	397.00	Blocky Core	20815	395.50	397.00	1.50	0.07	1.5
390.24	391.00	Sulphide Breccia - 40% fragments in a py rich matrix	20816	397.00	398.50	1.50	0.05	0.8
			20817	398.50	399.50	1.00	0.18	0.8
			20818	399.50	400.25	0.75	0.20	1.6
400.25	419.75	SILICIFIED FRACTURE ZONE (BX\CZ\866m5)						
		- similar to 381.07 to 386.86 - strongly fractured and silicified with 5% Quartz-Carbonate veins at all angles to the core axis - 3% py along fractures and within Quartz-Carbonate veins - 1-2% po along fractures and within Quartz-Carbonate veins	20819	400.25	401.50	1.25	0.16	2.7
			20820	401.50	403.00	1.50	0.05	1.7
			20821	403.00	404.50	1.50	0.10	1.1
			20822	404.50	406.00	1.50	0.20	1.3
			20823	406.00	407.50	1.50	0.11	2.1
			20824	407.50	409.00	1.50	0.28	1.7
			20825	409.00	410.50	1.50	0.08	0.8
			20826	410.50	412.00	1.50	0.04	0.6
			20827	412.00	413.50	1.50	0.06	1.1
			20828	413.50	415.00	1.50	0.05	1.0
			20829	415.00	416.50	1.50	0.04	1.3
			20830	416.50	417.50	1.00	0.03	1.7
			20831	417.50	418.50	1.00	0.15	1.7
419.20	419.21	5-8% Sphalerite on the edge of a Quartz-Carbonate Vein	20832	418.50	419.75	1.25	0.46	2.3
75	439.52	ALTERED HBL\PLAG PORPHYRY (866m5)						
		- medium grey colour, medium coarse grained, massive, glassy - mottled appearance, strongly altered - Tr-2% feldspar euhedral phenocrysts - alteration is primarily chlorite and silica						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- 3-5% py and po disseminated and as stringers						
		- Tr-1% Quartz-Carbonate fracture fillings						
		- Tr Chlorite along fracture surfaces						
			20833	419.75	421.00	1.25	0.13	1.1
			20834	421.00	422.50	1.50	0.10	0.9
			20835	422.50	424.00	1.50	0.42	1.1
			20836	424.00	425.50	1.50	0.13	0.7
			20837	425.50	427.00	1.50	1.10	0.8
			20838	427.00	428.50	1.50	0.51	1.6
			20839	428.50	430.00	1.50	0.27	0.9
			20840	430.00	431.50	1.50	0.17	0.2
			20841	431.50	433.00	1.50	0.10	1.0
			20842	433.00	434.50	1.50	1.07	3.1
			20843	434.50	436.00	1.50	1.75	2.7
			20844	436.00	437.50	1.50	0.12	9.0
			20845	437.50	438.50	1.00	0.08	2.0
			20846	438.50	439.52	1.02	0.15	2.6

439.52 439.52 E.O.H.

HOLE NO.	HC91-66	NORTHING	000	DH COMP. BEAR	90	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	-130	GRID ORIENT.	360	91.4	- 73	077	SPER	184.4	- 73	074	SPER
LOCATION	MARC ZONE	ELEVATION	1953.5	DH GRID AZ.	90	274.3	- 73	079	SPER				
CLAIM NO.	ORO 1	SURV. E.		DIP-COLLAR	-75								
TARGET		SURV. N.		LENGTH (m)	297.18								
STARTED	Aug 28,1991	LOGGED BY	G.MacMillan	DRILL CO.	FALCON								
FINISHED	Sept 2,1991	CHECKED BY		DRILL NO:	1000/1								
SECTION		CORE	B0 TW	FOREMAN	K.Hillen								
COMMENTS													

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au	Ag
							g_ton	g_ton

SUMMARY

0.00	1.52	CASING (CS)						
1.52	24.00	HBL \ PLAG PORPHYRY (8A6a2)						
24.00	24.30	FAULT ZONE (FZ)						
24.30	28.40	HBL \ PLAG PORPHYRY (8A6a2)						
28.40	29.74	FAULT ZONE (FZ)						
29.74	65.63	HBL \ PLAG PORPHYRY (8B7a4)						
65.63	72.30	BRECCIA (BX 8F8a8)						
72.30	84.96	HBL \ PLAG PORPHYRY (8B7a4)						
84.96	87.55	BRECCIA (BX a3)						
87.55	100.76	HBL \ PLAG PORPHYRY (8B8a4)						
100.76	111.70	COARSE ASH TUFF \ HBL \ PLAG PORPHYRY (2\8A3a3)						
111.70	124.92	CHLORITIC BRECCIA (BX 8B4)						
124.92	133.21	FINE GRAINED TUFF (IAT\188a3)						
133.21	182.36	HBL \ PLAG PORPHYRY (8B7a5)						
182.36	193.80	MINERALIZED ZONE \ HBL \ PLAG PORPHYRY (HZ\8EFD10)						
193.80	200.77	BRECCIA \ HBL \ PLAG PORPHYRY (BX\HZ\8B8a8)						
200.77	233.50	HBL \ PLAG PORPHYRY (HZ\8B8a8)						
233.50	233.58	HBL \ PLAG PORPHYRY (8F88a8)						

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FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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297.18 297.18 E.O.H.



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	1.52	CASING (CS)						
1.52	24.00	HBL \ PLAS PORPHYRY (804m2)						
		- colour varies from a medium green to grey colour, massive, porphyritic, spotty magnetism						
		- alteration - primarily chlorite						
		- 8-10% Hornblende phenocrysts up to 3 mm in size pseudomorphing to chlorite and po						
		- 5% feldspar euhedral phenocrysts up to 2 mm in size						
		- 3% Limonite on the fracture surfaces and within areas of blocky ground						
		- 2% py and po disseminated and along fracture surfaces						
		- Tr-1% Quartz-Carbonate fracture fillings						
9.00	10.67	Blocky Ground with limonite alteration on the fracture surfaces						
15.72	16.30	- very mottled looking section - strongly altered						
24.00	24.30	FAULT ZONE (FZ)						
		- ground oxidized core						
24.30	28.40	HBL \ PLAS PORPHYRY (804m2)						
		- similar to 1.52 to 24.00						
		- Blocky ground with oxidation on all of the fracture surfaces						
28.40	29.74	FAULT ZONE (FZ)						
		- oxidized rubble with core lengths up to 5 cm						
29.74	65.63	HBL \ PLAS PORPHYRY (8847m4)						
		- medium dark grey colour, massive, porphyritic with stronger altered finer grained sections, spotty magnetism						
		- Alteration - primarily silica						
		- 5-8% Hornblende euhedral phenocrysts up to 3 mm in size pseudomorphed to chlorite and or po						
		- 3% oxidation along fracture surfaces						
		- 3-4% py and po disseminated and as veins on fracture surfaces						
		- LCT - 25'						
29.74	34.00	Strongly altered obliterating the porphyritic textures - blocky						
37.25	42.00	Strongly altered with few sections of remnant porphyritic texture						
45.00	48.50	Blocky Ground						
57.25	59.00	Strongly Altered						

20851	58.50	60.00	1.50	0.04	0.2
20852	60.00	61.50	1.50	0.21	0.1

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20853	61.50	63.00	1.50	0.03	0.5
63.00	65.63	8% Sphalerite as large blebs	20854	63.00	64.50	1.50	0.10	0.1
64.70	65.00	Massive Sulphide - Sphalerite, Py, Po	20855	64.50	65.63	1.13	2.28	1.6
<b>65.63</b>	<b>72.30</b>	<b>BRECCIA (BX 6F8m8)</b>						
		- medium green colour, matrix supported, rounded fragments up to 3 cm in size, strongly silicified/sericitized						
		- 20% fragments composed of Porphyry and Tuffaceous material						
		- The fragments commonly have reaction rias						
		- 5-8% Sphalerite disseminated within the fragments						
		- 2% py along the fractures and within fragments						
		- UCT - 25°						
			20856	65.63	67.00	1.37	1.71	3.1
			20857	67.00	68.25	1.25	0.58	1.5
66.25	68.76	Massive Sulphide - Py, Sphalerite, Po	20858	68.25	68.76	0.51	5.72	20.3
			20859	68.76	70.00	1.24	5.21	22.9
			20860	70.00	71.50	1.50	0.04	0.7
			20861	71.50	72.30	0.80	0.14	0.7
<b>72.30</b>	<b>84.96</b>	<b>HBL \ PLG PORPHYRY (86F4m4)</b>						
		- medium grey colour, massive, porphyritic, magnetic to spotty magnetism						
		- 8-10% Hornblende euhedral phenocrysts pseudomorphed to chlorite and/or po						
		- Alteration - moderate sericite and silica						
		- 3-5% recrystallized Quartz						
		- 3% po primarily as an alteration product and along fracture surfaces						
		- Tr-1% py disseminated and as veins						
		- Tr Quartz-Carbonate fracture fillings						
			20862	72.30	73.50	1.20	0.01	0.5
			20863	73.50	75.00	1.50	0.01	0.9
			20864	75.00	76.50	1.50	0.01	0.8
<b>84.96</b>	<b>87.55</b>	<b>BRECCIA (BX m3)</b>						
		- medium light grey green colour, massive, very fine grained matrix with subangular fragments to 4 cm in length						
		- 15-25% Fragments of Porphyry, Argillite, and Tuffaceous material						
		- 2-3% py and po generally as an alteration product of the fragments						
<b>87.55</b>	<b>100.76</b>	<b>HBL \ PLG PORPHYRY (86Bm4)</b>						
		- similar to 72.30 to 84.96						
		- strong silicification increasing towards the bottom of the interval						
<b>100.76</b>	<b>111.70</b>	<b>COARSE ASH TUFF \ HBL \ PLG PORPHYRY (218A3m3)</b>						
		- medium grey colour, massive weakly porphyritic, spotty magnetism, granular						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	As g_ton	Ag g_ton
		texture, hard						
		- 5% remnant Hornblende phenocrysts that have pseudomorphed to chlorite and po						
		- 3% py and po disseminated and along fractures						
		- 1% Chlorite on fracture planes						
		- Tr Quartz-Carbonate micro-fracture fillings						
			20865	100.76	102.00	1.24	0.10	0.8
			20866	102.00	103.50	1.50	0.06	0.2
			20867	103.50	105.00	1.50	0.08	0.8
			20868	105.00	106.50	1.50	0.05	0.4
107.50	109.00	Blocky ground with some lost core	20869	106.50	108.00	1.50	0.03	0.2
			20870	108.00	109.50	1.50	0.05	0.5
110.70	111.00	Fault Gouge	20871	109.50	111.00	1.50	0.03	0.5
			20872	111.00	111.70	0.70	0.06	1.2
111.70	124.92	<b>CHLORITIC BRECCIA (BX AB#4)</b>						
		- dark grey to black colour, primarily matrix supported breccia with angular fragments of Tuff, Porphyry and Argillite, blocky ground						
		- matrix in most cases is fine grained with a few coarser sections						
		- 2% po as stringers and disseminated						
		- 2% py as stringers and disseminated						
		- Tr-0.5% Quartz-Carbonate microfracture fillings						
			20873	111.70	113.00	1.30	0.13	1.8
			20874	113.00	114.50	1.50	0.08	1.4
			20875	114.50	116.00	1.50	0.44	2.5
			20876	116.00	117.50	1.50	0.06	0.6
			20877	117.50	119.00	1.50	0.31	1.8
			20878	119.00	120.50	1.50	0.02	0.7
			20879	120.50	122.00	1.50	0.08	1.2
			20880	122.00	123.50	1.50	0.16	1.4
			20881	123.50	124.92	1.42	0.73	0.7
124.92	133.21	<b>FINE GRAINED TUFF (1AT\100#5)</b>						
		- light to medium grey colour, very fine grained, well bedded/banded with some small scale slumping and faulting, very silicic, spotty magnetism						
		- 3-5% py and po along bedding planes and disseminated						
		- Tr-1% Sphalerite disseminated						
		- 5N - 50' to along the core axis						
125.50	126.00	10% Py, Po, Sphalerite	20882	124.92	126.00	1.08	0.77	0.7
			20883	126.00	127.50	1.50	1.08	1.4
			20884	127.50	129.00	1.50	5.42	1.6
			20885	129.00	130.50	1.50	0.20	0.9
			20886	130.50	132.00	1.50	0.17	1.1
133.00	133.21	10% Po disseminated at the lower contact	20887	132.00	133.21	1.21	0.12	0.4

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
133.21	182.36	<b>HBL \ PLAS PORPHYRY (88745)</b>						
		- medium grey colour, medium grained, massive, porphyritic, moderate to strongly silicified						
		- Alteration - primarily silica - varies in intensity from moderate to strong						
		- 10% Plagioclase euhedral to subhedral phenocrysts up to 2 mm in size						
		- Tr-1% Hornblende phenocrysts altered to Chlorite						
		- 3% py and po disseminated and along fractures						
		- Tr-0.5% Quartz-Carbonate veins						
133.21	145.00	- Mottled appearance, weakly sericitized, self healed brecciation, contact zone?	20888	133.21	134.50	1.29	0.27	1.2
			20889	134.50	136.00	1.50	0.76	1.0
		- 3% py and po along fracture planes	20890	136.00	137.50	1.50	0.89	0.9
			20891	137.50	139.00	1.50	0.39	1.0
			20892	139.00	140.50	1.50	1.42	3.5
			20893	140.50	142.00	1.50	1.08	1.1
			20894	142.00	143.50	1.50	1.18	4.0
			20895	143.50	145.00	1.50	0.68	1.5
145.00	146.00	Blocky Ground						
			20896	145.00	146.50	1.50	0.72	1.7
			20897	146.50	148.00	1.50	0.34	0.8
			20898	148.00	149.50	1.50	0.26	0.5
			20899	149.50	151.00	1.50	0.30	0.5
			20900	151.00	152.50	1.50	0.12	0.6
153.00	157.00	Pinkish cast - K Alteration	20901	152.50	154.00	1.50	0.52	1.1
			20902	154.00	155.50	1.50	0.19	1.3
156.00	157.00	Self healed breccia with 5 % py in the matrix	20903	155.50	157.00	1.50	0.61	1.0
			20904	157.00	158.50	1.50	1.32	0.7
			20905	158.50	160.00	1.50	1.32	1.0
			20906	160.00	161.50	1.50	1.39	1.2
			20907	161.50	163.00	1.50	0.53	0.7
			20908	163.00	164.50	1.50	1.12	1.0
165.00	166.50	Greenish colour to the core - Chlorite Alteration - 5-6% py and po disseminated	20909	164.50	166.00	1.50	1.88	0.9
166.75	167.30	Self Healed Breccia						
			20910	166.00	167.50	1.50	2.45	1.5
			20911	167.50	169.00	1.50	0.79	1.2
169.50	170.50	Blocky Ground	20912	169.00	170.50	1.50	0.56	1.3
			20913	170.50	172.00	1.50	2.56	1.8
			20914	172.00	173.50	1.50	1.29	1.0
			20915	173.50	175.00	1.50	0.55	0.9
176.27	176.43	Self Healed Breccia - bleached matrix						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20916	175.00	176.50	1.50	0.75	0.7
			20917	176.50	178.00	1.50	1.32	0.9
			20918	178.00	179.50	1.50	1.69	1.0
			20919	179.50	181.00	1.50	3.60	0.7
181.36	182.00	Blocky Ground						
			20920	181.00	182.36	1.36	1.50	0.2
<b>182.36</b>	<b>193.80</b>	<b>MINERALIZED ZONE \ HBL \ PLAS PORPHYRY (NZ\88FM10)</b>						
		- medium grey colour, medium grained, massive, strongly altered, very mottled appearance						
		- Alteration - intense silicification and sericitization						
		- 5-6% recrystallized Quartz grains up to 2 mm in size						
		- 8-10% py disseminated along fractures and as sulphide veins of coarse py						
			20921	182.36	183.50	1.14	0.54	0.7
			20922	183.50	185.00	1.50	0.67	1.0
			20923	185.00	186.50	1.50	1.12	0.3
			20924	186.50	188.00	1.50	2.77	0.4
			20925	188.00	189.50	1.50	1.67	0.3
			20926	189.50	191.00	1.50	1.11	0.6
			20927	191.00	192.50	1.50	0.58	1.1
			20928	192.50	193.80	1.30	4.44	1.0
<b>193.80</b>	<b>200.77</b>	<b>BRECCIA \ HBL \ PLAS PORPHYRY (BX\NZ\88GJ8)</b>						
		- light grey colour, very fine grained siliceous fragments of primarily porphyry with some tuff, matrix supported						
		- 30% angular fragments						
		- Alteration - primarily silica						
		- 8-10% py disseminated and as fracture fillings primarily within the matrix						
		- in a few instances the fragments have been altered to py						
		- Tr Quartz-Carbonate micro-fracture fillings						
			20929	193.80	195.00	1.20	1.50	0.8
			20930	195.00	196.50	1.50	0.69	0.2
			20931	196.50	198.00	1.50	0.51	0.4
			20932	198.00	199.50	1.50	0.30	0.3
			20933	199.50	200.77	1.27	0.55	0.2
<b>200.77</b>	<b>233.50</b>	<b>HBL \ PLAS PORPHYRY (NZ\88GJ8)</b>						
		- medium grey colour, strongly altered, mottled appearance, medium to coarse grained, massive						
		- Alteration - silica with some sericite						
		- 7% Plagioclase phenocrysts up to 0.5 cm in size						
		- 8% py disseminated and as veins up to 5 cm in width at > 45°						
		- Tr green mineral within the matrix - Apatite? or Fluorite?						
			20934	200.77	202.00	1.23	0.25	0.6
			20935	202.00	203.50	1.50	0.27	0.8
			20936	203.50	205.00	1.50	0.31	0.1
			20937	205.00	206.50	1.50	0.05	1.0
			20938	206.50	208.00	1.50	0.40	0.2
			20939	208.00	209.50	1.50	0.44	0.1

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20940	209.50	211.00	1.50	0.61	0.4
212.00	215.00	Self Healed Breccia	20941	211.00	212.50	1.50	0.23	0.5
			20942	212.50	214.00	1.50	0.17	0.7
215.10	216.50	Strong Sericite alteration	20943	214.00	215.50	1.50	0.27	0.6
			20944	215.50	217.00	1.50	0.73	1.0
			20945	217.00	218.50	1.50	0.24	0.5
			20946	218.50	220.00	1.50	0.26	1.2
			20947	220.00	221.50	1.50	0.53	0.3
			20948	221.50	223.00	1.50	0.46	0.1
			20949	223.00	224.50	1.50	0.26	0.2
			20950	224.50	226.00	1.50	0.68	1.1
			20951	226.00	227.50	1.50	1.45	2.9
228.75	228.96	Breccia Zone in which py has replaced some of the larger fragments						
			20952	227.50	229.00	1.50	0.38	2.2
			20953	229.00	230.50	1.50	0.36	3.7
			20954	230.50	232.00	1.50	0.81	2.3
232.12	232.15	Fault Zone						
233.00	233.50	10% py in veins	20955	232.00	233.50	1.50	1.35	4.7
233.50	233.58	<b>HBL \ PLAG PORPHYRY (BF68J8)</b>						
		- medium grey colour, medium-coarse grained, massive, spotty magnetism						
		- moderate amount of hairline fractures through the core						
		- Alteration - primarily Silica with sections including Sericite						
		- remnant Hornblende altered to py						
		- 5-8% py disseminated and on fractures as Veins at > 45°						
		- Tr Quartz-Carbonate Veins as fracture fillings						
			20956	233.50	234.80	1.30	11.16	1.7
			20957	234.80	235.58	0.78	3.56	2.6
			20958	235.58	237.00	1.42	0.98	1.4
			20959	237.00	238.50	1.50	0.25	0.1
			20960	238.50	240.00	1.50	0.54	0.6
			20961	240.00	241.50	1.50	0.43	0.6
			20962	241.50	243.00	1.50	1.15	0.7
			20963	243.00	244.50	1.50	0.32	0.3
			20964	244.50	246.00	1.50	0.38	0.7
			20965	246.00	247.50	1.50	0.28	0.4
			20966	247.50	249.00	1.50	0.50	0.9
			20967	249.00	250.50	1.50	0.27	0.5
251.00	254.00	Coarse Grained	20968	250.50	252.00	1.50	0.67	0.6
		- 8% remnant Hornblende altered to py after Chlorite	20969	252.00	253.50	1.50	0.40	1.0
		- 5% Quartz-Carbonate Veins up to 2 cm in size at 17°						
		- 10% fractures infilled with chlorite and py at all angles to the core						
		- 6-8% py						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20970	253.50	255.00	1.50	0.54	0.4
			20971	255.00	256.50	1.50	0.44	0.4
			20972	256.50	258.00	1.50	1.04	0.5
258.00	258.70	Strongly Silicified and Fractured with up to 5% py and po along fractures						
			20973	258.00	259.50	1.50	1.03	1.0
260.39	266.50	Re-crystallized Quartz up to 5 cm in size, rimmed and stressed - 3-4% Quartz-Carbonate veins at 50°	20974	259.50	261.00	1.50	0.64	2.2
			20975	261.00	262.50	1.50	1.05	0.9
			20976	262.50	264.00	1.50	0.54	0.6
			20977	264.00	265.50	1.50	0.30	0.5
266.50	270.18	Coarser grained with remnant Hornblende phenocrysts replaced by py - similar to 251 to 254	20979	265.50	267.00	1.50	0.32	1.1
			20979	267.00	268.50	1.50	0.32	0.9
			20980	268.50	270.00	1.50	0.38	0.7
271.17	271.70	Breccia - matrix supported, 30% angular fragments up to 2 cm in size - 6-8% py disseminated	20981	270.00	271.50	1.50	0.73	0.4
			20982	271.50	273.00	1.50	0.36	0.4
			20983	273.00	274.50	1.50	0.26	0.5
			20984	274.50	276.00	1.50	0.18	0.7
276.32	286.00	Chlorite and Silica Alteration - medium to dark green colour - 5-8% py replacement of Hornblende and as fracture fillings	20985	276.00	277.50	1.50	0.21	0.9
			20986	277.50	279.00	1.50	0.16	0.7
			20987	279.00	280.50	1.50	0.32	0.4
			20988	280.50	282.00	1.50	0.21	0.6
			20989	282.00	283.50	1.50	0.24	0.7
			20990	283.50	285.00	1.50	0.18	0.9
285.00	291.71	Strongly silicified, fine grained with porphyritic sections up to 30 cm in length 4% py predominantly along fractures Tr-1% po along fractures	20991	285.00	286.50	1.50	0.13	1.4
			20992	286.50	288.00	1.50	0.15	0.2
			20993	288.00	289.50	1.50	0.23	0.3
			20994	289.50	291.00	1.50	0.10	0.8
			20995	291.00	292.50	1.50	0.29	1.2
			20996	292.50	294.00	1.50	0.13	1.5
			20997	294.00	295.50	1.50	0.14	0.7
			20998	295.50	297.18	1.58	0.14	0.5
297.18	297.18	E.O.H.						

OLE NO.	MC91-57	NORTHING	-100	DH COMP. BEAR	90	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	-125	GRID ORIENT.	360	91.4	- 59	082	SPER	221.0	- 59	085	SPER
LOCATION	MARC ZONE	ELEVATION	1875	DH GRID AZ.	90	<del>251.5</del>	- 59	088	SPER				
PLATINUM NO.	DR0 1	SURV. E.		DIP-COLLAR	-60	<b>251.46</b>							
TARGET		SURV. N.		LENGTH (m)	251.46								
STARTED	Sept 3, 1991	LOGGED BY	G. MacMillan	DRILL CO.	FALCON								
FINISHED	Sept 7, 1991	CHECKED BY		DRILL NO.	1000/1								
SECTION		CORE	BG TW	FOREMAN	K. Hillien								
COMMENTS													

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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**SUMMARY**

0.00	15.79	CASING (CB)						
15.79	32.00	BRECCIA (BX183d5)						
32.00	38.72	CHLORITICALLY ALTERED HBL \ PLAG PORPHYRY (8A7k3)						
38.72	89.08	HBL \ PLAG PORPHYRY (888a2)						
89.09	89.14	FAULT GOUGE (FZ)						
89.14	102.00	HBL \ PLAG PORPHYRY (888a2)						
102.00	122.88	PERVASIVELY SILICIFIED PLAG PORPHYRY (888a2)						
127.17	147.20	HBL \ PLAG PORPHYRY (887k3)						
147.20	152.58	FAULT ZONE (FZ)						
152.58	167.73	CHLORITICALLY ALTERED HBL \ PLAG PORPHYRY (8A8d1)						
167.73	205.74	CRYSTAL TUFF \ COARSE ASH TUFF \ HBL\PLAG PORPHYRY (512\8A2d1)						
205.74	220.54	CHLORITIC BRECCIA (BX A2d1)						
220.54	251.46	MAJOR FAULT ZONE \ HBL \ PLAG PORPHYRY (FZ\8A2d1)						
251.46	251.46	E.O.H.						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	15.79	CASING (CB)						
15.79	32.00	BRECCIA (BX16545)						
		- medium dark grey colour, massive, matrix supported, 30-40% fragments up to 1 cm in size, magnetic						
		- The fragments are subangular to angular and of varying composition						
		- 3% py euhedral cubes disseminated through the matrix and as fracture fillings						
		- 2% po disseminated						
		- 1% Quartz-Carbonate fracture and micro-fracture filling						
		- Alteration is predominantly silica						
		- Fine grained magnetite within the matrix						
15.79	21.00	Blocky Ground with lisonite on the fracture surfaces	21051	15.79	17.00	1.21	0.14	0.9
			21052	17.00	18.50	1.50	0.09	0.1
			21053	18.50	20.00	1.50	0.05	1.0
			21054	20.00	21.50	1.50	0.04	0.7
			21055	21.50	23.00	1.50	0.06	0.4
			21056	23.00	24.50	1.50	0.04	0.6
			21057	24.50	26.00	1.50	0.06	1.8
			21058	26.00	27.50	1.50	0.06	1.8
			21059	27.50	29.00	1.50	0.66	1.9
29.00	34.00	10-15% Fragments	21060	29.00	30.50	1.50	5.92	8.0
			21061	30.50	32.00	1.50	0.27	1.1
			21062	32.00	33.50	1.50	0.45	1.7
			21063	33.50	35.00	1.50	0.27	1.2
			21064	35.00	36.50	1.50	0.76	1.6
			21065	36.50	38.00	1.50	0.14	1.8
			21066	38.00	39.50	1.50	0.23	1.4
			21067	39.50	41.00	1.50	0.09	0.8
			21068	41.00	42.50	1.50	0.03	0.9
			21069	42.50	44.00	1.50	0.13	0.1
			21070	44.00	45.50	1.50	0.08	0.4
			21071	45.50	47.00	1.50	0.08	0.3
			21072	47.00	48.50	1.50	0.10	0.2
			21073	48.50	50.00	1.50	0.11	0.2
			21074	50.00	51.50	1.50	0.87	0.2
			21075	51.50	52.00	0.50	1.41	1.0
52.00	58.72	CHLORITICALLY ALTERED HBL \ PLAS PORPHYRY (8A713)						
		- medium dark green colour, medium grained, massive						
		- 5-8% Plagioclase euhedral phenocrysts up to 3 mm in size						
		- 3% Hornblende phenocrysts altered to chlorite and or po						
		- 2% py disseminated						
		- 1% po disseminated						
		- 5% Chlorite along fractures and as a pseudomorph product of the hornblende						
		- Alteration is primarily silica and chlorite						
			21076	52.00	53.50	1.50	0.59	0.9
			21077	53.50	55.00	1.50	19.18	4.2

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21078	55.00	56.50	1.50	0.84	1.1
			21079	56.50	58.00	1.50	0.95	0.3
			21080	58.00	58.72	0.72	0.40	0.6
<b>58.72</b>	<b>89.08</b>	<b>HBL \ PLAG PORPHYRY (888a2)</b>						
		- light to medium grey colour, medium grained, weakly-moderate porphyritic, massive, spotty magnetite						
		- Alteration - primarily silica						
		- 3-5% xenolith/fragments altered to chlorite and or py						
		- 1% Hornblende euhedral phenocrysts altered to chlorite and or py						
		- 5-8% Plagioclase phenocrysts euhedral to subhedral up to 1 mm in size						
		- Tr Leucoxene - purplish mineral						
		- 1-3% py disseminated						
		- Tr Quartz-Carbonate micro-fracture fillings						
		- Tr-1% chlorite on fractures						
		- 2-3% py disseminated						
			21081	58.72	60.00	1.28	0.50	2.2
			21082	60.00	61.50	1.50	0.62	1.2
			21083	61.50	63.00	1.50	1.03	0.4
			21084	63.00	64.50	1.50	0.29	1.1
			21085	64.50	66.00	1.50	0.61	0.2
			21086	66.00	67.50	1.50	0.43	0.3
			21087	67.50	69.00	1.50	0.62	0.9
			21088	69.00	70.50	1.50	0.34	1.2
			21089	70.50	72.00	1.50	0.22	0.9
			21090	72.00	73.50	1.50	0.42	0.7
			21091	73.50	75.00	1.50	0.37	0.6
			21092	75.00	76.50	1.50	0.73	1.1
			21093	76.50	78.00	1.50	0.76	0.8
			21094	78.00	79.50	1.50	0.40	0.6
			21095	79.50	81.00	1.50	0.01	0.1
			21096	81.00	82.50	1.50	1.75	1.1
82.50	85.51	Ground Core	21097	82.50	84.00	1.50	0.32	1.5
			21098	84.00	85.50	1.50	1.73	1.8
85.51	89.08	Plagioclase Phenocrysts up to 3 mm in size	21099	85.50	87.00	1.50	0.33	1.2
			21100	87.00	88.50	1.50	0.22	1.1
87.40	89.08	Ground Core						
<b>89.09</b>	<b>89.14</b>	<b>FAULT GOUGE (FZ)</b>						
<b>89.14</b>	<b>102.00</b>	<b>HBL \ PLAG PORPHYRY (888a2)</b>						
		- similar to 58.72 to 89.08						
93.14	95.00	- medium green colour with plagioclase phenocrysts up to 3 mm in size	21101	88.50	90.00	1.50	0.91	2.5
			21102	90.00	91.50	1.50	5.56	3.1
			21103	91.50	93.00	1.50	1.09	1.8
			21104	93.00	94.50	1.50	1.04	1.6
94.50	96.00	5-8% euhedral Hornblende phenocrysts up to 5 mm in size altered to chlorite	21105	94.50	96.00	1.50	0.68	1.6

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
96.00	99.00	Stronger silicification and an increase in py fracture fillings	21106	96.00	97.50	1.50	1.72	0.9
			21107	97.50	99.00	1.50	1.63	0.9
			21108	99.00	100.50	1.50	0.93	1.1
101.00	102.00	Fractured along the core axis	21109	100.50	102.00	1.50	0.89	1.2
<b>102.00</b>	<b>122.88</b>	<b>PERVASIVELY SILICIFIED PLAG PORPHYRY (866a2)</b>						
		-very fine grained, moderate to well bedded\foliated, nonmagnetic						
		- foliation\bedding varies from 25° to along the core axis - disrupted by small scale faults						
		- Tr-1% py disseminated						
			21110	102.00	103.50	1.50	0.43	1.6
			21111	103.50	105.00	1.50	0.50	1.6
			21112	105.00	106.50	1.50	0.86	1.9
			21113	106.50	108.00	1.50	0.82	1.6
			21114	108.00	109.50	1.50	0.67	1.2
			21115	109.50	111.00	1.50	0.32	0.9
			21116	111.00	112.50	1.50	0.86	2.4
			21117	112.50	114.00	1.50	1.42	1.5
			21118	114.00	115.50	1.50	0.96	1.3
			21119	115.50	117.00	1.50	0.96	1.7
			21120	117.00	118.50	1.50	0.51	1.2
			21121	118.50	120.00	1.50	0.38	1.1
			21122	120.00	121.50	1.50	0.18	0.9
			21123	121.50	122.88	1.38	0.19	0.9
			21124	122.88	124.00	1.12	0.41	1.0
			21125	124.00	125.50	1.50	0.46	0.3
			21126	125.50	127.17	1.67	0.46	0.6
<b>127.17</b>	<b>147.20</b>	<b>HBL \ PLAG PORPHYRY (867k3)</b>						
		- medium dark grey colour, medium grained, massive, porphyritic, nonmagnetic						
		- 3% Hornblende phenocrysts up to 3 mm in size altered to chlorite and or py						
		- 5% Plagioclase saussuritized phenocrysts up to 2mm in size with sections up to 1 cm in size						
		- 3% py disseminated and as an alteration product of the Hornblende phenocrysts						
127.17	130.25	Breccia Contact	21127	127.17	128.50	1.33	0.28	1.0
		- matrix supported - 25% fragments up to 3 cm in size in a fine grained matrix	21128	128.50	130.00	1.50	0.26	0.9
		- 3-5% py disseminated in the matrix						
		- 1% green colour amorphous mineral - Fluorite? or Apatite?						
			21129	130.00	131.50	1.50	0.45	0.5
			21130	131.50	133.00	1.50	0.16	1.2
			21131	133.00	134.50	1.50	0.19	1.4
135.00	147.20	- Pervasive silicification has obliterated the remnant textures	21132	134.50	136.00	1.50	0.23	1.1
		- strongly fractured, infilled with Quartz-Carbonate, py and po	21133	136.00	137.50	1.50	0.43	1.5
			21134	137.50	139.00	1.50	0.47	1.5

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21135	139.00	140.50	1.50	0.21	0.9
			21136	140.50	142.00	1.50	0.13	1.0
			21137	142.00	143.50	1.50	0.36	0.5
			21138	143.50	145.00	1.50	0.23	0.8
			21139	145.00	147.20	2.20	0.22	1.0
<b>147.20</b>	<b>152.58</b>	<b>FAULT ZONE (FZ)</b>						
		- Gouge with silicified porphyry fragments up to 30 cm in length						
		- 3-5% py disseminated within the fragments						
148.83	150.55	Strongly silicified porphyry, strongly fractured with 5% py	21140	147.20	149.00	1.80	0.06	0.5
			21141	149.00	150.50	1.50	0.05	0.6
			21142	150.50	152.00	1.50	0.19	1.8
			21143	152.00	152.58	0.58	0.05	2.4
<b>152.58</b>	<b>167.73</b>	<b>CHLORITICALLY ALTERED HBL \ PLAS PORPHYRY (888d1)</b>						
		- medium green colour, fine to medium grained, massive with brecciated, porphyritic and ground sections, very blocky, nonmagnetic						
		- 3% Plagioclase sausseritized euhedral phenocrysts						
		- Alteration - primarily chlorite with silica						
		- up to 1% py disseminated and along fractures						
		- Tr Quartz-Carbonate fracture fillings						
			21144	152.58	154.00	1.42	0.14	2.2
154.00	155.00	Blocky Ground - gouge along fractures						
			21145	154.00	155.50	1.50	0.23	2.7
			21146	155.50	157.00	1.50	0.08	1.8
			21147	157.00	158.50	1.50	0.07	6.2
			21148	158.50	160.00	1.50	0.07	2.0
			21149	160.00	161.50	1.50	0.07	2.1
			21150	161.50	163.00	1.50	0.05	1.3
			21151	163.00	164.50	1.50	0.06	1.9
			21152	164.50	166.00	1.50	0.10	2.1
166.00	167.73	Blocky Ground - Ground Core						
			21153	166.00	167.00	1.00	0.06	1.3
			21154	167.00	167.73	0.73	0.06	1.6
<b>167.73</b>	<b>205.74</b>	<b>CRYSTAL TUFF \ COARSE ASH TUFF \ HBL\PLAS PORPHYRY (5\2\8A2d1)</b>						
		- medium dark green colour, medium-coarse grained, massive with porphyritic sections						
		- Alteration is primarily chlorite and silica						
		- 3-5% Hornblende euhedral phenocrysts up to 5 mm in size with weak alteration						
		- 1-2% Feldspar euhedral phenocrysts up to 5 mm in size						
		- Tr-1% Quartz- Carbonate fracture fillings at 50' and along the core axis						
		- Tr py, disseminated and as fracture fillings						
			21155	167.73	169.00	1.27	0.11	1.2
			21156	169.00	170.50	1.50	0.10	1.9
			21157	170.50	172.00	1.50	0.10	0.6
			21158	172.00	173.50	1.50	0.06	1.3
			21159	173.50	175.00	1.50	0.04	0.7

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
176.26	176.63	Ground Core	21160	176.00	176.50	1.50	0.06	0.5
			21161	176.50	178.00	1.50	0.04	0.7
			21162	178.00	179.50	1.50	0.04	0.8
			21163	179.50	181.00	1.50	0.04	0.4
			21164	181.00	182.50	1.50	0.04	0.7
			21165	182.50	184.00	1.50	0.07	1.0
185.00	205.40	Bleached colour with increasing % of Quartz-Carbonate Veins as fracture fillings	21166	184.00	185.50	1.50	0.06	1.2
			21167	185.50	187.00	1.50	0.04	1.2
			21168	187.00	188.50	1.50	0.03	1.1
183.25	185.40	Quartz-Carbonate Breccia - Quartz-Carbonate matrix with tuffaceous fragments	21169	188.50	190.00	1.50	0.06	0.7
			21170	190.00	191.50	1.50	0.04	0.9
			21171	191.50	193.00	1.50	0.05	1.2
			21172	193.00	194.50	1.50	0.05	1.0
			21173	194.50	196.00	1.50	0.05	1.3
			21174	196.00	197.50	1.50	0.06	0.9
			21175	197.50	199.00	1.50	0.05	1.0
			21176	199.00	200.50	1.50	0.07	1.0
			21177	200.50	202.00	1.50	0.09	0.9
			21178	202.00	203.50	1.50	0.07	0.9
			21179	203.50	205.00	1.50	0.07	1.1
			21180	205.00	205.74	0.74	0.04	1.8
205.74	220.54	<b>CHLORITIC BRECCIA (BX A2d1)</b>  - medium to dark green grey colour clast supported breccia with a chlorite and silica rich matrix and porphyry fragments up to 20 cm in size, nonmagnetic - 40% angular fragments - Tr-1% py disseminated through the matrix	21181	205.74	207.00	1.26	0.09	1.3
			21182	207.00	208.50	1.50	0.09	2.2
			21183	208.50	210.00	1.50	0.15	1.8
			21184	210.00	211.50	1.50	0.05	1.3
			21185	211.50	213.00	1.50	0.03	1.6
			21186	213.00	214.50	1.50	0.04	1.6
			21187	214.50	216.00	1.50	0.04	1.0
			21188	216.00	217.50	1.50	0.03	2.1
			21189	217.50	219.00	1.50	0.04	1.5
219.30	219.35	Fault Gouge	21190	219.00	220.54	1.54	0.04	1.5
220.54	251.46	<b>MAJOR FAULT ZONE \ HBL \ PLAG PORPHYRY (FZ\BA2d1)</b>  - medium to dark green colour, medium grained, ground core with few sections of over 5 cm in length, similar to 167.73 to 205.74 - Alteration is primarily chlorite - Tr epidote on some of the fracture planes - Tr azurite on some of the other fracture planes						

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FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Ag g_ton	Ag g_ton
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- Tr Sulphides

231.46 231.46 E.O.H.

HOLE NO.	MC91-68	NORTHING	-2.04	DH COMP. BEAR	90	Depth Dip Azimuth Test	Depth Dip Azimuth Test
PROPERTY	RED MOUNTAIN	EASTING	2.88	GRID ORIENT.	360	91.4 - 45 090 SPER	152.4 - 48 090 ACID
LOCATION	MARC ZONE	ELEVATION	1939.37	DH GRID AZ.	90		
CLAIM NO.	ORO 1	SURV. E.		DIP-COLLAR	-45		
TARGET		SURV. N.		LENGTH (m)	157.27		
STARTED	Sept 6, 1991	LOGGED BY	G.MacMillan	DRILL CO.	FALCON		
FINISHED	Sept 7, 1991	CHECKED BY		DRILL NO.	1000/1		
SECTION		CORE	BQ TW	FOREMAN	K.Hillen		
COMMENTS	Target - Trench Assays and Topo Feature to East of the Marc						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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SUMMARY

0.00	2.13	CASING (CS)						
2.13	13.70	HBL \ PLAG PORPHYRY (88442)						
13.70	27.34	CHLORITICALLY ALTERED PORPHYRY \ COARSE ASH TUFF (8\28742)						
27.34	27.40	FAULT ZONE						
27.40	39.76	INTERCALATED ARGILLITE AND TUFF (IAT\1 d2)						
39.76	45.30	BRECCIA (BX)						
45.30	69.63	INTERCALATED ARGILLITE AND TUFF (IAT\1\13A6t6)						
69.63	69.80	FAULT GOUGE (FZ)						
69.80	74.65	CONTACT BRECCIA (CZ \ BX)						
74.65	145.08	HBL \ PLAG PORPHYRY (88441)						
145.08	157.27	FAULT ZONE (FZ)						
157.27	157.27	E.O.H.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	2.13	CASING (CB)						
2.13	13.70	HBL \ PLAS PORPHYRY (88642)						
		- medium dark grey colour, medium to coarse grained, massive, weakly porphyritic, spotty magnetism						
		- 5% plagioclase euhedral phenocrysts up to 2 mm in size						
		- Tr-1% Hornblende phenocrysts up to 2 mm in size altered to chlorite						
		- 2% py disseminated and along the fractures						
		- Tr-1% po disseminated and along fractures						
		- Tr sphalerite near fracture fillings						
		- Tr-1% limonite on fracture planes						
2.13	5.00	Blocky Ground	21201	2.13	3.50	1.37	0.07	1.0
			21202	3.50	5.00	1.50	0.07	1.0
			21203	5.00	6.50	1.50	0.12	1.1
			21204	6.50	8.00	1.50	0.07	1.2
			21205	8.00	9.50	1.50	0.09	1.9
			21206	9.50	11.00	1.50	0.08	1.4
			21207	11.00	12.50	1.50	0.19	1.2
			21208	12.50	13.70	1.20	0.25	0.8
7.0	27.34	CHLORITICALLY ALTERED PORPHYRY \ COARSE ASH TUFF (81267d2)						
		- dark green colour, coarse grained, massive, magnetic						
		- Alteration is primarily Chlorite and Silica						
		- up to 2% py and po disseminated and along fractures						
		- up to 1% Sphalerite primarily along fractures						
		- Tr Limonite on fracture surfaces						
			21209	13.70	15.00	1.30	0.28	1.4
			21210	15.00	16.50	1.50	0.46	0.9
			21211	16.50	18.00	1.50	0.30	0.7
			21212	18.00	19.50	1.50	0.52	2.0
			21213	19.50	21.00	1.50	0.35	0.7
			21214	21.00	22.50	1.50	1.97	1.5
23.11	23.37	Breccia						
		- Quartz-Carbonate matrix with angular porphyry fragments						
			21215	22.50	24.00	1.50	0.87	1.2
			21216	24.00	25.50	1.50	0.82	0.5
			21217	25.50	26.50	1.00	0.77	0.8
27.34	27.40	FAULT ZONE						
		- Limonitic Gouge						
			21218	26.50	27.40	0.90	0.67	2.0
27.40	39.76	INTERCALATED ARGILLITE AND TUFF (IAT\1 d2)						
		- medium to dark grey colour, generally well banded with coarser tuffaceous sections up to 30 cm long, weakly brecciated sections, spotty magnetism						
		- 1-2% Porphyry intrusions up to 30 cm in size with angular fragments of IAT						
		- 1% Sphalerite disseminated and along fractures						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- Tr-1% py and co disseminated - Bedding\Banding @ 25m - 45° @ 38 m - 78°						
			21219	27.40	28.50	1.10	0.40	5.0
29.00	35.00	Blocky ground with limonite on the fracture planes	21220	28.50	30.00	1.50	0.81	7.6
			21221	30.00	31.50	1.50	0.68	4.2
			21222	31.50	33.00	1.50	0.71	19.0
			21223	33.00	34.50	1.50	0.80	3.6
			21224	34.50	36.00	1.50	0.74	1.5
36.30	37.00	Tuff						
			21225	36.00	37.50	1.50	0.50	1.8
			21226	37.50	39.00	1.50	0.75	2.9
39.00	39.76	Tuff	21227	39.00	39.76	0.76	1.05	2.0
39.76	45.30	<b>BRECCIA (BX)</b>						
		- medium grey colour, medium grained matrix with 30% angular fragments of IAT - 3% py disseminated within the matrix and within the various fragments - Tr lime green mineral - Fluorite? or Apatite? - Tr Quartz-Carbonate fracture fillings - Tr Limonite on fracture surfaces						
			21228	39.76	41.00	1.24	0.86	2.3
			21229	41.00	42.50	1.50	1.01	4.8
			21230	42.50	44.00	1.50	0.89	23.3
			21231	44.00	45.30	1.30	1.88	151.0
45.30	69.63	<b>INTERCALATED ARGILLITE AND TUFF (IAT\13A616)</b>						
		- dark grey to black colour, generally fine grained, well bedded\banded with sections of up to 2 m of coarser tuff and or porphyry material - primary alteration is chlorite - some weak folding and slumping of bands - 3% py and co disseminated and along fractures - 3-5% Sphalerite disseminated and along fracture surfaces - Tr limonite on fracture surfaces - Tr Quartz-Carbonate fracture fillings - Bedding\Banding @ 46 m - 30° @ 57 m - 41° @ 48 m - 49° @ 66 m - 22° @ 50 m - 31° @ 53 m - 32°						
			21232	45.30	46.50	1.20	0.60	22.5
			21233	46.50	48.00	1.50	0.82	24.2
			21234	48.00	49.50	1.50	0.31	21.3
			21235	49.50	50.72	1.22	0.23	6.4
50.72	52.40	Silicified Porphyry section	21236	50.72	51.50	0.78	0.35	1.9
			21237	51.50	52.40	0.90	0.52	3.1

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
53.48	53.98	Medium Grained Tuff	21238	52.40	53.50	1.10	0.73	4.6
			21239	53.50	55.00	1.50	0.84	6.9
			21240	55.00	56.50	1.50	0.59	2.5
57.00	60.80	Medium Grained Tuff	21241	56.50	58.00	1.50	0.37	3.5
			21242	58.00	59.50	1.50	0.26	1.4
			21243	59.50	61.00	1.50	0.20	1.7
62.20	62.40	Tuffaceous Interbed	21244	61.00	62.50	1.50	0.34	3.9
63.30	64.07	Breccia - silicified matrix with 15% angular IAT fragments	21245	62.50	64.00	1.50	0.13	1.7
64.24	64.37	Fold Nose						
64.43	64.50	Breccia - similar to 63.30 to 64.07	21246	64.00	65.50	1.50	0.16	1.9
			21247	65.50	67.00	1.50	0.09	1.8
			21248	67.00	68.50	1.50	0.77	3.2
69.63	69.80	<b>FAULT GOUGE (FZ)</b>	21249	68.50	69.60	1.30	0.20	1.2
69.80	74.65	<b>CONTACT BRECCIA (CZ \ BX)</b>  - medium dark grey to black, matrix supported, angular fragments in a chloritic matrix - 40% fragments primarily of porphyry composition - matrix is weakly to moderately porphyritized	21250	69.80	71.00	1.20	0.04	1.4
			21251	71.00	72.50	1.50	0.08	1.2
			21252	72.50	74.00	1.50	0.02	0.9
			21253	74.00	74.65	0.65	0.01	0.3
74.65	145.08	<b>HBL \ PLAG PORPHYRY (884d1)</b>  - medium grey to green colour, medium coarse grained, massive, porphyritic with varying degrees of silicification - 2% Hornblende phenocrysts up to 5 mm in size commonly altered to chlorite - 3-5% Plagioclase sausseritized euhedral phenocrysts up to 3 mm in size - Alteration - weak silicification and chloritization - 3% Chlorite primarily on fracture surfaces and as an alteration product of the Hornblende phenocrysts - Tr-1% py and go along micro fracture surfaces - Tr Quartz-Carbonate Veins	21254	74.65	76.00	1.35	0.01	0.7
			21255	76.00	77.50	1.50	0.02	0.9
			21256	77.50	79.00	1.50	0.05	1.0

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21257	79.00	80.50	1.50	0.01	0.8
			21258	80.50	82.00	1.50	0.01	1.1
			21259	82.00	83.50	1.50	0.02	0.9
			21260	83.50	85.00	1.50	0.01	1.4
			21261	85.00	86.50	1.50	0.03	1.3
			21262	86.50	88.00	1.50	0.01	1.6
			21263	88.00	89.50	1.50	0.02	1.7
			21264	89.50	91.00	1.50	0.02	1.7
131.90	132.00	Fault Gouge						
135.45	136.20	LOST CORE						
132.00	145.08	Stronger Alteration - decrease in grain size to medium grained with Zk phenocrysts						
145.08	157.27	<b>FAULT ZONE (FZ)</b> - gouge with a few porphyry fragments over 2 cm in size						
157.27	157.27	<b>E.O.H.</b>						

DRILL NO.	MC91-69	NORTHING	-060	DH COMP. BEAR	080	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	000	GRID ORIENT.	360	45.7	- 45	080	ACID	93.0	- 45	080	ACID
LOCATION	MARC ZONE	ELEVATION	1898	DH GRID AZ.	080								
CLAIM NO.	DRD 1	SURV. E.		DIP-COLLAR	-45								
TARGET		SURV. N.		LENGTH (m)	92.96								
STARTED	Sept 7, 1991	LOGGED BY	G.MacMillan	DRILL CO.	FALCON								
FINISHED	Sept 8, 1991	CHECKED BY		DRILL NO.	1000/1								
SECTION		CORE	BQ TW	FOREMAN	K.Hillen								
COMMENTS													

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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**SUMMARY**

0.00	6.00	CASING (CS)						
6.00	13.90	BEDDED FINE GRAINED TUFFACEOUS SEDIMENTS (1AT\174d1)						
13.90	57.26	HETHEROLITHIC BRECCIA (BX\19M4d5)						
57.26	57.52	FAULT ZONE (FZ)						
57.52	62.48	MEDIUM GRAINED ASH TUFF (2M4d5)						
62.48	67.86	HETHEROLITHIC BRECCIA (BX\19M4t4)						
67.86	73.15	SILICIFIED PORPHYRY (887d5)						
73.15	78.21	COARSE ASH TUFF (2B4d1)						
78.21	78.30	FAULT ZONE (FZ)						
78.30	92.96	COARSE ASH TUFF (2B4d1)						
92.96	92.96	E.O.H.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	6.00	CASING (CS)						
6.00	13.90	BEDDED FINE GRAINED TUFFACEOUS SEDIMENTS (IAT\174d1)						
		- dark grey colour, very fine grained, well banded\bedded with massive sections, strongly magnetic						
		- minor small scale faults and slump features perpendicular to bedding						
		- core is blocky - due to being the upper part of the hole						
		- 3% limonite on fracture surfaces						
		- tr-1% py and po as fracture filling and disseminated						
		- tr-1% Quartz-Carbonate fracture filling at all angles to the core						
		- Bedding @ 10.51 m - 35° @ 11.5 m - 31°						
			21301	6.00	7.50	1.50	0.16	2.1
			21302	7.50	9.00	1.50	0.03	1.7
			21303	9.00	10.50	1.50	0.21	2.4
			21304	10.50	12.00	1.50	0.02	1.6
			21305	12.00	13.00	1.00	0.01	1.8
			21306	13.00	13.90	0.90	0.02	1.8
13.90	57.26	HETEROLITHIC BRECCIA (BX\194m5)						
		- dark grey to black colour, medium grained matrix with subangular to rounded clasts of various composition, magnetic						
		- Matrix supported - 30% clasts of Argillite, Tuff and Porphyry						
		- 2% py disseminated and along fractures						
		- 2% po disseminated and along fractures						
		- Tr spy disseminated, often intermixed with po						
		- Tr Quartz-Carbonate fracture fillings						
		- Tr Limonite on some of the fracture surfaces						
			21307	13.90	14.50	0.60	0.02	1.4
			21308	14.50	16.00	1.50	0.04	0.9
			21309	16.00	17.50	1.50	2.54	5.5
			21310	17.50	19.00	1.50	0.08	0.7
			21311	19.00	20.50	1.50	0.18	0.2
			21312	20.50	22.00	1.50	0.54	0.2
			21313	22.00	23.50	1.50	0.04	0.3
			21314	23.50	25.00	1.50	0.43	0.2
			21315	25.00	26.50	1.50	0.07	0.9
26.96	29.00	Tuffaceous Section	21316	26.50	28.00	1.50	0.50	0.9
		- Weakly porphyritic with 5% feldspar euhedral phenocrysts up to 1 mm in size						
			21317	28.00	29.50	1.50	0.02	0.8
			21318	29.50	31.00	1.50	0.02	0.3
			21319	31.00	32.50	1.50	0.33	1.0
			21320	32.50	34.00	1.50	0.40	2.0
			21321	34.00	35.50	1.50	0.18	1.9
			21322	35.50	37.00	1.50	0.21	3.5
			21323	37.00	38.50	1.50	1.62	4.6
			21324	38.50	40.00	1.50	0.09	0.4
40.15	40.22	Fault Gouge						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
40.22	41.15	Silicified and Bleached						
			21325	40.00	41.50	1.50	0.33	0.6
			21326	41.50	43.00	1.50	0.06	0.4
			21327	43.00	44.50	1.50	0.02	0.2
			21328	44.50	46.00	1.50	0.20	0.7
			21329	46.00	47.50	1.50	0.02	0.4
			21330	47.50	49.00	1.50	1.62	11.7
49.80	50.29	10-15% Sulphides - Py,Po,Cpy						
			21331	49.00	50.50	1.50	2.31	29.0
			21332	50.50	52.00	1.50	0.63	3.7
			21333	52.00	53.50	1.50	0.40	3.3
			21334	53.50	55.00	1.50	1.38	6.3
			21335	55.00	56.50	1.50	0.65	2.2
			21336	56.50	57.26	0.76	1.57	6.1
57.26	57.52	<b>FAULT ZONE (FZ)</b>						
57.26	57.37	Gouge						
57.37	57.52	Quartz-Carbonate Breccia						
57.52	62.48	<b>MEDIUM GRAINED ASH TUFF (2M45)</b>						
		- medium to dark grey black, coarse grained, massive, spotty magnetism						
		- Alteration - Chlorite						
		- 3-5% po and py as veins filling fractures and disseminated						
		- 3% Quartz-Carbonate fracture filling predominantly at low angles to the core axis						
			21337	57.26	58.50	1.24	0.64	3.1
			21338	58.50	60.00	1.50	1.38	1.6
			21339	60.00	61.50	1.50	2.76	8.3
			21340	61.50	62.48	0.98	0.41	5.5
62.48	67.86	<b>HETEROLITHIC BRECCIA (BX\19A44)</b>						
		- light to medium grey colour, fine grained matrix with subangular fragments of various composition, magnetic						
		- Matrix supported - 40% fragments of tuff, argillite, and porphyry up to 5 cm in size						
		- Alteration is primarily Silica						
		- 3% Sphaerite along fractures						
		- 1-2% po and py along fractures and disseminated						
			21341	62.48	64.00	1.52	0.38	1.4
			21342	64.00	65.50	1.50	0.01	1.7
			21343	65.50	67.00	1.50	0.80	5.4
			21344	67.00	67.86	0.86	3.04	20.5
67.86	73.15	<b>SILICIFIED PORPHYRY (06743)</b>						
		- light grey green colour, medium grained, porphyritic, massive, with remnant						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		tuff rafts						
		- 5% Plagioclase euhedral phenocrysts up to 2 mm in size						
		- 3% Hornblende subhedral phenocrysts up to 2 mm in size altered to Chlorite						
		- 3% py and po as fracture fillings disseminated and as veinlets						
68.26	68.60	Massive Sulphide - Py						
68.60	69.20	20% Sulphide Veins - Py	21345	67.66	69.00	1.14	11.45	35.3
			21346	69.00	70.50	1.50	0.99	3.9
			21347	70.50	72.00	1.50	1.60	5.1
			21348	72.00	73.15	1.15	0.47	3.9
73.15	78.21	<b>COARSE ASH TUFF (264d1)</b>						
		- medium grey colour, coarse grained, massive, with few if any textures evident, nonmagnetic						
		- sections up to 30 cm in length are porphyritic with 5-6% euhedral feldspar phenocrysts						
		- Tr sulphides disseminated and along fractures						
		- Tr-1% Quartz-Carbonate fracture fillings						
			21349	73.15	74.65	1.50	1.14	9.5
			21350	74.65	76.00	1.35	0.46	6.0
			21351	76.00	77.50	1.50	1.70	10.7
78.21	78.30	<b>FAULT ZONE (FZ)</b>						
		- gouge fragments of coarse ash tuff						
78.30	92.96	<b>COARSE ASH TUFF (264d1)</b>						
		- same as 73.15 to 78.21						
			21352	77.50	79.00	1.50	1.40	6.4
			21353	79.00	80.50	1.50	0.20	8.3
			21354	80.50	82.00	1.50	0.02	3.9
			21355	82.00	83.50	1.50	0.01	4.6
			21356	83.50	85.00	1.50	0.02	4.1
			21357	85.00	86.50	1.50	0.01	4.7
			21358	86.50	88.00	1.50	0.01	4.8
			21359	88.00	89.50	1.50	0.01	5.0
			21360	89.50	91.00	1.50	0.05	0.1
			21361	91.00	92.00	1.00	0.04	4.4
			21362	92.00	92.96	0.96	0.08	0.4
92.96	92.96	<b>E.O.H.</b>						

HOLE NO.	MC91-70	NORTHING	-908	DH COMP. BEAR	045	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	-241	GRID ORIENT.	360	45.7	- 45	045	ACID	94.2	- 45	045	ACID
LOCATION	EXPLORATION TA	ELEVATION		DH GRID AZ.	045								
CLAIM NO.		SURV. E.		DIP-COLLAR	-45								
TARGET		SURV. N.		LENGTH (m)	94.18								
STARTED	Sept 11, 1991	LOGGED BY	G. MacMillan	DRILL CO.	FALCON								
FINISHED	Sept 13, 1991	CHECKED BY		DRILL NO.	1000/1								
SECTION		CORE	BQ TW	FOREMAN	K. Hillen								
COMMENTS	Target was a NW trending Shear Zone with Massive Sulphide												

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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**SUMMARY**

0.00	3.05	CASING (C6)						
3.05	3.47	COARSE ASH TUFF (2A1d2)						
3.47	5.65	NBL \ FLAG PORPHYRY (8A3d1)						
5.65	29.15	STRONGLY ALTERED NBL \ FLAG PORPHYRY \ FINE GRAINED TUFF (8\168d3)						
29.15	91.70	SILICIC FINE GRAINED SEDIMENT \ FINE GRAINED ASH TUFF (1A1\167d1)						
91.70	91.75	FAULT GOUGE (F7)						
91.75	94.18	COARSE ASH TUFF (2A7d2)						
94.18	94.18	E.O.H.						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	3.05	CASING (CG)						
3.05	3.47	COURSE ASH TUFF (2A1d2)						
		- medium beige colour, medium grained, massive, moderately fractured, blocky core						
		- 3% Chlorite along fractures						
		- 2% py along fractures						
3.47	5.65	HBL \ FLAG PORPHYRY (BA3d1)						
		- coarse grained, massive, porphyritic, light to medium grey colour, relatively unaltered						
		- 8-10% Hornblende euhedral phenocrysts up to 5 mm in size commonly altered to chlorite						
		- 2-3% sausseritized Plagioclase phenocrysts						
		- 1% Quartz-Carbonate fracture filling						
		- 1-2% py and po as fracture fillings						
			21551	3.05	4.50	1.45	0.03	0.4
			21552	4.50	5.65	1.15	0.02	0.6
5.65	29.15	STRONGLY ALTERED HBL \ FLAG PORPHYRY \ FINE GRAINED TUFF (B\18d3)						
		- very fine grained, light to medium grey colour, strongly altered, strongly fractured, very siliceous almost cherty, spotty-moderate magnetism						
		- upper contact is very gradual with remnant Hornblende phenocrysts still evident						
		- Alteration - silica with some K alteration giving a pinkish cast to the rocks. There are sections of remnant porphyry through the section						
		- up to 3% py and po generally along fractures						
		- 3-5% Quartz-Carbonate microfracture fillings						
		- 3% chlorite along microfractures						
		- Tr Limonite on fracture surfaces						
			21553	5.65	7.00	1.35	0.03	1.1
			21554	7.00	8.50	1.50	0.04	1.2
			21555	8.50	10.00	1.50	0.06	1.0
			21556	10.00	11.50	1.50	0.04	1.3
			21557	11.50	13.00	1.50	0.06	1.7
			21558	13.00	14.50	1.50	0.08	1.2
			21559	14.50	16.00	1.50	0.09	0.8
16.23	16.73	Up to 15% Po, Tr Cpy - disseminated and along fractures						
			21560	16.00	17.50	1.50	0.13	0.1
			21561	17.50	19.00	1.50	0.13	1.2
			21562	19.00	20.50	1.50	0.09	0.4
			21563	20.50	22.00	1.50	0.07	1.7
22.37	22.70	15-20% Po, Tr Cpy - Semi Massive Sulphide						
			21564	22.00	23.50	1.50	0.21	0.1
			21565	23.50	25.00	1.50	0.05	1.5
25.00	29.15	Moderate epidote alteration halting fractures						
			21566	25.00	26.50	1.50	0.04	1.4

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21567	26.50	28.00	1.50	0.07	1.6
			21568	28.00	29.15	1.15	0.10	1.6
29.15	91.70	SILICIC FINE GRAINED SEDIMENT \ FINE GRAINED ASH TUFF (IAT\16741)						
		- medium to dark grey colour, very fine grained cherty appearance, with well bedded/banded sections and coarser more massive sections, spotty-moderate magnetism						
		- bedding/banding demonstrates minor small scale folding and faulting						
		- moderate to strongly fractured						
		- Alteration is primarily silica						
		- 3-5% Chlorite along fractures						
		- 1% py and po along fractures						
		- Tr Limonite and Manganite on fracture planes						
		- Tr-1% Quartz-Carbonate microfracture fillings						
		- Bedding/Bandings @ 34 m - 71x @ 41 m - 53x						
		@ 43 m - 72x @ 46 m - 65x						
		@ 55 m - 65x						
			21569	29.15	30.50	1.35	0.04	0.9
			21570	30.50	32.00	1.50	0.05	0.8
			21571	32.00	33.50	1.50	0.03	1.1
			21572	33.50	35.00	1.50	0.04	0.9
			21573	35.00	36.50	1.50	0.06	0.8
			21574	36.50	38.00	1.50	0.03	1.0
			21575	38.00	39.50	1.50	0.03	1.2
			21576	39.50	41.00	1.50	0.02	0.5
			21577	41.00	42.50	1.50	0.04	0.5
			21578	42.50	44.00	1.50	0.10	0.5
			21579	44.00	45.50	1.50	0.04	0.5
45.50	91.70	Very Blocky Ground	21580	45.50	47.00	1.50	0.06	0.8
			21581	47.00	48.50	1.50	0.09	0.7
48.46	51.51	50% Lost Core	21582	48.50	50.00	1.50	0.04	0.8
			21583	50.00	51.50	1.50	0.07	0.8
			21584	51.50	53.00	1.50	0.03	0.9
			21585	53.00	54.50	1.50	0.00	0.0
55.00	91.70	Very silicic, massive, cherty with no remnant textures	21586	54.50	56.00	1.50	0.00	0.0
			21587	56.00	57.50	1.50	0.00	0.0
			21588	57.50	59.00	1.50	0.00	0.0
			21589	59.00	60.50	1.50	0.00	0.0
			21590	60.50	62.00	1.50	0.00	0.0
			21591	62.00	63.50	1.50	0.00	0.0
			21592	63.50	65.00	1.50	0.00	0.0
			21593	65.00	66.50	1.50	0.00	0.0
			21594	66.50	68.00	1.50	0.00	0.0
			21595	68.00	69.50	1.50	0.00	0.0
			21596	69.50	71.00	1.50	0.03	1.1
			21597	71.00	72.50	1.50	0.02	1.0
			21598	72.50	74.00	1.50	0.02	0.9
			21599	74.00	75.50	1.50	0.04	0.7
			21600	75.50	77.00	1.50	0.02	0.8

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21601	77.00	78.50	1.50	0.02	0.7
			21602	78.50	80.00	1.50	0.02	0.7
			21603	80.00	81.50	1.50	0.02	0.7
			21604	81.50	83.00	1.50	0.02	0.5
			21605	83.00	84.50	1.50	0.02	0.6
			21606	84.50	86.00	1.50	0.02	0.8
			21607	86.00	87.50	1.50	0.01	0.6
			21608	87.50	89.00	1.50	0.03	0.7
			21609	89.00	90.50	1.50	0.02	0.4
91.70	91.75	FAULT GORGE (FZ)						
			21610	90.50	91.75	1.25	0.04	1.2
91.75	94.18	COARSE ASH TUFF (2A7d2)						
		- medium green colour, coarse grained, massive, moderate to strongly fractured, spotty magnetism						
		- 1-2% py disseminated and along fractures						
		- Tr limonite on fracture surfaces						
		- primary Alteration is Chlorite						
		- Tr Quartz-Carbonate Veins as fracture fillings						
			21611	91.75	93.00	1.25	0.03	0.9
			21612	93.00	94.18	1.18	0.12	0.1
94.18	94.18	E.O.H.						
		- Hole Lost in Fault						

OLE NO.	MC90-28	NORTHING	-21.06	DH COMP. BEAR	90	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RDMT	EASTING	-154.17	GRID ORIENT.	360	45.7	- 89	037	SPER	91.4	- 89	027	SPER
LOCATION	MARC ZONE	ELEVATION	1937.06	DH GRID AZ.	360	102.4	- 86	170	SPER	137.2	- 88	037	SPER
LAIM NO.	ORC 1	SURV. E.	-154.17	DIP-COLLAR	-90	182.9	- 88	027	SPER	224.3	- 82	057	SPER
ARGET		SURV. N.	-21.06	LENGTH (m)	236.6	228.6	- 88	027	SPER	274.3	- 87	027	SPER
STARTED	AUG 03/90	LOGGED BY	S.NISYIF,G.MA	DRILL CO.	FALCON	335.3	- 87	017	SPER	371.0	- 86	007	SPER
FINISHED	AUG 05/90	CHECKED BY	A. BRAY	DRILL NO.	1000/1	431.6	- 86	027	SPER				
ACTION		CORE	80 TW	FOREMAN	KEITH								
COMMENTS													

1991 = 195.07

1991 Sperry Data

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
$\sum_{0.0}^{431.67} \text{total} = 431.67$								

SUMMARY

- 0.00 0.60 CASING
- 0.60 50.30 HORNBLENDE PORPHYRY (6M43)
- 50.30 51.10 MINERALIZED ZONE: HORNBLENDE PORPHYRY (6F4m80)
- 51.10 55.70 HORNBLENDE PORPHYRY (66743)
- 55.70 60.80 FAULT ZONE (FZ)
- 60.80 115.20 HORNBLENDE PORPHYRY (6F4m6)
- 115.20 117.00 MINERALIZED ZONE: HORNBLENDE PORPHYRY (6F4m74)
- 117.00 169.00 ASH TUFF (2F4m7)
- 169.00 236.60 K-FELDSPAR GRANODIORITE (9F7m6)
- 236.60 431.59 Hole extended in summer 1991 drill program to try and intersect the Marc Zone
- 236.60 244.04 CHLORITICLY ALTERED HBL\PLAG PORPHYRY (8A7d3)
- 244.04 254.55 MODERATELY FRACTURED HBL\PLAG PORPHYRY (8A67d2)
- 254.55 264.06 FINE GRAINED HBL\PLAG PORPHYRY (88A6d3)
- 264.06 264.45 FAULT ZONE (FZ)
- 264.45 267.34 HBL\PLAG PORPHYRY (88A6d3)
- 267.34 270.34 COARSE ASH TUFF (286d3)
- 270.34 310.92 HBL \ PLAG PORPHYRY (88Bd3)
- 310.92 312.36 COARSE ASH TUFF (286d5)

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Ag g_ton	Ag g_ton
337.73	347.02	HBL \ FLAG PORPHYRY (867d3)						
347.02	355.23	FINE GRAINED HBL\FLAG PORPHYRY (867d3)						
355.23	371.12	HBL\FLAG PORPHYRY (863d3)						
371.12	381.00	FINE GRAINED TO COARSE ASH TUFF (1\287d3)						
381.00	403.90	STRONGLY ALTERED PORPHYRY (888d3)						
403.90	408.20	COARSE ASH TUFF (286d3)						
408.20	419.69	STRONGLY ALTERED COARSE ASH TUFF (288d3)						
419.69	431.59	HBL\FLAG PORPHYRY \ COARSE ASH TUFF (8\286d1)						
431.59	431.59	E.O.H.						

↓ ↓
   
 431.67

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	0.60	CASING						
0.60	30.30	HORNBLende PORPHYRY (6M43)						
		Dark grey to greenish with a fine-grained matrix. Fractured at all angles to the C.A., and cemented by chlorite and minor sulphides. Some hornblende phenocrysts are visible. Weak chloritic alteration. 2-3% pyrite as stringers, patches and disseminations. 1% pyrrhotite as stringers and replacing the hornblende phenocrysts. Trace disseminated sphalerite.						
			2607	0.60	3.00	2.40	0.02	1.0
			2608	3.00	4.50	1.50	0.05	1.0
			2609	4.50	6.00	1.50	0.01	1.1
			2610	6.00	7.50	1.50	0.01	1.1
			2611	7.50	9.00	1.50	0.04	1.0
			2612	9.00	10.50	1.50	0.02	0.9
			2613	10.50	12.00	1.50	0.01	0.7
			2614	12.00	13.50	1.50	0.02	1.0
			2615	13.50	15.00	1.50	0.01	1.0
			2617	15.00	16.50	1.50	0.04	1.4
			2618	16.50	18.00	1.50	0.02	1.0
			2619	18.00	19.50	1.50	0.01	0.8
			2620	19.50	21.00	1.50	0.51	0.7
			2621	21.00	22.50	1.50	0.54	1.2
			2622	22.50	24.00	1.50	0.20	1.5
			2623	24.00	25.50	1.50	0.18	1.5
			2624	25.50	27.00	1.50	0.05	1.2
			2625	27.00	28.50	1.50	0.34	1.4
			2626	28.50	30.00	1.50	0.09	0.9
			2627	30.00	31.50	1.50	0.24	0.8
31.50	31.95	Quartz vein at 45 degrees to the C.A. 1% sphalerite, 2% pyrrhotite stringers and 1% pyrite.						
			2628	31.50	33.00	1.50	0.19	2.1
			2630	33.00	34.50	1.50	0.18	0.7
35.00	35.20	White, fine-grained felsic dyket.						
			2631	34.50	36.00	1.50	0.18	0.8
			2632	36.00	37.50	1.50	0.18	0.8
			2633	37.50	39.00	1.50	0.03	0.8
			2634	39.00	40.50	1.50	0.21	1.1
			2635	40.50	42.00	1.50	0.02	1.0
			2636	42.00	43.50	1.50	0.03	0.9
			2637	43.50	45.00	1.50	0.10	0.9
			2638	45.00	46.50	1.50	0.04	1.2
			2639	46.50	48.00	1.50	0.05	1.0
			2640	48.00	50.00	2.00	0.03	0.5
50.30	51.10	MINERALIZED ZONE: HORNBLende PORPHYRY (4F4x80)						
		80% massive pyrite with 1% sphalerite as disseminations within the pyrite as well as at the contacts.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
51.10	55.70	<b>HORNBLende PORPHYRY (687c3)</b>  Description as per 0.60 to 50.30 metres.						
			2641	50.00	51.50	1.50	2.38	9.4
			2643	51.50	53.00	1.50	0.03	0.4
			2644	53.00	54.50	1.50	0.01	0.6
55.70	60.80	<b>FAULT ZONE (FZ)</b>  Strongly chloritized and Fe-oxide stained rubbly core. 4% pyrite as stringers, disseminations and fracture infill. 2% disseminated pyrrhotite.						
			2645	54.50	56.00	1.50	0.05	1.0
			2646	56.00	57.50	1.50	0.07	2.1
			2647	57.50	59.00	1.50	0.20	3.0
			2648	59.00	60.50	1.50	0.96	6.5
60.80	115.20	<b>HORNBLende PORPHYRY (6F4e6)</b>  Dark grey with a granular matrix. Most of the porphyritic hornblende phenocrysts have been altered and/or replaced. Fracturing at all angles to the C.A. Fractures are commonly chloritic and/or sulphidized. Scattered carbonate stringers. Weak sericitic alteration. Local strong chloritic alteration. 3-4% pyrite as disseminations and patches. 2-3% pyrrhotite as fracture infill and replacing the hornblende phenocrysts.						
			2649	60.50	62.00	1.50	0.07	2.1
			2650	62.00	63.50	1.50	0.30	1.1
			2651	63.50	65.00	1.50	16.98	4.0
			2652	65.00	66.50	1.50	0.22	1.0
			2653	66.50	68.00	1.50	0.10	0.6
			2654	68.00	69.50	1.50	0.18	6.2
			2656	69.50	71.00	1.50	0.40	4.1
			2657	71.00	72.50	1.50	0.22	1.2
			2658	72.50	74.00	1.50	0.40	0.9
			2659	74.00	75.50	1.50	0.15	0.4
			2660	75.50	77.00	1.50	0.18	0.5
			2661	77.00	78.50	1.50	0.17	0.5
			2662	78.50	80.00	1.50	0.15	0.8
			2663	80.00	81.50	1.50	0.14	0.7
			2664	81.50	83.00	1.50	0.77	0.6
			2665	83.00	84.50	1.50	0.31	0.7
			2666	84.50	86.00	1.50	0.07	0.8
			2667	86.00	87.50	1.50	0.02	0.6
			2669	87.50	89.00	1.50	0.06	0.7
			2670	89.00	90.50	1.50	0.08	0.7
			2671	90.50	92.00	1.50	0.10	0.9
			2672	92.00	93.50	1.50	0.64	0.9
			2673	93.50	95.00	1.50	0.40	1.6
			2674	95.00	96.50	1.50	0.26	1.1
			2675	96.50	98.00	1.50	0.06	0.9
99.00	104.00	Strongly felsic in composition and weakly sericitic. 5% pyrite and 4%	2676	98.00	99.50	1.50	0.14	0.6

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		pyrrhotite.	2677	99.50	101.00	1.50	0.22	0.2
			2678	101.00	102.50	1.50	0.05	0.2
			2679	102.50	104.00	1.50	0.20	0.4
104.00	115.00	Fractured with a dark grey to pinkish fine-grained matrix. Occasional tabular to elongated plagioclase phenocrysts. Strongly carbonaceous. 3% pyrite and 2% pyrrhotite.	2680	104.00	105.50	1.50	0.19	0.6
			2682	105.50	107.00	1.50	0.22	1.1
			2683	107.00	108.50	1.50	0.41	0.9
			2684	108.50	110.00	1.50	1.20	0.9
			2685	110.00	111.50	1.50	0.20	0.7
			2686	111.50	113.00	1.50	0.21	0.9
			2687	113.00	115.00	2.00	0.20	0.8
115.20	117.00	<b>MINERALIZED ZONE: MINERALISE PORPHYRY (4F4q74)</b>  0.95 metres of 70% massive pyrite within the central portion of the interval. 2% disseminated euhedral pyrite crystals. 1-3% disseminated pyrrhotite within the massive pyrite.						
			2688	115.00	116.50	1.50	1.84	1.9
117.00	169.00	<b>ASH TUFF (2F4m7)</b>  Grey to locally whitish. Laminated at approximately 50 degrees to the C.A. Locally brecciated. Weak chloritic alteration, locally sericitic. 4% pyrite as disseminations, stringers and patches. 3% pyrrhotite as disseminations and stringers.						
			2689	116.50	118.00	1.50	0.16	0.5
118.80	120.00	Semi-massive pyrite vein consisting of 50% pyrite.	2690	118.00	119.50	1.50	0.12	0.5
			2691	119.50	121.00	1.50	0.14	0.7
			2692	121.00	122.50	1.50	0.15	1.0
			2693	122.50	124.00	1.50	0.07	0.8
124.10	131.50	Highly broken and fractured core. Sericitic alteration. Fractured at all angles to the C.A.	2695	124.00	125.50	1.50	0.12	0.9
			2696	125.50	127.00	1.50	0.05	0.8
			2697	127.00	128.50	1.50	0.09	1.3
			2698	128.50	130.00	1.50	0.05	1.0
			2699	130.00	131.50	1.50	0.04	0.8
132.00	135.00	Angular to sub-rounded felsic fragments up to 7.0 cm in length.	2700	131.50	133.00	1.50	0.02	0.8
			2701	133.00	134.50	1.50	0.18	2.3
			2702	134.50	136.00	1.50	0.02	0.9
			2703	136.00	137.50	1.50	0.07	0.6
138.60	138.70	25% semi-massive pyrite.	2704	137.50	139.00	1.50	0.04	1.5
			2705	139.00	140.50	1.50	0.18	1.1
			2706	140.50	142.00	1.50	0.40	1.4
			2708	142.00	143.50	1.50	0.40	1.1
			2709	143.50	145.00	1.50	0.05	1.1
146.14	146.24	25% semi-massive pyrrhotite.	2710	145.00	146.50	1.50	0.47	0.7
			2711	146.50	148.00	1.50	0.04	0.7
			2712	148.00	149.50	1.50	0.20	0.8



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			2713	149.50	151.00	1.50	0.21	1.0
			2714	151.00	152.50	1.50	0.29	1.0
			2715	152.50	154.00	1.50	0.02	1.1
			2716	154.00	155.50	1.50	0.60	1.1
			2717	155.50	157.00	1.50	0.26	1.0
			2718	157.00	158.50	1.50	0.24	0.9
			2719	158.50	160.00	1.50	0.30	1.1
			2721	160.00	161.50	1.50	0.23	0.8
162.80	162.90	45% semi-massive pyrite.	2722	161.50	163.00	1.50	2.32	2.0
163.00	169.00	Very light grey, locally glassy white with scattered laminations. Strong sericitic alteration. Siliceous composition. 4% disseminated pyrite and 2% pyrrhotite stringers.	2723	163.00	164.50	1.50	0.17	0.9
			2724	164.50	166.00	1.50	0.10	0.9
			2725	166.00	167.50	1.50	0.12	1.0
			2726	167.50	169.00	1.50	0.07	0.5
169.00	236.60	<b>K-FELDSPAR GRANODIORITE (9F7m6)</b>  White to light greyish in colour, fine-grained and locally granular. 4% potassium feldspar phenocrysts. Strong sericitic alteration. 4% pyrite as disseminations and stringers. 2% pyrrhotite as disseminations, stringers and patches.						
169.50	170.50	Very broken and rubbly core. Fragments ranging from 1.0-10.0 cm in length.	2727	169.00	170.50	1.50	0.40	1.2
			2728	170.50	172.00	1.50	0.60	1.6
			2729	172.00	173.50	1.50	1.12	1.5
			2730	173.50	175.00	1.50	1.04	1.4
			2731	175.00	176.50	1.50	0.22	1.3
			2732	176.50	178.00	1.50	0.60	2.2
			2734	178.00	179.50	1.50	0.61	1.8
			2735	179.50	181.00	1.50	0.22	1.3
			2736	181.00	182.50	1.50	0.21	1.8
			2737	182.50	184.00	1.50	0.40	1.2
			2738	184.00	185.50	1.50	0.46	0.8
			2739	185.50	187.00	1.50	0.62	1.0
			2740	187.00	188.50	1.50	1.36	1.3
			2741	188.50	190.00	1.50	0.51	1.4
			2742	190.00	191.50	1.50	0.34	1.4
			2743	191.50	193.00	1.50	0.05	1.0
			2744	193.00	194.50	1.50	0.06	1.0
			2745	194.50	196.00	1.50	0.04	1.0
			2747	196.00	197.50	1.50	0.04	0.8
			2748	197.50	199.00	1.50	0.05	0.8
			2749	199.00	200.50	1.50	0.10	1.3
			2750	200.50	202.00	1.50	0.05	1.3
			2751	202.00	203.50	1.50	0.02	1.4
			2752	203.50	205.00	1.50	0.01	1.3
			2753	205.00	206.50	1.50	0.01	1.2
			2754	206.50	208.00	1.50	0.01	1.2
			2755	208.00	209.50	1.50	0.01	0.9
			2756	209.50	211.00	1.50	0.01	0.7
			2757	211.00	212.50	1.50	0.02	0.9
			2758	212.50	214.00	1.50	0.01	1.1

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			2760	214.00	215.50	1.50	0.04	1.3
			2761	215.50	217.00	1.50	0.01	1.1
			2762	217.00	218.50	1.50	0.03	0.7
			2763	218.50	220.00	1.50	0.02	0.7
221.00	236.60	Scattered hornblende phenocrysts which are in part chloritized. Pervasive sericitic alteration and locally chloritic. 4% pyrrhotite as stringers and patches. 2% disseminated pyrite.	2764	220.00	221.50	1.50	0.21	0.8
			2765	221.50	223.00	1.50	0.22	0.9
			2766	223.00	224.50	1.50	0.21	0.9
			2767	224.50	226.00	1.50	0.03	1.1
			2768	226.00	227.50	1.50	2.20	1.3
			2769	227.50	229.00	1.50	0.34	1.0
			2770	229.00	230.50	1.50	0.22	0.8
			2771	230.50	232.00	1.50	0.20	0.7
			2773	232.00	233.50	1.50	10.60	1.9
			2774	233.50	235.00	1.50	0.01	1.1
			2775	235.00	236.60	1.50	0.14	1.1
236.60	431.59	Hole extended in summer 1991 drill program to try and intersect the Marc Zone at depth.						
236.60	244.04	<b>CHLORITICLY ALTERED HBLVPLG PORPHYRY (8A67d3)</b>						
		- medium dark grey colour, medium grained, massive, porphyritic, nonmagnetic						
		- 6% HBL remnant phenocrysts altered to chlorite and or py						
		- 3% py disseminated, as pseudomorph of HBL, and as veins infilling fractures						
		- Alteration assemblage is primarily pervasive chlorite						
		- 5-8% chlorite along fractures and as an alteration product of the HBL phenocrysts						
			21401	236.60	238.00	1.48	0.25	1.9
			21402	238.00	239.50	1.50	0.20	1.4
			21403	239.50	241.00	1.50	0.48	1.4
			21404	241.00	242.00	1.00	0.46	15.5
			21405	242.00	243.00	1.00	0.16	2.3
			21406	243.00	244.04	1.04	0.03	1.9
244.04	254.55	<b>MODERATELY FRACTURED HBLVPLG PORPHYRY (8A67d2)</b>						
		- medium grey-green colour, massive, mottled appearance due primarily to silicification, moderately fractured						
		- up to 10% chlorite as fracture fillings						
		- Alteration is primarily chlorite and silica						
		- 2% pyrite disseminated and as veins infilling fractures						
		- 7-3% HBL phenocrysts altered to chlorite						
			21407	244.04	245.50	1.46	0.06	1.5
			21408	245.50	247.00	1.50	0.02	1.6
			21409	247.00	248.50	1.50	0.08	2.4
			21410	248.50	250.00	1.50	0.02	9.5
			21411	250.00	251.50	1.50	0.02	2.2
			21412	251.50	253.00	1.50	0.03	1.8
			21413	253.00	254.55	1.55	0.02	2.5
254.55	264.06	<b>FINE GRAINED HBLVPLG PORPHYRY (8A6d3)</b>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- Greenish-grey colour, fine grained, massive, weakly porphyritic, moderately fractured, nonmagnetic						
		- 2-3% HBL phenocrysts altered to chlorite and or py						
		- 3-5% Chlorite along fractures and as a replacement of the HBL phenocrysts						
		- 3% py disseminated and as veins infilling the fractures						
		- alteration is primarily silica and chlorite						
			21414	254.55	256.00	1.45	0.24	1.8
			21415	256.00	257.50	1.50	0.21	1.6
			21416	257.50	259.00	1.50	0.15	1.7
			21417	259.00	260.50	1.50	0.02	2.0
			21418	260.50	262.00	1.50	0.01	1.5
			21419	262.00	263.50	1.50	0.03	1.5
			21420	263.50	264.06	0.56	0.01	2.1
264.06	264.45	<b>FAULT ZONE (FZ)</b>						
		- ground core and fault gouge						
264.45	267.34	<b>HBL \ PLAS PORPHYRY (88M43)</b>						
		- same as 254.55 to 264.06						
			21421	264.06	265.50	1.44	0.04	1.6
			21422	265.50	265.50	1.00	0.02	1.5
			21423	266.50	267.34	0.84	0.01	1.7
267.34	270.34	<b>COARSE ASH TUFF (26643)</b>						
		- medium grey colour, medium to coarse grained, massive, nonmagnetic, weakly fractured						
		- 2% py disseminated and as veinlets along fracture surfaces						
		- Tr-1% Chlorite along fracture surfaces						
		- Alteration is primarily silica						
			21424	267.34	268.75	1.41	0.08	1.3
			21425	268.75	270.34	1.59	0.05	1.3
270.34	310.92	<b>HBL \ PLAS PORPHYRY (88M43)</b>						
		- medium grey colour with a greenish tinge, massive, fine grained, siliceous with weakly porphyritic sections, moderately fractured, cherty appearance						
		- 3% py disseminated and along fractures as veinlets at about 60° T.C.A and along the core axis						
		- Tr-1% HBL phenocrysts up to 1 mm in size						
		- 2-3% Chlorite infilling fractures and as replacement of the Hbl phenocrysts						
		- Alteration is primarily silica						
			21426	270.34	271.50	1.16	0.02	1.3
			21427	271.50	273.00	1.50	0.09	1.9
			21428	273.00	274.50	1.50	0.03	1.8
			21429	274.50	276.00	1.50	0.01	1.5
			21430	276.00	277.50	1.50	0.07	1.2
			21431	277.50	279.00	1.50	0.06	1.2
			21432	279.00	280.50	1.50	0.03	1.0

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21433	280.50	282.00	1.50	0.11	0.7
			21434	282.00	283.50	1.50	0.05	0.3
			21435	283.50	285.00	1.50	0.06	0.3
			21436	285.00	286.50	1.50	0.05	1.8
			21437	286.50	288.00	1.50	0.12	1.2
			21438	288.00	289.50	1.50	0.13	0.2
290.57	290.87	Breccia - rounded porphyry fragments in a sulphide rich matrix						
			21439	289.50	291.00	1.50	0.18	0.1
			21440	291.00	292.50	1.50	0.18	0.9
			21441	292.50	294.00	1.50	0.13	0.4
			21442	294.00	295.50	1.50	0.10	0.2
			21443	295.50	297.00	1.50	0.18	0.1
			21444	297.00	298.50	1.50	0.20	0.9
298.50	308.97	Weak Chloritic Alteration						
			21445	298.50	300.00	1.50	0.18	0.6
			21446	300.00	301.50	1.50	0.08	1.6
			21447	301.50	303.00	1.50	0.10	1.3
			21448	303.00	304.50	1.50	0.08	1.3
			21449	304.50	306.00	1.50	0.19	1.0
			21450	306.00	307.50	1.50	0.25	0.9
308.97	310.92	Breccia - fragment supported, angular fragments with 7% py and po within the matrix						
			21451	307.50	309.00	1.50	0.45	1.2
			21452	309.00	310.00	1.00	0.24	1.2
			21453	310.00	310.92	0.92	0.12	0.1
310.92	312.36	<b>COARSE ASH TUFF (20645)</b>  - medium green colour, coarse grained, massive with porphyritic and brecciated sections interspersed throughout - varying alteration - primarily silica often combined with chlorite - 3-3% py disseminated and along fracture planes - 3-5% chlorite as fracture infillings - Tr-1% po disseminated and along fractures - 3-5% HBL phenocrysts in sections often altered to Chlorite						
310.92	317.78	Breccia - angular porphyry fragments in a chlorite and silica matrix - Contact Zone???						
			21454	310.92	312.36	1.44	0.12	0.1
			21455	312.36	313.50	1.14	0.06	0.1
			21456	313.50	315.00	1.50	0.34	0.5
			21457	315.00	316.50	1.50	0.11	0.7
310.92	321.00	-moderate chlorite alteration						
			21458	316.50	316.00	1.50	0.17	1.2
			21459	318.00	319.50	1.50	0.10	0.4
			21460	319.50	321.00	1.50	0.20	0.3
321.00	337.73	Strongly Silicified with a Cherty Appearance - 5% HBL phenocrysts altered to py - Tr Quartz-Carbonate fracture filling - moderately fractured at low angles to the core axis and at 60° to the core axis(T.C.A.)						
			21461	321.00	322.50	1.50	0.32	0.5
			21462	322.50	324.00	1.50	0.56	1.5
			21463	324.00	325.50	1.50	0.33	1.6
			21464	325.50	327.00	1.50	0.56	1.1
			21465	327.00	328.50	1.50	0.55	1.3
			21466	328.50	330.00	1.50	0.18	1.2
			21467	330.00	331.50	1.50	0.41	1.2
			21468	331.50	333.00	1.50	0.22	0.7
			21469	333.00	334.50	1.50	0.28	2.3

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21470	334.50	336.00	1.50	0.52	2.5
			21471	336.00	337.00	1.00	0.57	1.4
			21472	337.00	337.73	0.73	0.08	2.1
<b>337.73</b>	<b>347.02</b>	<b>HBL \ PLAG PORPHYRY (867d3)</b>						
		- medium green colour, coarse grained, massive, porphyritic						
		- 8% Plagioclase phenocrysts, euhedral habit, up to 3mm in size, sausseritized						
		- 3% HBL phenocrysts commonly altered to chlorite						
		- Alteration - moderate silica, chlorite and sericite						
		- 3% py disseminated and along fractures						
		- Tr Quartz-Carbonate fracture filling						
			21473	337.73	339.00	1.27	0.41	2.4
			21474	339.00	340.50	1.50	0.07	1.1
			21475	340.50	342.00	1.50	0.20	0.6
			21476	342.00	343.50	1.50	0.06	0.9
			21477	343.50	345.00	1.50	0.06	0.6
			21478	345.00	346.00	1.00	0.07	1.4
			21479	346.00	347.02	1.02	0.12	1.8
<b>347.02</b>	<b>355.23</b>	<b>FINE GRAINED HBL/PLAG PORPHYRY (867d3)</b>						
		- medium green colour, fine grained, massive, porphyritic, moderately fractured at all angles						
		- 3% Plagioclase phenocrysts upto 2 mm in size, euhedral habit						
		- 1% HBL phenocrysts up to 2 mm in size altered to chlorite						
		- Alteration is primarily silica + Chlorite						
		- 5% Chlorite as an alteration of the HBL and along fractures						
		- 3% py disseminated and along fractures						
		- 2% Quartz-Carbonate fracture filling						
		- Primary fracture direction appears to be 45° and 60°						
			21480	347.02	348.50	1.48	0.29	1.7
			21481	348.50	350.00	1.50	0.14	1.4
			21482	350.00	351.50	1.50	0.32	1.0
			21483	351.50	353.00	1.50	0.22	0.7
			21484	353.00	354.50	1.50	0.14	0.7
			21485	354.50	355.23	0.73	0.40	1.0
<b>355.23</b>	<b>371.12</b>	<b>HBL/PLAG PORPHYRY (8A3d3)</b>						
		- light green-grey colour, coarse grained, porphyritic, massive, unaltered to minor alteration						
		- 5-10% Plagioclase phenocrysts, euhedral habit, up to 3 mm in size, sausseritized						
		- 6-8% HBL phenocrysts euhedral habit, up to 3mm in size commonly altered to chlorite						
		- 3% Quartz-Carbonate veins generally at angles of > 45°						
		- 3% py disseminated and as veinlets infilling fractures						
			21486	355.23	356.50	1.27	0.26	1.1
			21487	356.50	358.00	1.50	0.12	1.4
			21488	358.00	359.50	1.50	0.10	0.5
			21489	359.50	361.00	1.50	0.23	1.5

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Al g_ton	Ag g_ton
			21490	361.00	362.50	1.50	0.15	1.5
			21491	362.50	364.00	1.50	0.19	1.1
			21492	364.00	365.50	1.50	0.10	1.6
			21493	365.50	367.00	1.50	0.17	1.7
			21494	367.00	368.50	1.50	0.14	1.1
			21495	368.50	370.00	1.50	0.20	0.8
			21496	370.00	371.12	1.12	0.11	0.6
<b>371.12</b>	<b>381.00</b>	<b>FINE GRAINED TO COARSE ASH TUFF (112A7d3)</b>						
		- dark green colour, generally fine grained with some minor bedding to coarse grained with a massive appearance						
		- Alteration - moderate to strong Chlorite + Silica						
		- 3-5% py disseminated and along fracture planes at 60° and along the core axis						
		- Bedding/banding tends to be down the axis of the core						
		- 2-3% Quartz-Carbonate veinlets generally at steep angles to the core axis						
		- UCT = 33° graphite slip    LCT = 20°						
			21497	371.12	372.50	1.38	0.28	1.7
			21498	372.50	374.00	1.50	0.20	1.2
			21499	374.00	375.00	1.00	0.30	1.3
			21500	375.00	375.78	0.78	0.10	1.0
			21501	375.78	377.00	1.22	0.16	1.3
			21502	377.00	378.50	1.50	0.05	0.9
			21503	378.50	380.00	1.50	0.10	2.0
			21504	380.00	381.00	1.00	0.05	1.3
<b>381.00</b>	<b>403.90</b>	<b>STRONGLY ALTERED PORPHYRY (86N6d3)</b>						
		- light medium grey-beige with a pinkish cast, very silicic, medium grained, porphyritic, massive - Possibly a Tuff						
		- 5-8% Plagioclase phenocrysts up to 2 mm in size, euhedral habit, commonly sausseritized						
		- Strongly altered - silica + K alteration in some sections						
		- 1% Quartz-Carbonate micro-fracture and fracture fillings						
		- 3-5% py disseminated and as fracture filling veinlets						
		- 3% Quartz clots upto 1 cm in size						
			21505	381.00	382.50	1.50	0.23	0.9
			21506	382.50	384.00	1.50	0.20	0.9
			21507	384.00	385.50	1.50	0.07	1.3
			21508	385.50	387.00	1.50	0.10	0.1
			21509	387.00	388.50	1.50	0.11	0.1
<b>389.00</b>	<b>391.00</b>	<b>- Hbl phenocrysts altered to chlorite</b>						
			21510	388.50	390.00	1.50	0.17	0.4
			21511	390.00	391.50	1.50	0.17	0.6
			21512	391.50	393.00	1.50	0.23	2.2
			21513	393.00	394.50	1.50	0.15	1.0
			21514	394.50	396.00	1.50	0.34	0.5
			21515	396.00	397.50	1.50		1.1
<b>398.25</b>	<b>399.00</b>	<b>80% Very Fine Grained Sili With Chill Margins</b>						
			21516	397.50	399.00	1.50		1.0

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		- contact is sub-parallel to the core axis						
			21517	399.00	400.50	1.50		1.2
			21518	400.50	402.00	1.50		0.7
			21519	402.00	403.00	1.00		0.9
			21520	403.00	403.90	0.90		0.4
403.90	408.20	<b>COARSE ASH TUFF (2M6d3)</b>						
		- medium green colour, massive, coarse grained, gritty, nonmagnetic						
		- Alteration - moderate Chlorite						
		- upto 3% py and po disseminated and infilling fractures						
		- 1-2% Plagioclase crystals up to 1 mm in size						
		- Tr-1% HBL phenocrysts up to 1 mm in size altered to chlorite						
		- 3% Quartz-Carbonate fracture fillings						
		- Lower contact is gradational from moderate to strongly altered tuffaceous material						
			21521	403.90	405.50	1.60		0.9
			21522	405.50	407.00	1.50		1.0
			21523	407.00	408.20	1.20		0.6
408.20	419.69	<b>STRONGLY ALTERED COARSE ASH TUFF (25M6d3)</b>						
		- light green to mauve colour, strongly silicified with some sections taking on a cherty appearance, medium grained, massive, nonmagnetic						
		- strongly fractured infilled with Quartz-Carbonate + sulphides + chlorite						
		- 3% py disseminated and as veinlets infilling fractures						
			21524	408.20	409.50	1.30		1.3
			21525	409.50	411.00	1.50		1.2
			21526	411.00	412.50	1.50		1.4
			21527	412.50	414.00	1.50		0.7
			21528	414.00	415.50	1.50		1.2
415.30	419.69	Blocky Ground	21529	415.50	417.00	1.50		0.4
			21530	417.00	418.50	1.50		2.0
			21531	418.50	419.69	1.19		2.4
419.69	431.59	<b>HBL/PLAG PORPHYRY \ COARSE ASH TUFF (8\2M6d1)</b>						
		- medium green colour, medium to coarse grained, porphyritic, massive, nonmagnetic, blocky						
		- 3% Plagioclase phenocrysts upto 1 mm in size, euhedral habit						
		- 1% HBL phenocrysts upto 2 mm in size altered to chlorite						
		- 2% chlorite as an alteration product of the HBL and as fracture fillings						
		- 2% Quartz-Carbonate micro-fracture fillings						
		- 1-2% py disseminated and along fracture planes						
			21532	419.69	421.00	1.31		2.4
			21533	421.00	422.50	1.50		1.7
423.52	423.90	Sill						
		- very fine grained sill with chilled margins						
		- contact is along the core axis						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Ag g_ton	Ag g_ton
			21534	422.50	424.00	1.50		2.3
425.00	426.50	S111 - same as 423.52 - 423.90	21535	424.00	425.50	1.50		1.9
			21536	425.50	427.00	1.50		
431.59	431.59	E.O.H.						



HOLE NO.	MC70-41 <i>ext</i>	NORTHING	76.87	DH COMP. BEAR	90	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MTN.	EASTING	-124.65	GRID ORIENT.	360	91.4	- 85	279	SPEP	182.9	- 85	296	SPEP
LOCATION	MARC ZONE	ELEVATION	2035.51	DH GRID AZ.	270	249.9	- 86	317	SPEP	304.2	- 85	307	SPEP
LAIN NO.	DR0 1	SURV. E.	-124.65	DIP-COLLAR	-85	<del>207.5</del>	- 85	327	SPEP				
ARGET	MARC ZONE	SURV. N.	76.87	LENGTH (m)		<b>249.9</b>							
STARTED	AUG 2 /90	LOGGED BY	E.TIMOSHENKO,	DRILL CO.	FALCON								
FINISHED	AUG 2 /90	CHECKED BY	A. BRAY	DRILL NO.	1000/1								
SECTION		CORE	80 TW	FOREMAN	K. Hillen								
COMMENTS													

**249.9**  
 → 1991 = 135096 for total = 385096

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	g <sub>ton</sub>	g <sub>ton</sub>
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**SUMMARY**

- 0.00 1.50 CASING
- 1.50 92.35 HORNBLENDE/PLAGIOCLASE PORPHYRY (BF7m2)
- 92.35 92.90 QUARTZ-CARBONATE VEIN (QCV)
- 92.90 107.85 CRYSTAL TUFF (3F2m2)
- 107.85 189.70 HORNBLENDE/PLAGIOCLASE PORPHYRY (BF6m2)
- 189.70 196.40 FAULT ZONE (FZ/13C7m2/8C7m2)
- 196.40 249.90 HORNBLENDE/PLAGIOCLASE PORPHYRY (BF6m4)
- 249.90 253.57 STARTING POINT (91) AND ENDING POINT (90) DIFFER BY 3.5 m.
- 249.90 250.38 FAULT ZONE (FZ)
- 250.38 261.42 HBL/PLAG PORPHYRY (HZ/86D7m7)
- 261.42 263.03 ARGILLITE (1308m5)
- 263.03 263.37 FAULT ZONE (FZ)
- 263.37 290.98 ARGILLITE (1307m6)
- 290.98 307.10 HBL/PLAG PORPHYRY (BF6m3)
- 307.10 314.24 BRECCIA \ CONTACT ZONE \ INTERCALATED ARGILLITE AND TUFF (CZ/8X/1AT63m4)
- 314.24 324.95 FINE GRAINED ASH TUFF \ INTERCALATED ARGILLITE AND TUFF (1AT/167m2)
- 324.95 325.05 FAULT ZONE (FZ)
- 325.05 336.05 FINE GRAINED ASH TUFF \ INTERCALATED ARGILLITE AND TUFF (1AT/167m2)

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
336.05	336.10	FALLT GORGE (FZ)						
336.10	337.28	SEMI-MASSIVE SULPHIDE (MS)						
337.28	348.01	INTERCALATED ARGILLITE AND TUFF WITH COARSE ASH TUFF (J\2\IATF6S)						
348.01	374.06	BRECCIA \ CONTACT ZONE (B\2\287d3)						
374.06	386.03	HILVPLG PORPHYRY (888d3)						
386.03	386.03	E.O.H.						

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Below the checkmark, the number "385086" is written.

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	1.50	CASING						
1.50	92.35	HORNBLende/PLAGIOCLASE PORPHYRY (B7#2)						
		Greenish-grey in colour. Approximately 10 to 15% 2.0 mm sericitized plagioclase phenocrysts, euhedral to subhedral. 4 to 6% chloritized and often sulphidized hornblende phenocrysts, most anhedral Matrix strongly sericitized, weakly chloritized and carbonatized. Strongly fractured, infillings of black chlorite mainly, also carbonate and sulphides. Sheared fracture surfaces common. 1-2% quartz-carbonate veinlets at 70 to 90 degrees to the C.A. 1-2% pyrite and pyrrhotite as disseminations, small stringers, and small blebs common in quartz-carbonate veinlets.						
1.50	6.60	Fractured and broken core, strong limonitic stain. Most sulphides weathered out.	4665	1.50	3.00	1.50	0.01	0.8
			4666	3.00	4.50	1.50	0.02	0.9
			4667	4.50	6.00	1.50	0.01	1.0
			4668	6.00	7.50	1.50	0.02	0.8
			4669	7.50	9.00	1.50	0.02	1.0
			4670	9.00	10.50	1.50	0.01	0.9
11.03	14.40	Phenocryst larger and more well formed. Approximately 5 to 10% euhedral to subhedral hornblende phenocrysts, 2.0-4.0mm dark green to pinkish-brown, chloritized and often replaced by pyrrhotite. 3 to 5% euhedral to subhedral feldspar phenocrysts, 1.0-3.0 mm, white to grey, sericitized and/or carbonatized. Aphanitic siliceous matrix, weakly sericitized. Locally strongly fractured, black chlorite and/or calcite infillings. 2-3% pyrrhotite and pyrite, mostly disseminated, minor stringers, less than 0.5 cm.	4671	10.50	12.00	1.50	0.02	0.8
			4672	12.00	13.50	1.50	0.02	1.0
14.40	14.80	Strongly sheared and altered, possibly a highly altered heterolithic, breccia. Brecciated fragments of hornblende-plagioclase porphyry and silicified argillite, 1.0-3.0 cm, in a sheared, silicified and chloritized fine-grained matrix. Moderately to strongly carbonatized. 3-4% pyrite, 2-3% pyrrhotite and trace sphalerite. Pyrite occurs mostly in granular aggregates up to 3.0 cm. Pyrrhotite occurs in irregular stringers and blebs up to 2.0 cm.						
14.80	15.40	6-7% pyrrhotite and 3% pyrite. 2.0 cm pyrrhotite stringer at 15 degrees to the C.A. lower in the interval.	4673	13.50	15.00	1.50	0.03	0.7
15.95	16.20	Granular aggregates and veins of pyrite, to 2.0 cm, at 20 degrees to the C.A.	4674	15.00	16.50	1.50	0.02	0.7
17.00	29.30	Description as per 11.03 to 14.40 metres. Strong limonite stain on fracture surfaces. 1-2% pyrite and pyrrhotite, trace chalcopryite, disseminated and minor 0.5 cm stringers. Moderately carbonatized.	4675	16.50	18.00	1.50	0.03	0.8
			4676	18.00	19.50	1.50	0.01	0.5
			4677	19.50	21.00	1.50	0.02	1.2
			4678	21.00	22.50	1.50	0.01	1.0
			4680	22.50	24.00	1.50	0.01	1.0

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			4681	24.00	25.50	1.50	0.03	1.1
			4682	25.50	27.00	1.50	0.01	0.9
			4683	27.00	28.50	1.50	0.01	1.1
29.20	30.30	Intercalated greenish-grey silicified argillite. Strongly silicified and sheared, bedding destroyed. Shearing appears to be at roughly 35 degrees to the C.A. Minor brecciated fragments, up to 4.0 cm. 1-2% disseminated pyrite and pyrrhotite. Trace to 1% sphalerite, small blebs. Trace chalcopyrite.	4684	28.50	30.00	1.50	0.03	1.5
30.30	46.10	Description as per 1.50 to 11.30 metres, though not as strongly altered. 1.0-3.0 mm feldspar phenocrysts, subhedral, hornblende forms in anhedral, chloritized clots and subhedral crystals. Weakly sericitized and chloritized matrix. Weakly to moderately carbonatized. Limonitic stain on fractures at 0 to 20 degrees to the C.A. 1-2% quartz-carbonate veinlets at 70 to 90 degrees to the C.A. 1-2% disseminated pyrite and pyrrhotite.	4685	30.00	31.50	1.50	0.02	1.5
			4686	31.50	33.00	1.50	0.01	1.2
			4687	33.00	34.50	1.50	0.01	1.2
			4688	34.50	36.00	1.50	0.04	1.2
			4689	36.00	37.50	1.50	0.02	1.2
			4690	37.50	39.00	1.50	0.14	0.7
			4692	39.00	40.50	1.50	0.02	1.0
			4693	40.50	42.00	1.50	0.01	1.1
41.90	42.30	Irregular pyrite aggregates up to 2.0 cm.	4694	42.00	43.50	1.50	0.02	0.9
			4695	43.50	45.00	1.50	0.02	1.0
46.10	47.70	Description as per 11.03 to 14.40 metres. Weakly chloritized matrix. 1-2% pyrrhotite and pyrite, mostly disseminated, minor fine stringers. Pyrrhotite replacement of hornblende phenocrysts common.	4696	45.00	46.50	1.50	0.01	0.9
47.70	56.30	Description as per 30.30 to 47.70 metres. 1-2% pyrite and pyrrhotite as disseminations and fine stringers, less than 1.0 cm.	4697	46.50	48.00	1.50	0.04	1.2
			4698	48.00	49.50	1.50	0.02	1.2
			4699	49.50	51.00	1.50	0.01	1.1
48.80	51.50	Fractured and broken core, recovery about 90%. Pervasive limonitic stain.	4700	51.00	52.50	1.50	0.02	1.2
			4701	52.50	54.00	1.50	0.01	1.3
			4702	54.00	55.50	1.50	0.03	1.1
56.30	60.60	Description as per 11.03 to 14.40 metres. Moderately to strongly fractured. 1-2% pyrite and pyrrhotite disseminations and fine stringers. Pyrrhotite replacement of hornblende phenocrysts common.	4703	55.50	57.00	1.50	0.02	1.1
			4704	57.00	58.50	1.50	0.02	1.6
			4705	58.50	60.00	1.50	0.01	0.9
58.20	58.35	Quartz-carbonate vein at 55 degrees to the C.A. Limonitic stained, trace to 1% pyrite.						
59.60	73.50	Description as per 11.03 to 14.40 metres. Strongly fractured and locally brecciated. Limonite staining common along fractures, locally pervasive. Core locally has a pinkish colour, suggesting potassic alteration. Moderately to strongly carbonatized and chloritized. 1-3% 2.0-7.0 mm quartz-carbonate veinlets at 70 to 80 degrees to the C.A. 1-3% pyrite, 1-2% pyrrhotite as disseminations and fine stringers.	4707	60.00	61.50	1.50	0.02	1.0
			4708	61.50	63.00	1.50	0.19	1.3
			4709	63.00	64.50	1.50	0.28	1.5
			4710	64.50	66.00	1.50	0.16	1.2
			4711	66.00	67.50	1.50	0.06	0.9
			4712	67.50	69.00	1.50	0.02	1.2
			4713	69.00	70.50	1.50	0.01	1.1
81.40	84.50	4-5% pyrite, granular aggregates and stringers, up to 2.0 cm. Trace to 1% pyrrhotite and chalcopyrite.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			4714	70.50	72.00	1.50	0.01	1.0
			4715	72.00	73.50	1.50	0.02	1.3
73.50	92.35	Description as per 11.03 to 14.40 metres. Weakly chloritized matrix. 1-2% pyrite and pyrrhotite disseminations.	4716	73.50	75.00	1.50	0.01	1.2
			4717	75.00	76.50	1.50	0.01	1.1
			4718	76.50	78.00	1.50	0.02	0.9
			4719	78.00	79.50	1.50	0.01	1.1
			4720	79.50	81.00	1.50	0.05	0.9
			4721	81.00	82.50	1.50	0.02	0.8
			4722	82.50	84.00	1.50	0.01	0.9
			4724	84.00	85.50	1.50	0.01	0.8
			4725	85.50	87.00	1.50	0.03	1.0
87.25	87.40	Quartz-carbonate vein at 35 degrees to the C.A., pinkish colour. Pyrite blebs up to 2.0 cm along contacts.						
			4726	87.00	88.50	1.50	0.02	1.5
			4727	88.50	90.00	1.50	0.02	0.9
			4728	90.00	91.50	1.50	0.01	0.9
92.35	92.90	<b>QUARTZ-CARBONATE VEIN (QCV)</b>  Quartz-carbonate vein. Upper contact at 50 degrees to the C.A., lower contact at 30 degrees to the core axis. White, cherty to saccharoidal quartz and yellowish to white carbonate. 5-7% sphalerite, 4-6% galena, 2-4% pyrite. Sulphides occur as 0.5 cm blebs, also finely disseminated.						
92.90	107.85	<b>CRYSTAL TUFF (3F2a2)</b>  Greenish-gray in colour. Roughly 5 to 15% feldspar crystals and crystal fragments, 1.0-3.0 m. in a siliceous fine ash matrix. 2 to 4% lithic fragments, most less than 1.0 cm. Weakly sericitized and chloritized matrix. Weakly fractured, infilled by black chlorite, carbonate. Locally grades into coarse ash tuff. 1-3% pyrite, mostly disseminated, minor fine stringers. Trace to 1% disseminated pyrrhotite.						
			4729	91.50	93.00	1.50	0.03	46.0
93.20	93.30	1.0 cm quartz-carbonate vein at 30 degrees to the C.A. Sphalerite and galena blebs up to 5.0 m.						
			4730	93.00	94.50	1.50	0.02	2.4
			4731	94.50	96.00	1.50	0.04	1.6
			4732	96.00	97.50	1.50	0.01	1.6
			4733	97.50	99.00	1.50	0.04	0.7
			4734	99.00	100.50	1.50	0.02	0.7
			4735	100.50	102.00	1.50	0.02	1.0
			4737	102.00	103.50	1.50	0.04	1.2
103.70	104.10	Series of quartz-carbonate veins at 55 to 60 degrees to the C.A. 10.0 cm vein at top of interval, other veinlets 0.5-2.0 cm in width. Contain blebs of pyrite and pyrrhotite.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			4738	103.50	105.00	1.50	0.02	1.4
			4739	105.00	106.50	1.50	0.01	1.2
107.80	107.82	Quartz-carbonate veinlet at 50 degrees to the C.A., containing sphalerite and galena blebs to 0.5 cm.						
107.85	109.70	<b>HORNBLende/PLAGIOCLASE PORPHYRY (BF6a2)</b>  Description as per 30.30 to 47.70 metres. Most sections moderately to strongly sericitized and weakly chloritized. Fracturing generally weak, occasional strongly fractured and chloritized. Weakly carbonatized. 1-2% quartz-carbonate veinlets. 1.0-4.0 m, at 50 to 60 degrees to the C.A. 2-3% pyrite and pyrrhotite, mostly disseminated and in fine stringers at moderate to high angles to the C.A. Stringers locally up to 2.0 cm.						
107.85	110.00	Pinkish colour, possibly due to potassic alteration along contact.	4740	106.50	108.00	1.50	0.17	11.3
			4741	108.00	109.50	1.50	0.02	1.1
			4742	109.50	111.00	1.50	0.03	1.6
			4743	111.00	112.50	1.50	0.01	1.1
			4744	112.50	114.00	1.50	0.02	0.8
			4745	114.00	115.50	1.50	0.02	0.7
			4746	115.50	117.00	1.50	0.01	0.7
00	118.30	Strongly sheared and chloritized at 35 degrees to the C.A. 5-6% combined pyrite and pyrrhotite as small blebs and stringers.						
			4747	117.00	118.50	1.50	0.17	0.6
			4748	118.50	120.00	1.50	0.04	0.7
			4749	120.00	121.50	1.50	0.02	0.9
			4750	121.50	123.00	1.50	0.01	1.3
			4752	123.00	124.50	1.50	0.32	1.7
			4753	124.50	126.00	1.50	0.01	1.5
			4754	126.00	127.50	1.50	0.01	1.2
			4755	127.50	129.00	1.50	0.02	1.2
			4756	129.00	130.50	1.50	0.01	1.2
			4757	130.50	132.00	1.50	0.01	1.2
			4758	132.00	133.50	1.50	0.02	0.9
			4759	133.50	135.00	1.50	0.01	1.0
			4760	135.00	136.50	1.50	0.03	1.4
			4761	136.50	138.00	1.50	0.01	1.5
			4762	138.00	139.50	1.50	0.01	2.0
			4763	139.50	141.00	1.50	0.02	2.1
			4765	141.00	142.50	1.50	0.02	1.7
			4766	142.50	144.00	1.50	0.01	1.3
			4767	144.00	145.50	1.50	0.01	1.1
			4768	145.50	147.00	1.50	0.02	1.0
			4769	147.00	148.50	1.50	0.01	1.1
			4770	148.50	150.00	1.50	0.02	1.2
			4771	150.00	151.50	1.50	0.03	1.1
			4772	151.50	153.00	1.50	0.01	1.0
			4773	153.00	154.50	1.50	0.01	1.3
			4774	154.50	156.00	1.50	0.08	1.2
			4775	156.00	157.50	1.50	0.32	1.2
			4776	157.50	159.00	1.50	0.01	1.5
			4777	159.00	160.50	1.50	0.01	1.7

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
161.00	167.00	Moderately to strongly fractured, abundant interstitial chlorite and possibly biotite or phlogopite.	4778	160.50	162.00	1.50	0.02	1.4
			4779	162.00	163.50	1.50	0.06	1.2
161.20	162.40	5-7% pyrite and pyrrhotite mostly as small stringers and blebs.	4781	163.50	165.00	1.50	0.04	1.2
			4782	165.00	166.50	1.50	0.20	1.4
			4783	166.50	168.00	1.50	0.09	1.1
168.10	174.80	Strongly sericitized and carbonatized. Has a slightly bleached appearance.	4784	168.00	169.50	1.50	0.11	1.4
			4785	169.50	171.00	1.50	0.18	1.9
170.30	170.70	5-6% pyrite and pyrrhotite in fine irregular stringers. Lesser pyrite locally in aggregates up to 2.0 cm.	4786	171.00	172.50	1.50	0.16	1.1
			4787	172.50	174.00	1.50	0.04	1.7
			4788	174.00	175.50	1.50	0.04	0.7
			4789	175.50	177.00	1.50	0.14	1.0
			4790	177.00	178.50	1.50	0.16	1.0
			4791	178.50	180.00	1.50	0.02	0.9
			4793	180.00	181.50	1.50	0.03	1.1
			4794	181.50	183.00	1.50	0.03	0.9
			4795	183.00	184.50	1.50	0.01	0.8
			4796	184.50	186.00	1.50	0.02	0.7
			4797	186.00	187.50	1.50	0.04	0.9
188.10	189.70	Contact zone between the overlying and underlying units. Siliceous, chloritized matrix contains angular fragments of porphyry and argillite, 1.0-4.0 cm. Minor biotite in matrix. Strongly carbonatized. 1-3% disseminated pyrite and pyrrhotite.	4798	187.50	189.00	1.50	0.11	1.6
189.70	196.40	<b>FAULT ZONE (F2/13C7a2/8C7a2)</b>						
189.70	193.00	Dark grey to black argillite, strongly sheared at 0 to 15 degrees to the C.A. Bedding destroyed. Strongly fractured, broken and blocky core with 15% core loss. Strongly carbonatized. 1-2% carbonate veinlets infilling fractures 1.0-2.0 m. 1-3% pyrrhotite, 1-2% pyrite, disseminated and fine 0.5 m stringers.	4799	189.00	190.50	1.50	0.05	1.5
			4800	190.50	192.00	1.50	0.18	1.7
193.00	196.40	Light greenish-grey, strongly carbonatized porphyry sheared at 5 to 30 the core axis. Blocky and broken core, with 10% core loss. Locally has a pinkish colour, possibly potassic alteration. 2-3% disseminated pyrite and pyrrhotite.	4801	192.00	193.50	1.50	0.10	1.5
			4802	193.50	195.00	1.50	0.19	1.9
196.20	194.30	Finely ground, clay-rich section, possible fault gouge. Sheared at 0 to 5 degrees to the C.A. on either side of clay seam.						
249.90	249.90	<b>HORNBLende/PLAGIOCLASE PORPHYRY (B6a4)</b>  Description as per 30.30 to 47.70 metres. Most sections weakly to moderately sericitized and carbonatized. Fracturing generally weak, alteration haloes around fractures and veinlets						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		common. 1-3% pyrite, 2-3% pyrrhotite, trace chalcopyrite associated with pyrrhotite. Sulphides mostly disseminated, minor stringers and granular aggregates. Pyrrhotite replacement of hornblende phenocrysts common.						
196.40	202.50	Weakly sheared at 35 degrees to the C.A. Moderate to strong sericitization and chloritization.	4803	195.00	196.50	1.50	0.08	2.4
			4804	196.50	198.00	1.50	0.06	0.8
			4805	198.00	199.50	1.50	0.18	0.5
			4807	199.50	201.00	1.50	0.54	1.0
			4808	201.00	202.50	1.50	1.38	1.7
			4809	202.50	204.00	1.50	0.05	1.1
			4810	204.00	205.50	1.50	0.01	1.3
			4811	205.50	207.00	1.50	0.02	1.7
			4812	207.00	208.50	1.50	0.01	1.4
209.50	227.00	Sulphide stringers up to 2.0 cm common. 1-2% pyrite and 2-3% pyrrhotite.	4813	208.50	210.00	1.50	0.03	1.5
			4814	210.00	211.50	1.50	1.40	1.6
211.30	211.37	4.0 cm band of granular pyrite at 40 degrees to the C.A.						
211.45	211.47	2.0 cm pyrrhotite vein at 45 degrees to the C.A.						
			4815	211.50	213.00	1.50	0.19	1.2
			4816	213.00	214.50	1.50	0.22	1.1
			4817	214.50	216.00	1.50	0.48	1.0
			4818	216.00	217.50	1.50	0.02	1.0
			4820	217.50	219.00	1.50	0.17	1.1
			4821	219.00	220.50	1.50	0.18	1.2
			4822	220.50	222.00	1.50	0.22	1.4
			4823	222.00	223.50	1.50	0.04	1.5
			4824	223.50	225.00	1.50	0.82	2.0
			4825	225.00	226.50	1.50	0.44	1.8
			4826	226.50	228.00	1.50	0.12	1.4
			4827	228.00	229.50	1.50	0.18	1.5
			4828	229.50	231.00	1.50	0.03	1.1
			4829	231.00	232.50	1.50	1.07	1.8
			4830	232.50	234.00	1.50	0.19	1.5
			4831	234.00	235.50	1.50	0.02	1.1
			4832	235.50	237.00	1.50	0.03	1.1
237.30	238.90	4-6% pyrite, 1-2% pyrrhotite, trace to 1% chalcopyrite. Strongest mineralization occurs in a narrow intercalation of coarse ash tuff between 238.00 to 238.50 metres, sheared at 20 to 25 degrees to the C.A. 7-10% finely disseminated pyrite, trace to 1% pyrrhotite and chalcopyrite. 1.0 cm irregular pyrite and pyrrhotite stringers common. Matrix in porphyry is moderately chloritized, weakly carbonatized.	4833	237.00	238.50	1.50	22.40	11.5
			4834	238.50	240.00	1.50	0.98	2.3
			4836	240.00	241.50	1.50	0.20	0.8
			4837	241.50	243.00	1.50	0.11	0.9
			4838	243.00	244.50	1.50	0.23	0.9
245.50	246.90	Pinkish-grey colour, possible potassic alteration.	4839	244.50	246.00	1.50	0.22	1.0
			4840	246.00	247.50	1.50	5.42	3.6
			4841	247.50	249.00	1.50	1.52	3.1



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
249.90	253.57	STARTING POINT (91) AND ENDING POINT (90) DIFFER BY 3.5 m. - corrected in descac90.41 and dataac90.41	4642	249.00	249.90	0.90	13.10	16.7
249.90	250.38	FAULT ZONE (FZ) - 2 mud seams up to 10 cm. in length within the HBL\Plag porphyry						
230.38	261.42	HBL\PLAG PORPHYRY (N218807m7) - medium grey colour, massive, fine grained, moderate to strong alteration (silica/albite), weakly porphyritic - 3-5% euhedral Plag phenocrysts up to 3 m in size - 5-6% py disseminated and along fracture planes - Tr-1% po disseminated and along fractures - 1-2% Cl predominantly on fracture and micro-fracture surfaces - Tr QzCb fracture fillings	20551	249.90	251.50	1.60	0.61	3.5
			20552	251.50	253.00	1.50	0.30	0.6
			20553	253.00	254.50	1.50	0.41	0.4
			20554	254.50	256.00	1.50	2.25	1.5
			20555	256.00	257.50	1.50	0.48	0.1
			20556	257.50	259.00	1.50	0.35	1.0
			20557	259.00	260.50	1.50	0.11	0.1
			20558	260.50	261.42	0.92	0.15	0.1
261.42	263.03	ARGILLITE (1308m5) - medium dark grey black colour, very fine grained, moderately well bedded and weakly brecciated - 3% po disseminated and along fractures - 2% py disseminated and along fractures - Tr QzCb microfracture fillings - composition appears to be mostly Black Chlorite - BH=66 deg UCT=46 deg LCT=90 deg						
			20559	261.42	263.03	1.61	0.44	2.1
263.03	263.37	FAULT ZONE (FZ) - Ground core with a graphite gouge - UCT=90 deg LCT=20 deg						
263.37	290.98	ARGILLITE (1307m6) - dark grey black colour, very fine grained, with bedded and brecciated sections up to 1 m in length - Other structures include slump faults within the more bedded sections - 4% po disseminated and along fractures - 2% py disseminated cubes and along fracture surfaces - Tr QzCb micro-fractures - Tr greenish colour mineral as veinlets or fracture filling - Apatite						
57	264.11	Hbl\Plag Porphyry - fine grained massive, strongly sericitized						
264.11	264.50	Brecciated and silicified	20560	263.03	264.50	1.47	3.96	2.3

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
264.50	265.90	Bedded with slump faulting - BD = 55 deg	20561	264.50	266.00	1.50	0.84	0.9
267.16	272.50	well bedded at 45 deg	20562	266.00	267.50	1.50	0.21	0.5
			20563	267.50	269.00	1.50	0.09	0.2
			20564	269.00	270.50	1.50	0.07	0.5
			20565	270.50	272.00	1.50	0.12	0.1
272.50	273.95	Breccia - matrix supported with moderately rounded felsic and argillite fragments	20566	272.00	273.50	1.50	0.14	0.6
273.95	277.76	- well bedded @ 43 deg - Tops appear to be uphole - fining uphole	20567	273.50	275.00	1.50	0.12	0.7
			20568	275.00	276.50	1.50	0.15	0.3
277.76	279.90	- massive with up to 10% py+po	20569	276.50	278.00	1.50	2.11	0.6
			20570	278.00	279.50	1.50	0.29	0.1
279.90	290.96	- disrupted bedding and mottled appearance	20571	279.50	281.00	1.50	1.28	0.5
			20572	281.00	282.50	1.50	0.20	0.3
			20573	282.50	284.00	1.50	0.59	0.4
			20574	284.00	285.50	1.50	1.94	0.3
			20575	285.50	287.00	1.50	3.17	0.6
			20576	287.00	288.50	1.50	0.45	0.6
			20577	288.50	290.00	1.50	0.13	0.6
			20578	290.00	290.98	0.98	0.12	0.2
290.98	307.10	<b>HELPLAG PORPHYRY (BF6MS)</b> - medium grained, massive, moderate alteration (sericite) - up to 5% remnant KfL phenocrysts up to 3 mm in size altered to Cl and po - 5% Feldspar euhedral phenocrysts up to 2mm in size - Tr Cl along fractures - 1-3% py and po disseminated and along fracture surfaces - Tr QzCb micro-fracture fillings	20579	290.98	292.50	1.52	0.15	0.5
			20580	292.50	294.00	1.50	0.25	0.7
			20581	294.00	295.50	1.50	5.66	0.3
			20582	295.50	297.00	1.50	0.25	0.2
			20583	297.00	298.50	1.50	0.13	0.4
			20584	298.50	299.50	1.00	0.21	0.5
			20585	299.50	300.69	1.19	0.46	0.2
301.50	307.01	Chloritic Alteration - medium green to black with 3% py and po disseminated and along fractures	21001	300.69	302.00	1.31	0.88	0.6
			21002	302.00	303.50	1.50	0.05	0.3
			21003	303.50	305.00	1.50	0.53	0.6
			21004	305.00	306.00	1.00	1.32	0.2
307.10	307.10	Ground Core	21005	306.00	307.10	1.10	0.24	1.4
307.10	314.24	<b>BRECCIA \ CONTACT ZONE \ INTERCALATED ARGILLITE AND TUFF (CZ\BX\IAT63M4)</b> - light green colour, 40% angular tuffaceous fragments in a tuffaceous matrix - 3-4% py and po in the matrix and along fractures within the fragments						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		<ul style="list-style-type: none"> <li>- fragments are upto 5 cm. in width</li> <li>- the matrix commonly has a green to lime colour amorphous mineral- Apatite? Sericite?</li> <li>- some sections are crudely banded and demonstrate slump faulting</li> <li>- Tr stibnite within fractures as needies</li> </ul>						
			21006	307.10	308.50	1.40	0.42	4.8
			21007	308.50	310.00	1.50	0.15	1.1
			21008	310.00	311.50	1.50	0.24	0.6
			21009	311.50	313.00	1.50	0.25	1.4
314.00	314.24	Ground Core	21010	313.00	314.24	1.24	0.20	1.6
<b>314.24</b>	<b>324.95</b>	<b>FINE GRAINED ASH TUFF \ INTERCALATED ARGILLITE AND TUFF (1AT\167a2)</b> <ul style="list-style-type: none"> <li>- medium green colour, very fine grained, bedded \ well banded with fine grained massive sections up to 30 cm in length. spotty magnetite, very siliceous</li> <li>- 2% py euhedral cubes in fractures and disseminated</li> <li>- Tr-1% po primarily within fractures</li> <li>- Tr GzCb micro-fracture fillings</li> <li>- textures include bedding and small scale slumps that disrupt the bedding</li> <li>- Tr amorphous lime green colour, soft, mineral within the fractures - Apatite? Sericite?</li> </ul>						
			21011	314.24	315.50	1.26	0.20	0.8
			21012	315.50	317.00	1.50	0.48	2.3
			21013	317.00	318.50	1.50	0.85	2.7
			21014	318.50	320.00	1.50	0.50	1.8
320.50	321.50	Blocky Ground	21015	320.00	321.50	1.50	0.38	1.9
322.50	323.00	Blocky Ground	21016	321.50	323.00	1.50	0.18	1.3
			21017	323.00	324.00	1.00	0.25	1.1
<b>324.95</b>	<b>325.05</b>	<b>FAULT ZONE (FZ)</b> <ul style="list-style-type: none"> <li>- Ground core</li> </ul>						
			21018	324.00	325.05	1.05	0.21	1.5
<b>325.05</b>	<b>336.05</b>	<b>FINE GRAINED ASH TUFF \ INTERCALATED ARGILLITE AND TUFF (1AT\167a2)</b> <ul style="list-style-type: none"> <li>- same as 317.74 to 328.45</li> <li>- the bedding and/or banding is not as well defined</li> </ul>						
			21019	325.05	326.50	1.45	0.64	2.5
			21020	326.50	328.00	1.50	0.32	1.0
			21021	328.00	329.50	1.50	0.17	0.8
			21022	329.50	331.00	1.50	0.67	1.6
			21023	331.00	332.50	1.50	0.17	0.9
			21024	332.50	334.00	1.50	0.24	0.2
			21025	334.00	335.00	1.00	0.80	0.2
<b>336.05</b>	<b>336.10</b>	<b>FAULT GORGE (FZ)</b>						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			21026	335.00	336.10	1.10	0.30	0.2
336.10	337.28	<b>SEMI-MASSIVE SULPHIDE (MS)</b> - 70-80% coarse py with Qz clots						
			21027	336.10	337.28	1.16	1.99	0.2
337.28	368.01	<b>INTERCALATED ARGILLITE AND TUFF WITH COARSE ASH TUFF (I\2\IATf63)</b> - medium green colour, with very fine grained sections of IAT intermixed with coarser grained ash tuff, weakly banded, medium hardness. - alteration is moderate sericite and apatite - 2-3% py disseminated and as fracture fillings - 1 po disseminated and as fracture fillings						
			21028	337.28	338.50	1.22	0.14	0.8
			21029	338.50	340.00	1.50	0.12	0.8
			21030	340.00	341.50	1.50	0.19	1.0
			21031	341.50	343.00	1.50	0.25	0.6
343.03	343.32	Semi-Massive Sulphide						
			21032	343.00	344.50	1.50	0.25	0.2
			21033	344.50	346.00	1.50	0.21	0.6
			21034	346.00	347.50	1.50	0.22	0.7
			21035	347.50	349.00	1.50	0.20	1.2
			21036	349.00	350.50	1.50	0.08	1.6
			21037	350.50	352.00	1.50	0.09	0.8
			21038	352.00	353.50	1.50	0.08	3.3
			21039	353.50	355.00	1.50	0.08	1.4
355.50	368.50	- mottled appearance with core angles down the core axis						
			21040	355.00	356.50	1.50	0.14	2.1
			21041	356.50	358.00	1.50	0.0	1.2
			21042	358.00	359.50	1.50	0.16	1.0
			21043	359.50	361.00	1.50	0.14	2.4
			21044	361.00	362.50	1.50	0.17	2.1
			21045	362.50	364.00	1.50	0.14	1.6
364.70	364.92	Breccia - angular fragments in cl rich matrix - 10% po primarily within the matrix						
			21046	364.00	365.50	1.50	0.12	1.6
			21047	365.50	367.00	1.50	0.09	2.1
			21048	367.00	368.00	1.00	0.09	2.5
368.01	374.06	<b>BRECCIA \ CONTACT ZONE (B\2\Z6763)</b> - medium grey green colour, brecciated, sub-angular fragments within a darker cl rich matrix - 40% fragments up to 3 cm in size commonly sericitized, composed of porphyry and tuff - 3-5% py disseminated throughout the matrix and as sulphide fracture fillings - Tr Siderite on some fractures						
			21049	368.00	369.50	1.50	0.10	1.8
			21050	369.50	371.00	1.50	0.12	0.6
			20586	371.00	372.50	1.50	0.10	1.9

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20587	372.50	374.00	1.50	0.27	1.1
374.06	386.03	<b>HEL VLS PORPHYRY (88813)</b>						
		- medium grey colour, porphyritic, strongly silicified						
		- up to 8% feldspar phenocrysts up to 2 mm in size with a euhedral habit						
		- upto 3% HEL phenocrysts up to 2mm in size altered to chlorite						
		- 3-5% patchy chlorite alteration primarily near fractures						
		- 3% disseminated and as sulphide veins and veinlets						
			20588	374.00	374.96	0.96	0.18	0.7
			20589	374.96	376.50	1.54	0.13	0.7
			20590	376.50	378.00	1.50	0.06	1.4
			20591	378.00	379.50	1.50	0.14	0.9
			20592	379.50	381.00	1.50	0.13	0.5
			20593	381.00	382.50	1.50	0.05	1.7
			20594	382.50	384.00	1.50	0.05	1.6
			20595	384.00	386.03	2.03	0.08	1.8
386.03	386.03	<b>E.O.H.</b>						

OLE NO.	MC90-51 <i>ext</i>	NORTHING	174.00	DH COMP. BEAR	90	Depth	Dip	Azimuth	Test	Depth	Dip	Azimuth	Test
PROPERTY	RED MOUNTAIN	EASTING	-199.71	GRID ORIENT.	0	91.0	- 76	095	SPER	183.0	- 76	098	SPER
LOCATION	MARC ZONE	ELEVATION	2115.36	DH GRID AZ.	90	274.0	- 76	103	SPER	338.0	- 77	105	SPER
LAIM NO.	ORD 1	SURV. E.	-199.71	DIP-COLLAR	-75	396.2	- 77	109	SPER	446.8	- 77	111	SPER
TARGET	MARC ZONE	SURV. N.	174.00	LENGTH (m)	<i>398-33</i>								
STARTED	SEPT 9/90	LOGGED BY	E.TIMOSHENKO	DRILL CO.	FALCON								
FINISHED	SEPT 13/90	CHECKED BY	A. BRAY	DRILL NO.	1000/1								
SECTION		CORE	86 TW	FOREMAN	E.RAUNE								
COMMENTS													

*1991 = 111.84 g total = 450.17*

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
<b>SUMMARY</b>								
0.00	5.05	CASING						
5.05	8.60	INTERCALATED COARSE ASH TUFF/ARBILLITE (2A2m2/13A2m2)						
8.60	31.60	INTERCALATED ASH-CRYSTAL TUFFS/ARBILLITE (1F4t2/5F4t2/13F4t2)						
31.60	79.00	INTERCALATED CRYSTAL TUFF/ASH TUFF (5B6m2/18B6m2)						
79.00	152.70	INTERCALATED HBL.-PLAG. PORPHYRY/ASH/CRYSTAL TUFF (8A6m2/1A6m2/5A6m2)						
152.70	161.32	INTERCALATED CRYSTAL/ASH TUFF (5A6m2/1A6m2)						
161.32	186.00	HORNBLLENDE/PLAGIOCLASE PORPHYRY (8A6m2)						
186.00	191.25	ANDESITE DYKE (11F4m1)						
191.25	208.05	HORNBLLENDE/PLAGIOCLASE PORPHYRY (8F6t3)						
208.05	210.65	ANDESITE DYKE (11F4m1)						
210.65	338.33	HORNBLLENDE/PLAGIOCLASE PORPHYRY (8F6m2)						
338.33	338.33	Miss labelling of the extension starting point						
338.33	361.44	SERICITIZED HBL\PLAG PORPHYRY (8F6t7)						
361.44	367.78	PLAGIOCLASE PORPHYRY INTRUSIVE (8A6m4)						
367.78	373.00	CHLORITIZED HBL\PLAG PORPHYRY (8A7t3)						
373.00	378.20	NEARLY BRECCIATED FINE GRAINED TUFF (1A7\1A6m2)						
378.20	403.07	SERICITIZED AND CHLORITIZED PORPHYRY BRECCIA (8A\8A7a7)						
403.07	449.84	MASSIVE PORPHYRITIC PHASE HBL \ PLAG PORPHYRY (8F6m5)						

*450.17 450.17 EOH → 450.17.*

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FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
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FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
0.00	5.05	CASING						
5.05	8.60	INTERCALATED COARSE ASH TUFF/ARGILLITE (282a2/13A2a2)						
		Narrow beds, <15.0 cm, and brecciated fragments of strongly silicified argillite (10%) intercalated with grey to greyish-green, medium to coarse-grained coarse ash tuff (90%). Tuffaceous material massive to very weakly bedded, often weakly chloritized and moderately carbonatized. Argillite strongly silicified, bedding destroyed. Often in subangular to subrounded fragments, up to 4.0 cm, with altered boundaries. Most of the core in the section is blocky and broken, strong limonitic stained fractured surfaces, locally pervasive. 1-2% pyrite and pyrrhotite as disseminations and small blebs. Most of the sulphides have been weathered out.						
			6329	6.00	7.50	1.50	0.02	1.7
8.60	31.60	INTERCALATED ASH-CRYSTAL TUFFS/ARGILLITE (1F412/3F412/13F412)						
		Roughly 80% fine to medium-grained ash tuff and crystal tuff, intercalated with narrow beds, less than 3.0 metres, of greyish-green horizons 20 to 40% tuff, argillite and minor porphyry fragments, in a chloritized fine ash tuff matrix (matrix supported). Fragments are usually less than 2.0 cm, subangular to subrounded. Gradational variations between ash tuff and crystal tuff, roughly in equal proportions of each. Crystal tuff composed of approximately 15 to 20% plagioclase laths, 1.0-3.0 mm in a fine ash matrix, weakly sericitized. Crystal tuff displays a distinct planar fabric, subparallel alignment of crystals varying from 0 to 30 degrees to the D.A. 1-2% pyrite and pyrrhotite as disseminations and minor stringers and blebs, less than 1.0 cm. Trace sphalerite as disseminations, blebs and stringers.						
			6330	10.50	12.00	1.50	0.04	1.3
12.20	14.00	3-4% pyrite stringers up to 1.0 cm.	6331	12.00	13.50	1.50	0.02	1.2
			6332	13.50	15.00	1.50	0.01	1.0
15.00	18.35	4-5% pyrite in granular stringers, up to 1.5 cm, associated with strong quartz-carbonate veining at 55 degrees to the D.A.						
18.35	19.20	-Fragmental unit.	6333	17.50	19.00	1.50	0.01	1.0
18.35	19.20	1-2% yellow-orange to reddish-brown sphalerite in small blebs, less than 0.5 cm	6334	21.00	22.50	1.50	0.02	1.1
20.40	26.20	1-2% sphalerite, 1-2% pyrrhotite and pyrrhotite.	6335	25.00	26.50	1.50	0.03	1.1
			6336	26.50	28.00	1.50	0.01	0.5
28.50	30.20	Quartz-carbonate veinlets, 1.0-6.0 mm, at 45 to 50 degrees to the D.A.						
28.50	29.61	6.0 cm quartz-carbonate vein surrounded by pyrite blebs up to 1.0 cm in width.						
31.10	31.20	3% pyrite and 1-2% pyrrhotite.	6337	29.50	31.00	1.50	0.02	1.2
31.60	79.00	INTERCALATED CRYSTAL TUFF/ASH TUFF (366a2/166a2)						
		Green to greyish-green.						



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		Moderately chloritized and silicified tuffaceous volcanics, gradational variations between crystal tuff and fine-to medium-grained ash tuff. Crystal tufts composed of 15-25% 3.0 mm plagioclase crystals and crystal fragments in a fine ash matrix. Weak planar fabric locally developed at 40 to 47 degrees to the C.A. Ash tufts mostly fine-grained, massive, locally weakly bedded(?) at 40 to 50 degrees to the C.A. 3% fragments and crystals over 4.0 mm. Locally intruded by hornblende-plagioclase porphyry dykelets (<math>\leq 20.0\text{ cm}</math>) with very diffuse contacts. Locally strongly carbonatized, generally weak. Limonitic coating common on fracture surfaces, locally pervasive (especially above 45.00 metres). 1-2% pyrite and pyrrhotite as disseminations and scattered fine stringers and blebs, 1.0 cm.						
			6338	32.00	33.50	1.50	0.01	0.9
			6339	33.50	35.00	1.50	0.01	1.1
35.50	35.75	Strong limonitic stain. Core is strongly fractured, blocky and broken with sand size grains.						
36.60	41.50	Strongly fractured with a heavy limonitic stain. Fractures mostly subparallel to 30 degrees to the C.A. Several pyrite stringers and granular aggregates, up to 2.0 cm, some associated with sphalerite.	6340	36.50	38.00	1.50	0.01	0.9
			6342	39.50	41.00	1.50	0.02	1.0
			6343	41.00	42.50	1.50	0.01	0.5
			6344	45.00	46.50	1.50	0.02	1.0
			6345	50.00	51.50	1.50	0.01	1.1
			6346	56.00	57.50	1.50	0.01	0.8
			6347	59.50	61.00	1.50	0.02	0.5
			6348	63.00	64.50	1.50	0.04	1.1
			6349	66.00	67.50	1.50	0.04	0.7
			6350	69.00	70.50	1.50	0.02	1.0
			6351	75.00	76.50	1.50	0.01	1.0
			6352	76.50	78.00	1.50	0.18	0.6
79.00	152.70	<b>INTERCALATED HBLD.-FLAG. PORPHYRY/ASH/CRYSTAL TUFF (8A6a2/1A6a2/5A6a2)</b>						
		Predominantly chloritized hornblende/plagioclase porphyry (95%). Fine mottled texture, very small anhedral to subhedral phenocrysts. Approximately 10-15% hornblende phenocrysts, most chloritized, 1.0-3.0 mm wide, dark green anhedral clots, locally as subhedral crystals up to 5.0 mm wide. 5-15% plagioclase phenocrysts, typically sericitized, 1.0-2.0 mm subhedral lath-shaped crystals, also light green anhedral crystals up to 3.0 mm wide. Greyish-green, fine-grained siliceous matrix, moderately to strongly chloritized. Intercalated with altered ash and crystal tuff units, most less than 1.0 metres. Contacts with tuff units generally very diffuse, locally sharp. Pyrite stringers frequently occur near contacts. Limonitic stain common along fracture surfaces, locally pervasive. 1-2% pyrite and pyrrhotite as disseminations, stringers, small blebs common (less than 5.0 mm).						
79.02	79.17	Strong epidote alteration.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			6353	78.00	79.50	1.50	0.12	0.4
79.50	81.20	Strongly fractured. Limonitic stain common along fractures, strong pervasive stain between 79.95 and 80.77 metres. 2-4% pyrite stringers and blebs up to 1.0 cm.	6355	79.50	81.00	1.50	0.04	0.6
81.30	83.50	Weak to moderate brecciation, chloritic matrix.	6356	81.00	82.50	1.50	0.02	1.0
			6357	85.00	86.50	1.50	0.04	0.7
			6358	86.50	88.00	1.50	0.01	0.9
			6359	88.80	90.30	1.50	0.00	0.1
			6360	94.00	95.50	1.50	0.00	0.5
			6361	101.50	103.00	1.50	0.00	0.3
			6362	106.50	108.00	1.50	0.01	0.4
109.50	114.10	Moderately silicified, light to medium grey colour. Numerous 1.0-6.0 mm quartz-carbonate veinlets at 55 to 60 degrees to the C.A., many of which have a pinkish colour.	6363	110.00	111.50	1.50	0.02	0.5
			6364	111.50	113.00	1.50	0.01	0.5
			6365	113.00	114.50	1.50	0.01	0.8
117.00	118.90	Numerous 2.0-4.0 mm quartz-carbonate veinlets at 50 to 55 degrees to C.A., often tightly-spaced. Trace pyrite and pyrrhotite.						
118.70	118.90	Trace 1.0-4.0 mm veinlets. Limonitic stain.						
			6366	118.00	119.50	1.50	0.01	0.9
			6368	119.50	121.00	1.50	0.02	0.6
			6369	122.50	124.00	1.50	0.37	0.5
			6370	125.40	126.90	1.50	0.02	0.6
127.10	127.65	1.0 cm quartz-carbonate vein at 0 to 10 degrees to the C.A. Strong limonitic stain. Pyrite blebs and stringers common in surrounding wallrock, 2-3%.						
			6371	126.90	128.00	1.10	0.01	0.5
			6372	128.00	129.50	1.50	0.02	0.3
			6373	131.00	132.50	1.50	0.02	0.5
133.90	137.40	Moderately silicified (patchy), weak limonitic stain locally, moderately fractured.						
			6374	136.00	137.50	1.50	0.03	0.7
			6375	140.00	141.50	1.50	0.02	0.6
144.40	144.42	Sphalerite blebs, up to 1.0 cm, associated with pyrite.						
144.70	147.50	Moderately to strongly brecciated, chloritic matrix. 1-2% sphalerite as small blebs, 1-2% pyrite and pyrrhotite.	6376	144.00	145.50	1.50	0.01	0.8
			6377	145.50	147.00	1.50	0.04	0.8
145.50	146.10	Series of tightly spaced quartz-carbonate veinlets, 1.0-5.0 mm, at 55 degrees to the C.A..						
			6378	147.00	148.50	1.50	0.03	0.7
			6379	148.50	150.00	1.50	0.05	0.4
			6381	150.00	151.50	1.50	0.01	0.5
152.70	161.32	<b>INTERCALATED CRYSTAL/ASH TUFF (5A6a2/1A6a2)</b>  Description as per 31.60 to 79.00 metres. Light to medium grey colour, fine to medium-grained, gritty texture. Composed of 15-20% sericitized plagioclase laths, less than 2.0mm and subhedral Moderate to strong pervasive carbonatization. Intruded by several narrow hornblende-plagioclase porphyry dykelets, less than 5.0 cm, finely porphyritic. 1-2% pyrrhotite, 1% pyrite as fine disseminations and minor fine stringers.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			6382	151.50	153.00	1.50	0.02	0.5
			6383	153.00	154.50	1.50	0.02	1.1
			6384	154.50	156.00	1.50	0.01	0.6
			6385	156.00	157.50	1.50	0.01	0.0
			6386	157.50	159.00	1.50	0.03	0.0
			6387	159.00	160.50	1.50	0.01	0.0
<b>161.32</b>	<b>186.00</b>	<b>HORNBLende/PLAGIOCLASE PORPHYRY (8M42)</b>						
		Moderate to strong chloritization, small phenocrysts. Strongly fractured, locally weakly brecciated, infilled by dark green to black chlorite.						
			6388	160.50	162.00	1.50	0.03	0.0
			6389	162.00	163.50	1.50	0.02	0.0
			6390	163.50	165.00	1.50	0.02	0.0
			6391	165.00	166.50	1.50	0.01	0.0
			6392	166.50	168.00	1.50	0.03	0.0
168.18	169.00	Moderate to strong shearing at 40 degrees to the C.A., moderately silicified.						
169.15	169.37	Several 2.0-4.0 mm phenocrystic stringers.						
169.39	169.50	Possible faulted. Blocky, broken core with strong limonitic stain.	6394	168.00	169.50	1.50	0.02	0.0
169.50	186.00	Roughly 5-10% hornblende phenocrysts, most strongly chloritized, subhedral to euhedral, 2.0-7.0 mm, many strongly altered with diffuse crystal boundaries. 2-4% plagioclase phenocrysts, white to light grey colour, subhedral to euhedral most 2.0-3.0 mm and sericitized. Light greyish-green, siliceous matrix, weakly chloritized and sericitized. Weak to moderate carbonatization. Weakly to moderately fractured, infilled by dark green to black chlorite and/or quartz-carbonate veinlets. Locally grades into hornblende porphyry (up to 15% hornblende phenocrysts). Limonitic stain on fracture surfaces common. 1-2% pyrite and 1% pyrite as disseminations and stringers.	6395	169.50	171.00	1.50	0.02	0.0
			6396	171.00	172.50	1.50	0.01	0.0
			6397	172.50	174.00	1.50	0.00	0.0
			6398	174.00	175.50	1.50	0.01	1.1
			6399	175.50	177.00	1.50	0.01	0.9
			6400	177.00	178.50	1.50	0.03	1.1
			6401	178.50	180.00	1.50	0.02	1.0
			6402	180.00	181.50	1.50	0.01	1.3
			6403	181.50	183.00	1.50	0.01	1.3
			6404	183.00	184.50	1.50	0.02	1.0
			6405	184.50	186.00	1.50	0.04	1.2
170.51	170.54	2.0 cm pyrite/-sphalerite stringer at 62 degrees to the C.A.						
182.00	185.70	Fine-grained chill margin, very small phenocrysts, 1.0-2.0 mm. Strongly fractured. 2-3% pyrite, 2% pyrrhotite as disseminations and stringers.						
185.70	186.80	Fractured, broken core. Strong limonite stain. Finely ground and clayey between 186.10 to 186.16 metres. Fragments of andesite dyke material begin around 186.50 metres. Contact zone with the underlying unit.						
<b>186.80</b>	<b>191.25</b>	<b>ANDESITE DYKE (11F4a1)</b>						
		Dark green to greenish-grey colour, finely porphyritic texture. 6-8% plagioclase phenocrysts, very small and anhedral, less than 1.0 mm in size. 1-2% anhedral to subhedral hornblende phenocrysts, 1.0-2.0 mm, completely altered to black chlorite. Highly siliceous, weakly sericitized aphanitic matrix. Weakly to moderately carbonatized. Limonitic stain along fracture surfaces. Trace to 1% disseminated pyrite and pyrrhotite. Brownish-grey, very fine-grained chill margins with minor pyrite stringers along the lower contact.						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			6406	186.00	187.50	1.50	0.03	1.4
			6407	187.50	189.00	1.50	0.06	1.3
			6408	189.00	190.50	1.50	0.03	1.6
<b>191.25</b>	<b>208.05</b>	<b>HORNBLende/PLAGIOCLASE PORPHYRY (8F6t3)</b>						
		Strongly fractured and locally brecciated porphyry, likely the altered contact zone of the main intrusive mass starting near 218.00 metres.						
		Most sections moderately to strongly chloritized and/or sericitized, locally strongly silicified. Limonitic stain along fracture surfaces.						
		2-4% pyrite as disseminations and irregular stringers. Locally up to 7% pyrite.						
		1-2% disseminated pyrrhotite with trace blebs of sphalerite.						
			6409	190.50	192.00	1.50	0.02	1.3
			6410	192.00	193.50	1.50	0.03	1.0
			6411	193.50	195.00	1.50	0.05	1.2
195.50	198.10	Strongly silicified, phenocrysts barely discernable. Brownish-grey colour, weakly fractured.	6412	195.00	196.50	1.50	0.01	1.3
			6413	196.50	198.00	1.50	0.23	0.8
			6414	198.00	199.50	1.50	0.19	1.2
200.20	201.10	Finely brecciated matrix of quartz-carbonate and black chlorite.	6415	199.50	201.00	1.50	0.22	1.0
200.24	200.80	5-7% disseminated pyrite.	6416	201.00	202.50	1.50	0.20	0.8
203.70	204.25	Several 0.3-1.0 cm pyrite stringers at 50 degrees to the C.A.	6417	202.50	204.00	1.50	0.04	0.5
205.05	205.25	Small fault, strong limonitic stain, minor clay gouge.	6419	204.00	205.50	1.50	0.07	0.8
			6420	205.50	207.00	1.50	0.02	0.9
<b>208.05</b>	<b>210.65</b>	<b>ANDESITE DYKE (11F4m1)</b>						
		Description as per 186.80 to 191.25 metres.						
			6421	207.00	208.50	1.50	0.01	0.8
205.30	210.30	Strongly fractured, infilled by quartz-carbonate veinlets.	6422	208.50	210.00	1.50	0.04	1.4
210.30	210.65	Strongly sheared and silicified contact at 25 degrees to the C.A.						
<b>210.65</b>	<b>338.33</b>	<b>HORNBLende/PLAGIOCLASE PORPHYRY (8F6m2)</b>						
		Several texturally different phases of the intrusion.						
210.65	218.05	Altered contact zone. Porphyritic texture locally obliterated due to alteration. 2-4% pyrite, disseminated and in thin stringers, locally up to 6%. 1-2% pyrrhotite, disseminated. Trace sphalerite.	6423	210.00	211.50	1.50	0.18	1.0
			6424	211.50	213.00	1.50	0.17	1.1
			6425	213.00	214.50	1.50	0.22	0.8
			6426	214.50	216.00	1.50	0.10	0.8
215.50	218.05	Moderate to strong shearing at 45 to 55 degrees to the C.A.	6427	216.00	217.50	1.50	0.16	1.5
218.05	231.20	Identical to unit 169.50 to 185.80metres, with large, well formed phenocrysts. Roughly 5-10% hornblende phenocrysts, 2.0-7.0 mm, chloritized, subhedral with diffuse crystal boundaries, minor euhedral crystals. 4-6% plagioclase phenocrysts, most 2.0-4.0 mm, subhedral to euhedral, sericitized and frequently carbonatized. Siliceous, very fine-grained to aphanitic matrix, weakly sericitized, locally	6428	217.50	219.00	1.50	0.02	1.4
			6429	219.00	220.50	1.50	0.01	1.5
			6430	220.50	222.00	1.50	0.01	1.5
			6432	222.00	223.50	1.50	0.01	1.4
			6433	223.50	225.00	1.50	0.01	1.8
			6434	225.00	226.50	1.50	0.02	1.6

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		weakly chloritized.	6435	226.50	228.00	1.50	0.01	1.8
		Locally weakly sheared at 35 to 40 degrees to the C.A.	6436	228.00	229.50	1.50	0.01	1.4
		Most sections weakly fractured.	6437	229.50	231.00	1.50	0.01	1.1
231.20	233.60	1-2% pyrite and pyrrhotite disseminations and rare pyrite stringers. Strongly altered, strongly porphyritic hornblende plagioclase porphyry dyke. Light greyish-green colour, appears bleached. Small, anhedral to subhedral phenocrysts, most 1.0-2.0 mm. Approximately 10-15% hornblende and 3 to 5% plagioclase phenocrysts. Strongly sericitized matrix.	6438	231.00	232.50	1.50	0.02	1.1
231.20	231.60	2-3% pyrite and trace pyrrhotite disseminations and stringers. Fault zone. Finely ground, clay altered material, greyish-green colour. 3% disseminated pyrite.						
233.60	239.50	Identical to unit from 218.05 to 231.2 metres.	6439	232.50	234.00	1.50	0.01	1.0
233.60	234.90	Bleached with abundant euhedral pyrite crystals.						
			6440	234.00	235.50	1.50	0.02	1.5
			6441	235.50	237.00	1.50	0.01	0.5
			6442	237.00	238.50	1.50	0.01	0.5
239.50	338.33	Finer-grained, strongly porphyritic phase of intrusion. Moderate to strong pervasive potassic alteration. 15-20% subhedral to euhedral plagioclase phenocrysts, mostly 1.0-3.0 mm lath shaped crystals, locally up to 5.0 mm, sericitized. 5-10% hornblende phenocrysts, anhedral, strongly chloritized clots 1.0-4.0 mm wide, greyish to dark green colour, minor subhedral crystals. 2-5% quartz phenocrysts, grey to white, 2.0-4.0 mm, mostly below 250.00 metres. Siliceous, aphanitic matrix, moderately to strongly sericitized. Development of K-feldspar locally imparts a pinkish colour to the matrix. Locally weakly chloritized, usually associated with quartz-carbonate veining. Weak to moderate fracturing, infillings of black chlorite and quartz-carbonate veinlets. Bleached alteration haloes common around fractures and veinlets. Weak planar fabric locally developed, typically around 40 to 60 degrees to the C.A. Weakly carbonatized.	6443	238.50	240.00	1.50	0.02	1.3
			6444	240.00	241.50	1.50	0.01	1.4
			6445	241.50	243.00	1.50	0.01	1.6
			6447	243.00	244.50	1.50	0.01	1.7
			6448	244.50	246.00	1.50	0.01	1.6
			6449	246.00	247.50	1.50	0.02	1.2
			6450	247.50	249.00	1.50	0.01	0.9
			6451	249.00	250.50	1.50	0.01	1.1
			6452	250.50	252.00	1.50	0.02	1.4
			6453	252.00	253.50	1.50	0.02	1.5
			6454	253.50	255.00	1.50	0.01	1.4
			6455	255.00	256.50	1.50	0.02	1.3
			6456	256.50	258.00	1.50	0.01	1.0
			6457	258.00	259.50	1.50	0.02	0.8
			6458	259.50	261.00	1.50	0.01	1.6
			6460	261.00	262.50	1.50	0.01	1.7
			6461	262.50	264.00	1.50	0.02	1.8
			6462	264.00	265.50	1.50	0.01	1.3
265.70	267.20	Appears bleached, strongly sericitized. Several 3.0-8.0 mm quartz-carbonate veinlets at 20 to 40 degrees to the C.A.						
268.00	269.20	3-5% pyrite, numerous 2.0-4.0 mm stringers at 20 to 40 degrees to the C.A.						
269.60	262.60	Strong fracturing, infilled by quartz-carbonate veinlets up to 5.0 mm in width. Weakly chloritized. 3.0 cm pyrrhotite slab at 260.80 metres.						
			6463	265.50	267.00	1.50	0.01	1.3
			6464	267.00	268.50	1.50	0.01	1.3
268.50	270.70	Strongly fractured. 2-3% pyrite and pyrrhotite stringers and blebs up to 1.0 cm. 1.0 cm sphalerite +/- pyrite stringer at 60 degrees to the C.A. at 268.60 m.	6465	268.50	270.00	1.50	0.01	1.1
			6466	270.00	271.50	1.50	0.01	1.1
			6467	271.50	273.00	1.50	0.05	1.2
			6468	273.00	274.50	1.50	0.01	1.2
			6469	274.50	276.00	1.50	0.01	1.3

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			6470	276.00	277.50	1.50	0.01	0.6
			6471	277.50	279.00	1.50	0.01	1.1
			6473	279.00	280.50	1.50	0.01	1.3
			6474	280.50	282.00	1.50	0.01	1.4
			6475	282.00	283.50	1.50	0.03	1.4
283.64	283.74	Quartz-carbonate vein at 85 degrees to the C.A. Pyrite stringers along vein walls.						
			6476	283.50	285.00	1.50	0.02	1.4
			6477	285.00	286.50	1.50	0.01	1.2
			6478	286.50	288.00	1.50	0.02	1.3
			6479	288.00	289.50	1.50	0.03	1.0
			6480	289.50	291.00	1.50	0.01	1.0
291.80	293.40	Numerous pyrite stringers, 2.0-10.0 mm, at 30 to 40 degrees to the C.A., some containing minor sphalerite.						
			6481	291.00	292.50	1.50	0.01	1.0
			6482	292.50	294.00	1.50	0.02	1.1
			6483	294.00	295.50	1.50	0.17	1.1
			6484	295.50	297.00	1.50	0.01	1.0
297.90	306.90	Intrusive breccia. Highly altered, sub-rounded porphyry fragments, 0.5-3.0 cm, in a light grey, fine-grained siliceous matrix. Roughly 30-50% fragments, matrix supported. Most fragments have a pinkish colour, porphyritic texture locally overwhelmed by strong potassic alteration (sericite, K-feldspar). 5% light green siliceous fragments. Many fragments are strongly carbonatized. Matrix is weakly sericitized. 3-4% pyrite, 2-3% pyrrhotite, trace sphalerite, mostly finely disseminated with sporadic blebs and stringers up to 1.5 cm in width. Local concentrations up to 8% sulphide.						
			6485	297.00	298.50	1.50	0.02	0.9
			6487	298.50	300.00	1.50	0.17	1.0
			6488	300.00	301.50	1.50	0.01	1.0
			6485	301.50	303.00	1.50	0.18	0.6
			6490	303.00	304.50	1.50	0.10	0.9
			6491	304.50	306.00	1.50	0.02	0.9
306.70	310.83	Intercalation or xenolith(?) of highly altered sediments (intercalated argillite and tuffs). Argillitic beds are strongly brecciated and silicified, greyish-green colour, relict bedding locally preserved at 50 to 55 degrees to the C.A. Tuffaceous units relatively unaltered, mostly medium to coarse-grained, massive, grey-green colour. Moderate to strong carbonatization. 2-3% pyrite and 2% pyrrhotite, mostly as disseminations.						
			6492	306.00	307.50	1.50	0.01	0.9
			6493	307.50	309.00	1.50	0.01	1.2
			6494	309.00	310.50	1.50	0.02	1.5
			6495	310.50	312.00	1.50	0.01	0.5
			6496	312.00	313.50	1.50	0.03	1.0
			6497	313.50	315.00	1.50	0.02	1.2
			6499	315.00	316.50	1.50	0.24	1.1
			6500	316.50	318.00	1.50	0.22	1.1
			6501	318.00	319.50	1.50	0.22	0.9
			6502	319.50	321.00	1.50	0.46	1.1
320.00	328.33	Moderately to strongly fractured. 3-5% pyrrhotite, 1-3% pyrite and trace sphalerite. Sporadic sulphide stringers and blebs, up to 4.0 cm, mainly pyrrhotite, usually associated with black chlorite and/or quartz-carbonate veinlets. 0.5-1.0 cm quartz-carbonate veinlets common, typically at 40 to 50 degrees to						
			6503	321.00	322.50	1.50	0.04	0.6
			6504	322.50	324.00	1.50	0.01	1.0
			6505	324.00	325.50	1.50	0.02	1.1
			6506	325.50	327.00	1.50	0.01	1.2
			6507	327.00	328.50	1.50	0.01	1.1

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
		the C.A.	6508	328.50	330.00	1.50	0.01	1.0
			6509	330.00	331.50	1.50	0.02	1.3
332.45	332.58	Irregular 3.0 cm pyrrhotite stringer at 40 degrees to the C.A., with trace chalcopyrite and pyrite.	6510	331.50	333.00	1.50	0.12	1.0
			6511	333.00	334.50	1.50	0.05	0.9
335.77	338.33	Irregular 2.0 cm pyrite and pyrrhotite vein.	6513	334.50	336.00	1.50	0.40	1.5
			6514	336.00	337.50	1.50	0.02	1.0
335.48	338.33	Miss labelling of the extension starting point	6515	337.50	338.33	0.83	0.01	0.9
338.33	361.44	<b>SERICITIZED HBL/PLAG PORPHYRY (8F6T7)</b> - medium grey colour, medium grained, massive, weak to moderate foliation, moderately sericitized and silicified, magnetic - up to 3% hbl euhedral phenocrysts - 3% py disseminated and along fracture planes - 2-3 pyrite disseminated and along fracture planes - Tr - 1% sphalerite in sections up to 30 cm in width - Tr QzCb fracture and microfracture fillings - Tr green mineral within the more heavily sericitized areas - Fuchite - 1-2% euhedral feldspar phenocrysts - 1% Cl along the fractures	20251	338.33	340.00	1.67	0.05	1.0
			20252	340.00	341.50	1.50	0.10	0.7
			20253	341.50	343.00	1.50	0.57	1.0
343.00	344.00	Strong Sericitization - py is the primary sulphide	20254	343.00	344.50	1.50	2.81	6.3
344.60	345.15	3 - 5% sphalerite disseminated	20255	344.50	346.00	1.50	0.00	72.6
			20256	346.00	347.50	1.50	1.74	3.5
			20257	347.50	349.00	1.50	0.13	1.2
			20258	349.00	350.50	1.50	0.13	0.8
			20259	350.50	352.00	1.50	0.19	0.9
			20260	352.00	353.50	1.50	0.13	1.0
			20261	353.50	355.00	1.50	0.36	1.4
355.70	357.30	moderate brecciation - predominantly strongly altered porphyry clasts in a darker matrix of the same material @338m = 68deg @342m = 59deg @345 = 55 deg @ 348 = 50 deg	20262	355.00	356.50	1.50	0.39	1.8
			20263	356.50	358.00	1.50	0.11	1.2
			20264	358.00	359.50	1.50	0.10	2.0
			20265	359.50	360.50	1.00	0.39	2.0
			20266	360.50	361.44	0.94	0.18	1.9
361.44	367.78	<b>PLAGIOCLASE PORPHYRY INTRUSIVE (8A5J4)</b> - Coarse plagioclase phenocrysts up to 5 mm in size within a darker coloured matrix - moderate chloritization - 3-5% py fine grained disseminated - tr Hbl phenocrysts up to 0.5mm in size						

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
			20267	361.44	367.00	5.56	0.10	1.3
			20268	367.00	367.78	0.78	0.04	1.4
<b>367.78</b>	<b>373.00</b>	<b>CHLORITIZED HBLVLAG PORPHYRY (8A7C3)</b> - medium green colour , medium coarse grained, massive appearance, intensely chloritized and silicified and sericitized - faint expression of brecciation and weak porphyritization - 3% py and po disseminated and along fractures - Tr shpalerite disseminated - sections of upto 30 cm in width of 10% feldsar phenocrysts randomly oriented and tr Hbl and trace to 2% Hbl phenocrysts						
			20269	367.78	369.00	1.22	0.24	0.9
			20270	369.00	370.50	1.50	0.15	1.1
			20271	370.50	372.00	1.50	0.67	1.0
			20272	372.00	373.00	1.00	0.50	1.2
<b>373.00</b>	<b>378.20</b>	<b>WEAKLY BRECCIATED FINE GRAINED TUFF (1AT\1A42)</b> - medium green colour, fine grained, tuffaceous, weakly brecciated and chloritized - Tr-1% Quartz-Carbonate fracture and microfracture fillings - Tr-2% py predominantly within fractures - 3-4% Chlorite along fractures						
			20273	373.00	374.00	1.00	0.75	0.8
			20274	374.00	375.00	1.00	0.74	2.2
<b>375.00</b>	<b>376.00</b>	- Heavily chloritized and fractured section - Fractures at 60° and along the core axis - 5-8% py - 2 cm Quartz-Carbonate vein running along the core axis						
			20275	375.00	376.00	1.00	2.11	1.7
<b>376.68</b>	<b>376.90</b>	Quartz-Carbonate Vein with 5% py and po in fractures						
			20276	376.00	377.00	1.00	0.99	2.2
			20277	377.00	378.20	1.20	0.67	1.3
<b>378.20</b>	<b>403.07</b>	<b>SERICITIZED AND CHLORITIZED PORPHYRY BRECCIA (8X\8A7a7)</b> - medium green colour, strongly altered breccia fragments up to 30 cm in size - matrix is darker more chloritic in composition - Feldspar phenocrysts have been sericitized - up to 1 mm in size, euhedral shape - Resnant Hornblende within fragments altered to chlorite - 5-7% py disseminated throughout - 1% green carbonate mineral along the fractures						
			20278	378.20	379.50	1.30	0.60	1.3
			20279	379.50	381.00	1.50	0.92	1.8
			20280	381.00	382.50	1.50	1.48	1.9
			20281	382.50	384.00	1.50	0.60	1.8
			20282	384.00	385.50	1.50	0.63	1.5
			20283	385.50	387.00	1.50	0.22	0.4
			20284	387.00	388.60	1.60	0.35	0.5



FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_ton	Ag g_ton
388.60	393.00	Mostly subangular to angular tuffaceous fragments upto 5 cm in length - within the fragments is a very high abundance of sulphides - up to 15% euhedral plag phenocrysts up to 2 mm in size - 3-5 % py coarse grained disseminated - Tr QzCb microfractures	20285 20286 20287	386.60 390.00 391.50	390.00 391.50 393.00	1.40 1.50 1.50	1.05 0.96 1.16	0.9 0.4 1.0
393.00	397.54	- more massive fragment supported breccia - 3-5% py disseminated	20288 20289 20290	393.00 394.50 396.00	394.50 396.00 397.50	1.50 1.50 1.50	2.47 2.65 1.03	1.9 4.0 1.5
397.54	403.07	Matrix Supported Breccia (Mineralized Zone) - angular tuffaceous and porphyry fragments - up to 5-8% py disseminated throughout the matrix	20291 20292 20293 20294	397.50 399.00 400.50 402.00	399.00 400.50 402.00 403.07	1.50 1.50 1.50 1.07	0.61 0.11 0.42 0.29	1.1 0.4 0.7 1.3
403.07	449.84	<b>MASSIVE PORPHYRITIC PHASE HIL \ PLAG PORPHYRY (BFAGJ5)</b>  - medium green colour, medium coarse grained, massive, pervasive chlorite and sericite alteration - up to 15% euhedral Plagioclase phenocrysts up to 2mm in size - 3-5% py coarse grained disseminated - Tr Quartz-Carbonate microfracture fillings						
403.07	408.00	Coarse grained porphyritic - 3-5% py disseminated and along fracture planes	20295 20296 20297	403.07 404.50 406.00	404.50 406.00 407.50	1.43 1.50 1.50	0.22 0.16 0.14	0.8 0.4 0.4
408.15	408.40	Ground Core						
			20298 20299	407.50 409.00	409.00 410.50	1.50 1.50	0.05 0.03	0.5 1.0
410.70	410.90	Ground Core						
			20300 20301 20302 20303 20304 20305	410.50 412.00 413.50 415.00 416.50 418.00	412.00 413.50 415.00 416.50 418.00 419.24	1.50 1.50 1.50 1.50 1.50 1.24	0.02 0.24 0.23 0.26 0.26 0.16	1.0 0.7 0.8 0.3 0.5 0.5
420.00	422.50	core is fractured along the core axis	20306 20307	419.24 420.50	420.50 422.00	1.26 1.50	0.17 0.13	0.3 0.4
419.24	428.50	- stronger chloritization, massive with 3 - 5% coarse py disseminated and as stringers with some stringers running up the core axis	20308 20309 20310 20311 20312	422.00 423.50 425.00 426.50 427.50	423.50 425.00 426.50 427.50 428.50	1.50 1.50 1.50 1.00 1.00	0.31 0.30 0.20 0.12 0.16	0.3 0.1 0.3 1.2 0.5
428.50	449.84	Strongly Sericitized with patches of Fuchite - light green colour - 3-5 % py coarse grained disseminated and within stringers	20313 20314 20315 20316 20317 20318	428.50 430.00 431.50 433.00 434.50 436.00	430.00 431.50 433.00 434.50 436.00 437.50	1.50 1.50 1.50 1.50 1.50 1.50	0.21 0.21 0.35 0.24 0.20 0.02	0.7 0.6 0.1 0.1 1.5 1.1

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	g_ton	g_ton
			20319	437.50	439.00	1.50	0.09	1.2
			20320	439.00	440.50	1.50	0.08	1.2
			20321	440.50	442.00	1.50	0.12	1.2
			20322	442.00	443.50	1.50	0.08	1.6
			20323	443.50	445.00	1.50	0.27	3.7
445.02	445.90	Ground Core						
			20324	445.00	446.50	1.50	0.20	2.5
			20325	446.50	448.00	1.50	0.05	1.7
			20326	448.00	449.84	1.84	0.06	1.7
447.84	449.84	E.O.H.						

**APPENDIX D**  
**STUCUTURAL STUDY**

RECEIVED OCT 18 1991

**STRUCTURAL STUDY OF RED MOUNTAIN PROPERTY**

**LAC/Bond Gold Canada Inc.**

**Skeena Mining Division**

**Stewart, B.C.**

Report submitted

to

LAC/Bond Gold Canada Inc.

by

H. Helmstaedt

Queen's University

Kingston, Ontario K7L 3N6

September 1991

## INTRODUCTION

Structural observations described in this report were made on the Red Mountain Property, concentrating on the southeastern slope of Red Mountain, underlain by the Marc Zone, the most significant gold occurrence encountered on the property to date (see Fig. 3D in Vogt, 1991). The study was commissioned by the late Andreas M. Vogt and was intended to determine:

1. possible structural controls of the mineralization, and
2. post-mineralization deformation and its consequences  
for the spatial distribution of the ore.

Field work, conducted during a six-day visit from August 4-9, 1991, consisted of the following:

Day 1: General introduction to geology of property with

A. Vogt (Goldslide Creek, Marc Zone, Rio Blanco).

Day 2: Visit of Erin Stock at McAdam Point, beginning of detailed field work on Marc Zone (with A. Vogt).

Days 3-5: Detailed field work on Marc Zone (with M. Coleman).

Day 6: Inspection of gold showings on west side of Lost Mountain, completion of work on Marc Zone (with A. Vogt).

I am grateful to Andreas Vogt for the invitation to work on Red Mountain and thank him and his field crew for the friendly cooperation, helpful discussions, and truly great hospitality during my visit. I am especially thankful to Megan Coleman for her invaluable help during the detailed work on the steep slopes of the Marc zone. I share the sense of loss caused by Andreas' untimely death shortly after my visit but hope that his great spirit and

excellent work will inspire those who follow in his footsteps on Red Mountain.

#### GENERAL GEOLOGY

The Red Mountain Property is located approximately 15 km east of Stewart, B.C., in a belt of Upper Triassic to Middle Jurassic sedimentary, volcanic, and plutonic rocks (Stewart Complex of Grove, 1986) preserved between the Late Cretaceous to Tertiary intrusive rocks of the Coast Plutonic Complex, in the west, and the upper Middle Jurassic to Lower Cretaceous clastic rocks of the Bowser Basin, in the east. As mapped by Grove (1986), the property is underlain by the Upper Triassic to Lower Jurassic Unuk River Formation, the oldest formation of the Hazelton Group (Table 1), interpreted as an Early to Middle Jurassic island arc assemblage of the Stikinia Terrane (Monger et al., 1982). At Red Mountain, the Unuk Formation, consisting of bedded tuffs, argillites, and cherts, is intruded by a hornblende-diorite stock, the Goldslide Intrusion, thought to be correlative with the Early Jurassic synvolcanic Texas Creek plutonic suite (Grove, 1986; Anderson and Bevier, 1990) of the Stewart Camp. The intrusion outcrops in the cirque of Goldslide Creek as well as on the western and southeastern slope of Red Mountain. A number of deformed quartz-feldspar porphyry dykes in the surrounding country rocks also appear to be related to the Texas Creek plutonic suite (Vogt, 1991). A wide zone of alteration (mainly sericitization and pyritization) surrounding the intrusion is responsible for the gossany appearance of the rocks around Red

Mountain (Vogt, 1991). Post-Jurassic plutonic rocks on the Red Mountain property include a small intrusive stock of quartz monzonite, the Erin stock (McAdam Point pluton of Grove, 1986), cropping out on both sides of Bromley Glacier, at McAdam Point and on the northern side of Lost Mountain, and numerous dykes ranging in composition from granitic to granodioritic (Portland Canal dyke swarm of Grove, 1986). All of these are thought to be part of the Coast Plutonic Complex intrusive suite.

The gold mineralization of the Marc Zone is spatially related to the early Jurassic subvolcanic Goldslide intrusion and is thought to have been the result of late-stage hydrothermal activity associated with this intrusive event (Vogt, 1991). Whereas the early Jurassic mineralization is characterized by a close association of gold with disseminated and massive pyrite, gold and molybdenite mineralization in the Eocene Erin stock is associated with steeply-dipping quartz veins.

#### **STRUCTURAL SETTING OF PROPERTY**

As mapped by Grove (1986), the Lower to Middle Jurassic volcanic arc assemblage of the Hazelton Group (which is part of the Stewart Complex) in the Red Mountain area, west of Stewart, is bounded in the west by the intrusive margin of the Late Mesozoic to Tertiary Coast Plutonic Complex, whereas in the east it is overlain by the Late Jurassic to Cretaceous clastic overlap assemblage of the Bowser Lake Group. Although earlier workers did not associate structures in the Stewart Complex (part of Stikinia)

with those in the overlying sedimentary rocks of the Bowser Basin, to the east, recent work by Evenchick (1991a,b) has shown that the strata of the Bowser Basin are part of a regional fold and thrust belt, the Skeena Fold Belt, that developed between latest Jurassic and early Tertiary time and that, in addition to the Bowser Lake and Sustut groups, involved strata at least as low as Lower and Middle Jurassic Hazelton Group. The implication of this work are that the thrust faults of this belt have affected rocks of Stikinia, west of the Bowser Basin, and may root in the Coast Plutonic Complex, beneath and to the west of the property. Structures in Hazelton Group rocks of the Stewart Complex in the Red Mountain area are thus the consequence of a complex sequence of deformation including early Jurassic events (Nassian orogeny of Groves, 1986), regional shortening and low-grade metamorphism related to the formation of the late Mesozoic Skeena Fold and Thrust Belt, and deformation and uplift associated with Tertiary plutonism in the Coast Plutonic Complex (Table 1).

According to Grove (1986), early Jurassic deformation is indicated north of Stewart by folds in the Unuk River Formation that are truncated by a regional angular unconformity at the base of the Betty Creek Formation. Betty Creek sedimentation and volcanism were followed by normal faulting, graben development, minor folding, uplift and erosion, and the fault-controlled troughs were infilled by the Salmon River Formation. Granitic clasts in the basal Salmon River Formation indicate that some of the early Jurassic intrusions of the Texas Creek plutonic suites



were first unroofed at that time. Granitic clasts are also observed in the Upper Jurassic parts of the Bowser Lake Group.

Although pre-Middle Jurassic deformation is recorded in the region, Evenchick (1991b) found it impossible to distinguish pre-Middle Jurassic structures from post-Middle Jurassic structures, related to the formation of the Skeena Fold Belt, unless Middle Jurassic or younger strata are also present. Because no significant deformation has been described for the interval between the deposition of the Hazelton and Bowser Lake groups, Evenchick (1991b, p. 977) concluded that folds in the Hazelton Group are likely to be a result of shortening during the formation of the Skeena Fold Belt. She also noted that identification of Skeena Fold Belt-related structures in the Hazelton Group may be difficult because of the differences in structural competency (and thus structural behavior) between the volcanic units of the Hazelton Group and the well-layered sedimentary strata of the Bowser Lake Group.

The timing of formation of the folds in the sedimentary rocks of the Unuk River Formation on the Red Mountain Property (such as the north-northwest-trending tight to isoclinal folds on the west side of Lost Mountain) must thus be viewed within the regional constraints described above. Folds in the easterly dipping Unuk River strata on the western slope of Red Mountain are within the eastern limb of the Bromley Syncline (Grove, 1986), formerly thought to be an early Jurassic structure (see also Vogt, 1991, p. 11). However, the core of this syncline, west of Bromley Glacier,

is occupied by strata of the Salmon River Formation; the Betty Creek Formation being absent in this area (either due to non-deposition or erosion prior to Salmon River deposition). Although folds have been observed elsewhere within the Unuk River Formation, beneath an angular unconformity with the Betty Creek Formation (Grove, 1986), Salmon River strata, where observed in contact with overlying Bowser Lake Group, are generally more or less conformable (Anderson and Thorkelson, 1990). Bromley syncline thus appears to be a post-Middle Jurassic, Skeena Fold Belt-related structure. Using the reasoning put forward by Evenchick, folds in the underlying Unuk River Formation may also be post-Middle Jurassic or, if indeed older, they must have been modified during the formation of the Bromley syncline.

#### **STRUCTURAL SETTING OF MARC ZONE**

Although bedding in the rocks of the Unuk River Formation, west of the Goldslide intrusion, dips uniformly steep to the west, and tight to isoclinal folds with steeply west-dipping axial surfaces and axial planar cleavage occur on the western side of the Erin stock, bedding orientations above the Goldslide intrusion on Red Mountain are highly variable in strike and range in dip from steep to nearly horizontal. The generally strongly hornfelsed and oxide-stained stratified rocks are highly fractured and faulted, but they do not appear to be folded and lack a regional cleavage. The few primary structures observed suggest that the entire sequence has remained upright. Although the relatively moderate

overall dips of bedding (Fig. 1) appear to be the result of up-doming above the intrusion (see also Vogt, 1991), in detail the contact between the hornblende diorite and the country rock is very irregular and complicated by the occurrence of intrusive breccias and local sheet-like apophyses of diorite parallel and oblique to bedding. The overall impression is that the hornfelsed stratified rocks above the intrusion remained upright and did not fold, because they were protected from regional shortening during Jurassic as well as Cretaceous deformation by the buttress effect of the intrusion. The intensity of fracturing shows, however, that stratified and intrusive rocks together responded to deformation in a brittle way.

The Marc Zone is located beneath the southern slope of Red Mountain (see Fig. 3D of Vogt, 1991), the mineralized zone being exposed at the foot of a steep, jarosite-stained cliff north of Goldslide Creek (BL 0+00W, 0+05S). As described by Vogt (1991), drill-hole intersections suggest that the north-striking and moderately west-dipping, mineralized zone consists of a number of irregularly-shaped sulfide lenses which are closely associated with the irregular roof of the Goldslide intrusion. Mineralization consists of disseminated to massive pyrite (with some pyrrhotite and traces of sphalerite, chalcopyrite, arsenopyrite, galena, tetrahedrite, and tellurides) and occurs in the interlayered argillites and tuffs (IAT unit), directly above the intrusion, in the fine-grained contact phase of the hornblende-plagioclase porphyry, and in a contact breccia, consisting of randomly oriented

blocks of intrusive and country rocks. As a result of the strong oxide-staining and the limited outcrop of the mineralized zone, no conclusive surface observations were possible with regard to possible structural controls of the mineralization. Although remobilized sulfides have been observed in some early fractures, most of the intense fracturing and faulting on the Marc property appears to postdate the mineralization. Inspection of core from diamond drill hole 90-35 showed that the mineralized diorite is generally massive, but that pyrite is locally deformed and has pressure shadows filled with oriented quartz fibres and/or phyllosilicates (probably muscovite and chlorite). This suggests that both hostrock and mineralization have been affected by some penetrative deformation, probably similar to that observed locally in diorite outcropping in Goldslide Creek. With the present observations, it cannot be decided whether this deformation is related to early Jurassic or Cretaceous shortening.

#### **FRACTURE AND FAULT ANALYSIS ON MARC PROPERTY**

As the spatial distribution of the Marc zone mineralization is likely to be the result of a combination of primary factors and post-mineralization brittle displacements, it was decided to undertake a fracture and fault analysis on the south-eastern slope of Red Mountain, in the area covered by the geology map of the Marc zone (Fig. 3D of Vogt, 1991). The limited time available made this analysis subjective, as not all fractures could be measured and emphasis had to be put on finding surfaces along which significant

displacement might have taken place. Features measured as fractures include only obvious fracture sets that show local regular spacing and no apparent displacement. As a consequence, horizontal and other, less regular fractures are underrepresented. Faults were recognized by slicken-sided surfaces and the presence of fault breccia and gouge. As displaced markers were generally not recognizable, the direction and sense of movement on the faults were deduced from steps on striated surfaces, S- and C-fabrics within fault zones, and the relationship between the orientations of extension fractures and fault surfaces (Fig. 2). Most of the measurements were plotted on the 1:500 geology map of the Marc zone (Fig. 3D of Vogt, 1991; the copy was left in the Red Mountain field camp) and are represented on stereographic plots in Figs. 3 and 4). The results are discussed with respect to the grid system on the Marc zone geology map.

Although there is considerable scatter among both the fault and fracture measurements, a conjugate set of NNW-striking, ENE- and WSW-dipping normal faults, each with associated steeply-dipping extension fractures, emerges as the most important fault pattern (Fig. 4). The two maxima on Figure 4 correspond to  $N 28^{\circ}W 73^{\circ}E$ , for the easterly-dipping faults, and  $N 15^{\circ}W 66^{\circ}W$  for the westerly-dipping faults. Many of the faults have down-dip striations and kinematic indicators suggesting normal movements, though in most cases it is impossible to estimate the magnitude of displacements. While most faults appear to be minor, in lateral extent as well as in displacement, three of the faults mapped have

a significant lateral extent, and at least one of these may also have a significant displacement. Two of these major faults are W-dipping normal faults that had been mapped previously near the bottom of the cliff above Goldslide Creek, intersecting Line 0+20S at approximately 105W and 50W respectively, and therefore referred to as 105W and 50W faults. Both strike slightly W of N, dip approximately  $65^\circ$  to the W, and are characterized by up to 2m wide breccia zones. The 50W fault can be followed northward up to approx. 0+30N, where it disappears under a scree cover. The 105W fault can be followed to approx. 0+55N where it meets a major NNE-dipping fault. This fault, here referred to as the NNE fault, can be traced from approx. 0+15S, 0+70W to 1+50N, 1+65W, where it swings northward and is partially obscured by scree.

The mutual relationships between the three major faults and associated conjugate minor faults are illustrated in cross-section on Figure 5. It can be seen that the wedge-shaped block between the 50W and NNE faults has been down-dropped relative to adjacent areas in the E and W. Judging from the much stronger surface expression of the 50W fault zone at this latitude, it is probable that the NNE fault has the smaller displacement and terminates against the 50W fault. However, the surface expression of the NNE fault becomes significantly stronger towards the north (see especially outcrops southeast of the collar of Drill Holes 90-52 and 90-53), and it is likely that displacement along the fault also increases towards the north. The horst between the NNE and 105W faults narrows northwards into a wedge where both <sup>faults</sup> ~~fold~~ meet (Fig. 6). Unfortunately, though

there are indications that the westerly-dipping faults may be important, present data do not allow an estimate of displacement on any of the major faults. For example, drill holes 90-55 and 90-56 (see Section 0+25N of Drill Report) have penetrated the steep westerly-dipping 50W fault, confirming the dip measured at the surface, and both holes have intersected the moderately west-dipping Marc zone in the footwall of this fault. However, as the Marc zone has not yet been encountered west of the fault at the predicted depth (Vogt, personal communication), it is possible that it may have been down-dropped in the hanging wall of this fault (Fig. 5). Drilling is recommended at an appropriate distance west of the 50W fault to test this hypothesis.

Whereas the NNW-trending normal faults and associated extension fractures suggest an environment of regional extension in an ENE-WSW direction, a significant number of steeply-dipping to vertical fractures and some minor faults strike approximately ENE (see Figs. 3 and 4), more or less parallel to the extension direction. Some of these have horizontal striations, suggesting minor strike-slip movements, but steeply plunging to vertical striations have also been observed. Two minor lateral offsets of the NNE fault along such vertical cross faults (dextral at its southern end; sinistral further north, north of drill hole 90-43) indicate that at least some of the strike-slip displacements postdated the normal faulting. Temporal relationships between the normal faulting and the oblique- and dip-slip movements along steep cross faults are not clear, but it is possible that these movements

were the result of adjustments within fault blocks during normal faulting. Such movements could account for variations in displacement along strike of the normal faults. Horizontal striae were also observed on a vertical, NNW-striking fault west of the Marc zone. However, this fault (shown on the Marc zone geology map at Line 0+20S, 0+25E) could not be traced northwards and is considered to be of minor importance.

#### AGE OF FAULTING

Apart from observations that mineralized early fractures are displaced, very little direct evidence exists as to the age of the normal faulting. However, as there are no obvious indications that normal faults have been reactivated by high-angle reverse faulting, it is suggested that the extensional faulting postdates the Cretaceous regional shortening responsible for the formation of the Skeena Fold Belt. It may also postdate the intrusion of the early Tertiary Erin stock which contains mineralized NNW-striking fractures. As the Stewart Complex was essentially frozen to the east margin of the Coast Plutonic Complex and has been involved in uplift along with the Coast Geanticline (Groves, 1986), it is likely that the normal faults cutting the Marc zone are a manifestation of extension accompanying this uplift.

The minor NNE-striking strike-slip faults at least in part postdate the normal faults. However, they appear to predate the emplacement of the north to north-westerly striking andesitic dykes (Unit 11 of the Marc zone geological map) which have intruded along some of the normal faults but have not been observed to be



displaced along any of the cross faults. ENE-striking, synmetamorphic shear zones in granodiorite outcropping along Goldslide Creek, thought to predate the normal faulting, have not been reactivated during late-stage strike-slip faulting, because andesite dykes crossing these zones have not been displaced.

#### CONCLUSIONS AND RECOMMENDATIONS

1. No new observations could be made during the present visit regarding the question of possible structural controls of the mineralization of the Marc zone. As the rocks outcropping at the surface are highly fractured and oxide-stained, a more comprehensive study of this problem would have to include a detailed inspection of drill core from the property.

2. Rocks of the Stewart Complex in the Red Mountain area were affected by early Jurassic deformation that was followed by Cretaceous regional shortening associated with the formation of the Skeena Fold Belt in the Bowser Basin to the east. Although it is difficult to distinguish between early Jurassic and Cretaceous structures on the property, where post-early Jurassic sedimentary rocks are absent, it is likely that the Bromley Syncline (the axial trace of which is located immediately to the west of the property) and structures related to it are Cretaceous structures associated with the formation of the Skeena Fold Belt. It is also likely that thrust faults in the pre-Bowser Lake Group basement of the Skeena Fold Belt root as far west as the Red Mountain area and may exist at depth beneath the property.

3. Although weak penetrative deformation was seen in mineralized drill core, the Marc zone appears to have been protected from major regional shortening by the buttress effect of the Goldslide intrusion. Most of the brittle fractures and faults observed in outcrops of the Marc zone have affected both intrusive and country rocks and are thought to be related to extension postdating the shortening causing the formation of the Skeena Fold Belt.

4. Most of the faults encountered near the Marc zone are NNW-striking normal faults. They have dissected the host rocks of the Marc zone into wedge-shaped horst and graben blocks that are broken up further by associated steep to vertical extension fractures. Displacements are generally minor, but at least three of the normal faults are thought to have a potential effect on the geometry of the mineralized zone. The WSW-dipping 50W and 105W faults may have caused significant west-side-down displacement of the western part of the Marc zone, and the NNE fault may have caused east-side-down displacement in the northern part. It is recommended that the hypothesis of a possible western extension of the Marc zone be tested by drilling at the appropriate distance west of the 50W fault somewhere between Lines 0+25N and 0+20S.

5. It is strongly recommended that structural mapping be continued on the property and that attempts be made to correlate between faults mapped at the surface and those encountered in drill core.

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## LIST OF TABLES AND FIGURES

**Table 1.** Table of Formations and Sequence of Events. Folding and thrusting events are indicated by folded lines and single-barbed arrows, respectively.

**Figure 1.** Stereographic plot of 23 poles to bedding on Marc zone.

**Figure 2.** Sketches of kinematic indicators used to determine displacement sense on faults on Marc zone. A. Cross-section of fault surface with stepped slickensides. B. Cross-section of fault zone with s-surfaces (i.e. cleavage or schistosity developed within the fault zone). Note that in normal faults, s-surfaces have shallower dips than fault (fault is equivalent to c-surface), whereas in reverse faults the s-surfaces have a steeper dip than the fault zone. C. Extension fractures associated with normal faults are approximately vertical, indicating a horizontal extension direction and thus normal faulting.

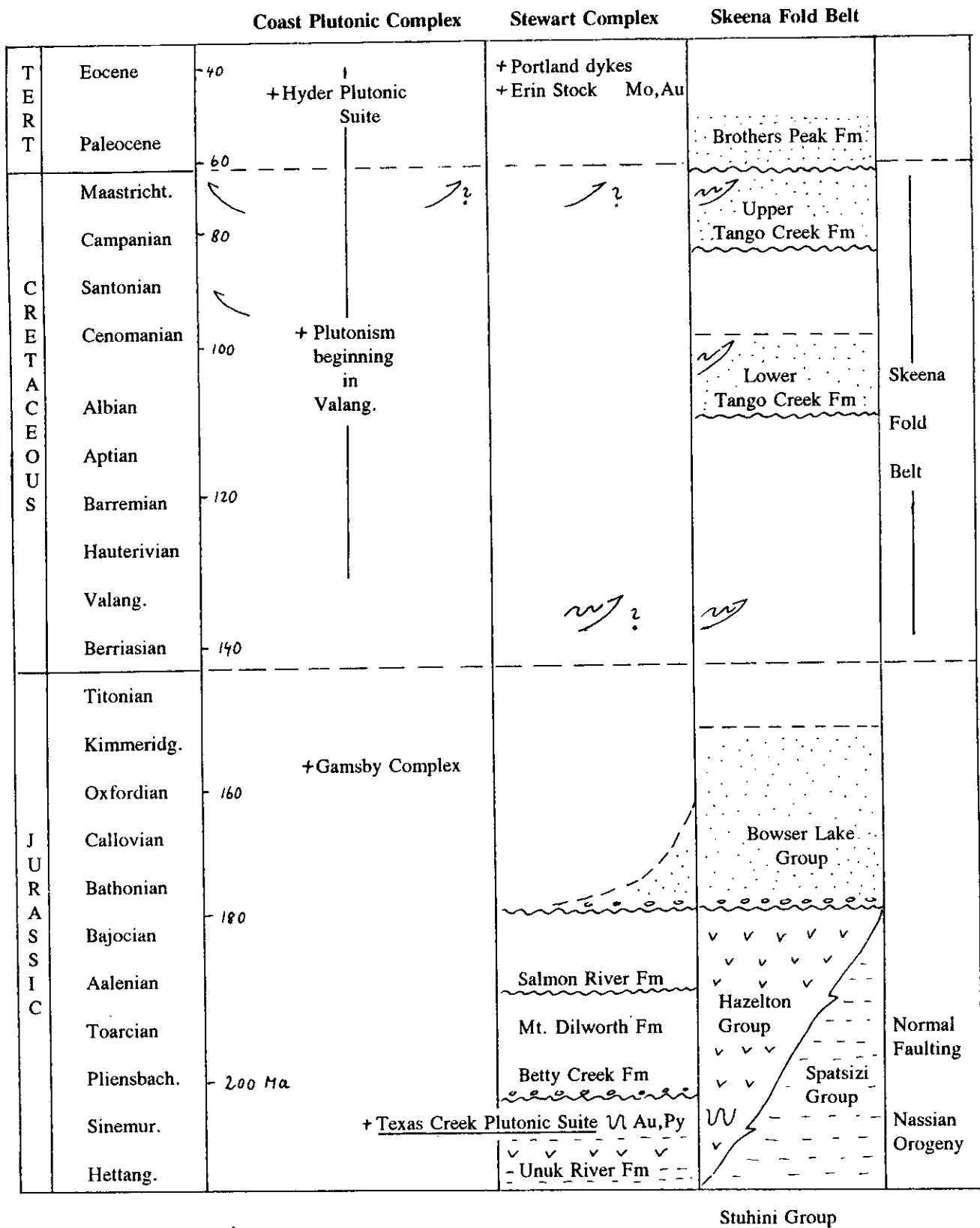
**Figure 3.** Stereographic plot of 58 poles to fracture sets observed at the Marc zone.

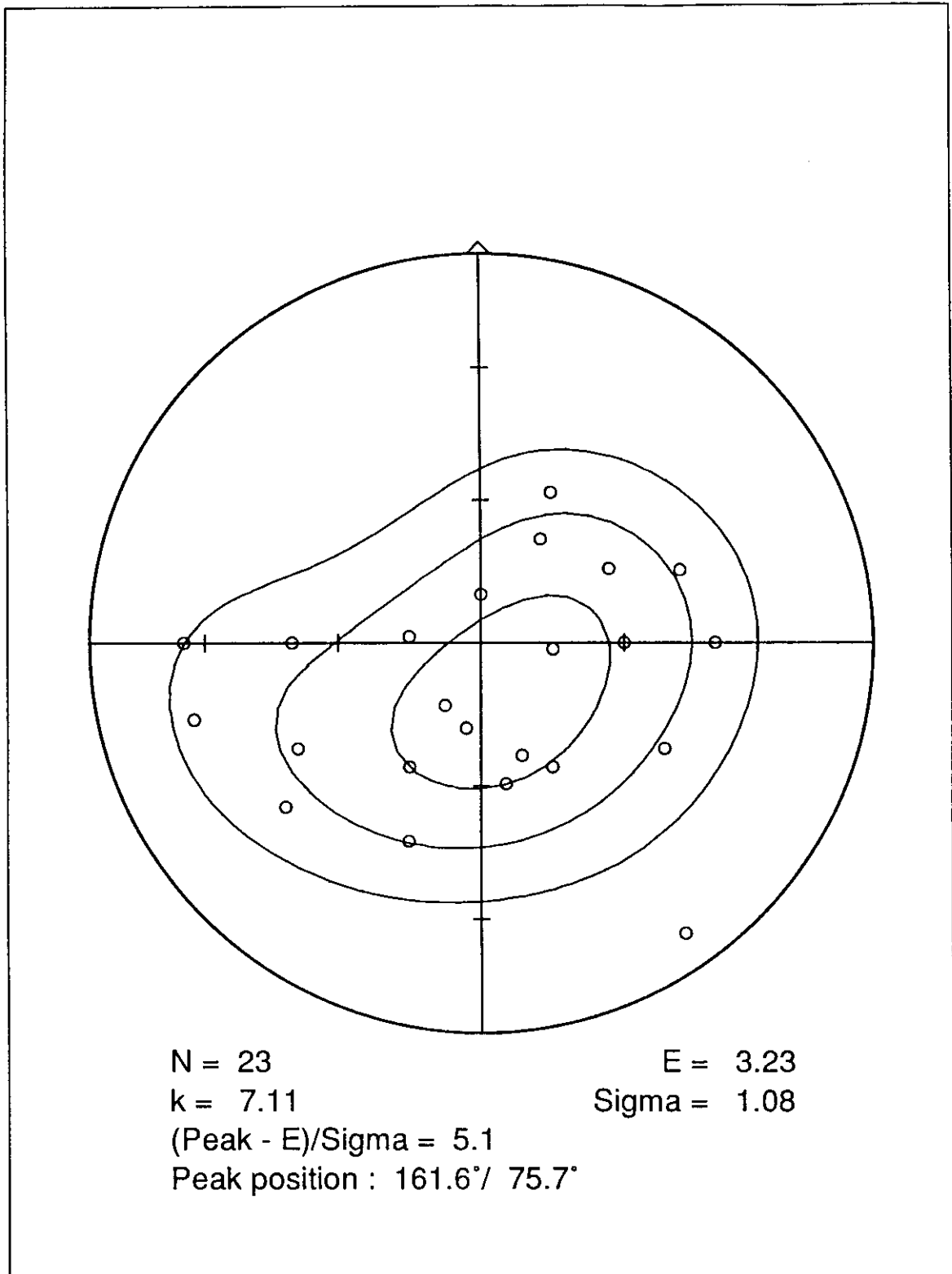
**Figure 4.** Stereographic plot of 69 poles of fault surfaces on Marc zone. This plot includes all surfaces on which striated slickensides were observed. As a rule, the NNW-striking surfaces have down-dip striations, whereas the ENE-striking surfaces have predominantly horizontal and moderately plunging striae.

**Figure 5.** Sketch illustrating cross-sectional view of faults along Line 0 +00 on Marc zone. Sense of possible displacement of Marc zone (stippled) along 50W Fault is indicated, though the magnitude of displacement is not known.

**Figure 6.** Sketch illustrating map and cross-sectional view of convergence of 105W and NNE faults near Line 0+50N and 0+105W to show narrow horst between the two faults. Magnitudes of normal displacement on these faults is unknown, but it is likely that the displacement on the 105W fault is greater than that along the NNE fault at this location. *Not to scale.*

TABLE 1. FORMATIONS AND SEQUENCE OF EVENTS





**Figure 1.** Sterographic plot of poles to bedding, Marc zone

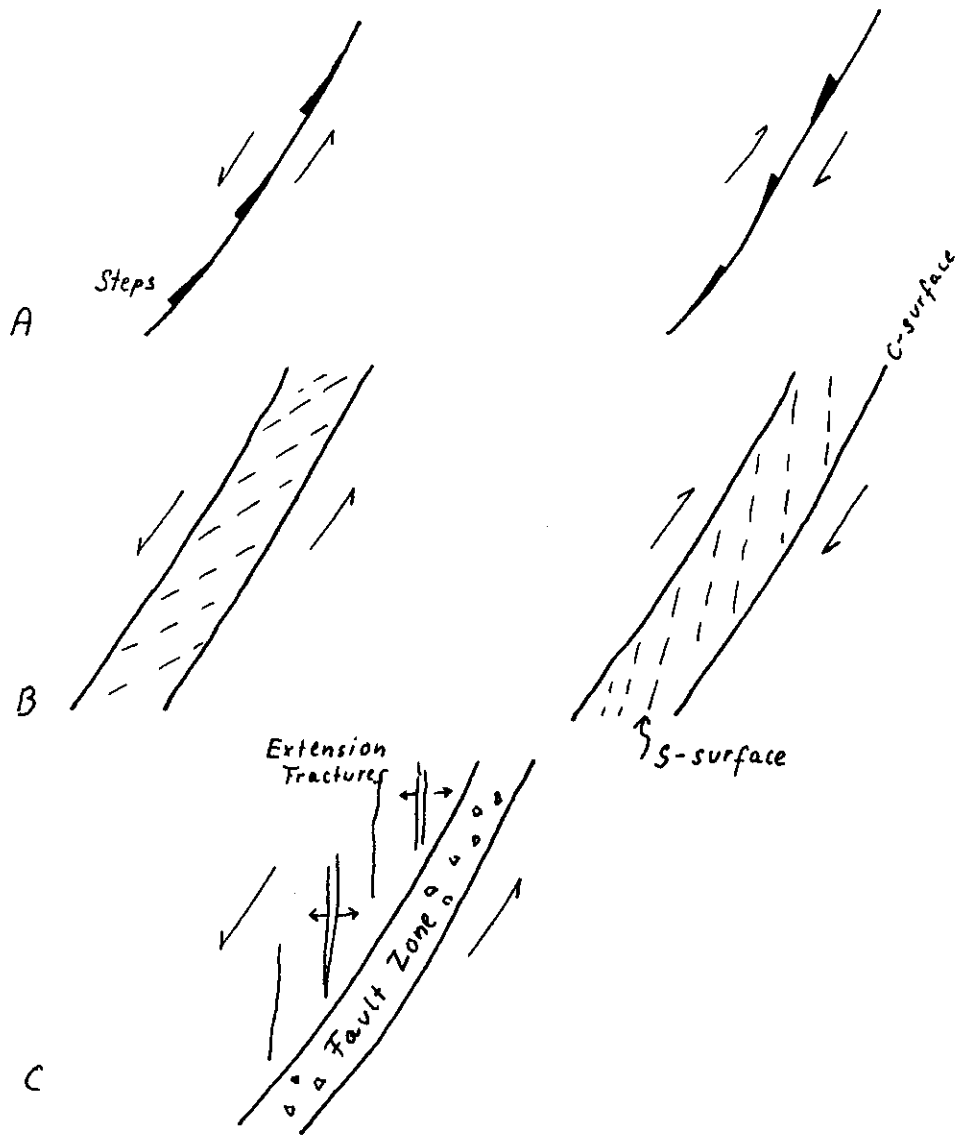
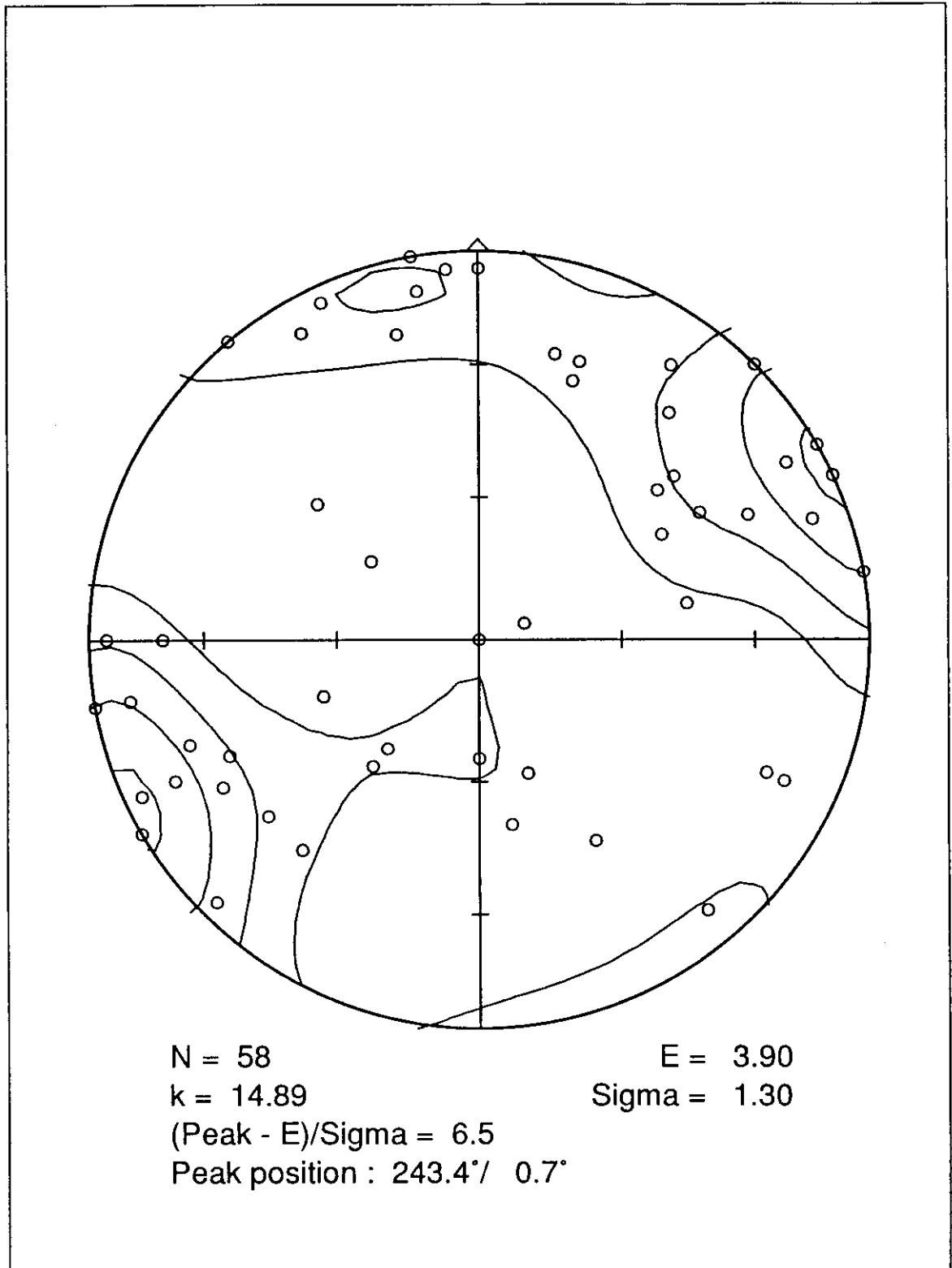
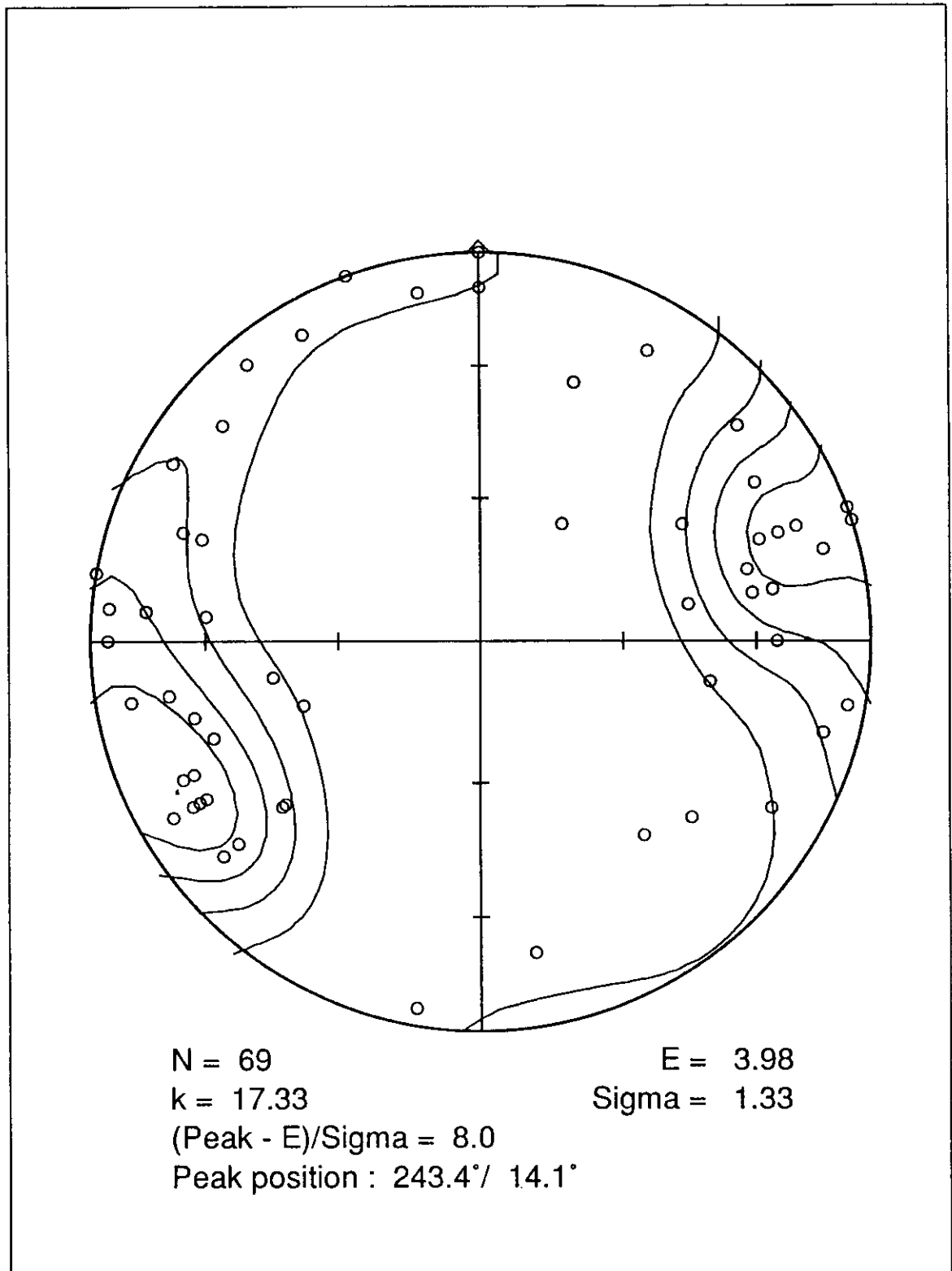


Figure 2



**Figure 3.** Stereographic plot of poles to fractures, Marc zone





**Figure 4.** Stereographic plot of poles to faults, Marc zone

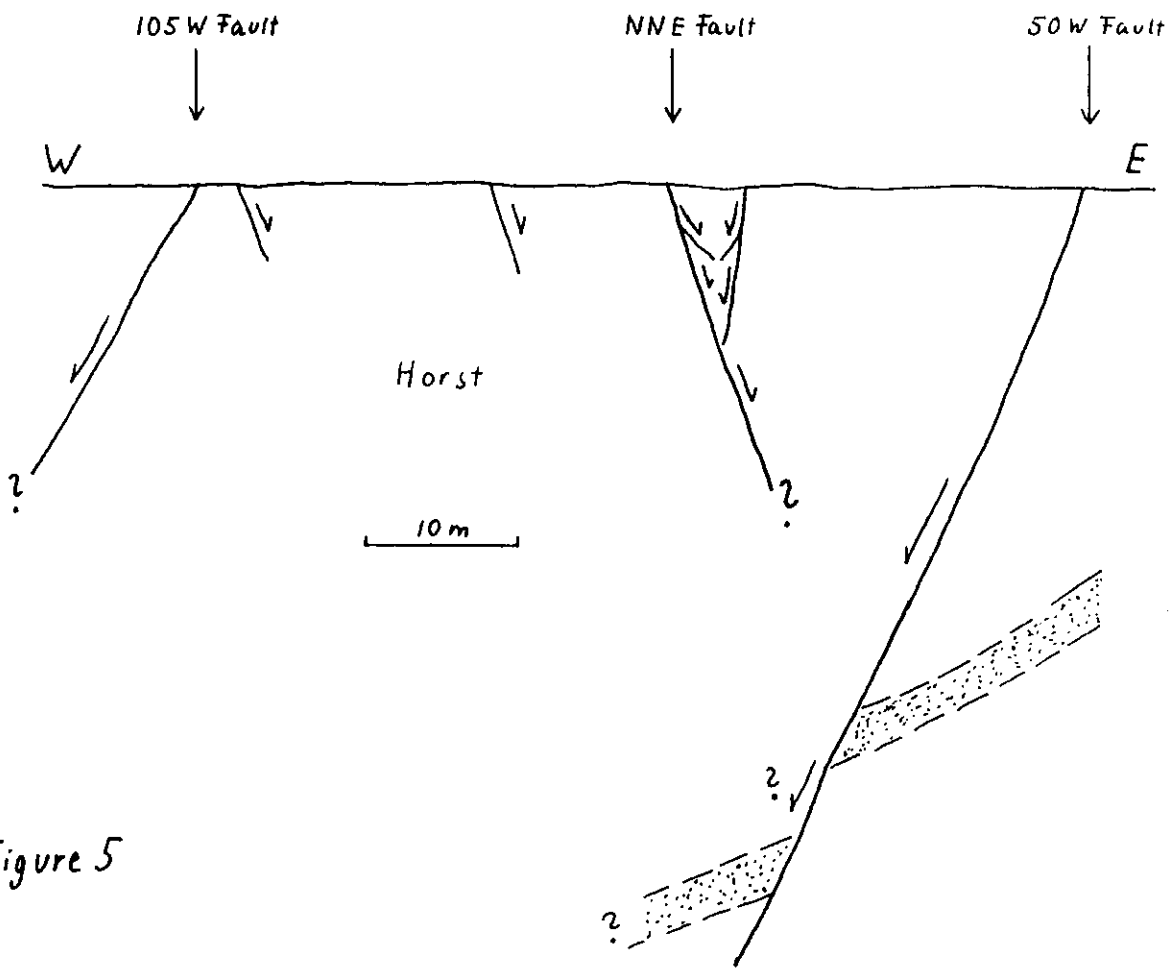


Figure 5

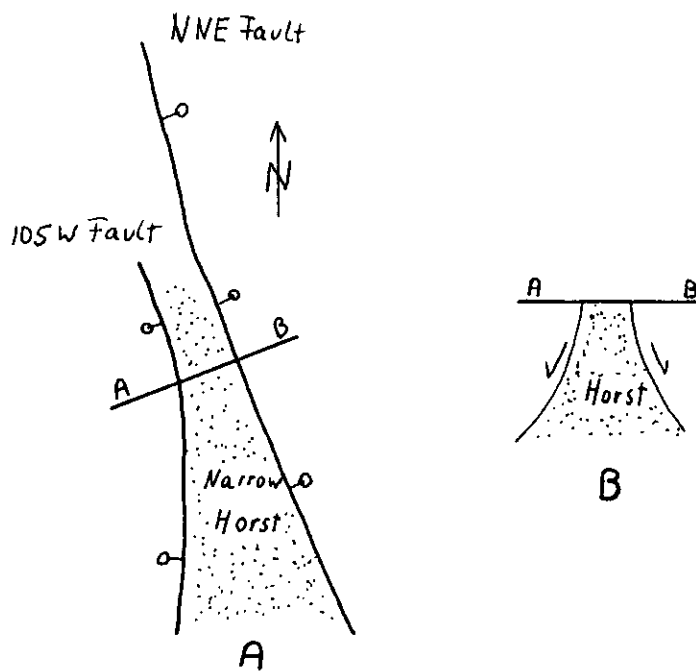


Figure 6