

82 E/02
PN 661
1991

RAINBOW TAM O'SHANTER
GREENWOOD, B. C.
Drilling
LOGS - TYPED



1991 DRILL LOGS

RAINBOW-TAM O'SHANTER
PN 661

824149

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.10	«CSG»					
6.10 TO 20.10	«ANDESITE»	Dark green fine grained andesite. Feldspar phenocrysts randomly oriented over 20% of matrix. 10-20% stockwork fracturing and veining; primarily q/c but also epidote, hematite, and pyrite. Structures, veins are randomly oriented. 13.4-15.8m and 18.3-20.0m very blocky, broken core		‡6.1-20.1‡ «Propylitic» Weak to moderately magnetic. Fracture surfaces are hematitic. <1% randomly oriented hematite veinlets. Silicification moderate but pervasive throughout. Chlorite vein and pods to 1cm. 5-10% epidote stringer and veins up to 2cm. Up to 10% q/c veinlets (mm scale) with no selvage. ‡15.8-16.8‡ «Int. Sil.» Chl+ep stkwk. Chl pervasive to 20%.	1-2% pyrite occurs as fine disseminations and veins and as coatings on fractures. Pyrite occurs with chlorite, epidote, and hematite. ‡15.8-16.8‡ «<= 20% py»	Typical propylitic alteration of outer regions of porphyry deposits.
20.10 TO 21.30	«BRECCIA»	Green to white brecciated andesite.		Silicified, chloritized.		Poor recovery.
21.30 TO 23.20	«QTZ VEIN»	White, fine to medium grained quartz-carb vein. Shear planes within the vein are parallel to the vein orientation at.... Stockwork fractures within the vein.	20	Chloritic laminae within vein up to .5 cm.	<1% disseminated pyrite in the vein, up to 15% within the laminae	
23.20 TO 28.90	«FLT GOUGE»	Light green, clay rich chloritic fault gouge. 25.3-26.2m: competent but sheared andesite. Shear oriented at...	20	Trace euhedral magnetite grains to 1mm. Strong chlorite and talc alteration. Shear laminae on mm scale. Gouge is extremely chloritic (70%).	2-5% disseminated fine grained pyrite throughout.	Moderate core recovery.
28.90 TO 31.00	«MYLONITE»	Light grey, talc-altered augens forming c-s fabric C:60 degrees ccw; S:60 degrees cw. Whitish augens 1cm in diameter and elongated in direction of S fabric, ovoid in shape. 30.7m: 2cm talc vein oriented at...	34	50% talc alteration of augens. 30% chlorite alteration. 20% fine grained magnetite. Possible alteration of magnetite to leucoxene.	Trace to 1% vfg dissem. pyrite. ‡28.9-31.0‡ «tr cp» Cp is vfg and diss.	
31.00 TO 102.60	«SHEAR»	Dark grey to green fine to medium grained sheared andesite. Stockwork fracturing and veining-primarily qtz, minor carbonate, talc veins. Predominant vein orientation ... although many are parallel to subparallel to axis. ‡42.3-41.9‡ «Talc vein» 45.3m: Talc vein banded with 2% Py, Cp-2cm wide, oriented at... 47.5: shear fabric oriented at... 52.2-57.0: stockwork fracturing in various orien-	60 10 46 32	5-10% fine grained dissem Mt grains and veinlets. Chlorite 15-20%. Qtz-carb-talc veinlets stkwk. 30-40% Mg-carb in matrix as fine grains and dissem. Talc alteration 15-20%. 1cm wide green and white talc vein subparallel to CA. Cm-spaced white talc veinlets perpendicular to main vein giving a "tartan" texture. ‡43.8-44.9‡ «Mottled Carb Alteration»	Trace fine-grained dissem Py and stringers. Trace fine grained disem Cp. Minor Cp. 45.3: 2% Py, Cp in 2cm wide talc vein.	Chlorite and epidote suggest protolith was volcanic (andesite). 52.2-57.0m: Low sulphide content occurring primarily as small veinlets. Core alternates between mottled texture and bleached alteration (talc-carb-Mt). NB: Mt alternates between 30 and 40% for whole zone. 72.5m: Sulphide content appears to be

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		tations. Brecciation apparent locally. †59.4-62.6 † «Talc-carb stkwk» Pervasive stkwk talc and carbonate veining. †65.5-65.6 † «Gouge» Small flt gouge with talc vein (2cm) in FW and parallel to CA. †68.3-68.7 † «Hydrothermal Bx» 2cm wide, subparallel to CA. 68.9m: Gouge oriented at.... †76.5-76.8 † «Flt» Albite vein; offset 10 cm, orient †78.2-79.0 † «Flt Gouge» oriented at... †82.7 † «Flt» oriented at... †84.65-84.75 † «Talc Vein» oriented at... †83.6 † «Gouge» oriented at †86.05-86.1 † «Talc Vein» oriented at... †87.9-88.0 † «Bx+Talc» oriented at.... 88.75-88.8m: 5cm wide talc-carbonate vein oriented 89.4m: 1cm shear oriented at.... with 10 cm talc-carb vein in FW. †89.55-90.0 † «Chalcedonic Vein» oriented at... †91.1-95.3 † «Flt Zone» 91.1-91.5m: Gouge + bx 91.5-93.0m: Clay gouge 94.2-95.1m: Clay gouge 95.1-97.3m: Chlorite-magnetite altered shear zone. †97.3-100.1 † «Fault Gouge» oriented at... 100.3-102.6m: Chlorite-Mt-talc altered shear. Stkwk talc veining + carb veining. Common orientation... 102.6m: Shear contact oriented at...	08 54 08 08 90 90 90 90 30 50 20 05 50 60 56 10	Carbonate forms 1cm white rings giving a mottled appearance. †52.2-57.0 † «Ep-Chl-Mt-CO3-Talc» Broad zone of very mottled core. 30-40% talc and CO3 forming larger (to 5cm) patches of irregularly shaped alteration. Remaining core shows very strong chlor-ep altn. Mt to 30%. 59.4-62.6: Talc carb veining with minor epidote oriented at 80 degrees to CA. 64.8m: 1cm wide talc carb vein oriented at 50 degrees to CA. 68.9m: Stkwk talc carb veins in FW. †72.4-72.5 † «Talc-Carb» Sheeted zone 72.5-75.6m: Randomly oriented stkwk tal veinlets with epidote selvages. Epidote more abundant in this zone (30%). Still patchy, mottled altn. 30-40% Mt as fine grained disseminations. Veins may be becoming more albitic. 79.0m onward: Possibly biotite. †91.1-91.5 † «Strg Chl» †93.5-94.2 † «Talc Vn» †94.2-95.1 † «Strg Chl» 95.1-97.3m: Patchy altn still magnetic. 97.3-100.1m: Very strong clay/chl altn.	57.2-58.0m: Tr Py. 65.6-66.0: 1cm wide talc vein with tr. Py, Cp parallel to CA. Tr Py, Cp in veinlets and pods. 79.0 onward: Sx increasing to 1% as dissem and stringers (Py, Cp) †91.1-91.5 † «5% Dissem Sx» †100.3-102.6 † «5% Dissem Sx»	increasing with depth, possibly relating to decrease in Mt content. 79.0m onward: Zone becomes greayer in colour with more clay alteration. Mt appears destroyed as core has pock-marked texture with what appear to be magnetite grains removed. Though Mt is weathered out, magnetism is still strong. 89.5-90.0m: Open-space filling by chalc-dony; good banding.
102.60 TO 104.70	«CHL ASH TU FF»	Fine grained light green banded andesitic ash tuff Bands/beds are commonly 2mm in width and have a somewhat "swirled" texture. One bed is 2cm thick. Bedding is contorted but a fabric exists-foliation or shear oriented at... †104.1 † «Small Shear» oriented at.... 104.7m: Contact (stratigraphic) oriented at...	20 30 30	†102.6-104.7 † «Strong Chl» 50% 104.1m: Shear silicified. †104.4-104.7 † «Carb Altn» 30% small blebs of talc-carb alteration, approx. 1mm dimension.	NB: No Mt in this interval.	
104.70 TO 106.90	«SER AND»	Fine grained dark green andesite with wispy bands of possible brownish sericite alteration along foliation oriented at....	24	†104.7-106.55 † «15% sericite» †105.2-106.55 † «Increasing Sil» Chlorite to 10% throughout †106-106.5 † «Kspar Veins» Light pink in colour	†106.6-106.9 † «2-5% Dissem Py»	Sulphide content increases with silicification to 106.9m. No Mt.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
106.90 TO 122.80	«SIL AND»	Fine to medium grained grey-green andesitic volcanics pervasively silicified from 50% to 100%. Strong fracturing and silica healing.		‡106.9-122.8‡ «Sil» Fine sugary textured silicification. Chlorite stringers approx. 1% for length but to 20% locally. 110.2-111.1m: Patchy alteration as seen higher in hole (ie talc-carb blebs) but has been overprinted by silica, and no Mt assoc with it. Minor Kspar veinlets; epidote dissem throughout and quite commonly rims Sx dissem.	‡106.9-11.7‡ «10% Dissem Py,Cp» Locally to 20%. ‡111.7-112.2‡ «20% Disem Py,Cp» Dissem in core and along fractures as stringers. Py:Cp approx 7:3. Py,Cp occurs as coatings on fracture surfaces as well.	Sulphide content decreases near hole bottom. Cp content appears to decrease near hole bottom.

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL								Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb				
BCD25984	6.10	9.20	3.10	3.3	1	62	580	1	14	1	40	6				
BCD25985	9.20	11.00	1.80	3.1	1	74	221	1	18	1	40	1				
BCD25576	11.00	14.60	3.60	2.5	1	58	162	1	10	1	48	2				
BCD25986	11.00	14.60	3.60	3	1	72	191	1	27	1	49	2				
BCD25987	14.60	15.60	1.00	2.8	1	142	50	1	25	1	72	1				
BCD25577	15.60	16.80	1.20	3.3	1	25	1396	1	8	1	35	62				
BCD25988	16.80	18.30	1.50	2	1	152	193	1	16	1	67	1				
BCD25989	18.30	21.30	3.00	0.7	1	148	224	1	20	1	88	2				
BCD25578	21.30	21.70	0.40	1	10	19	88	21	23	1	22	254				
BCD25579	23.20	26.20	3.00	0.9	1	19	119	3	24	1	14	7				
BCD25580	26.20	28.80	2.60	1	1	33	246	1	18	1	24	18				
BCD25992	28.80	29.40	0.60	1.6	1	12	300	1	15	1	18	4				
BCD25581	29.40	30.90	1.50	1.7	1	4	727	1	14	1	13	30				
BCD25993	30.90	31.40	0.50	1.5	1	4	447	1	17	1	16	16				
BCD25582	31.40	34.40	3.00	0.9	1	29	168	1	12	1	21	10				
BCD25994	34.40	37.40	3.00	0.9	1	4	100	1	10	1	12	2				
BCD25583	37.40	40.50	3.10	0.6	1	42	91	1	10	1	15	2				
BCD25995	37.40	40.50	3.10	0.7	1	84	91	1	13	1	12	4				
BCD25996	40.50	41.30	0.80	0.8	1	3	119	1	12	1	13	1				
BCD25584	41.30	41.90	0.60	0.8	1	13	286	1	11	1	12	4				
BCD25997	41.90	43.90	2.00	0.8	1	8	138	1	11	1	12	1				
BCD25585	43.90	44.80	0.90	0.8	1	27	186	1	9	1	15	1				
BCD25998	44.80	47.50	2.70	1	1	13	146	1	20	1	11	4				
BCD25586	47.50	50.10	2.60	0.6	1	7	189	1	12	1	15	1				
BCD25999	50.10	53.60	3.50	0.8	1	8	277	1	26	1	14	1				
BCD25587	53.60	56.70	3.10	0.7	1	21	187	1	15	1	17	12				
BCD26000	53.60	56.70	3.10	0.7	1	8	208	1	21	1	16	4				
BCD25713	56.70	59.40	2.70	0.5	1	12	119	1	22	1	48	2				
BCD25588	59.40	62.60	3.20	0.5	1	67	246	1	8	1	13	2				
BCD25714	62.60	65.60	3.00	0.6	1	6	186	1	15	1	16	1				
BCD25589	65.60	68.60	3.00	0.7	1	12	180	1	12	1	13	1				
BCD25715	68.60	71.40	2.80	0.6	1	69	221	1	18	1	17	1				
BCD25590	71.40	72.40	1.00	0.5	1	9	123	1	17	1	15	1				
BCD25591	72.40	72.55	0.15	0.7	1	136	77	1	9	1	10	2				
BCD25592	72.55	75.60	3.05	0.2	1	16	167	1	19	1	15	1				
BCD25716	75.60	79.00	3.40	0.7	1	70	104	1	17	1	15	3				
BCD25593	79.00	82.00	3.00	0.4	1	9	126	1	19	1	15	2				
BCD25717	79.00	82.00	3.00	0.5	1	57	125	1	18	1	18	1				

HOLE NUMBER: TM 91-1

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25718	82.00	84.00	2.00	0.5	1	14	142	1	17	1	17	4		
BCD25594	84.00	87.00	3.00	0.6	1	31	131	46	15	1	13	1		
BCD25719	87.00	90.00	3.00	0.8	1	56	139	26	14	1	14	5		
BCD25595	90.00	91.00	1.00	0.9	1	19	182	3	19	1	13	18		
BCD25596	91.00	95.40	4.40	0.7	1	38	246	1	22	1	46	1		
BCD25597	95.40	97.25	1.85	0.8	1	24	166	1	13	1	14	1		
BCD25598	97.25	100.00	2.75	0.7	1	381	463	23	18	1	36	2		
BCD25599	100.30	102.50	2.20	1	1	67	431	11	8	1	21	1		
BCD25600	102.50	104.50	2.00	0.7	1	1111	5	1	16	1	53	1		
BCD25720	102.50	104.50	2.00	0.8	1	795	97	1	20	1	52	4		
BCD25721	104.50	106.70	2.20	1	1	443	67	10	17	1	36	24		
BCD25976	104.50	106.70	2.20	1.3	1	352	58	22	5	1	40	87		
BCD25977	106.70	110.40	3.70	1.4	1	279	205	13	14	1	19	4		
BCD25978	110.40	111.60	1.20	1	1	325	283	7	11	1	26	2		
BCD25979	111.60	112.20	0.60	0.2	1	115	1640	1	12	1	40	28		
BCD25980	112.20	114.90	2.70	1.9	1	235	497	12	13	1	25	19		
BCD25981	114.90	118.30	3.40	1.9	1	69	923	15	15	1	16	23		
BCD25982	118.30	121.00	2.70	1.4	1	194	332	13	12	1	20	8		
BCD25983	121.00	122.80	1.80	1.8	1	340	352	12	11	1	30	7		

HOLE NUMBER: TM 91-1

ASSAY SHEET

PAGE: 6

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD25576	11.00	14.60	3.60	2.38	5.97	13.4	45.6	0.25	0.72	10.8	2.23	186	0.2	13.4	28	257	34	170	23	528	3	98.1
BCD25583	37.40	40.50	3.10	0.06	33.3	0.7	36.5	0.03	0.01	1.29	0.042	2690	0.17	6.64	10	47	10	10	15	203	20.1	99.3
BCD25587	53.60	56.70	3.10	0.05	32.4	1.05	37.6	0.02	0.02	2.45	0.04	3660	0.19	7.78	10	85	10	10	20	205	16.6	98.8
BCD25593	79.00	82.00	3.00	0.07	31.9	0.74	37.7	0.02	0.01	2.21	0.036	2630	0.23	7.11	12	56	10	10	10	181	19	99.4
BCD25600	102.50	104.50	2.00	0.06	23.3	6.01	47.5	0.37	0.33	4.09	0.607	1290	0.22	6.56	23	64	23	75	24	1370	9.39	98.8
BCD25976	104.50	106.70	2.20	0.64	9.25	8.19	65.4	0.48	2.49	2.47	0.865	335	0.1	5.39	104	118	24	85	20	2530	3.39	99

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0.00 0.00 0.00 TO 0.00	y					
0.00 TO 9.10	«CSG»				Casing was originally driven to 9.1m and then pushed to 12.2m - resulting in poor recovery.	
9.10 TO 28.20	«AND/ALT AND»	The unit has undergone pervasive propylitic alteration which gives the otherwise unaltered volcanics a massive, very fine grained, green appearance. Fine stringers and fractures run throughout the core. Stringer composition is qtz/carb with local hematite. Fracture surfaces are locally coated with hematite. Some 'fracture' surfaces have slickensides. Minor seritization also occurs along fractures. Core is generally weakly magnetic. Core is generally weakly calcareous with local increases in intensity; stringers are intensely calcareous. The interval is extremely blocky which makes determination of joint sets difficult but there appears to be one set oriented at ¶17.6-17.9¶ weak «Flt bx, gou»	40	The base alteration type for this interval is moderate propylitic alteration consisting of pervasive chlorite alteration, weak to moderate carbonatization trace epidote, minor sericite, and minor to weak hematite. This alt. assemblage comprises 30% of the interval. A somewhat more intensely altered version of the above contains moderate to carbonate which gives the core a whitish cast. This assemblage comprises 45% of the interval. Other alteration zones are as follows: ¶17.9-20.2¶ «Qtz/Carb Flood» This interval also contains <1% v.f. grained magnetite. ¶20.4-21.9¶ «Int Prop Alt» Strong q/c within interval; patchy hematite after magnetite. Locally small vugs exist where the magnetite has weathered out. 24.35-24.5m: Porphyroblastic? feldspar ¶26.0-26.4¶ «Int Sil» at center of the interval, weakening towards edges. ¶26.8-28.2¶ «Mod-Int Sil»	The interval contains 2-12% brassy pyrite in fine to coarse dissem. Minor (except where noted below) cp occurs as v.f. grained dissem. Cp can be intimately associated with pyrite and/or q/c. ¶20.4-21.9¶ «12%py 3%mg, 1%cp» Py is fine to med grained, coarsely dissem. Magnetite is v.f. grained and is altering to hematite. Cp is v.f. grained and occurs as v.f. to fine dissem. Cp is frequently associated with q/c.	Core recovery: 9.1-10.7m: 31% 10.7-12.2m: 13% 12.2-14.0m: 72% 14.0-14.5m: 80% 14.5-15.5m: 50% 15.5-15.8m: 100% 15.8-17.1m: 15% 17.1-18.0m: 55% 18.0-20.1m: 14% 20.1-21.3m: 92% 21.3-22.9m: 56% 22.9-24.7m: 90% 24.7-25.3m: 83% 25.3-26.2m: 78%
28.20 TO 46.50	«ANDESITE»	Green, aphanitic. The interval is similar to the overlying unit but is more consistent in mineralization and alteration. The interval contains 3% white q/c stringers and veinlets of varying orientations. The core contains a wide range of jointing orientations; one persistent set is oriented at Locally there is offset along some joints. Core is still blocky but less so except between 42.7-46.5m where the core is very blocky.	50	Moderate propylitic alteration: intense chlorite, weak to mod. carbonate. Some weak sericite alteration along fractures.	3-5% fine to med. grained, fine to coarsely dissem. pyrite. Minor occurrences as stringers along fractures. Trace fine grained cp seen in q/c with clots of pyrite.	

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		34.5-34.9m: q/c veinlet is oriented at and reaches a max width of 3 cm.	25			
46.50 TO 47.70	«GRY CALC AND»	Grey, green, aphanitic. Moderate to intense alteration has generally bleached the green color from the andesite. The interval still contains 2% randomly oriented q/c stringers. Core is competent non-magnetic.		Pervasive moderate to intense carbonate flooding, stringers and veinlets. Patchy weak yellowish brown sericite alt'n and silicification.	<10% f. grained finely dissem to patches of pyrite. Minor v.f. grained cp. Cp generally occurs with clots of py.	
47.70 TO 53.50	«GRN CALC AND»	Green, white, aphanitic. This interval is similar to that between 28.2-46.5m except that the core is quite blocky and contains 15% white patches and veinlets of q/c. Core is non-magnetic.		Andesite is strongly chloritized and carbonatized. Core is locally weakly bleached and/or sericitized to a patchy pale yellow-green/brown.	Up to 5% fine to coarsely dissem., fine grained pyrite. Minor v.f. grained dissem. cp associated with q/c and/or pyrite.	
53.50 TO 54.40	«BX ZONE»	Green, fine. There is a narrow zone of bx which is oriented subparallel to the C/A throughout the interval. Clast composition is 10% q/c 20%andesite 70% weak sericite altered andesite and trace py clasts. Clasts are angular to subrounded. 10% of the clasts are only slightly removed from their source (usually another clast) the remainder have been transported greater distances. Hydraulic bx?? Matrix is aphanitic, andesite protolith.		Strong chlorite alt'n. Weak sericitic alt'n of some clasts. Andesite is still calcareous.	5% f. grained, fine to coarsely dissem. pyrite.	
54.40 TO 57.80	«ANDESITE»	Andesite has an aphanitic matrix which supports <5% altered Hb? phenocrysts to 2mm. 3% discontinuous Q/C stringers and patches. In the final 50cm there is no Hb? but there is 15% altered feldspar phenos to 1mm. ‡57-57.25‡ «Bx» Clasts are primarily of Q/C. Interval has been more intensely chloritized. ‡57.3-57.55‡ «Bx Zone» similar to that between 53.5-54.4m.		This interval is not as intensely chlorite altered as the above intervals, resulting in a greyer colouration.	<1% vfg dissem Py. In the brecciated zones there is 3-5% coarsely dissem Py.	
57.80 TO 77.45	«ALT AND»	This interval ranges from a massive dk green to a paler green to mottled green/yellow-brown. The latter colouration is due to a patchy to streaky sericite alteration which may be controlled in part by fractures and minor zones of silicification. 2% white Q/C stringers and veinlets. Core is non magnetic.		Andesite is strongly chloritized. Weak to moderately calcareous. Patchy/streaky weak yellow-brown sericite alteration. Trace to minor hematite in Q/C stringers. 60.7-61.5m: Zone of intense silicification. Grey colouration. Interval has carbonate along numerous thin fractures. There is further minor small patches of similar silicification foot-wall to this zone to 63m. ‡60.7-61.5‡ «Int Sil» ‡61.5-63‡ «Patchy Sil»	3% fine grained, fine to coarsely dissem Py. Tr Cp in Q/C. ‡60.7-63‡ «15% Py, .5% Cp» Fine grained sx, coarsely to finely dissem.	There is some extra core between the 68.9-70.7m blocks.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
77.45 TO 82.30	«SIL SER AL T AND»	The andesite in this interval has undergone variable degrees of patchy alteration. The unit is still crosscut by 3% stringers of white Q/C of varying orientations. Locally stringers/veinlets brecciate the host rock. The unit is non magnetic; competent.		The protolithic alteration consists of a chloritized and carbonatized (propylitic) andesite. Within this interval however there is weak patchy yellowish brown sericite alteration over 80% of the core. There is also patchy weak to intense silicification which locally gives the core a glassy appearance while bleaching the core. Trace epidote is associated with some of the silicified zones. Trace hematite in qtz.	3-5% fine to coarse dissem of fine grained Py. Minor very fine grained, finely dissem Cp, generally associated with silica. Local concentrations to 1%	
82.30 TO 94.50	«ANDESITE»	Massive green volcanics which are cut by 3-5% white Q/C stringers which locally bx the host rock		Volcanics are stringly chloritized. Volcanics are calcareous.	1-3% fine grained, fine to coarsely dissem Py.	
94.50 TO 96.60	«SIL VOL»	The rock is grey, aphanitic. Protolith is most likely an andesite. Intense alt'n destroys all original textures except between 94.7-95.1m where the intensity of the alteration decreases and chloritized andesitic volcanics are recognizable. The upper contact is sharp at... The lower contact is gradational. Numerous randomly oriented, tight, carbonate coated fractures stockwork the interval. The core is non-magnetic.	60	The interval has been intensely silicified except between 94.7-95.1m where sil is weak and the andesite is int. chloritized; and between 96.3-96.6m where sil. weakens and chlorite is increasingly abundant. Between 95.5-96.2m there is 15% patchy, buff colored sericite and lesser chlorite present.	5% fine to coarsely dissem. f. grained pyrite and .5% vf grained cp with localized concentrations to 2%. ‡94.5-96.3‡«5%py .5%cp»	
96.60 TO 98.60	«ANDESITE»	Green, aphanitic massive chloritically altered andesite. Non-magnetic. 3% white q/c stringers crosscut the core; minor bx of the rock by these stringers. Possible incipient to weak shear fabric is oriented at.... The lower contact is somewhat gradational.	10	Strong chlorite alt'n. 10% patchy to streaky buf sericite alt'n occurs primarily between 96.8-97.3m. Trace hematite in the q/c stringers.	1-2% fine grained, disseminated pyrite.	
98.60 TO 102.50	«SIL VOL/AND»	The principal rock type of the interval is an int. silicified volcanic, grey in color, wherein the original textures are destroyed (similar to 94.5-96.6m). This unit contains a high density of tight carbonate coated fractures. There is <1% white q/c stringers and patches present. The core is typically grey but has a greenish tint caused by fine grained chlorite. The sil. volc. has sharp contacts with, or grades rapidly into, small zones of andesite as follows: ‡99.55-99.9‡«Andesite» ‡101.25-101.9‡«Andesite»		The andesite is chloritic, calcareous, and locally contain trace epidote. The remainder of the interval is intensely silicified except between 98.6-99.55m where there is weak to moderate silicification and chlorite.	The sil. core contains 5% fine grained pyrite as fine to coarse disseminations. Minor fine grained cp is also present; in rare localized concentrations reach 1%. The andesites contain similar amounts of pyrite, but no visible chalcopyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		The andesite is medium green, massive. The and. is cut numerous fine fractures. The core is non-magnetic. At 100.1-100.4m there is a sil vol/and contact parallelling the core axis.				
102.50 TO 104.80	«ANDESITE»	The interval consists of a green aphanitic, massive andesitic volcanic which is cut by 3% white q/c stringers and patches. ‡104.7-104.8‡«Flt Bx»		Andesite is moderately chloritized and is calcareous. Minor bleaching of the rock.	5% pyrite. The pyrite is generally coarsely disseminated within q/c.	
104.80 TO 105.70	«SIL VOL»	Grey, aphanitic. The interval is similar to the previous, overlying silicified intervals. 1% q/c stringers. Numerous tight carbonate coated fractures. Greenish tint caused by chlorite. Minor brown sericite. <5% white feldspar - plagioclase. The top 20cm of the interval is blocky and fault bx. The lower contact is oriented at...	55	Intense silicification throughout.	Minor to .5% fine grained cp is finely disseminated throughout the unit. There is ~4% f. grained, fine to coarse dissem. py. Local concentrations to 8%.	
105.70 TO 117.00	«PROP/SIL AND»	This interval varies in appearance from green to to a mottled green to buff, aphanitic to fine grained, altered andesite; characteristics are dependent on the local alteration. The core is competent. ‡107.6-107.9‡«Flt Bx, Gou»		The alteration within this unit is highly variable. The basic alt'n is a moderate level of propylitic alt'n: chlorite and carbinite giving a relatively uniform, massive appearance. Variations from this norm are as follows: 105.7-106m: Development of 20% white to pink plag in chloritic and weakly sil. groundmass. Some bleaching and sericitization also present. 106-106.7m: Mod to int. sil. overprinting and destroying original textures. Small amounts of chlorite and sericite give the core a green tint. 108.6-109.3m: With depth there is an increasing amount pink to buff colored plag. + sericite. Minor, grey patchy moderate silicification. 110.3-110.8m: Intermittent mod to int buff plag + sericite flooding. 111.9-112m: Int sil over half the core. 112.5-113.9m: 60% plag/sil/bleaching mottles an intensely chloritic matrix. 2% fine grained epidote. 5% sericitic alteration. The plag content decreases rapidly in the final 30cm of the sub-	The weakly altered andesite can contain up to 5% fine grained, finely dissem. to stringer pyrite. Within the feldspar altered intervals the pyrite content can reach 10% and generally occurs as blebs. 106-106.7m: 7% py, minor cp. SX are fine grained, finely disseminated. ‡111.9-112‡«1%mt 10%py .5%cp»	Plagioclase does not exhibit good xtal shape and frequently is somewhat amorphous to striated and streaky. This may be due in part to destruction/exsolution/shearing of the plag. Fresh surfaces are generally white, but, by and large the plag has altered to a buff color. Locally the plag is less sil - partially clay altered.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				interval. The interval ends in a 4cm wide q/c vein. 13.9-117.0m: Patchy buff plagioclase is minor constituent over the remainder of the unit.		
117.00 TO 117.80	«TRACHYTE? DYKE»	An aphanitic brown-grey matrix supports 20% fine phenocrysts of Hb to 2mm and 3% plag phenocrysts to 1mm. Core is competent and siliceous. Minor white q/c stringers. Contacts are lost in blocky core.		There may be some weak silicification of the core.	<1% disseminated pyrite.	This unit has not yet been stained to ascertain the presence of K-spar but the unit is similar other trachyte units which have been stained.
117.80 TO 122.45	«ALT ANDESITE»	This interval is similar to that between 105.7-117m; the andesite has been intensely altered. The core is generally competent, locally magnetic. The lower contact is quite sharp at...	50	Alteration consists of intense chlorite patchy plag, and minor sericite, <5% epidote. Between 119.2-120.6m there is 2-3% magnetite (mt) which occurs as patches and stringers. Mt is associated with pyrite and epidote. The mt is weakly altered to hematite. A small zone of int sil. occurs at 119.4m and 119.6-119.7m. SX, mt, epidote, and sil. content all decrease with depth.	The interval contains 5-10% pyrite and up to 2% cp (<1% overall). SX are fine grained, fine to coarse dissem. ‡117.8-122.45‡«6%py <1%cp»	
122.45 TO 125.30	«TRACHYTE? DYKE»	As in the interval 117-117.8m except between 122.9-124.9m where alteration has destroyed the original textures. The lower contact is at... Hematite and carbonate coat the fracture surfaces.	30	122.9-124.9m: Moderate chlorite alteration. Alt'n is weak at the margins of the interval and increases towards the center. 123.7-123.9m: 20% patchy epidote, moderate chlorite alt'n and 10% white q/c stringers.	2% pyrite overall. Py is most abundant in the more highly altered rock.	The most intensely altered core is very hard to distinguish from what is being labelled as andesite.
125.30 TO 125.90	«BRECCIA»	A pale green, sericitic matrix supports 80% angular to subrounded clasts. Clast composition is 80% qtz, 19% andesite, 1% trachyte? dyke. Maximum clast size is 6cm. Minor white q/c stringers are present. Some fractures are coated with hematite.		Some sericitization of the matrix; possibly weakly silicified.	4% dissem pyrite.	The origin of the qtz clasts is difficult to determine. They may be derived from either silicification or chert/quartzite.
125.90 TO 129.70	«ANDESITE»	Massive, aphanitic andesite which is mottled in shades of green. Core is competent. 5% white q/c stringers/patches cut the core. END OF HOLE.		Core is chloritic. Local bleaching or sericite/epidote (minor) alt'n mottles the core. Minor patchy grey silicification.	3% fine to coarsely disseminated pyrite	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb			
BCD25601	10.50	15.52	5.02	0.6	1	239	404	1	14	1	46	3			
BCD25722	15.50	17.10	1.60	0.7	1	91	173	3	9	1	24	4			
BCD25602	17.10	20.40	3.30	1.1	1	30	284	5	29	1	40	2			
BCD25603	20.40	21.90	1.50	1.6	1	54	4850	1	22	1	52	282			
BCD25723	21.90	24.00	2.10	0.5	1	32	279	1	15	1	40	2			
BCD25724	24.00	26.00	2.00	0.3	1	97	389	1	14	1	50	22			
BCD25604	26.00	28.20	2.20	0.8	1	119	325	4	5	1	44	17			
BCD25605	28.20	29.70	1.50	0.1	1	173	432	1	24	1	114	10			
BCD25725	29.70	33.30	3.60	0.6	1	412	125	1	23	1	62	10			
BCD25606	33.30	36.30	3.00	0.1	1	560	295	1	16	1	54	22			
BCD25726	36.30	39.30	3.00	0.7	1	241	924	1	24	1	55	76			
BCD25607	39.30	42.30	3.00	0.5	1	88	2262	1	14	1	68	183			
BCD25727	42.30	44.30	2.00	1.7	1	175	2814	1	28	1	65	245			
BCD25728	44.30	46.50	2.20	1.8	1	288	2208	1	25	1	59	244			
BCD25608	46.50	47.70	1.20	1.7	1	171	1461	1	21	1	42	60			
BCD25609	47.70	50.70	3.00	1.6	1	118	1740	22	34	1	69	157			
BCD25610	50.70	53.50	2.80	1.2	1	63	834	1	107	1	497	364			
BCD25611	53.50	54.40	0.90	1.7	92	44	719	6	19	1	64	4800	5.2	0.152	
BCD25612	54.40	56.40	2.00	0.5	1	89	64	1	17	1	50	5			
BCD25729	54.40	56.40	2.00	0.4	1	224	137	1	21	1	65	42			
BCD25730	56.40	58.60	2.20	2.1	14	79	632	1	20	1	76	700			
BCD25731	58.60	60.70	2.10	1.6	51	237	367	1	16	1	44	285			
BCD25613	60.70	61.50	0.80	3.8	95	21	2414	4	15	1	24	216			
BCD25614	61.50	63.00	1.50	0.8	52	44	958	1	17	1	59	188			
BCD25732	63.00	66.00	3.00	1.2	1	81	1311	1	18	1	59	100			
BCD25615	66.00	69.00	3.00	0.7	1	91	1231	1	15	1	51	45			
BCD25733	69.00	72.00	3.00	1	1	64	1255	1	19	1	53	80			
BCD25734	72.00	75.00	3.00	0.6	1	56	966	10	21	1	45	2			
BCD25735	75.00	77.45	2.45	0.9	1	76	759	1	22	1	39	1			
BCD25616	77.45	80.00	2.55	0.9	1	33	551	1	14	1	29	2			
BCD25617	80.00	82.30	2.30	0.3	1	22	975	2	13	1	26	1			
BCD25736	82.30	85.30	3.00	1.2	1	110	341	1	26	1	46	2			
BCD25618	85.30	88.30	3.00	0.1	1	90	343	1	11	1	62	2			
BCD25737	88.30	91.30	3.00	1.8	1	76	304	1	21	1	53	1			
BCD25738	91.30	94.50	3.20	1.3	1	124	483	1	23	1	52	40			
BCD25619	94.50	96.60	2.10	1.1	1	37	865	18	16	1	23	28			
BCD25620	96.60	98.60	2.00	0.1	1	73	466	3	12	1	50	2			
BCD25621	98.60	100.60	2.00	1.2	1	55	663	9	20	1	27	24			

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25622	100.60	102.50	1.90	1.4	7	55	363	5	16	1	25	8		
BCD25623	102.50	104.80	2.30	0.8	1	62	649	1	19	1	49	20		
BCD25624	104.80	105.70	0.90	1.9	1	37	534	20	12	1	11	18		
BCD25625	105.70	108.70	3.00	1.3	4	82	816	3	17	1	34	54		
BCD25739	108.70	111.70	3.00	1	1	84	737	1	17	1	48	52		
BCD25626	111.70	112.90	1.20	1.3	1	80	895	1	12	1	33	16		
BCD25632	112.90	113.90	1.00	0.5	1	53	1731	3	17	1	38	28		
BCD25740	112.90	113.90	1.00	0.7	1	76	2134	1	23	1	46	65		
BCD25741	113.90	117.00	3.10	0.6	1	234	482	1	21	1	49	12		
BCD25627	117.00	117.80	0.80	0.5	1	47	73	1	17	1	54	1		
BCD25742	117.00	117.80	0.80	0.6	1	107	110	1	21	1	55	24		
BCD25743	117.80	119.20	1.40	0.5	48	83	720	1	24	1	54	21		
BCD25628	119.20	120.60	1.40	0.5	1	98	1054	1	15	1	44	4		
BCD25629	120.60	122.45	1.85	1	1	50	1068	1	15	1	47	2		
BCD25744	122.45	125.30	2.85	0.6	1	51	410	1	19	1	60	10		
BCD25630	125.30	125.90	0.60	0.7	1	64	665	14	27	1	44	30		
BCD25745	125.90	127.00	1.10	0.1	1	58	279	21	22	1	80	5		
BCD25631	127.00	129.70	2.70	0.9	1	96	666	1	25	1	110	46		

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD25612	54.40	56.40	2.00	2.91	4.04	14.7	50.6	0.4	2.98	7.38	0.833	87	0.18	7.78	63	225	20	90	16	1500	7.93	100
BCD25632	112.90	113.90	1.00	2.13	3.26	13	40.5	0.41	2.26	9.92	1.94	165	0.12	12.4	59	179	10	136	38	1790	4.39	90.6
BCD25627	117.00	117.80	0.80	3.7	2.81	15.6	52.3	0.4	4.36	6.77	0.81	93	0.12	6.78	78	462	10	81	27	1830	5.39	99.3

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.10	«CSG»					
6.10 TO 24.60	«HORNF? AND »	Unit consists primarily of a dark green massive andesitic volcanic. The unit is quite siliceous and may have been weakly hornfelsed. Core is non-magnetic. Fracture surfaces are variably coated with hematite and carbonate; near the surface limonite stain also occurs. The core contains less than 1% fine q/c stringers (fracture infilling). The core is extremely blocky to 10.8m and then is moderately blocky. 16.97m: a 2cm wide qtz veinlet with minor Kspar and epidote/sericite selvage is oriented at... "Contact" is actually at a point where increased albite? alteration becomes prevalent.	40 20	The core has been pervasively chloritized. The core is generally not calcareous except for stringers. 13% of the core is bleached to a pale whitish green; frequently adjacent to fractures. Elsewhere larger patchy zones of bleaching partly caused by sericitization and formation of albite? occur. Zones that contain chalcopyrite also commonly contain small amounts of epidote.	The interval contains 3% fine grained pyrite which occur in clots or coarse disseminations. The core contains in general very little else in the way of Sx. The overall Cp content is minor with local concentrations to 1%. Cp generally occurs in very fine grained disseminations where there is an abundance of pyrite and/or bleaching/albitization. ‡7.6-7.8‡ Bleached zone contains «5% Py, .25% Cp» ‡15.27-15.97‡ «1% Cp, 8% Py» 1% epidote in bleached albitized? zone. ‡18.2-18.3‡ «.25% Cp, 10% Py» Pyrite is locally semi-massive. The only other Sx seen occurred between ‡12.0-12.3‡ in a 4mm wide qtz-feld-ep veinlet oriented at... contains «3% Py, 5% Mo»	Mo? is very fine-grained, soft with a silvery grey colour and a grey streak.
24.60 TO 30.48	«WK-MOD ALB ? AND»	80% of this interval is similar to that above. In this area however a weak to moderate amount of albitization? has occurred giving much of the core a spotted appearance. Locally the alteration occurs in larger irregular patches and is quite intense. The andesite is still quite siliceous (hornfels?), non-calcareous, and non-magnetic.		Albitization? consists of irregular rounded porphyroblasts of feldspar +/- qtz, which mottles the core. Localized weak sericitization; minor epidote.	3% fine grained blebs of pyrite. Trace Cp in some albitized patches.	Note there is the occasional rare euhedral crystal of feldspar present.
30.48 TO 35.20	«INT ALB? AND»	A more intense alteration zone of the style immediately above. 70% of the interval is intensely altered, 30% is green andesite of the type seen previously.		Broad intense zones of albitization. Minor to weak carbonate present. 4% patchy, fine grained clots of epidote in the altered zones.	5% fine grained clots of pyrite.	
35.20 TO 37.60	«HORNF? AND »	Green, aphanitic, massive to mottled, siliceous andesitic unit-weakly hornfelsed? Mottling derived from localized patchy bleaching but only very minor albite as seen above, present. Some of the bleaching is localized around tight, randomly oriented fractures. The andesite contains minor q/c stringers.		Andesite is chloritized. Epidote forms along fractures and locally forms envelopes around pyrite blebs.	4% fine grained patches, stringers, and disseminations of pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
37.60 TO 38.10	«QTZ MONZO DIORITE»	Grey diorite is quite fine grained (<2mm). Locally crystal structure is somewhat washed out. Contacts are irregular. Minor fine, q/c stringers cross-cut the unit. Diorite is non-calcareous, non-magnetic. Mineralogy: 4% epidote, 5% pyrite, 40% chlorite altered mafics (Hb?), 32% plag, 7% qtz, 12% Kspar.		4% epidote occurs as stringers along fractures and as disseminations. Mafics have been altered to chlorite.	5% finely dissem pyrite.	
38.10 TO 66.80	«EP/ALB? ALT AND»	The protolith is a massive andesitic volcanic which has been mottled by varying types of alteration. The andesite is locally very siliceous, but retains its dark green colour-patchy weak hornfels alteration?. The core is generally quite competent. 1% white q/c stringers to 2mm. Some stringers contain hematite. The core is non-magnetic except for very rare small patches which contain magnetite. The andesite and albitized? andesite are very weakly to non-calcareous. Epidote rich zones carry a much stronger carbonate content. Hematite occurs along some fracture surfaces. Between 52-59m there is a widely spaced but well developed tight fracture system oriented at... Lower contact is sharp at... ‡62.8-63.2‡ «Flt Bx» 10% q/c vein material present which contains andesite clasts.	30 40 90	Approx 30% of the interval contains irregular patchy bleaching and albitization? Albite most prevalent at top of interval. Up to 20% of the interval consists of fine grained epidote in a more calcareous, locally bleached, andesitic matrix. Andesite is intensely chlorite altered. 40.6-41.6: 35% epidote. 51.8-57: 25% epidote.	The pyrite content varies between 3-10% In general the largest concentrations of pyrite occur in epidote-rich zones. Minor dissem Cp occurs in the larger pyrite clots or in strong epidote alteration. 48.15m: 3cm wide banded veinlet oriented at 50 degrees to CA contains 50% Py, minor Cp.	Albitized? core is pale grey with greenish tint. Aphanitic, siliceous. Again this may be due to bleaching and silicification rather than massive influx of plag.
66.80 TO 67.80	«QTZ DIORITE»	Grey, fine to medium grained diorite. Composition: 2% dissem Mt, 30% weakly chloritized Hb, 3% disseminated pyrite, 25% qtz, 40% plag. Max crystal size 3mm. 2% q/c stringers. Sharp lower contact at to CA.	90	Minor epidote alteration along fractures.	2% pyrite.	Somewhat less altered than the previous diorite intersections.
67.80 TO 121.90	«CHL/EPID ALT AND»	The core is aphanitic to fine grained and varies between massive green and mottled shades of green where alteration is more intense. Core is generally non-magnetic but there are rare isolated occurrences of magnetite. Q/C stringers make up from 1-10% of the interval (mode 2%); randomly oriented. Fractures are frequently hematite stained. ‡75.2-76.3‡ «And/Q Dior» A zone of qtz diorite similar to that previously intersected pinches and swells along the core axis in contact with andesite. The QD is slightly finer grained than previously and contains 10% fine grained epidote. ‡77.1-77.25‡ «Flt Gouge Zone» Moderate hematite		Massive andesite volc has been moderately to intensely chlorite-altered and contains abundant patchy epidote alteration. Overall epidote content for the interval is approx 12%. Epidote enriched zones contain weak to moderate carbonate and are associated with bleaching of the surrounding andesite. Between 80.5-98.5m the epidote content is <5%. Below 98.5m there is 5-7% ep. ‡108.8-116.1‡ «Int Epid/Carb Alt» The dark green andesite is largely altered by a pale bleached zone containing	The overall pyrite content is approx 3% and ranges between 1-8%. Py is fine grained and occurs as disseminations, blebs, and stringers. Tr Cp.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		staining. ‡77.9-78.2‡ «Flt Zone» Brittle flt bx at top of interval; clay gouge present at base. 80.5-83.7m: weak to moderate, patchy to pervasive hematite staining. Minor fault gouge present. ‡82.9-83.7‡ «Flt Zone» Brittle fault bx at top of interval; increasing clay gouge with depth. 87.4-87.8m: Brittle fault bx. ‡89.5-91.45‡ «Flt Zone» Local clay gouge developed		up to 50% epidote and 20% interstitial and patchy carbonate +/- qtz. Mean percentages are approximately 25% and 10% respectively. Locally fractures are hematite coated. 116.1-121.9: Interval is again the typical dark green andesite with small patchy zones of epidote and 1% q/c stringers.		

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL										COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t		
BCD25746	6.10	9.30	3.20	2.3	1	48	411	1	14	1	26	17				
BCD25633	9.30	12.30	3.00	2.5	28	41	273	25	23	1	29	17				
BCD25747	12.30	15.30	3.00	2.8	1	39	433	1	16	1	115	31				
BCD25634	15.30	18.30	3.00	2.7	1	21	998	5	22	1	35	40				
BCD25748	18.30	21.30	3.00	2.9	1	27	290	12	17	1	26	21				
BCD25635	21.30	24.30	3.00	2.4	1	25	161	1	21	1	26	2				
BCD25749	24.30	26.50	2.20	2.8	1	38	620	51	20	1	30	56				
BCD25636	26.50	28.50	2.00	2.2	1	23	226	1	36	1	114	3				
BCD25750	28.50	30.48	1.98	2.6	1	43	281	1	22	1	37	21				
BCD25637	30.48	32.20	1.72	2.3	1	19	621	1	25	1	30	17				
BCD25638	32.20	35.20	3.00	1.8	1	15	554	2	30	1	49	21				
BCD25751	35.20	37.60	2.40	2.6	1	31	534	6	21	1	33	27				
BCD25639	37.60	38.10	0.50	1.4	1	37	425	2	23	1	24	17				
BCD25640	38.10	40.60	2.50	1.4	1	25	915	1	23	1	26	22				
BCD25641	40.60	41.60	1.00	0.9	1	3	2353	51	24	1	25	71				
BCD25752	41.60	44.60	3.00	2.7	1	57	441	1	15	1	29	10				
BCD25642	44.60	47.60	3.00	1.8	1	42	396	14	22	1	30	19				
BCD25659	47.60	49.60	2.00	2.1	1	68	463	1	22	1	29	12				
BCD25643	49.60	52.60	3.00	2	1	26	218	1	21	1	41	3				
BCD25754	52.60	55.60	3.00	2.4	1	45	208	1	19	1	50	22				
BCD25644	55.60	58.60	3.00	2	1	32	234	1	20	1	37	15				
BCD25755	58.60	61.60	3.00	2.1	1	83	316	1	18	1	28	40				
BCD25645	61.60	64.60	3.00	2.1	1	36	226	1	19	1	31	17				
BCD25646	64.60	66.80	2.20	2.2	1	48	299	1	20	1	37	3				
BCD25647	66.80	67.80	1.00	1	1	67	210	2	27	1	32	1				
BCD25756	66.80	67.80	1.00	0.9	1	126	208	1	21	1	30	32				
BCD25757	67.80	70.80	3.00	2.1	1	65	328	1	13	1	31	27				
BCD25648	70.80	73.80	3.00	2.2	1	52	252	1	16	1	33	1				
BCD25649	73.80	76.80	3.00	2	1	47	149	1	18	1	32	3				
BCD25650	76.80	79.80	3.00	2.2	1	23	234	1	16	1	41	9				
BCD25758	79.80	82.80	3.00	1.8	1	39	216	1	6	1	38	26				
BCD25651	82.80	85.80	3.00	1.8	1	117	287	1	15	1	48	10				
BCD25759	85.80	88.80	3.00	1.2	1	24	309	1	15	1	49	58				
BCD25652	88.80	91.80	3.00	1.5	1	17	1044	1	17	1	53	114				
BCD25760	91.80	94.80	3.00	2.1	1	42	377	1	11	1	27	60				
BCD25653	94.80	97.80	3.00	2	1	27	502	1	21	1	26	22				
BCD25654	97.80	100.80	3.00	1.7	1	36	322	1	23	1	23	12				
BCD25761	100.80	103.80	3.00	2	1	45	444	1	15	1	30	59				

HOLE NUMBER: TM 91-3

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25655	103.80	106.80	3.00	1.9	1	40	332	1	21	1	20	19		
BCD25762	106.80	108.80	2.00	2.4	1	54	347	3	14	1	27	37		
BCD25656	108.80	111.80	3.00	2.5	1	21	363	1	20	1	32	7		
BCD25657	111.80	114.80	3.00	2.7	1	40	378	1	20	1	28	8		
BCD25763	114.80	117.80	3.00	2.4	1	51	286	2	14	1	31	20		
BCD25658	117.80	120.80	3.00	1.7	1	45	318	1	21	1	29	7		
BCD25764	120.80	121.90	1.10	2	1	35	325	1	15	1	28	32		

HOLE NUMBER: TM 91-3

GEOCHEM. SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD25637	30.48	32.20	1.72	1.99	5.69	14.6	46	0.14	0.63	15	1.45	266	0.18	9.98	29	332	26	82	13	241	2.77	98.6
BCD25647	66.80	67.80	1.00	4.07	2.34	17	56.2	0.25	1.85	6.57	0.532	108	0.07	6.61	54	441	22	51	10	1290	3.39	99.1

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 12.20	«CSG»					
12.20 TO 24.00	«WK SIL AND»	Protolith is andesitic volcanic, washed out medium to dark green in colour; minor grey green zones. Core is extremely blocky to 193m. Competent core has abundant stockwork, tight to slightly open fractures. Between 20.1-21.6m there is one principal joint set that is oriented subparallel to the CA. 2% white q/c (20/30%) veinlets randomly cross-cut the core. Q/C generally occurs as stringers but can reach widths of 2 cm. The veinlets tend to have a higher proportion of qtz. The interval contains approx 1% fine grained magnetite which is commonly associated with silica; thin stringers of dissem magnetite in qtz is the primary occurrence but it is also occurs as patchy, irregular dissem in siliceous zones and as stringers in andesite (paralleling fractures?). At 22.36m there is a minor brittle fault bx zone and a q/c vein containing angular clasts of andesite. The q/c patch is 2x5cm. ‡23.9-24.0‡ «Brittle Flt Bx»		Andesite has been pervasively chlorite altered. Silicification within the interval is patchy and generally weak. Minor, moderate levels of silicification bleaches core. Approximately 20% of the interval has been silicified (3% moderate intensity). Limonite stain occurs to 19.3m on fracture surfaces. Only minor carbonate occurs within the andesite outside of carbonate-coated fractures.	Trace malachite occurs on weathered fracture surfaces to a depth of 19.3m. Overall the interval contains <1% very fine grained disseminated Cp. Local concentrations can reach 2% over 10cm (rare). Pyrite content ranges between 1-5%, averaging 3%. Pyrite is fine grained and occurs as fine dissem to blebs.	Core Recovery: 12.20-13.10: 33% 13.10-14.94: 33% 14.94-16.76: 70% 16.76-18.29: 75% Note: Throughout the hole there are a number of zones where there is more core between the marked blocks than these blocks indicate and there does not appear to be a corresponding short-fall elsewhere. Where possible the blocks have been corrected, elsewhere they have been left and indicated in the log as >100% recovery.
24.00 TO 34.25	«SIL AND»	This interval is similar to the overlying unit but is more intensely altered. The core is criss-crossed by numerous tight to open, vuggy fractures. Some fractures are lined with carbonate. The core is moderately to strongly blocky. Remnant andesite textures are massive. Core is bleached to a greyish-green colour. The interval contains <5% fine grained magnetite. Mt occurs as small patchy disseminations and as stringers which are randomly oriented. Mt occurrences are associated with bleached siliceous haloes. Rare, grey translucent qtz stringers cross-cut core. At 32.7m a 3cm wide white qtz vein is oriented at.... The vein contains 10% Mt which occurs as bands within the qtz.	45	The mafic constituents of the andesite have been altered to chlorite. The andesite has been overprinted by moderate silicification; minor intense silicification. Minor brownish sericite present.	Overall the interval contains 1% very fine grained, disseminated Cp; local concentrations to 4%. Trace very fine grained light brown sphalerite? occurs with Mt and Cp (possibly leucosene). ‡30.1-30.8‡ «3% Cp, 1% Py, 5% Mt» 2% dissem Py.	
34.25 TO 37.30	«PATCHY WK SIL AND»	Massive, aphanitic, andesitic volcanic, green to grey green in colour. The rock is stockworked by numerous fine, tight fractures which are locally carbonate coated. Up to 2% white to grey qtz stringers and veinlets to 1cm are present at random orien-		The andesite is chlorite altered and overprinted by patchy weak silicification.	3% fine grained dissem Py, minor Cp.	There is no clear cut distinction between this unit and those adjacent; rather the separation is made on appearance and estimated amounts of silica.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		tations. The veinlets contain 5% carbonate and are frequently lined along their margins by fine grained Mt. <1% Mt overall. The interval 35.4-36.4 m is very blocky.				
37.30 TO 65.53	«SIL AND»	Massive green to greyish, aphanitic andesite. Interval is indurated by fine tight to vuggy fractures. Fractures exhibit all orientations with localized zones containing preferred orientations eg 60 degrees to CA at 51.4m. Some fractures have coatings of carbonate. 3% white to grey qtz veining to 5 cm. Veins are generally oriented at 40-60 degrees to CA. Qtz veinlets commonly have fine grained Mt dissem along their margins. The overall Mt content is approximately 7%. It tends to be very fine grained, and occurs as fine stringers with and without qtz. 42.1-42.3m: Minor flt breccia. Limonite-stained surfaces. ‡61.7-62m‡ «Flt Bx» zone 62.2-62.3m: Competent brecciated core 62.3-65.5m: Interval consists of mottled andesite: dark green chloritic andesite is mixed with patchy zones of pale green, sericitic andesite and greyish silica-altered zones. 65.1-65.3m: White qtz vein with 3% dissem Mt.		The andesites have been chloritically altered and overprinted by silica. Silicification intensity ranges from weak to very intense with moderate levels being prevalent. Minor hematite occurs along some fracture surfaces. Minor green to brown sericitic alteration occurs along some fractures. 55.5-56.3m: Intense qtz, chlorite, carb alteration. Minor to weak hematite staining. Alteration is patchy throughout the interval. The zone is surrounded by an intense silicic envelope, 30cm wide on HW side, 50cm wide on FW side.	1-4% fine grained pyrite is dissem throughout the interval. The overall Cp content is <1% but locally can exceed 2%. Cp tends to very fine grained to med grained (former style is prevalent). Cp is dissem within the andesites and is commonly associated with silica. ‡42.3-44.4‡ «2% Cp, 8% Mt, 2% Py» ‡55.5-56.3‡ «20% Py, min Cp, Sp?» Cp occurs as fine grained clots. Sp? is very fine grained, pale brown in colour, finely disseminated. Py is fine to med grained, dissem and clots. A minor amount of a darker brown mineral, somewhat coarser grained in q/c may be Sp or garnet (probably the former).	The core is generally very blocky. 50.0-52.0m: 115% core recovery. 63.1-64.92: 115% core recovery.
65.53 TO 73.40	«PROP. ALT DIOR»	Interval consists of a fine to medium grained diorite. Xtals reach a length of 2mm. Plag:Mafics =50:50. Mafics are chlorite altered. Up to 10% fine to med grained Mt. Mt occurs as disseminations, stringers, and selvages along qtz veins. The diorite tends to be quite dark and in places near the upper contact which is lost in a rubbled zone, the core can look like andesitic feldspar porphyry. The core is moderately well fractured; Fractures are tight. Carbonate occurs along many of the fractures. The interval contains 10% white to grey qtz veining and flooding. Veins are generally well fractured in random orientations and contain carbonate coatings. Some veins have minor to intense epidote alteration in the surrounding country rock; trace epidote within veins. Veining is most intense between 65.5-68.4m where there is 20% veining and at the lower contact where there is a gradational increase in veining and		In the diorite the mafics are strongly chlorite altered. The plag xtals appear to be sausseritized (altered to carb, ser). Some Mt is altered to leucoxene. Minor hematite after Mt also present.	Diorite generally contains <1% fine grained dissem Py. In some veins and vein envelopes there is <=3% fine dissem and coarse blebs of pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		flooding until at 73.4m there is a very gradational change to the underlying qtz vein. ‡67.8-68.4‡ «80% qtz vein»				
73.40 TO 77.10	«QTZ VEIN»	Massive greyish white quartz vein is moderately stockworked by fine, tight fractures. Fractures are coated by carbonate and/or hematite, and/or chlorite. The interval contains up to 20% chlorite/chloritized fragments except between 73.4-74.4m where there is over 30% chloritic material due to the gradational nature of the contact.		Chlorite in qtz and in small clasts in the qtz derived from either andesite or diorite. The vein contains approx 2% carb in addition to that seen on fractures.	2% pyrite which occurs as fine to coarse grains and is in coarse disseminated and clots.	
77.10 TO 90.85	«SIL AND»	Massive green andesitic volcanics have been variably overprinted by silica. Interval is highly fractured by tight stkwk fractures. Carbonate commonly occurs along these fractures. The core contains 3-10% fine to medium grained magnetite which occurs as dissem, stringers, and as selvages to qz. Locally the core has a banded texture where the bands are comprised of qtz+ser and chlorite. Such banding varies widely in attitude. Very minor Flt bx (brittle) present.		Andesite is chlorite altered and overprinted by moderate to intense silicification. 89.3-89.65m and 90.15-90.85m: Core is dark green and relatively unsilicified.	Minor disseminated Cp. 2% disseminated Py.	Core is moderately blocky between 82.3-89.4m. There is approximately 112% core recovery between 78.6-91.4m. The banding seen in the core may represent a shear fabric.
90.85 TO 96.60	«ANDESITE»	Massive, dark green, aphanitic andesite. Cross-cut by 5% q/c stringers with random orientations. Rare qtz veins are oriented at... These veins are perpendicularly crossed by white carb stringers. ‡95.5-96.0‡ «Qtz Vn» 15% chlorite spots, hematite on fracture surfaces. Core is locally moderately magnetic-fine grained magnetite. Lower contact is in a blocky zone.	50	Intense chlorite alteration. ‡93.3-93.6‡ patchy «Albite? Altn» 96.0-96.6: Moderate silicification.	Minor, coarsely dissem, fine grained Cp. 1% finely disem Py.	
96.60 TO 110.55	«RECRYST CHERT»	Massive unit. Greyish white, fine grained. Up to 15% fractures. Carbonate commonly coats these surfaces. Fractures occur at all angles. Local, generally minor, chlorite also occurs on fractures. Fractures are generally tight; minor vugs. In excess of 90% of the interval is fine grained qtz. Qtz has sugary texture. Unit is generally massive and quite featureless-minor crosscutting qtz veinlets.		Interval appears to contain small quantity of disem kaolinite?-most readily visible on some fracture surfaces. Fine grained, pale greenish sericite also present, possibly up to 5%.	<1% dissem Py.	Recrystallized quartzite?

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
110.55 TO 122.00	«DIORITE»	Grey to green to white, fine grained diorite. The contact zones of this unit are lost in narrow brittle fault breccia zones (10cm width). Overall composition dioritic with local gradations into more of a quartz diorite. Composition is approx 50% mafics, 50% plag+qtz. Interval contains 3% grey qtz veinlets with varying orientations. Top of interval is moderately blocky. From 117.6m to the end of the unit the core is extremely blocky with chlorite, carbonate on fracture surfaces: weak brittle fault bx? Core is moderately magnetic.		Mafic minerals are strongly chlorite altered. Minor patchy moderate silicification. Minor moderate epidote alteration adjacent to some qtz veins. Plag appears to be weakly altered as well, locally lending a pale greenish tint to the mineral-sericite, carb, and clay?	<1% dissem Py.	
122.00 TO 124.35	«ALT AND»	Massive green, aphanitic andesitic volcanic is the base unit which has subsequently been altered. Core has minor weakly magnetic patches. Core is moderately blocky. Minor qtz and q/c veinlets and stringers present. Qtz veinlets finely fractured and infilled with carbonate. Lower contact is at a fault zone.		Andesite is intensely chlorite altered in general. Patchy zones have subsequently been bleached. Minor amounts of brown sericite, hematite, alteration is present. The interval is strongly calcareous.	<1% dissem Py.	
124.35 TO 129.20	«DIORITE»	Grey to green to white, fine grained diorite. This unit is the same as that between 110.55-122.0m. The interval 129.2-125.0 is rubbled and mostly as a result of fault bx: ‡128.2-128.32‡ «Flt Bx» ‡128.2-128.32‡ Brittle «Flt Bx» At 127m there is a general orientation of fractures, qtz veinlets, at... Between 127.3-128.6m core is fine grained, looks more like a pale, bleached andesitic rock. Lower contact is gradational.	10 - 30			
129.20 TO 154.80	«LEUCODIORITE»	A very pale, very fine grained dioritic intrusive. Mafics are generally still present but are usually very pale green remnants. In 10% of the interval the mafics are better preserved, darker green, chloritic. Fine, carbonate filled fractures of locally strong intensity stockwork the core. Weak to moderate fracture intensity is more common. 2% whitish grey qtz stringers and veinlets present. From the top of the interval to 130m the core has a greenish tint (chlor/ser). ‡148.9-149.0‡ «Flt Bx» Core is non magnetic. 154.4-154.8: Core is highly rubbled.		Core is moderately calcareous- alt of plag and carb stringers. Minor patchy silicification bleaches core (removes most remnant mafics). Trace intervals of darker chloritic core +/- epidote.		

HOLE NUMBER: TM 91-4

MINNOVA INC.
DRILL HOLE RECORD

DATE: 4-February-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
154.80 TO 180.40						

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL								Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb				
BCD25660	12.20	16.50	4.30	1.1	43	315	655	3	18	1	37	3				
BCD25661	16.50	19.30	2.80	0.9	4	205	803	6	13	1	25	22				
BCD25662	19.30	21.00	1.70	0.7	1	250	461	1	15	1	32	20				
BCD25663	21.00	24.00	3.00	1	1	391	647	3	15	1	26	17				
BCD25664	24.00	26.50	2.50	0.9	4	270	1466	10	14	1	25	19				
BCD25665	26.50	29.00	2.50	1	3	289	1061	1	15	1	23	12				
BCD25666	29.00	31.50	2.50	1.3	4	274	1088	4	12	1	19	20				
BCD25667	31.50	34.25	2.75	1	7	408	1255	9	12	1	18	3				
BCD25668	34.25	37.30	3.05	0.8	1	438	822	1	17	1	25	18				
BCD25669	37.30	40.30	3.00	1.1	1	304	1099	2	14	1	22	21				
BCD25670	40.30	43.30	3.00	0.9	11	190	1104	8	13	1	22	22				
BCD25671	43.30	46.30	3.00	1.2	3	202	1017	1	15	1	19	16				
BCD25672	46.30	49.30	3.00	1.2	5	214	1253	5	14	1	21	14				
BCD25673	49.30	52.00	2.70	1	9	232	1411	11	12	1	19	30				
BCD25674	52.00	53.50	1.50	1.5	7	208	1332	2	13	1	18	39				
BCD25675	53.50	55.50	2.00	1.5	7	332	1113	3	15	1	36	30				
BCD25676	55.50	56.30	0.80	0.5	1	141	314	324	15	1	59	100				
BCD25677	56.30	59.40	3.10	1.7	8	256	945	6	12	1	24	38				
BCD25678	59.40	62.50	3.10	1.1	8	169	770	3	15	1	26	50				
BCD25679	62.50	65.60	3.10	0.8	1	265	230	6	14	1	27	12				
BCD25680	65.50	68.50	3.00	0.1	1	225	31	1	13	1	28	25				
BCD25681	68.50	71.50	3.00	0.2	1	159	70	1	15	1	31	18				
BCD25682	71.50	73.40	1.90	0.5	1	85	41	7	13	1	19	40				
BCD25683	73.40	75.30	1.90	0.8	12	15	15	12	11	1	17	48				
BCD25684	75.30	77.10	1.80	0.9	21	7	17	6	9	1	15	19				
BCD25685	77.10	80.10	3.00	1.1	9	213	678	8	13	1	18	17				
BCD25686	80.10	83.10	3.00	0.8	5	423	739	1	14	1	20	8				
BCD25687	83.10	86.10	3.00	1.1	5	412	355	3	16	1	22	5				
BCD25701	86.10	89.10	3.00	1.5	1	173	614	7	13	1	19	23				
BCD25688	89.10	92.10	3.00	0.8	1	233	680	6	12	1	44	19				
BCD25689	92.10	94.10	2.00	1.1	1	270	664	1	8	1	50	27				
BCD25690	94.10	96.60	2.50	1.6	4	191	459	3	11	1	41	18				
BCD25691	96.60	99.60	3.00	1.8	1	10	40	5	7	1	8	2				
BCD25692	99.60	102.60	3.00	1.8	1	8	59	5	7	1	6	2				
BCD25693	102.60	105.60	3.00	1.9	3	17	103	7	6	1	16	4				
BCD25694	105.60	108.10	2.50	1.9	1	6	20	7	8	1	85	6				
BCD25695	108.10	110.55	2.45	1.9	1	24	91	8	6	1	5	3				
BCD25696	110.55	113.50	2.95	0.7	1	99	7	1	15	1	25	4				

HOLE NUMBER: TM 91-4

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25697	113.50	116.50	3.00	1.5	1	141	10	1	18	1	22	3		
BCD25698	116.50	119.50	3.00	0.9	1	131	6	1	19	1	31	17		
BCD25699	119.50	122.00	2.50	0.5	1	103	5	1	18	1	27	5		
BCD25700	122.00	124.35	2.35	0.8	1	64	5	2	15	1	35	4		
BCD25702	124.35	126.40	2.05	0.6	1	88	10	1	15	1	32	14		
BCD25703	126.40	129.20	2.80	1.2	1	100	4	1	11	1	22	9		
BCD25704	129.20	132.20	3.00	1.3	1	40	3	1	15	1	19	3		
BCD25705	132.20	135.20	3.00	1.7	1	102	7	9	16	1	20	5		
BCD25706	135.20	138.20	3.00	1.7	1	155	4	2	18	1	20	6		
BCD25707	138.20	141.20	3.00	1.8	1	109	4	4	17	1	16	13		
BCD25708	141.20	144.20	3.00	1.6	1	106	4	4	20	1	17	8		
BCD25709	144.20	147.20	3.00	1.6	1	111	3	3	17	1	20	4		
BCD25710	147.20	150.20	3.00	1.6	1	108	3	2	17	1	20	9		
BCD25711	150.20	153.20	3.00	1.8	1	128	3	5	16	1	12	3		
BCD25712	153.20	154.80	1.60	1.3	1	134	2	1	15	1	18	5		

HOLE NUMBER: TM 91-4

ASSAY SHEET

PAGE: 8

HOLE NUMBER: TM 91-4

GEOCHEM. SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD25692	99.60	102.60	3.00	0.05	0.16	0.66	96.1	0.05	0.16	0.46	0.055	594	0.02	0.62	10	45	10	18	10	283	0.85	99.3

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.05	«CSG»					
3.05 TO 7.40	«SIL AND»	Fine grained greyish green andesite; varying in degrees of silicification from moderate to intense. Limonite and carbonate occur along fractures; minor malachite. Core is non magnetic. Less than 1% 2-4mm Q/C veinlets. ¶5.41-6.6¶ «Rext Cht/Qtzite?» Fine grained, granular core with 3-10% chloritic material. Carbonate is more abundant along fractures in this zone.		Sericitization of feldspars. Pervasive chloritization.	The interval contains 1% pyrite, occurring as fine grained disseminations. Minor Cp occurs as fine grained dissem, <1%. Cp tends to be more abundant in the intensely silicified zones. Malachite on fractures.	Core is quite broken up and rubbly:
7.40 TO 8.22	«DIORITE»	Medium grained, leucocratic diorite. Phenocryst structure is washed out. Limonite occurs along fractures. Contact with andesite above and below is gradational and indistinct.		Moderate carbonatization of matrix. Mafics have been pervasively chloritized. 1% epidote occurs along fractures. Tr. hematite on fractures.	<1% Py occurs as very fine grained dissem.	
8.22 TO 12.65	«ANDESITE»	Generally mottled, fine grained grey-green andesite. Patchy silicification occurs; could be weakly hornfelsed. Carbonate occurs along fine fractures, with limonite. <1% qz veinlets (to 4mm). Mt occurs as dissem, blebs, and along fractures, to 5%. The highest concentration occurs from 12.09-12.65m. Altered to hematite in places. Bleaching (albitization) occurs in interval from 12.09-12.65.		Hematite occurs along fractures. Streaky patches of sericitization and bleached patches of albitization(?). Chloritic alteration of mafics in the andesite matrix.	1% very finely dissem Cp and 2% Py occurs throughout.	Core is rubbly in areas. Carbonate staining indicates mainly Fe-poor calcite.
12.65 TO 14.79	«SIL AND»	Fine grained, intensely silicified andesite. Contact with overlying andesite is at approx to CA. Two intervals of lesser silicified andesite occur from 13.08-13.7m and 14.57-14.79m. The silicification consists mainly of an almost sugary textured mass of quartz with patches of albitization and chloritization. Sericite occurs along fractures. Fine fractures are fairly abundant and some are rehealed with silica. Magnetite and hematite occur to 5% (mainly along fractures). Limonite occurs on surfaces of rubbly pieces of core.	45	Patchy albitization (?) and chloritization. Sericite and carbonate occur on fractures. Epidote <1% tends to occur along fine veinlets, associated with Py and Cp.	Cp <1% as very fine disseminations. Py 1% as fine disseminations.	Some of the most siliceous areas look as if they could be intrusive in origin

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
14.79 TO 23.69	«ANDESITE»	Very fine grained to aphanitic andesite; for the most part the core has a mottled appearance (as in previous intervals) due to patchy sericite/albite alteration. Massive grey-green andesite from 15.76-15.98m. ‡15.19-15.76‡ Shear fabric parallel to CA. ‡23.16-23.29‡ «Qz Diorite» Fine grained, grey dioritic dyke. Carbonate altered matrix. Qz-porphyr-itic; 8% 3-5mm qz phenocrysts. Qz veinlets to 15mm (5%); calcite veinlets to 10mm (5%). ‡20.26-21.36‡ «Brittle Flt Zone» Clay alteration, limonite. Flt bx at 22.04m. Mt, hematite 1% along fractures.		Patchy sericite/albite alteration; mafics are chlorite-altered. Carbonate alteration (minor) of the matrix. Ep occurs in veinlets to 1%. Patchy silicification.	Pyrite occurs as fine grained disseminations (1%). Cp <1% as fine dissem. 1% Py as fine disseminations.	
23.69 TO 28.55	«INT SIL AN D»	Fine grained intensely silicified andesite. The unit consists mainly of silica with stringers of chlorite, and sericite along fractures. Approx 10% carbonate occurs in very fine veinlets. ‡23.7-25.9‡ «Chert» Recrystallized chert; highly fractured and rubbled. Up to 10% Q/C stringers. Limonite on fracs.		Chlorite, sericite stringers. Chl-ser altn. of volcanic(?) cpt.	<1% fine grained dissem Py; tr dissem Cp <=1% dissem Cp.	Core is very rubbly and broken into cobble-sized pieces.
28.55 TO 31.35	«MOD SIL AN D»	Fine grained grey green chloritized andesite. Degree of silicification varies along interval from relatively fresh to strongly silicified, in patches. 2% Q/C veinlets. Mt assoc. with silicification occurs as fine veinlets and dissem, to 5%. Some hematite (after Mt). Limonite on fracture surfaces.		Core is chlorite-altered. Sericitization occurs in stringers throughout core, esp. in less-silicified areas. Epidote occurs as stringers and dissem associated with mineralization (1%).	Py occurs as fine disseminations and along very fine fractures to 3%. Cp 1%, finely disseminated and along fracs. Cp appears to be associated with Ep.	Core is quite broken up; some is rubbly.
31.35 TO 37.82	«INT SIL AN D»	Fine grained grey pervasively silicified andesite, consisting mainly of fine-granular silica with chloritic stringers throughout. Weakly carbonate-altered; carbonate appears to be mainly along micro fractures. Has been extensively microfractured and silica healed. Core is non-magnetic. Limonite along fracture surfaces. <1% qz veinlets. Dissolution of carbonates along fractures is moderate.		Pale yellow-white sericite stringers. Chlorite-altered. Some talc (with carbonate) along fractures.	1% Cp occurs as fine disseminations, and along microfractures. Py occurs in same manner, locally to 3%. ‡31.35-31.6‡ «Cp 3%, tr Mt»	Core is broken up and rubbly.
37.82 TO 40.80	«ANDESITE»	Fine grained, fairly massive green andesite. Patchy albitization? occurs in about 30% of the core. Possibly weakly hornfelsed. ‡39.6-40.8‡ «MOD SIL AND» Small amounts of carbonate occur along fractures,		Core is pervasively chloritized. Albitization? is patchy. Minor pale yellow sericitization occurs as blebs and stringers. Ep occurs as dissem and veinlets to 5% in the interval 38.55-	Cp is more abundant in this interval, occurring as disseminations up to 2%. Py occurs as dissem and along very fine veinlets with Mt, epidote (3-5%). ‡38.25-39.6‡ «8% Py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		with trace amounts of talc. Mt occurs throughout this interval, especially from 38.25-39.6, where it occurs dissem in patches with Ep and Py (to 5%)		39.6m, where it is associated with Py, Mt, and albite?		
40.80 TO 52.80	«MOD-INT SIL AND»	This unit varies from a few patches of relatively massive andesite, to (mainly) pervasive silicification with few remnant chloritic stringers. Sericite stringers are more common than in other intervals and in places coalesce into patchy zones (51.15-51.55m). Carbonate occurs along abundant veinlets up to 5mm in width. The core is weakly magnetic in places, with Mt<1%. Hematite occurs along fractures. ‡45.7-45.9‡ «Fault Zone» ‡51.9-52.8‡ «Fault Zone» Core is brecciated and clay-altered, with max intensity at bottom of interval.		Sericite abundant as stringers and patches that are overprinted by silica. 1cm qz/Kspar vein occurs at 43.5m, 40 degrees to CA. Chloritized. Epidote is very minor in this interval and occurs mainly associated with sericitization.	Py 2% as very fine dissem, up to 5%. Also occurs along veinlets and is associated with sericitic alteration. Cp is minor in this interval (<1%). ‡51.9-52.8‡ «8% Py»	Pinkish-yellow sericitization could be albite?. Core is broken and rubbly.
52.80 TO 65.80	«INT SIL AND/SIL BX»	Unit consists of intensely silicified andesite with fine sugary texture. Grey colour with 20% pale yellow, green stringers of sericite, chlorite. Strongly fractured and silica healed. Minor carbonate on fractures. Possibly a chert cpt. ‡59.0-61.3‡ «Brittle Flt Bx» ‡62.3-64.8‡ «Brittle Flt Bx» ‡59.37-64.95‡ «Sil Flt Bx» Siliceous clasts in a pale green chloritic matrix. Has been silica healed; fine drusy qz evident on fracture surfaces, plus calcite. Clay fault from 63.4-64.45m.		Clays on fracture surfaces. Chlorite, sericite stringers.	<1% Py, <1% Cp disseminated Tr Cp, Py	Very broken up and rubbly. Note: Some of the clasts may be chert.
65.80 TO 68.40	«CHERT/CHT BX»	Unit consists of light grey chert clasts in a rehealed siliceous matrix. In some areas the bx has been more thoroughly recrystallized so that the fragmental nature is harder to discern. Vuggy. Minor carbonate occurs on fractures. Top and bottom of interval gradational into silicified andesite.		Sericitic stringers approx 5% in matrix	Dissem Py, Cp <1%.	
68.40 TO 69.37	«INT SIL AND BX»	Fine grained, grey, intensely silicified andesite breccia. Rehealing and recrystallization has obliterated the brecciated nature in areas. Pale green chloritic stringers and yellowish sericitic stringers occur to about 10%. Moderate carbonate along fractures. The silica has a fine drusy/		10% chlorite, sericite stringers.	Mineralization appears to be mainly fine grained pyrite, dissem and along fractures (1%). Tr Cp.	Note: Possibly recrystallized chert.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		sugary texture. Core is vuggy, due to dissolution of matrix material and/or incomplete rehealing.				
69.37 TO 75.05	«INT SIL AN D»	This interval consists of fine grained, grey-green pervasively silicified andesite with a distinctly glassy appearance. The core is very fine grained to aphanitic, with 20% pale green to brown stringers of chlorite, sericite. Carbonate occurs on fractures oriented Mt, Py are associated with above veinlets. Clays occur on fracture surfaces with hematite- possible faulting. ‡75.45-75.6‡ «Sil Bx» Fine hematite stringers	60	20% chlorite, sericite stringers.	1% Py occurs as fine grained dissem. <.5% Cp. ‡71.45-71.8‡ «5% Py»	
75.05 TO 75.50	«INT SIL AN D BX»	This interval consists of very fine grained, pervasively silicified andesite that has been brecciated and rehealed. Minor carbonate along fracs.		Chlorite, sericite, hematite stringers.	1% very fine grained dissem Py; <1% Cp.	
75.50 TO 83.27	«INT SIL AN D/CHT»	Intensely silicified, grey-green andesite. The core is highly fractured in cross-cutting directions and fine drusy qz occurs on fracture surfaces and in vugs (vugs from dissolution of carbs along fracs?). Fracture surfaces throughout the interval are covered with chlorite. Calcite is moderately abundant in fine veinlets throughout the core. Hematite on fractures (minor). 75.8m: Slicks oriented at ‡77.9-79.7‡ «Flt Zone»	15	Alteration consists mainly of chlorite and sericite stringers, and clay gouge on fractures. At 81.8, 10% Kspar occurs in qz veinlets to 1cm in width. ‡77.9-78.9‡ «Int Chlorite» Zone of intense chlorite/sericite alteration in the form of stringers oriented parallel to CA. The core in this interval is soft and easily broken and clays are abundant on sheared fracture surfaces.	1% Py; <1% fine dissem Py. ‡77.9-79.2‡ «Py 10%, Cp 2%» This interval contains fine grained dissem Py to 15% locally, and 2% Cp. Mineralization is associated with clay gouge and sericitic stringers in the matrix of a siliceous andesitic breccia.	Entire interval could be zone of faulting, as indicated by clays/shearing on fracture surfaces and the broken nature of the core. Note: Very silicified but also very high chlorite content; therefore impossible to distinguish between And/Chl. Appears slightly more andesitic.
83.27 TO 83.90	«TRACHYTE»	Porphyritic dyke; 10% .5-2mm plag phenocrysts in a brown aphanitic groundmass composed almost entirely of Kspar. 5% 1-2mm biotite phenocrysts. Plag is altered to a pale green colour (sausseritized?) and occurs in radiating agglomerates. 5% very fine calcite veinlets. A 5cm chilled margin occurs at top and bottom of interval.		Sausseritization of plag. Chlorite alteration of mafics.	Nil	Similar to the alkali-feldspar trachyte seen in TM 91-6.
83.90 TO 105.10	«INT SIL AN D»	This interval consists for the most part of grey-green intensely silicified andesite. Silicification varies in intensity throughout the interval and there are a few patches of only weakly silicified andesite in the midst of intensely silicified andesite (at 88.33-88.85m and 104-104.64m). The core is cross-cut by numerous fine calcite veinlets; a 2cm qz/carb veinlet at 104.3 is oriented Mt (with hematite) occurs to 1% dissem and along	60	Alteration consists mainly of chloritic and sericitic stringers that usually occur from 10-30%. Often they have been overprinted by silica. Pale pink and creamy white Kspar phenocrysts occur to 30% in qz veinlets 1cm wide, oriented at 45 degrees to CA at 84.25m. Kspar occurs in qz veinlets and patches throughout the interval, locally to 30%. Blebs	Py occurs as fine dissem throughout the interval, averaging 2-3%. However it occurs up to 8% locally in the more intensely silicified areas, where it often coalesces into blebs and occurs along veinlets. Cp is minor, <1%. ‡84.96-88.3‡ «5% Py» ‡104.5-104.9‡ «8% Py»	Core recovery from 89.31-97.84m: 29%

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		veinlets in the more intensely silicified areas (5% at 95.1m). Recrystallization is evident from fine drusy qz on fractures. ‡99.9-100.79‡ «Int Sil And Bx» 10cm of intensely silicified andesite breccia occurs at 107.71m. Clay gouge and possible fault zone at 107.24.		of pale greenish white albite? occur at 98.9m. Minor epidote occurs along veinlets with Py.		
105.10 TO 106.50	«CHERT»	Fine grained, recrystallized chert. Gradational contact with silicified andesite. Minor grey qz stringers present.		Up to 3% sericitic stringers along fractures. Weak chloritic dissem with green tint.	1% dissem Py.	Silicification of andesites possibly due to remobilization of silica from chert.
106.50 TO 112.78	«INT SIL AN D»	As previous intensely silicified andesite unit. ‡110.8-111.6‡ «CHERT?» Extreme silica content. Possibly cht/qtzite rather than andesite.		Wk-mod chlorite.		Probably chert.

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL								Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb				
BCD25765	3.05	6.05	3.00	1.3	94	244	814	3	16	3	52	38				
BCD25766	6.05	8.20	2.15	0.8	40	99	587	6	14	1	37	5				
BCD25767	8.20	11.20	3.00	1.7	9	423	1038	2	10	1	42	21				
BCD25768	11.20	12.65	1.45	2.9	1	235	827	2	6	1	40	43				
BCD25769	12.65	14.80	2.15	1.2	6	67	701	1	12	1	31	20				
BCD25770	14.80	17.80	3.00	2.5	1	108	672	7	5	1	50	7				
BCD25771	17.80	20.80	3.00	2	1	117	521	1	12	1	38	18				
BCD25772	20.80	23.70	2.90	0.7	1	166	517	5	19	1	49	17				
BCD25773	23.70	26.30	2.60	0.9	9	51	713	3	12	1	16	5				
BCD25774	26.30	28.60	2.30	0.5	10	99	828	10	12	1	21	2				
BCD25775	28.60	31.35	2.75	1.1	1	140	1475	6	11	1	31	48				
BCD25776	31.35	33.70	2.35	0.6	12	83	807	8	12	1	20	3				
BCD25777	33.70	36.70	3.00	0.7	10	92	636	11	11	1	24	5				
BCD25778	36.70	37.80	1.10	0.8	10	62	756	10	12	1	24	12				
BCD25779	37.80	40.80	3.00	1.8	1	252	1341	1	14	1	50	30				
BCD25780	40.80	43.80	3.00	0.7	9	102	872	7	15	1	27	8				
BCD25781	43.80	46.80	3.00	1.2	1	108	959	3	13	1	36	62				
BCD25846	46.80	49.80	3.00	1	8	140	809	5	18	1	41	4				
BCD25782	49.80	52.80	3.00	1	7	124	1544	7	23	1	68	68				
BCD25783	52.80	55.80	3.00	1.3	5	46	1509	8	12	1	15	37				
BCD25784	55.80	58.80	3.00	0.8	7	89	574	12	15	1	18	12				
BCD25785	58.80	61.80	3.00	0.8	8	76	953	4	12	1	16	14				
BCD25786	61.80	64.80	3.00	0.5	5	88	922	8	18	1	36	15				
BCD25787	64.80	67.80	3.00	0.6	7	41	543	9	9	1	13	6				
BCD25788	67.80	70.80	3.00	0.8	8	79	528	11	11	1	16	10				
BCD25789	70.80	73.80	3.00	0.4	5	182	753	9	15	1	22	32				
BCD25790	73.80	77.80	4.00	0.5	7	69	398	15	12	1	19	6				
BCD25791	77.80	79.80	2.00	1	5	57	1539	37	25	1	39	52				
BCD25792	79.80	83.27	3.47	0.5	9	84	437	13	11	1	23	8				
BCD25793	83.27	83.90	0.63	1	1	240	55	2	24	1	57	6				
BCD25794	83.90	86.90	3.00	1.5	1	86	564	7	11	1	31	7				
BCD25795	86.90	89.90	3.00	2.3	105	64	407	1	18	1	41	5				
BCD25796	89.90	92.90	3.00	0.9	40	88	1108	11	15	3	19	12				
BCD25797	92.90	95.90	3.00	0.6	25	55	466	5	13	1	18	1				
BCD25798	95.90	98.90	3.00	0.5	16	124	348	5	12	1	20	1				
BCD25799	98.90	101.90	3.00	1	16	173	566	6	14	1	19	3				
BCD25800	101.90	104.90	3.00	1.4	1	124	442	5	14	1	29	14				
BCD25847	104.90	107.90	3.00	0.5	9	68	207	3	12	1	18	10				

HOLE NUMBER: TM 91-5

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25848	107.90	111.90	4.00	0.5	11	107	275	5	14	1	21	14		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 25.00	«CSG»					Minor core/rock was recovered from the interval 18.3-17.1m which consists of
TO 73.60						
TO 25.00						various rock types: andesite,qtz diorite,hematite andesite.
25.00 TO 31.40	«SIL ANDESITE»	Interval consists of greyish green, massive, aphanitic altered andesite(?) volcanics. The interval is extremely broken up. The larger pieces of core range from solid to coarsely fractured. Fractures are tight to slightly open. Fracture surfaces commonly infilled with carbonate. Core is non magnetic.		Primary alteration consists of degrees of silicification: mod silicification is most common but locally grades to weak to intense. Small amounts of chlorite are present but is generally not readily apparent. Fracture surfaces are moderately limonite stained.	The interval contains very fine grained dissem Cp; minor clots present. The amount of Cp present ranges between trace to <1%. Up to 2% fine to medium grained pyrite is dissem throughout the interval.	Core Recovery: 25.00-26.20m: 50% 26.20-27.10m: 83% 27.10-27.70m: 66% 27.70-29.00m: 79% 29.00-30.78m: 90% 30.78-31.40m: 55% 31.40-32.30m: 90% 32.30-34.75m: 86% 34.75-36.00m: 65%
31.40 TO 57.30	«ANDESITE»	Typical aphanitic to fine grained andesitic unit. Local zones containing whitish crystals <1mm long are present. Crystals appear to be altered plagioclase they are strongly calcareous. The interval contains 2% white Fe-carbonate stringers and patches which randomly cross-cut the unit. Some stringers are offset by fractures. Core is non magnetic except between 48.7-52.7m, where it is mod to weakly magnetic. Upper contact is lost in a small zone of fault bx with minor clay gouge. ‡31.7-32.6‡ «Flt Bx Gouge» Interval is incompletely affected by the fault. ‡33.75-33.95‡ «Flt Bx» 34.65: Minor fault gouge Lower contact is gradational		The andesite is intensely chlorite altered. Dark green weakly calcareous andesite comprises 35% of the interval. 50% of the interval is a medium green colour due to chlorite and moderate to intense carbonate alteration. 15% of the unit is weakly bleached and locally variably silicified. Silicification is generally weak; at 36-36.7m there is moderate silicification. Starting at 44.5m the alteration becomes more intensely propylitic. Epidote stringers along fractures or associated with Q/C stringers are present. Epidote comprises 1% of this subinterval. Minor hematite stain present. Epidote content increases with depth to 4%. At 44.7-44.85m there is a patchy white plagioclase clay (kaolinite?) alteration with chl, calc, epidote alteration-a small altered albitized zone. Between 50.0-54.6m there is a fine grained spider web textured Q/C alteration which bleaches the core.	2% fine grained pyrite occurs as fine to coarse grained disseminations, minor stringers. Abundant pyrite occurs on some fracture surfaces.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				56.1-56.3m: Small bleached zone of calcite, epidote, pyrite, chlorite and Kspar.		
57.30 TO 65.20	«HORNFELS AND»	Dark green, massive, weakly hornfelsed andesite. The interval contains 5% patches of fine to medium grained diorite to qtz diorite. The andesite is nonmagnetic; the intrisive patches are magnetic. Between 60-61m there is a strong joint set orient. These are fine closely spaced fractures with epidote developed along them. Some offset of the epidote stringers is evident. Minor white Q/C stringers present. Hematite occurs along the more open fracture surfaces and with Q/C stringers. 59.1m: Clay gouge zone 2cm wide. Gradational lower contact.	50	Pervasive chlorite alteration which has been overprinted by weak hornfels alteration which makes the rock very siliceous. From 3-10% fine grained epidote stringers and patches are present. Epidote is most abundant in the interval 60-62.2m. Core is generally non-calcareous.	3-5% fine grained, coarsely disseminated Py. Small local zones, usually occurring with abundant epidote can contain up to 15% pyrite (eg 61.7-61.9m).	
65.20 TO 69.40	«ANDESITE»	This unit is identical to the overlying unit except that: 1. It is not hornfelsed 2. It contains <1% dioritic patches 67.7-68m: brittle fault bx?			Trace Cp near lower contact.	
69.40 TO 75.90	«ALKALI-FELD TRACHYTE»	Pale brown, very fine grained to 2mm. Has a very fine grained matrix which upon staining appears to be primarily Kspar, supports up to 10% plagioclase phenocrysts which locally form rosettes, 5% black, chlorite altered mafics (biotite?) and 3% qz. The unit is quite consistent in appearance. 2% white carbonate (calcite to siderite) stringers cross-cut the unit. The unit is weak to moderately magnetic. The uppermost 10cm of the unit are weakly sheared. The contact, oriented at has smeared and polished pyrite along it. There is some fining of the matrix and phenocrysts in the immediate vicinity of the contacts; weak chill margins. Lower contact not preserved.	70	Chlorite alteration of mafics.	Minor disseminated Py.	The unit is on the verge of being one of the following: trachyte, alkali-feldspar syenite, or syenite.
75.90 TO 115.50	«ANDESITE»	The basic unit of the interval is a dark green andesitic volcanic rock. Small zones of variable alteration within this unit lend the unit local varying appearance and textures. The core is in general non to weakly magnetic. The interval contains up to 3% white calcite veinlets and patches with minor qz. Fe-carbonates occur as fracture coatings.		The principal alteration type for the unit consists of pervasive chlorite alteration with trace to minor carbonate. Carbonates are generally concentrated on fractures. 75.9-77.5m: patchy bleaching due to introduction of silica over 40% of the interval. Zone is strongly magnetic	There is an overall average of 4% Py throughout the interval with concentrations ranging from 1-15%. Pyrite occurs as fine disseminated through blebs to stringers. The greatest concentration of pyrite commonly occur in bleached zones with epidote.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>77.5-77.6m: weakly sheared core</p> <p>‡77.7-78.0‡ «Brittle Fault Bx»</p> <p>‡80.6-81.5‡ «Flt Bx» zone oriented at</p> <p>‡87.2-88.3‡ «Flt Zone»</p> <p>90.3m: a fracture along which offset has occurred is oriented at</p> <p>Between 105.5-108.5m there is an increase in the number of carbonate stringers/patches to 5%. These veinlets are generally clustered. The increase is associated with a weak zone of fault bx.</p> <p>‡107.1-108.0‡ intermittent «Flt Bx» Finer chlorite matrix supports andesite fragments.</p> <p>114m: 3cm white carbonate vein oriented at Lower contact at</p>	<p>10</p> <p>40</p> <p>30</p> <p>70</p>	<p>owing to 10% magnetite patches. 3% Ep stringers.</p> <p>79.2-79.5m: Wk hornfelsed andesite zone (siliceous).</p> <p>81.9-82.3m: Mod silic zone with 6% Ep, patchy bleaching</p> <p>82.3-83.3m: patchy bleaching, possible formation of fine grained albite?</p> <p>84.2-92.2m: 2% pale patches consisting of qz, epidote, pyrite, +/- magnetite, carb</p> <p>Has fine grained intrusive appearance.</p> <p>94.6-95.0m: weakly bleached, 15% fine grained epidote. Interval is strongly magnetic with up to 15% blebs of magnetite.</p> <p>‡96.6-97.6‡ «35% epidote» Minor silic, patchy.</p> <p>From 106.5-115.5m the epidote content in the core drops to <1%. The core is relatively less altered with only minor zones of bleaching and weak to moderate silic present.</p>	<p>81.9-82.3m: 10% Py in massive patches and coarse dissem</p> <p>89.8-90.0m: Minor Cp in bleached, weakly silic zone. 5% Py, 2% epidote.</p> <p>91.9m: Trace Cp</p>	
115.50 TO 116.05	«ALKALI_FEL D TRACHYTE»	Aphanitic, medium grey groundmass supports approx 10% plag phenocrysts which locally form rosettes. <3% qz present. Fracture surfaces weakly chloritic. Lower contact is oriented at Unit is very weakly magnetic.	20			
116.05 TO 136.55	«ANDESITE»	<p>The andesitic volcanic rocks are generally aphanitic but between 119.5-121.9m there is 15% dark green/black spots which appear to be chloritized mafic phenocrysts? The core contains 3% randomly oriented carbonate stringers and veinlets. At 28.6m there is a 6cm wide calcite/siderite (75/25) vein oriented at which contains 5% andesite clasts. The core ranges from competent to finely fractured. The core contains a number of brittle fault bx zones as follows:</p> <p>‡123-123.1‡ «Flt Bx»</p> <p>‡126.5-128.6‡ weak «Flt Bx»</p> <p>‡131.9-133.5‡ «Flt Bx»</p> <p>The interval between 135.5-134.7m is highly fractured. The core contains patchy zones which are weak to moderately magnetic.</p>	90	<p>The andesites are pervasively chlorite altered and variably silicified; 40% of the interval consists of zones of weak to moderate silic. The more intensely silic. zones tend to be bleached; much of the chlorite has been removed. Some andesite is very dark in colour but is silic. as well - apparently the andesite is locally weakly hornfelsed. Minor hematite is present on some fracture surfaces.</p>	<p>The interval contains 1-2% pyrite which occurs as fine to med. grains which occur as dissem, patches, and stringers.</p>	<p>Core Recovery:</p> <p>124.36-126.8m: 65%</p> <p>126.8-127.7m: 66%</p> <p>132.6-133.5m: 45%</p> <p>133.5-134.7m: 75%</p> <p>134.7-135.8m: 64%</p> <p>135.8-136.55m: 66%</p>

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
136.55 TO 141.10	«Flt Zone»	A well silicified, bleached zone of andesite has been subjected to strong fault activity. Local clay gouge.		Local clay gouge developed. Some talc alteration. Andesite is moderately to intensely silicified.	Up to 1% Cp occurs as fine grained clots in gouge material. Some talc.	
141.10 TO 153.00	«ANDESITE»	Massive dark green andesite is cross-cut by 4% white carbonate stringers; stringers are randomly oriented. Locally the core is moderately magnetic.		Andesite is pervasively chlorite altered. Patchy weak and minor moderate silicification zones affect 30% of the interval. Silicification is locally associated with weak bleaching of the andesite. Minor hematite and epidote.	There is 1-2% fine grained pyrite stringers and dissem throughout the interval. Minor amounts of fine grained Cp occur with the Py.	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL									COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t	
BCD25801	25.00	28.20	3.20	1.2	70	87	1121	12	19	5	25	21			
BCD25802	28.20	31.40	3.20	0.8	26	80	1290	11	17	2	21	37			
BCD25803	31.40	34.40	3.00	0.7	1	54	280	1	6	1	71	2			
BCD25804	34.40	37.30	2.90	1	1	108	224	2	11	1	51	22			
BCD25805	37.30	40.30	3.00	1.1	1	190	277	31	6	1	49	2			
BCD25806	40.30	43.30	3.00	1.8	103	59	400	21	9	1	51	2			
BCD25807	43.30	46.30	3.00	1.7	20	60	914	3	6	1	47	1			
BCD25808	46.30	49.30	3.00	1.6	4	31	886	2	14	1	46	3			
BCD25809	49.30	52.30	3.00	1.9	1	45	1102	1	12	1	43	5			
BCD25810	52.30	54.80	2.50	1.6	1	41	526	1	16	1	50	1			
BCD25811	54.80	57.30	2.50	1.5	1	19	960	9	19	1	53	10			
BCD25812	57.30	60.30	3.00	1.6	1	28	823	1	13	1	43	4			
BCD25813	60.30	63.30	3.00	1.4	1	32	552	3	12	1	45	8			
BCD25814	63.30	66.30	3.00	1.4	1	31	455	3	11	1	39	2			
BCD25815	66.30	69.40	3.10	1	1	43	537	14	14	1	48	16			
BCD25816	69.40	72.60	3.20	0.7	1	100	51	3	30	1	60	1			
BCD25817	72.60	75.90	3.30	0.8	1	85	41	2	32	1	61	2			
BCD25818	75.90	78.90	3.00	1.4	1	70	354	9	12	1	51	10			
BCD25819	78.90	81.90	3.00	0.7	1	17	529	9	23	1	100	9			
BCD25820	81.90	84.90	3.00	1.2	1	32	975	5	15	1	53	16			
BCD25821	84.90	87.90	3.00	1	1	98	474	1	17	1	59	3			
BCD25822	87.90	90.90	3.00	1.3	1	50	468	1	19	1	42	4			
BCD25823	90.90	93.90	3.00	1.3	1	68	543	7	12	1	47	2			
BCD25824	93.90	96.90	3.00	1.8	1	29	372	6	12	1	48	2			
BCD25825	96.90	99.90	3.00	2	1	24	771	3	13	1	37	28			
BCD25826	99.90	102.90	3.00	2.2	1	15	616	1	7	1	34	2			
BCD25827	102.90	105.90	3.00	2	1	24	488	9	15	1	36	11			
BCD25828	105.90	108.90	3.00	1.2	1	22	469	1	9	1	57	29			
BCD25829	108.90	111.90	3.00	1.6	1	37	252	1	11	1	40	6			
BCD25830	111.90	113.70	1.80	1.4	1	40	671	1	10	1	45	21			
BCD25831	113.70	115.50	1.80	1.3	1	63	403	26	12	1	49	13			
BCD25832	115.50	116.05	0.55	1.1	63	214	41	2	31	1	65	2			
BCD25833	116.05	119.00	2.95	1.2	5	73	501	1	14	1	53	98			
BCD25834	119.00	122.00	3.00	0.6	1	52	366	1	6	1	62	3			
BCD25835	122.00	125.00	3.00	0.9	1	167	421	1	13	1	53	17			
BCD25836	125.00	128.00	3.00	0.6	1	80	303	10	15	1	48	5			
BCD25837	128.00	131.00	3.00	1.2	1	96	259	2	13	1	57	14			
BCD25838	131.00	134.00	3.00	0.6	3	73	234	1	22	1	43	3			

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25839	134.00	136.55	2.55	0.6	1	37	298	12	18	1	48	3		
BCD25840	136.55	139.00	2.45	5.7	7	39	12	33	7	58	565	60		
BCD25841	139.00	142.00	3.00	1.1	1	106	645	1	12	1	49	19		
BCD25842	142.00	145.00	3.00	1.5	1	147	335	1	13	1	50	8		
BCD25843	145.00	148.00	3.00	1.6	1	53	399	1	10	1	58	87		
BCD25844	148.00	151.00	3.00	1.6	1	63	371	1	10	1	47	10		
BCD25845	151.00	153.00	2.00	0.6	1	22	516	1	21	1	102	12		

HOLE NUMBER: TM 91-6

GEOCHEM. SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD25816	69.40	72.60	3.20	3.46	2.24	17.2	56	0.46	6.31	2.95	0.94	89	0.08	5.26	190	914	16	284	41	3930	3.47	99
BCD25817	72.60	75.90	3.30	3.39	2.16	16.9	56.1	0.46	6.39	3.58	0.907	78	0.08	5.06	195	1050	12	266	43	3480	3.93	99.5

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 11.00	«CSG»					
11.00 TO 11.20	«SIL VOLC»	Intensely silicified, grey-green silicified volc (chert?). Alteration destroys original textures. 2% white carbonate stringers and fracture fillings present. Greenish tint caused by remnant chlorite which also tends to be concentrated at fractures.		Intense silicification.	<1% pyrite.	
11.20 TO 113.60	«DIORITE»	Interval consists of a fine grained, green-grey diorite of approximately the following composition: <5% Kspar, 50% altered mafics, 1% qtz, 46% plag (normalized to 100%). There is approx 1% white qtz of carbonate stringers. The unit is generally weakly to moderately magnetic. Up to 3% medium grained magnetite is dissem throughout the interval. There is some local variation in the crystal size of the diorite. The coarser grained rock (<=2mm) tends to be whiter and less chlorite altered. 15.75-15.77m: Veinlet consisting of 95% Kspar, minor hematite, 5% mafics and altered plag. ‡28.16-32.2‡ wk brittle «Flt Bx» Minor calcareous gouge present. Between 30.5-31.0m the core is more competent but exhibits breccia textures. 32.92-33.8m: Bullseye fracture pattern. Fold nose? Magnetite lines some of the fractures. 34.25-34.9m: weak fault bx; rubbled core ‡35.25-36.6‡ «Flt Zone» Between 35.25-35.9m the core is highly brecciated. The fragments are cemented together by a sericitic, weakly calcareous matrix. Fragments are very pale leucodiorite. Between 35.9-36.6m the unit is the typical brittle fault breccia with minor gouge. ‡38.9-40.2‡ brittle «Flt Bx» zone. Fault plane is oriented subparallel to CA. 40.26-40.75m: core is weakly brecciated by calcite veining 42.9-43.2m: rubbled core 42.4-42.6m: weakly brecciated and fractured core 43.8-43.45m: weak Kspar alteration ‡46.8-47.1‡ Fine grained green «AND» 2% white Q/C stringers. Andesite is chlorite altered. Diorite contacts are bleached, washed out. Lower 10cm of andesite are faulted.		Minor limonite on fractures to a depth of 17.5m. Trace to minor hematite on fractures. Mafics are pervasively chlorite altered. Plag is sausseritized, altering to sericite, calcite. Patchy zones of weak bleaching, and weak epidote, zoisite, sericite alteration are common over 40% of the interval; frequently centered around fractures. Some qtz veinlets have altered up to 2cm of surrounding country rock. Textures in these envelopes is washed out leaving behind a greenish, fine grained alteration-presumably qtz, chlorite are main constituents. ‡11.2-11.4‡ «Int Sil» 37.1-37.8m: Strong, very fine grained epidote/zoisite? alt and sausseriticization of core.	2% fine grained pyrite dissem and stringers. Minor, dissem, very fine grained Cp. Cp locally occurs as small clots or stringers. Rarely Cp reaches concentrations of close to 1% over very narrow widths. Cp is commonly associated with Q/C, pyrite or more intensely altered zones of diorite. 45.2-46.1m: <=1% Cp associated with a Q/C stringer oriented subparallel to C/A.	The unit is weak to moderately fractured in general but there are a number of zones of highly rubbled core: 11.6-12.7m: rubbled core 16.6-20.1m: rubbled core 20.7-22.6m: rubbled core

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>47.2-48.1m: weak fault brecciation paralleling CA. A carbonate veinlet parallels the fault margin locally (1cm).</p> <p>53.75m: patch of hematized magnetite</p> <p>‡54.7-55.6‡ Brittle «Flt Bx»</p> <p>58.1m: A 6cm wide zone centering on a qtz vein core which contains 30% Kspar alteration of the enclosing diorite.</p> <p>62.4-62.5m: fault bx zone</p> <p>‡65.4-65.9‡ «Flt Bx»</p> <p>‡78.0-81.8‡ Somewhat intermittent brittle «Flt Bx Zone»</p> <p>Between 78.9-91.9m the diorite is generally very fine grained. Locally the rock has a similar appearance to a coarse grained andesite.</p> <p>80.6m: 1cm wide veinlet contains pink Kspar</p> <p>86.8m: 4mm wide Kspar-bearing veinlet oriented ‡87-89‡ Brittle «Flt Bx»</p> <p>‡89.8-90‡ «Breccia» Fine grained diorite is brecciated/cemented by Q/C</p> <p>‡94.2-94.5‡ «20% Kspar» Kspar is fine grained; has pink colouration. Rock type in this interval is monzodiorite.</p> <p>95-95.8m: Very fine grained interval</p> <p>103.9-104.1m: Core is sheared at 20-70 degrees to CA. 20% calcite.</p>	70	<p>82.3-82.5m: weak patchy silicification bleaches the diorite</p>	<p>47.8-48.0m: 7% Py dissem along margins of, and within, carb veinlet.</p> <p>58.2-58.3: A narrow Py, Cp stringer oriented parallel to CA. Py:Cp=1:3</p> <p>98.2-98.8m: approx .25% fine grained dissem and blebs of Cp.</p> <p>‡104.7-105.6‡ «.5% Cp» Cp is fine grained dissem in quartz-calcite-siderite stringers that crosscut core; most persistent orientation is sub-parallel to CA.</p>	<p>70.1-77.1m: intermittant very blocky zones of core; minor brittle fault bx</p> <p>77.1-78.0m: 85% core recovery</p> <p>78.0-79.25m: 90% core recovery</p> <p>79.25-80.16m: 55% recovery</p> <p>80.77-81.69m: 43% recovery</p> <p>81.69-83.82m: 80% recovery</p> <p>87.02-88.70m: 40% recovery</p> <p>96.9-103.7m: Core is quite blocky; locally there are small brittle fault bx zones.</p>
113.60 TO 114.55	«LEUCODIORITE»	The unit consists of a fine grained, pale grey to cream plag matrix which supports up to 10% chlorite altered mafics. 3% qtz. Core is not magnetic. 114.1-114.3m: Fault bx and shear		Core is weak to mod. calcareous due to alteration. 114.1-114.3m: Weak sericite alteration in fault zone.	1% dissem Py. Minor very fine grained Cp occurs in small greyish qtz patches.	
114.55 TO 121.40	«DIORITE»	This interval is similar to that between 11.2-113.6m. Non to weakly magnetic. 1% calcite stringers. ‡118.26-120.6‡ «Flt Zone» Core is highly rubbled. Well developed clay gouge at 120.5-120.6m. Core is weakly magnetic between 121-121.4m. The final 80cm of the interval are much finer grained. Lower contact appears to be at	45	Mafics are chloritized.		

HOLE NUMBER: TM 91-7

MINNOVA INC.
DRILL HOLE RECORD

DATE: 4-February-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
121.40 TO 123.55	«ALKALI FELD TRACHYTE»	3% chloritized mafic phenos. and 3% plag phenos are supported by an aphanitic Kspar matrix. The interval contains 12% calcite stringers and patches. Unit is weakly magnetic. Lower contact is sheared;oriented at	50	Mafics and matrix are chloritized;weakly calcareous.	No sulphides.	The unit is a slightly more altered version of the trachyte seen in previous holes.
123.55 TO 126.80	y«LEUCODIORITE»	As in the previous interval between 113.6-144.55m, except that it does not have the cream colouration and there are local compositional gradations into leuco-qtz-diorite. There is a persistent,wide-spaced cleavage at	40	Patchy,minor weak sericite and kaolinite alteration. Mafics are chlorite altered and washed out.	Minor dissem fine grained Py.	

HOLE NUMBER: TM 91-7

DRILL HOLE RECORD

LOGGED BY: C.NAGATI

PAGE: 4

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb			
BCD25849	11.00	12.20	1.20	1.3	144	149	601	6	20	2	41	19			
BCD25850	12.20	15.20	3.00	1.3	39	148	455	3	17	1	52	20			
BCD20101	15.20	18.20	3.00	1.2	86	59	387	4	24	1	61	6			
BCD20102	18.20	21.20	3.00	0.6	28	83	366	2	20	1	54	4			
BCD20103	21.20	24.20	3.00	0.8	5	87	446	1	19	1	53	12			
BCD20104	24.20	27.20	3.00	0.5	1	131	396	1	17	1	52	9			
BCD20105	27.20	30.20	3.00	0.6	1	65	570	5	19	1	53	5			
BCD20106	30.20	33.20	3.00	0.1	2	91	745	1	21	1	59	28			
BCD20107	33.20	36.20	3.00	0.8	7	102	1848	5	19	1	41	86			
BCD20108	36.20	39.20	3.00	0.3	1	69	357	1	18	1	53	14			
BCD20109	39.20	42.20	3.00	0.3	1	86	521	1	21	1	53	49			
BCD20110	42.20	45.20	3.00	0.3	1	112	438	1	21	1	51	53			
BCD20111	45.20	48.20	3.00	0.3	1	96	489	2	20	1	53	46			
BCD20112	48.20	51.20	3.00	0.3	1	115	375	1	19	1	50	8			
BCD20113	51.20	54.20	3.00	0.7	1	108	865	4	21	1	50	11			
BCD20114	54.20	57.20	3.00	1.6	125	67	1374	5	52	12	54	47			
BCD20115	57.20	60.20	3.00	0.9	60	37	941	6	25	4	60	39			
BCD20116	60.20	63.20	3.00	1.1	16	72	1128	5	27	1	56	48			
BCD20117	63.20	66.20	3.00	1.3	3	51	1129	3	23	1	58	61			
BCD20118	66.20	69.20	3.00	1	1	71	676	5	26	1	55	23			
BCD20119	69.20	72.20	3.00	1	1	68	524	1	20	1	57	18			
BCD20120	72.20	75.20	3.00	1	1	78	476	3	27	1	62	16			
BCD20121	75.20	78.20	3.00	0.5	1	103	641	2	25	1	67	21			
BCD20122	78.20	81.70	3.50	0.6	3	83	519	12	21	1	80	56			
BCD20123	81.70	84.70	3.00	0.7	1	103	421	7	19	1	88	70			
BCD20124	84.70	88.70	4.00	0.6	1	101	356	7	19	1	105	51			
BCD20125	88.70	91.70	3.00	1	1	103	696	25	22	1	93	60			
BCD20126	91.70	94.70	3.00	1.1	1	76	1076	9	20	1	57	45			
BCD20127	94.70	97.70	3.00	1	1	69	556	14	18	1	66	24			
BCD20128	97.70	100.70	3.00	0.8	2	81	801	11	22	1	60	31			
BCD20129	100.70	103.70	3.00	0.7	1	95	450	43	16	1	52	40			
BCD20130	103.70	105.70	2.00	1.1	1	79	1481	20	21	1	55	59			
BCD20131	105.70	108.70	3.00	0.8	1	152	781	15	20	1	57	23			
BCD20132	108.70	111.70	3.00	0.7	2	123	952	21	19	1	59	52			
BCD20133	111.70	113.60	1.90	0.6	1	75	656	24	21	1	45	58			
BCD20134	113.60	114.60	1.00	1.7	5	78	2117	41	20	1	20	65			
BCD20135	114.60	117.60	3.00	0.3	3	92	577	28	22	1	55	37			
BCD20136	117.60	121.40	3.80	0.4	3	70	677	57	22	1	48	29			

HOLE NUMBER: TM 91-7

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD20137	121.40	123.55	2.15	0.8	4	205	63	5	38	1	50	2		
BCD20138	123.55	126.80	3.25	1.3	10	58	554	54	18	1	19	8		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
						60.2-60.96m: 66% 60.96-61.87m: 93% 62.79-65.7m: 88% 63.7-64.6m: 87% 64.6-65.8m: 74% 66.75-69.3m: 78% 69.5-70.7m: 82% 70.7-71.9m: 36% 71.9-72.9m: 92% 72.9-75.0m: 80% 75.0-75.6m: 82% 75.6-78.0m: 90%
79.00 TO 80.80	«QZ CARB TC VND CHT»	The interval contains approx 15% greyish, recrystallized chert similar to that above. The chert has been intruded by irregular veins of qz, carb, pyrite and talc. Between 79-79.5m the interval is primarily white qz which contains 5% white carbonate and 3% pyrite. The upper contact is oriented roughly. The vein is fairly massive in appearance. Between 79.5-79.7m: chert Between 79.7-80.2m: The chert is cut by a somewhat granular appearing vein of qz (50%), carb (20%), talc (17%), chlorite/sericite (3%), pyrite (10%). Carbonate occurs within the main body of vein and as fracture infilling. Between 80.2-80.3m: Chert with abundant infilling of fractures with carbonate. Between 80.3-80.75m: Another patchy zone of qz, carb, talc, chl, veining/alteration and silicified? recrystallized chert.	25	The veining contains up to 5% light brown, limonitic stained material. Talc is pale to medium green in colour.	Pyrite is medium to coarse grained, coarsely dissem. 3% Py overall.	
80.80 TO 83.10	«RECRYST CH T»	The cherts are similar to those of the main body of chert described previously. Within the cherts are 3 zones, over 15% of the interval, which contain veins similar to those between 79-80.8m. The veins have a granular appearance and contain varying amounts of qz, carb, talc, chl, sericite, and py. These intervals occur between 81.0-81.13m, 81.56-81.68m, and 82.3-82.43m. The veins are very irregular and patchy.			Pyrite is concentrated within the veined zones; med grained, coarsely dissem 2% Py overall.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
83.10 TO 84.20	«QZ/CARB/SER/TC VEIN»	The vein composition varies throughout the interval. 83.1-83.4m: This interval consists of sugary fine grained quartz and sericite with minor carbonate. There is approx 15% green,fg chlorite/talc present. ‡83.3-83.4‡ «Flt bx,gouge» 83.4-83.8m: 80% qtz,10% limonite alt,5% chl and talc,2% Py,3% carb. 83.4-84.2m: fine grained qtz,ser/talc matrix with minor chl,20% Py,3% limonite stain. Base of unit is sheared.		Limonite is the principal alteration type with talc/sericite also present in varying amounts. Some of these may be primary rather than alteration.	83.5m: There is a <=1cm wide irregular vein of patchy mineralization. The principal mineral is a pale,highly reflective mineral,hardness of <5: sphalerite? Sample gives off "zinc stink" when HCl applied. There is 5% very fg blebs of Cp within this mineral (microscopic). Also present is 10-35% extremely fine grained grey metallic mineral: soft;silvery grey streak. Generally cubic shape but some radiating masses also seen. MoS2? PbS? 83.8-84.2: Pyrite is fine to medium grained,coarsely dissem.	
84.20 TO 89.80	«RECRYST CH T»	The unit consists of grey recrystallized chert as described previously. 84.2-84.9m: weak flt bx;core is mod to int rubbled 85.9-89.8m: highly fractured and rubbled core ‡86.4-86.6‡ «Calc. clay gouge» ‡89.1-89.12‡ «Flt bx,gouge»		85.6-85.9m: veined/alterd zone consisting of qtz,carb,sericite (80,15,5%). Sericite is very fine grained. Carb forms white patches.	<1% Py. Tr med grained patches.	
89.80 TO 91.00	«QTZ/CARB/PY VEIN»	Another zone of vein/a;teration which cuts the chert. The interval consists of 30% Py,40% qtz, 26% Fe-carb,4% greenish chlorite which occurs in patches. Q/C is very fine grained.			Py is extremely coarse grained. One pyritohedron measures in excess of 3cm.	
91.00 TO 93.60	«CHERT»	Massive chert. Most likely has been recrystallized. Compared to previous intervals the unit is relatively weakly fractured.		91.2-91.3m: An interval of carbonate and chlorite and pyrite cuts across the chert at 50 degrees.	Minor dissem Py except between ‡91.2-91.3‡ «30% Py»	
93.60 TO 96.30	«PLAG/SER ALT CHT»	Massive,aphanitic grey chert is mottled by patchy zones and veins of aphanitic white plagioclase. Associated with the plag is silica-white to grey, very similar to the chert. Qtz is usually massive, rarely sugary-remobilized chert? Small stringers of chlorite are locally present. Other minerals present are pyrite and a pale brown,limonitic? aphanitic alteration (sericite?) which forms as patches and along some fractures. 70% of the interval has been affected by veining/flooding.		The chert may be somewhat silicified as well as recrystallized. The plag is weakly calcareous. Carbonate also occurs along fractures.	3% fine grained pyrite clots occur with the plag.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
96.30 TO 102.40	«RECRYST CH T»	<p>This interval consists of chert similar to that seen at the top of the hole: aphanitic, well fractured, locally rubbled, generally uniform textures throughout. The core has a greenish tint caused by either chlorite or sericite.</p> <p>99.5-100.2m: A Q/C (85/15%) vein runs down the core, subparallel to the core axis.</p> <p>‡107.5-108.1‡ «Flt Bx, Gou»</p> <p>‡109.4-109.7‡ «Flt Bx, Gou» Gouge in these intervals is calcareous, locally chloritic.</p> <p>‡113.77-114‡ «Qtz Vn >20% Py»</p> <p>115.3-120.4m: Core is moderately to intensely rubbled</p> <p>‡115.3-116.3‡ «Brittle Flt Bx»</p>		<p>Minor to weak patchy plag growths, related to the above interval, present over 3% of the interval, locally over 10%. There appears to be a degree of fracture control over the formation of these zones.</p> <p>113.77-114m: Py is med to cse grained, coarsely dissem</p>	<p>No Cp or malachite seen in the interval</p> <p>Minor dissem py; local concentrations to 4% over 10cm; concentrations are most common in qtz veined/silicified zones or with faulted core.</p>	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL								Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb				
BCD20139	3.05	8.00	4.95	6.3	114	82	1242	10	341	292	229	12				
BCD20140	8.00	13.10	5.10	2.3	33	29	1105	17	61	51	39	2				
BCD20141	13.10	15.20	2.10	1.8	33	23	553	9	27	20	28	18				
BCD20142	15.20	18.90	3.70	1.3	19	20	878	6	21	11	14	9				
BCD20143	18.90	22.10	3.20	1.4	18	26	1258	12	19	14	14	7				
BCD20144	22.10	25.30	3.20	1	20	32	1050	5	18	9	19	4				
BCD20145	25.30	28.00	2.70	1	22	29	1113	4	11	5	24	10				
BCD20146	28.00	33.50	5.50	1.3	21	25	677	10	10	4	28	4				
BCD20147	33.50	36.90	3.40	0.8	18	17	652	8	8	3	20	2				
BCD20148	36.90	39.60	2.70	0.5	17	28	409	6	9	2	22	3				
BCD20149	39.60	44.20	4.60	1.5	16	51	1205	9	12	4	13	22				
BCD20150	44.20	46.70	2.50	1.2	15	100	1376	17	14	7	14	80				
BCD20151	46.70	49.40	2.70	0.9	22	68	823	8	12	3	13	17				
BCD20152	49.40	52.40	3.00	1.1	14	21	572	12	10	3	12	5				
BCD20153	52.40	55.40	3.00	1.1	10	22	637	12	7	3	8	4				
BCD20154	55.40	56.70	1.30	1	18	24	606	20	11	3	15	1				
BCD20155	56.70	59.70	3.00	1.3	15	48	1205	18	11	4	17	104				
BCD20156	59.70	62.70	3.00	1.3	15	47	477	54	7	8	14	186				
BCD20157	62.70	65.80	3.10	1.1	18	38	589	7	6	2	13	26				
BCD20158	65.80	68.90	3.10	1.6	14	24	403	13	6	4	11	20				
BCD20159	68.90	72.90	4.00	1.1	10	13	224	4	5	5	12	4				
BCD20160	72.90	76.00	3.10	0.8	26	14	119	17	10	5	23	12				
BCD20161	76.00	79.00	3.00	1.2	23	17	143	22	10	11	24	10				
BCD20162	79.00	80.80	1.80	2.6	36	13	60	70	11	1	18	100				
BCD20163	80.80	83.00	2.20	1.3	29	9	30	18	9	2	13	21				
BCD20164	83.00	84.20	1.20	15.7	80	19	88	17	110	3	275	3				
BCD20165	84.20	87.10	2.90	1.5	17	11	50	32	9	2	69	111				
BCD20166	87.10	89.80	2.70	1.3	17	13	301	21	10	2	34	6				
BCD20167	89.80	91.00	1.20	7	72	2	25	4	1	1	39	860				
BCD20168	91.00	93.60	2.60	2	21	10	47	11	16	1	18	1				
BCD20169	93.60	96.30	2.70	1.5	13	21	14	18	14	1	11	42				
BCD20170	96.30	99.30	3.00	1.5	13	15	117	13	14	1	48	1				
BCD20171	99.30	102.30	3.00	1.1	10	17	81	6	13	1	18	1				
BCD20172	102.30	105.30	3.00	0.8	15	19	57	24	12	1	15	1				
BCD20173	105.30	108.30	3.00	1.3	15	16	83	8	10	1	13	1				
BCD20174	108.30	111.30	3.00	1.3	14	14	132	14	13	1	15	3				
BCD20175	111.30	114.30	3.00	1.2	57	19	71	22	23	1	139	37				
BCD20176	114.30	117.30	3.00	1.2	14	25	151	10	12	1	15	1				

HOLE NUMBER: TM 91-8

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t		
BCD20177	117.30	120.40	3.10	1	14	40	120	7	12	1	14	1				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.76	«CSG»					
3.76 TO 20.00	«SIL AND»	<p>The unit consists of very fine grained, green, massive andesite. The core is quite strongly magnetic and contains up to 20% Mt, dissem and as stringers. Mt appears to be associated with weak to moderate silicification of andesite, and with qz veinlets. Alteration varies throughout the interval; for the most part the core is weakly silicified but there are patches (25%) of softer clay alteration.</p> <p>6.0m: Flt gouge, limonite 11.88m: 2cm Q/C veinlets oriented with andesitic bx fragments, and drusy qz lining vugs. ‡13.95-14.45‡ «Flt Zone» Clay-altered, rubbly, plus limonite. ‡15.81-16.27‡ «Leucodiorite» Strongly weathered, limonite-stained. Med-cse grained, grey colour. 18.14-18.34m: Diorite(?) or felsic intrusion, fine grained, mafics chloritized. Contains 20% Mt as dissem and veinlets.</p>	45	<p>The core is strongly chlorite-altered. Carbonate is abundant throughout the matrix and as veinlets to 2cm in width. Minor talc occurs with calcite in some veinlets. Pale yellowish sesquicite occurs as tiny flecks throughout the matrix; pale greenish white sericite stringers occur to 15%. Limonite occurs throughout interval on fractures. Bright red hematite occurs with Mt in qz veinlets.</p> <p>Mafics pervasively chloritized.</p>	Cp occurs as disseminations and along qz veinlets, usually associated with silicification (<1%). Py 1%. At 4.7m there is a 1cm calcite veinlet oriented at 40 degrees to CA, that contains approximately 80% Py.	From 8.6-8.84 the core is rubbly.
20.00 TO 27.64	«ANDESITE»	<p>Fine grained green andesite. It is differentiated from the previous interval by alteration style. Here the alteration assemblage consists mainly of chlorite-sericite-carbonate. The core is soft and scratchable. For the most part the core is non-magnetic to weakly magnetic, although Mt occurs as blebs, stringers, and in qz veinlets to 5% locally. Silicification occurs in small patches. Several Q/C veinlets from 1-4cm occur from 22.6-23.0m. ‡24.68-27.64‡ «Shear Fabric» Oriented approx</p>	45	<p>Chlorite is pervasive and also occurs as stringers. Sericite occurs as fine flecks and stringers, pale yellow in colour. Blebs of talc occur with calcite/limonite along fractures. Carbonate is pervasive throughout the matrix and in mm-scale veinlets to 15%.</p>	Mineralization is negligible in this interval. Py<1%; tr Cp.	Core is fairly well fractured.
27.64 TO 60.26	«TRACHYTE/AND»	<p>This interval consists for the most part of a porphyritic, grey to grey-brown trachyte dyke. Composition of the phenocrysts varies throughout the interval and the unit is subdividable on this basis. Core is non to weakly magnetic. 27.64-34.9m: Fspar-porphyritic trachyte 8% plag phenocrysts and agglomerates to 5mm in a fine grained matrix of Kspar with minor mafics. 3% mafic (biot?) phenocrysts.</p>		<p>In general: Matrix carbonate altered. Q/C veinlets to 2cm occur to about 5%. Limonite occurs with qz, cc on fractures</p> <p>Chlorite alteration-matrix scratchable.</p>	Nil	Upper contact is a 10cm wide clay altered chill margin, with 3% vfg dissem Py.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>‡34.9-35.8‡ «Andesite» Aphanitic, green andesite. Strongly altered; mottled green colour due to pervasive chlorite alteration and qz, calcite, and pale yellow sericite stringers.</p> <p>35.8-41.3m: Fspar-porphyrific trachyte This unit is similar to the previous trachyte unit but mafic phenocrysts (pyx, biot) occur to approx 8% while plag is approx 12-15%. Few 3-8mm qz-filled vesicles; few Kspar phenocrysts (pink).</p> <p>‡41.3-47.5‡ «Andesite» Dark grey to green aphanitic andesite. Appears mottled due to patchy alteration. Core is weakly magnetic. 15mm Q/C veinlet oriented at at 43.9m. Q/C veinlets approx 5%. 2cm Q/C veinlet oriented at at 47.4m.</p> <p>47.5-55.0m: Biotite-porphyrific trachyte Dark grey trachyte; differs from units seen above due to 8-10% biotite (+/- hblde) phenocrysts to 4mm. Plag still occurs as phenocrysts although the crystals are faint and washed out. Subparallel, tight, 5-10cm spaced fractures occur at</p> <p>‡55.0-56.0‡ «Andesite» Greyish brown, fine grained andesite. Mottled due to patchy alteration; in places is brecciated with stockwork calcite or chlorite veinlets. Core is moderately magnetic.</p> <p>56.0-60.0m: Feldspar-biotite trachyte In general appearance this unit is similar to the overlying biot-po trachyte, but plag phenocrysts occur to 15%, along with 5% mafics. Plag phenocrysts are washed out and carbonate altered; biot is chloritized. Clay alteration and limonite stain from 59.35-59.69m.</p>	30 45 50	<p>Chlor-ser-cc stringers. Blebs of calcite.</p> <p>Plag phenocrysts often have a reddish core (hematite stain?). Stkwk cc+bx occurs at 36.1m.</p> <p>Pervasive chloritization. Patchy silicification, +/- carbonatization. Sericite occurs as vfg flecks and as stringers.</p> <p>Blackish chlorite abundant along fractures with calcite. In places, slickensides are evident on these fractures. Mafics chloritized.</p> <p>Pervasive chlorite plus stringers. C/Q veinlets and patches in matrix. Fine grained flecks of sericite.</p> <p>Chloritization of mafics plus chlorite/calcite along tight fractures (as is overlying trachyte unit). Carbonatization of feldspars plus fine cc veinlets.</p>	Negligible Nil Nil Nil <1% Cp; tr Py-very finely disseminated. Nil	<p>Chilled margin at bottom of previous interval.</p> <p>U/L contact are fine grained chill margins.</p> <p>Lower contact with andesite is at 45 degrees to CA.</p> <p>Gradational change from fspar-po trachyte to biot-po trachyte occurs from top of interval to 49.34m, at which point the biotitic nature of the phenocrysts is well expressed.</p> <p>Lower contact is a fine grained, grey clay altered chill zone.</p>
60.26 TO 94.94	«ANDESITE»	<p>Fine grained, green andesite. The core varies from non magnetic to weakly magnetic, with patchy areas of strong magnetism. Mt occurs as stringers and fine disseminations, often altered to hematite. From 85.8-86.0m, hematite occurs up to 20% in a strongly carbonate/chlorite altered bx zone oriented</p> <p>Stkwk cc veining from 81.1-83.42m, at 74.6m, and from 85.5-86.05m locally intensifies and creates vein bx zones. Carbonate alteration is pervasive throughout interval in matrix and up to 5% cc occ-</p>	30	<p>Pervasive chlorite-calcite. Sericite occurs as fine flecks. Kspar occurs (60%) in a 4cm qz syenite dykelet oriented 30 degrees to CA at 84.12m, and at 79.8m. Moderate limonite on fractures.</p>	<p>1% Py throughout interval as fine grained dissem and stringers, and in 3mm Q/C veinlets parallel and perpendicular to CA from 88.57-89.52m. Cp<1%; occurs mainly in Q/C veinlets with Py. Veinlets have bleached alteration envelopes</p>	<p>Some of the darker chlorite could be biotite(?).</p>

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>urs as stringers and vuggy 1-2cm veinlets with qz. In areas the core is quite clay altered and is soft and scratchable. Fault gouge occurs at 61.28m 68.43m, and 74.6m.</p> <p>‡72.48-73.98‡ «Sil And» In this interval the core is mottled in appearance due to patchy alteration. Secondary plagioclase (70%) + Kspar (30%) occur as anhedral phenocrysts to blebs from 72.58-73.08m, interspersed with stringers of chlorite, calcite, sericite, and hematite. The interval is mod. silic. compared to the rest of the unit.</p>			<p>Py, Cp more abundant here than rest of unit.</p> <p>‡72.48-73.98‡ «Py 2%, Cp 1%» Very finely disseminated.</p>	
94.94 TO 152.70	«PROP ALT DIORITE»	<p>Fine grained, greyish green diorite. The core is non magnetic. Core in this interval is highly fractured and rubbly in areas (30%) due to brittle faulting. Clay fault gouge occurs throughout the interval but especially at 98.46-98.76m; 99.9-100.4m, and 102.17-102.47m. Fracture surfaces are covered with calcite and hematite. Fractures are often subparallel to CA and slickensided.</p> <p>‡96.93-101.19‡ «Brittle Flt»</p> <p>‡102.25-103.12‡ «Brittle Flt» In between these zones the core is more competent although still highly fractured. Fault-related fracturing continues to 109.73-111.3m, where there is a zone of very rubbled core. From this point onward, core is again fractured until</p> <p>‡121.9-122.6‡ «Breccia» Calcite-healed breccia (or calcite vein breccia?).</p> <p>Q/C veining with wallrock bx fragments occurs from 105.46-105.6m, and from 16.8-117.1m. Vein brecciation also occurs from</p> <p>‡124-125.7‡ «Bx Zone»</p> <p>Overall, qz veinlets are minor and <1cm in width.</p> <p>134.66m: Talc-carb-hem covered slickensides oriented 15 degrees to CA.</p> <p>135.9m: Slicks oriented 40 degrees to CA.</p> <p>142m: Fault gouge</p> <p>143.31-143.51m: Bx + calcite</p> <p>144.73m: slicks</p>		<p>Propylitic alteration is dominant in this unit, although Kspar occurs in veinlets and in patchy zones throughout the matrix (<1%), often associated with mineralization. The main alteration assemblage consists of chlorite-calcite-hematite-zoisite. Mafics are chloritized. Feldspar crystals are usually pale whitish-green (zoisite?) and often the alteration coalesces into patchy bleached zones of zoisite+calcite, that obliterates the original feldspar crystal structure, as well as the mafics. The groundmass of the diorite is a dark grey-green due to pervasive chloritization. In areas this alteration is of such intensity that patches of diorite up to 15cm are composed entirely of fine grained chlorite plus calcite. This occurs especially from 111.25-115.21m. From 142.6-145.05m, patchy strong chloritic alteration is prevalent. Often the chlorite is well-dev. so that laminae are visible. In this interval there are several 3-5cm dykelets of plag/cc oriented at 45 degrees to CA.</p> <p>4cm Kspar veinlet is oriented at 40 degrees to CA at 143.8m.</p> <p>1cm Kspar veinlet is oriented at 45 degrees to CA at 152.45m.</p>	<p>1% pyrite, which mainly occurs along fine fractures to 5mm in width. Cp is minor and occurs finely disseminated in veinlets/fractures (<1%). Veinlets often have bleached or chloritic alteration envelopes.</p> <p>111.6-111.86m: Py 3%</p> <p>113.08-113.62m: Py 5%</p> <p>119.05: 1cm Py veinlet parallel to CA</p> <p>2cm Q/C veinlet oriented at 50% to CA at 151.9m contains 1% Cp, 5% Py, and 3% Mo. Mo occurs mainly as a vein selvage.</p>	<p>Core Recovery:</p> <p>95.71-96.93m: 153%</p> <p>96.93-97.54m: 100%</p> <p>97.54-98.76m: 57%</p> <p>98.76-101.19m: 100%</p> <p>101.19-102.72m: 114%</p> <p>102.72-103.94m: 76%</p> <p>103.94-105.46m: 112%</p> <p>105.46-106.07m: 100%</p> <p>106.07-107.44m: 128%</p> <p>107.44-109.73m: 35%</p> <p>109.73-110.64m: 27%</p> <p>110.64-111.25m: 66%</p> <p>111.25-111.86m: 148%</p> <p>111.86-113.08m: 123%</p> <p>113.08-115.21m: 100%</p> <p>Note: Intensely chlorite altered patches almost look like wall-rock fragments that have been caught up in the diorite.</p>

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au		COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t	
BCD20476	3.80	7.80	4.00	0.1	1	173	858	1	10	1	55	126			
BCD20477	7.80	10.80	3.00	0.1	1	192	1312	2	15	1	63	133			
BCD20478	10.80	13.80	3.00	0.1	1	206	883	7	15	1	64	524			
BCD20479	13.80	16.80	3.00	0.2	1	340	276	1	12	1	57	2			
BCD20480	16.80	19.80	3.00	0.3	1	795	329	67	10	1	63	6			
BCD20481	19.80	21.80	2.00	0.2	1	630	516	3	15	1	86	4			
BCD20482	21.80	24.80	3.00	0.3	1	36	403	2	22	1	120	16			
BCD20483	24.80	27.60	2.80	0.1	16	205	579	5	24	1	98	40			
BCD20484	27.60	30.60	3.00	1	1	324	92	2	32	1	60	2			
BCD20485	30.60	33.60	3.00	1.1	1	337	37	2	28	1	54	1			
BCD20486	33.60	34.90	1.30	0.9	1	222	36	2	43	1	71	1			
BCD20487	34.90	35.80	0.90	0.2	4	809	1252	10	28	1	143	98			
BCD20488	35.80	38.80	3.00	1.1	1	206	29	2	31	1	53	2			
BCD20489	38.80	41.30	2.50	1.3	2	150	21	2	31	1	58	1			
BCD20490	41.30	44.30	3.00	0.4	31	44	864	4	25	1	109	61			
BCD20491	44.30	47.60	3.30	0.1	1	64	581	1	18	1	100	35			
BCD20492	47.60	50.60	3.00	1.3	1	82	56	1	16	1	66	1			
BCD20493	50.60	53.60	3.00	2	1	98	32	1	13	1	65	1			
BCD20494	53.60	54.60	1.00	2.3	1	106	30	1	10	1	62	2			
BCD20495	54.60	56.10	1.50	1.2	1	118	690	3	11	1	123	149			
BCD20496	56.10	58.10	2.00	1.9	1	110	32	1	15	1	67	1			
BCD20497	58.10	60.00	1.90	1.9	1	126	50	1	20	1	68	1			
BCD20498	60.00	63.00	3.00	0.2	1	34	471	1	18	1	104	62			
BCD20499	63.00	66.00	3.00	0.7	1	169	342	1	5	1	89	1040	1.22	0.036	
BCD20500	66.00	69.00	3.00	0.2	1	34	576	1	5	1	89	42			
BCD21426	69.00	72.00	3.00	1.5	1	148	682	1	3	1	81	72			
BCD21427	72.00	75.00	3.00	0.8	1	31	2745	7	20	1	84	278			
BCD21428	75.00	78.00	3.00	0.9	1	60	1448	3	3	1	76	153			
BCD21429	78.00	81.00	3.00	2.2	1	121	624	1	3	1	76	168			
BCD21430	81.00	84.00	3.00	1.1	1	909	342	1	3	1	87	139			
BCD21431	84.00	87.00	3.00	1.2	1	80	354	1	3	1	81	277			
BCD21432	87.00	90.00	3.00	1.3	1	87	545	2	4	1	54	740			
BCD21433	90.00	93.00	3.00	2.2	1	79	907	8	3	1	62	388			
BCD21434	93.00	94.90	1.90	2	1	97	1631	1	3	1	63	169			
BCD21435	94.90	97.90	3.00	0.6	1	63	372	4	19	1	47	47			
BCD21436	97.90	100.90	3.00	0.5	6	36	224	20	19	1	44	5			
BCD21437	100.90	103.90	3.00	0.6	1	41	285	5	20	1	51	10			
BCD21438	103.90	106.90	3.00	0.7	9	41	237	4	21	1	47	13			

HOLE NUMBER: TM 91-9

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD21439	106.90	109.90	3.00	0.9	1	312	307	4	18	1	47	19		
BCD21440	109.90	112.90	3.00	0.7	2	58	478	17	18	1	43	28		
BCD21441	112.90	115.90	3.00	0.4	1	39	497	23	19	1	39	35		
BCD21442	115.90	118.90	3.00	0.5	1	97	376	42	17	1	39	14		
BCD21443	118.90	121.90	3.00	0.7	1	56	773	13	19	1	40	22		
BCD21444	121.90	124.90	3.00	0.9	1	41	684	9	22	1	29	57		
BCD21445	124.90	127.90	3.00	1	5	81	317	7	18	1	44	24		
BCD21446	127.90	130.90	3.00	1.2	1	128	451	8	18	1	42	50		
BCD21447	130.90	133.90	3.00	0.8	1	48	686	20	18	1	36	58		
BCD21448	133.90	136.90	3.00	0.6	1	252	433	42	17	1	37	41		
BCD21449	136.90	139.90	3.00	1.2	2	216	621	7	18	1	40	72		
BCD21450	139.90	142.90	3.00	0.8	1	109	894	8	19	1	33	65		
BCD18876	142.90	145.90	3.00	0.7	4	228	1043	14	17	1	46	62		
BCD18877	145.90	148.90	3.00	0.6	1	272	512	5	15	1	43	29		
BCD18878	148.90	151.90	3.00	0.9	1	194	409	6	17	1	40	41		
BCD18879	151.90	152.70	0.80	1	3	25	1413	670	18	1	42	176		

HOLE NUMBER: TM 91-9

ASSAY SHEET

PAGE: 6

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.30	«CSG»					
3.30 TO 74.50	«DIORITE»	<p>The diorite is very fine grained; crystals are generally <=1mm in diameter. Alteration makes exact mineral identification difficult but protolith appears to have consisted of approximately 40-50% mafics with remainder being felsic (not including magnetite and sx).</p> <p>Between 3.3-8.7m the core is very blocky and rubble. Hematite coats the fracture surfaces. Below 8.7m the core is very competent; fractures are moderately to widely spaced. Fractures generally have no preferred orientation. Hematite to limonite staining of fractures common. <1% Fe-carbonate stringers and patches are present (stains dark blue). Stringers frequently fill in fractures. The core is generally weakly magnetic. Magnetism is caused by very fine grained disseminated Mt. Mt occasionally occurs as fine grained stringers.</p> <p>The interval 13.25-19.3m is very magnetic to very weakly magnetic.</p> <p>From 21m to approx 27m the core is generally non magnetic to very weakly magnetic. Small magnetic zones are present but such magnetite as is present generally forms stringers or rare veins rather than occurring as disseminations.</p> <p>Between 34.1-41.0m there are 4% white qz-carb-talc stringers to veinlets; relative proportions 6%:90%:4%. Carbonates are Fe-rich.</p> <p>‡41.85-42.21‡ «Vn-Qz Mg Trm? Chl Cp» Vein has sharp contacts with enclosing diorite. Upper contact is marked by a calcite stringer at Lower contact at</p> <p>Mineralogy of the vein changes with depth: The top half of the vein consists of: 40% grey qtz, 3% pyrite, 23% hematized Mt, 4% Cp, 30% tremolite? (pale green, hard-possibly silica overprint and chlorite).</p> <p>The lower half of the vein contains 4% Cp, 3% Py, 10% qtz, 25% weakly hematized magnetite, 5% qtz, 10% chlorite, 43% tremolite (elongate, striated mineral masses).</p> <p>43.4-47.6m: talc-carbonate stringer 46.55m: minor specular hematite (specularite)</p>	70 75	<p>The diorite has undergone pervasive propylitic alteration. The mafics are altered to chlorite. Plag has been sausseritized resulting in ser, calc, zoisite? The plag has a pale green coloration. Local patchy zones are bleached where sauss. is more pervasive/ intense core is very weakly calcareous. Some stringers and fractures have very narrow (mm scale) bleached alteration envelopes.</p> <p>15.8-16.2m: mod prop alteration: vfg epidote, chlorite, hematite on fractures. Fractures in this interval are oriented at 65 degrees to CA.</p> <p>At 18.3m there is minor Kspar alteration envelope, 1mm wide around a qtz stringer.</p> <p>29.37m: stringer with 30% Kspar (pink) 30.6m: 2cm qz, Kspar, Py, Cp veinlet</p> <p>‡43.55-43.75‡ «V Wk Kspar» development of fine grained Kspar (10%) gives the core a faint pinkish cast. ‡44.75-45.3‡ fine grained «Kspar Alt around Mt»- forms envelopes around occasional Mt stringers; moderate intensity</p>	<p>The pyrite content reaches a max of 2%. Py is usually vfg; med in places. Py occurs as fine disseminated and stringers. The diorite also contains up to 1% Cp. Generally there is only minor amounts of vfg Cp disseminated throughout the unit. Higher concentrations commonly are seen in Q/C stringers and on the occasional fracture. Rarely Cp forms patchy stringers and coarse disseminated. Trace malachite seen in a Q/C stringer at 10.5m.</p> <p>Cp occurs as fine disseminated and clots.</p>	<p>5.03-6.4m: approx 80% core recovery There is an extra 45cm of core between the blocks at 16.76m and 19.8m.</p> <p>Some of the Kspar seen in this interval may in fact be part of the original mineralogy, however the tendency for Kspar to be commonly concentrated in narrow zones, and frequently associated with fractures/magnetite, is a good argument for the Kspar as alteration model. It is less compelling in those areas where Kspar is broadly disseminated.</p>

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>48.8-49.1m: 1cm wide grey qtz vein. Vein oriented subparallel to CA. In final 10cm of interval vein feathers out into chalcedonic veinlets.</p> <p>51.3-54.5m: diorite textures are locally washed out.</p> <p>51.8-52.8m: 8% patchy white to grey qtz veining and flooding. Some visible offset along fractures. Crosscutting white carb stringers present.</p> <p>‡54.9-55.9‡ «Shear/Flt Zone» Feldspars are clay altered. Faulting is most intense at base of interval. Clay gouge present locally. Orientation of upper end of shear at</p> <p>57.8-58.8m: prominent magnetite/chlorite stringer orientation at</p> <p>These stringers are crosscut and locally offset by carb stringers oriented at</p> <p>58.4-58.6m: 60% qtz veining oriented at</p> <p>Qtz is crosscut by numerous fine stringers of carbonate.</p> <p>61.77m: 2cm faulted zone.</p> <p>‡67-67.5‡ «Shear/Flt» Clay gouge is increasingly well developed with depth.</p> <p>‡71.5-72.0‡ «Flt Zone» Minor clay gouge. Some talc on fracture surfaces.</p> <p>72.6m: 1cm fault gouge zone</p> <p>73.1m: 5cm fault gouge zone</p> <p>Lower contact at 74.5m oriented at</p> <p>Between 58.4-74.5m the core is only weakly magnetic.</p>	<p>45</p> <p>60</p> <p>60</p> <p>55</p> <p>50</p>	<p>(mm scale)</p> <p>‡45.85-46.2‡ «Kspar Alt» The Kspar alt is very weak throughout much of the interval but in the vicinity of a cm-wide Mt patch at 46.1m the alteration is moderate. Kspar makes up to 30% of the mineral assemblage in this area.</p> <p>46.35-48.2m: patchy, small zones of very weak Kspar.</p> <p>46.2-46.35m and 46.65-46.9m: pale green intense very fine grained epidote/zoi-site alteration.</p> <p>49.4-50.25m: feldspars are altered to greenish clays. White talc occurs on fracture surface.</p> <p>150.6m: 2cm wide mod Kspar alt zone</p> <p>53.3-53.9m: very weak to weak fine grained Kspar alteration</p> <p>‡60.48-60.8‡ «Wk-mod Kspar» alt comprises up to 35% of the interval; weakens down hole</p> <p>61.47-61.61m: weak patchy silicification washes out textures</p> <p>‡63.4-63.7‡ «Mod Kspar» -up to 40% diss throughout interval</p> <p>‡66.2-66.4‡ «Wk Kspar»</p> <p>‡68.4-69.24‡ «Silicic+Kspar alt» Weak silicification bleaches core. Vfg Kspar with the qtz gives the core a pink tint</p> <p>Minor talc on fracture surfaces. Sil+Kspar decrease with depth.</p> <p>‡69.7-70.05‡ «30% mod-int Kspar» occurs as distinct patches rather than as disseminations</p>	<p>‡47.05-47.2‡ «2% Cp» patches, stringers associated with Mt/hematite</p> <p>‡58.4-58.6‡ «4% Cp in qz»</p> <p>65.6-66.3m: patchy coarsely dissem Py occurs in a 3mm carb veinlet oriented subparallel to the CA</p> <p>69.7-70.05m: 1% vfg dissem Cp in the Kspar</p>	<p>Core Recovery: 68.88-71.9m: 93% 71.9-73.76m: 89%</p>
74.50 TO 86.35	«TRACHYTE»	<p>An aphanitic matrix supports up to 15% phenocrysts which are mainly plag but locally up to 5% qz phenocrysts to 1mm are present. The matrix appears to be comprised of roughly equal amounts of Kspar and plag but contains patches wherein the Kspar is dominant. The core is weakly magnetic. The upper contact is bleached and chilled. The interval contains 1% fine stringers of carbonate; randomly oriented.</p> <p>85.1-85.7m: Altered diorite. Fine grained.</p> <p>85.7-86.35m: The unit contains coarser plag pheno-</p>		<p>The plagioclase is calcareous. The first meter of the unit has a faint greenish tint, possibly caused by microscopic chlorite.</p> <p>85.1-85.7m: Intense propylitic altn of diorite. Pervasive fine grained epidote and chlorite altn. Hematite present on fracture surfaces. Minor patchy silica present but the interval appears to be quite siliceous.</p>	<p>No visible sx.</p>	<p>Very similar to the alkali feldspar trachytes seen in previous holes but appears to contain somewhat less Kspar in the aphanitic matrix. The unit again appears to be a dyke.</p>

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		crysts than previously. Phenos locally form rosettes. Lower contact is oriented at	45			
86.35 TO 94.70	«PROP ALT DIOR»	Fine grained to very fine grained. Intrusive textures are locally washed out by alteration. The interval contains minor to 1% white Q/C stringers. At 89.2m there is a 1cm Q/C veinlet at Unit is non magnetic.	40	Mafics have been chloritized. Plag is altering to carbonate,sericite. Hematite occurs along fracture surfaces. 92.5-93m: stronger,more pervasive hematite altn.	1% patches,stringers, adn dissem of Py.	
94.70 TO 105.16	«CHL TRACHYTE»	A medium to dark grey aphanitic matrix supports 15% fine plag phenocrysts in the vicinity of the upper and lower contacts. The plag phenos are quickly lost in the main body of the unit. The main proportion of the interval consists of a fine grained matrix consisting of Kspar and plag. There are numerous black patches,stringers,fracture infillings of intense black to green chlorite. Some of the patches are evidently altered mafics. Altered mafic phenos comprise <20% of the unit. The core is weakly magnetic. 94.7-96.3m: 2% discontinuous white carbonate stringers and patches. 100.45-100.9m: Brittle fault breccia The unit has distinct contacts with the enclosing units. Upper contact is irregular,approx at Lower contact irregular,approx at	90 60	There is intense chlorite altn present. Chl is most pervasive between 97.0-103m Outside of this interval chl is still pervasive but does not comprise as many patchy zones. Plag crystals,where visible,are weakly to moderately calcareous.	No sulphides seen.	The unit is not the typical alkali-feldspar trachyte to trachyte seen in previous holes or further down in this hole. The only hole where similar textures in this type of rock have been seen is TM 91-9 where there was a gradation between the more typical trachyte and this chloritic version. In the current hole there appears to be a decrease in the amount of Kspar in the matrix of the chlorite rich rock but the rock still appears to fall in the trachyte category. Some decrease in Kspar content was also seen in similar rock in TM 91-9. Part of Cam's chl/mag zone?
105.16 TO 109.10	«DIORITE»	Very fine grained, grey in colour. Intrusive textures largely washed out. Unit is crosscut by numerous black chlorite/magnetite stringers and patches (lower 15% of the interval). Staining indicates a lack of Kspar, and abundant vfg plag. The core has patchy moderate (locally intense) magnetism. At 105.4m a spotty magnetite veinlet contains minor Cp blebs. Less than 1% white carbonate stringers. Lower contact at	70	The core is moderately calcareous. Carb derives from the altn of plag. Local chloritic altn of the matrix gives the core a greenish cast.	Tr Cp occurs with Mt. <1% dissem Py.	
109.10 TO 116.60	«TRACHYTE»	Typical trachyte unit. The matrix is aphanitic and is Kspar rich. There is approx 15% plag phenos to 6mm. Core is weakly magnetic. <1% white carbonate stringers present. Up to 8% chloritized mafic phenos (<3mm) present-biotite? ‡112.06-113.4‡ intermittent «Flt Bx Zone» Minor		Plag phenos and matrix are moderately calcareous. Chlorite altn of mafics.	No sulphides seen.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		well developed grey clay gouge present.				
116.60 TO 117.50	«ANDESITE?»	Andesite unit is rubbled (fault bx?). Upper contact not preserved; lower contact at 1% white Q/C stringers.	60	Mafics are chlorite altered. Unit is moderately to intensely calcareous. Minor hematite on fracture surfaces.	Minor dissem Py.	May be a vfg altered diorite.
117.50 TO 117.80	«TRACHYTE»	As in the interval 109.1-116.6m.				
117.80 TO 132.28	«PROP ALT DIOR»	Typical fine grained dioritic unit which has been quite extensively hematized. The core is non to very weakly magnetic. Minor white Q/C stringers and patches. Locally the stringers are lined with hematite. ‡117.8-120.4 ‡ «Strong shear fabric at 25.6m» ‡120.7-123.4 ‡ «Flt Bx» ‡127.65-129.9 ‡ «Flt Bx»		Mafics have been altered to chlorite, giving the core its green colouration. The stringers are calcareous. Plag is also altering to calcite. Local bleaching along fractures. Between 127-128.4m there is patchy weak to moderate vfg epidote altn. 70% of the unit is affected by patchy reddish hematite alteration. Hematite is not restricted to fracture surfaces.	Minor fg Cp occurs in stringers with/without Py. <2% Py stringers and diss.	Moderate propylitic alteration. Core Recovery: 120.7-123.14m: 20% 126.49-128.93m: 59% 128.93-129.59m: 30%

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL									COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t	
BCD20178	3.30	6.30	3.00	0.7	1	321	663	1	75	1	64	36			
BCD20179	6.30	9.30	3.00	0.4	1	409	851	4	27	1	55	40			
BCD20180	9.30	12.30	3.00	0.7	1	522	857	1	27	1	71	72			
BCD20181	12.30	15.30	3.00	0.5	1	1157	640	12	31	1	78	40			
BCD20182	15.30	18.30	3.00	0.9	1	363	753	6	31	1	75	51			
BCD20183	18.30	21.30	3.00	0.6	1	360	933	13	25	1	73	62			
BCD20184	21.30	24.30	3.00	0.9	1	293	1208	8	26	1	76	109			
BCD20185	24.30	27.30	3.00	1.9	1	191	1770	3	24	1	89	146			
BCD20186	27.30	30.30	3.00	0.6	1	275	544	2	20	1	66	40			
BCD20187	30.30	33.30	3.00	0.4	1	559	616	17	19	1	66	15			
BCD20188	33.30	36.30	3.00	0.7	1	472	1012	18	18	1	50	46			
BCD20189	36.30	39.30	3.00	0.7	1	705	1281	6	22	1	52	80			
BCD20190	39.30	41.50	2.20	0.7	1	762	1555	10	20	1	46	97			
BCD20191	41.50	42.50	1.00	0.1	1	242	3395	9	19	1	50	474			
BCD20192	42.50	45.50	3.00	0.3	7	588	964	5	22	1	38	74			
BCD20193	45.50	48.50	3.00	0.7	1	532	1356	7	24	1	57	72			
BCD20194	48.50	51.50	3.00	0.9	3	254	1032	14	28	1	70	61			
BCD20195	51.50	54.50	3.00	0.8	1	568	1052	15	26	1	52	79			
BCD20196	54.50	57.50	3.00	0.5	1	310	821	4	26	1	52	70			
BCD20197	57.50	60.50	3.00	0.8	1	191	925	4	23	1	52	51			
BCD20198	60.50	63.50	3.00	0.4	1	463	403	7	22	1	59	17			
BCD20199	63.50	66.50	3.00	0.3	1	503	775	13	19	1	42	20			
BCD20200	66.50	69.50	3.00	0.3	1	499	511	11	27	1	74	4			
BCD21401	69.50	72.00	2.50	0.5	1	326	468	3	27	1	72	16			
BCD21402	72.00	74.50	2.50	0.5	5	168	876	2	28	1	99	48			
BCD21403	74.50	77.50	3.00	0.9	2	230	40	4	28	1	57	2			
BCD21404	77.50	80.50	3.00	1.1	2	117	42	3	30	1	68	1			
BCD21405	80.50	83.50	3.00	1	3	68	40	4	27	1	58	1			
BCD21406	83.50	86.35	2.85	1.6	1	140	136	2	24	1	58	1			
BCD21407	86.35	89.40	3.05	0.3	4	152	325	2	20	1	69	15			
BCD21408	89.40	92.40	3.00	0.4	3	372	597	14	23	1	67	42			
BCD21409	92.40	94.70	2.30	0.1	8	147	447	6	30	1	82	20			
BCD21410	94.70	97.70	3.00	1	1	157	32	1	17	1	68	5			
BCD21411	97.70	100.70	3.00	1.8	1	113	35	1	8	1	69	2			
BCD21412	100.70	103.70	3.00	1.6	1	114	29	1	11	1	67	1			
BCD21413	103.70	105.16	1.46	0.8	1	166	24	1	16	1	67	2			
BCD21414	105.16	107.10	1.94	0.3	5	263	595	3	25	1	80	39			
BCD21415	107.10	109.10	2.00	0.4	13	64	579	5	25	1	90	40			

HOLE NUMBER: TM 91-10

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD21416	109.10	112.10	3.00	0.8	6	73	21	4	28	1	58	9		
BCD21417	112.10	115.10	3.00	0.9	7	137	19	4	29	1	57	2		
BCD21418	115.10	117.80	2.70	0.8	6	100	280	4	28	1	53	8		
BCD21419	117.80	120.70	2.90	0.8	1	178	745	11	23	1	49	64		
BCD21420	120.70	124.50	3.80	0.6	6	70	726	4	26	1	56	38		
BCD21421	124.50	127.50	3.00	0.6	1	882	588	5	22	1	45	48		
BCD21422	127.50	132.30	4.80	0.8	3	72	1085	12	16	1	37	41		

HOLE NUMBER: TM 91-10

ASSAY SHEET

PAGE: 7

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD20192	42.50	45.50	3.00	2.34	2.43	16.9	51.2	0.28	2.64	6.33	0.586	51	0.09	16.8	78	409	110	59	44	145	5.25	99.6
BCD21411	97.70	100.70	3.00	2.14	7.09	13.3	52.3	0.6	3.39	5.82	1.03	307	0.14	7.95	92	1040	15	242	44	2250	5.23	99.5

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>chy moderate Kspar alteration locally associated with the veinlets. Minor hematite in the qtz.</p> <p>85.2-85.4m: 10% irregular white to grey qtz veinlets. Qtz is crosscut by fine white carbonate stringers.</p> <p>At approximately the 90.2m mark the amount of magnetism in the core increases slightly. Diorite now varies between patchy zones of non-magnetic, through weakly magnetic to moderately magnetic. The amount of Q/C stringers has decreased from that at the top of the hole as well (<1%).</p> <p>105.3-105.46m: 30% patchy qtz veining with Py,Cp mineralization.</p> <p>109.1m: A 1.5cm grey qtz vein with minor Kspar on the margins.</p> <p>123.6-123.75m: Weakly brecciated, minor shear zone. 20% Fe-calcite veining causes much of the bx. Locally clasts are supported by a chloritic matrix.</p> <p>126.3-127.85m: 5% white qtz/Fe-calcite veining. Veins irregular and randomly oriented. Maximum vein width 3cm. Local vugs.</p> <p>131.5-131.58m: 80% qtz veining oriented at ¶132.3-132.5¶ «Sheared,Q/C,Hem. Zone» Weakly sheared interval,fabric oriented at Strongly chloritic with patchy intense hematite. 15% white/grey carb/qtz (70:30)</p> <p>133.2-133.4m: Weakly brecciated with hematitic matrix.</p> <p>END OF HOLE</p>	70 40	<p>mod Kspar.</p> <p>67.4m: There is a 10cm wide zone of weak,patchy Kspar alteration centered on a 8mm wide grey qtz veinlet.</p> <p>74.4-75m: Interval is qtz veined,weakly silicified (patchy). Textures are locally washed out. Local secondary feldspar also present.</p> <p>75.5-75.8m: Narrow bands of pink Kspar alteration.</p> <p>75.5-84.1m: Propylitic alteration is stronger. Fine grained zones of pale green epidote alteration comprise 15% of the interval.</p> <p>86-86.3m: Patchy weak silicification.</p> <p>91.8-91.97m: Weak silicification surrounding a 1cm wide qtz vein.</p> <p>92.9m: Minor Kspar alteration adjacent to a 1cm wide grey qtz vein.</p> <p>98.4-101.4m: Patchy Kspar. Kspar occurs along margins of qtz and pyrite stringers and disseminated as fine grains in the dioritic groundmass giving the core a pink tint. Up to 15% Kspar present.</p> <p>112.1-112.2m: Weakly silicified zone with moderate pink Kspar alteration.</p> <p>139.55-139.61m: Weak sil around narrow qtz veinlets.</p> <p>146-146.7m: Patchy weak sil,bleaching and Kspar enveloping narrow qtz veinlets.</p>	<p>65.97m: A 1mm wide stringer contains patchy Cp and molybdenite.</p> <p>69.6-70.0m: 4% Py in coarse clots.</p> <p>¶74.6-75¶ «4% Cp» Very fine grained dissem to coarse clots of Cp in qtz and silicified zone.</p> <p>The overall Cp content decreases below 75m.</p> <p>84.1-84.3m: 20% coarse Py dissem in qtz vein oriented at 15 degrees to CA.</p> <p>91.06m: A 2cm qtz vein contains 2% Cp.</p> <p>¶103.75-105.45¶ «1% Cp» Cp generally occurs as fine discontinuous stringers associated with widely spaced qtz/carb stringers and fractures which have a weak preferential orientation at 70 degrees to CA. In the larger qtz zone at 105.3-105.4m Cp occurs as coarse clots.</p> <p>¶111.56-113.96¶ «1% Cp» Cp concentration ranges between minor and 6%. Cp occurs as fine dissem through to a 7mm wide veinlet (at 112.02m). Cp is again comm only associated with qtz stringers.</p> <p>123.6-123.75m: 4% vfg Py.</p> <p>131.5-123.75m: 4% blebs of Py,minor Cp in qtz vein.</p> <p>132.8m: Cp liberally coats a fracture surface.</p>	<p>Where the Kspar occurs in the groundmass it is not noticeably a form of alteration;possibly the area is a zone of monzodiorite rather than a true diorite.</p>

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb			
BCD21423	3.05	7.30	4.25	2	6	98	1322	17	54	6	107	117			
BCD21424	7.30	10.30	3.00	0.7	1	156	938	16	25	1	83	108			
BCD21425	10.30	13.30	3.00	0.7	1	432	832	3	25	1	93	47			
BCD19801	13.30	16.30	3.00	0.8	1	202	1013	4	27	1	85	103			
BCD19802	16.30	19.30	3.00	0.7	1	90	549	8	17	1	62	156			
BCD19803	19.30	22.30	3.00	0.4	1	456	568	33	16	1	62	59			
BCD19804	22.30	25.30	3.00	0.5	1	342	555	5	16	1	49	56			
BCD19805	25.30	28.30	3.00	0.6	1	149	680	11	16	1	46	68			
BCD19806	28.30	31.30	3.00	0.7	1	101	803	3	16	1	46	60			
BCD19807	31.30	34.30	3.00	0.5	1	122	856	7	19	1	54	80			
BCD19808	34.30	37.30	3.00	0.5	1	332	541	8	15	1	63	47			
BCD19809	37.30	40.30	3.00	0.7	1	81	911	28	17	1	57	108			
BCD19810	40.30	43.30	3.00	0.5	1	85	652	30	15	1	70	74			
BCD19811	43.30	46.30	3.00	0.9	1	100	1218	10	17	1	70	144			
BCD19812	46.30	49.30	3.00	0.7	1	186	793	6	14	1	38	78			
BCD19813	49.30	52.30	3.00	1	6	142	2050	5	17	1	39	264			
BCD19814	52.30	55.30	3.00	0.8	1	71	963	6	14	1	51	141			
BCD19815	55.30	58.30	3.00	1.3	14	65	988	5	18	1	47	139			
BCD19816	58.30	61.30	3.00	0.8	1	58	1042	8	16	1	53	113			
BCD19817	61.30	64.30	3.00	0.5	1	130	539	3	18	1	55	67			
BCD19818	64.30	67.30	3.00	0.5	1	101	386	33	21	1	51	64			
BCD19819	67.30	70.30	3.00	0.9	1	106	1340	8	21	1	49	78			
BCD19820	70.30	73.30	3.00	0.9	1	204	998	5	45	1	99	70			
BCD19821	73.30	76.30	3.00	1.3	1	243	1491	8	16	1	50	62			
BCD19822	76.30	79.30	3.00	0.6	1	206	501	8	20	1	45	64			
BCD19823	79.30	82.30	3.00	0.6	1	96	862	17	16	1	45	76			
BCD19824	82.30	85.30	3.00	0.7	1	207	886	12	22	1	50	81			
BCD19825	85.30	88.30	3.00	0.6	1	191	769	28	40	1	42	60			
BCD25001	88.30	91.30	3.00	0.9	1	212	1432	38	20	1	29	141			
BCD25002	91.30	94.30	3.00	0.7	1	175	961	5	16	1	22	97			
BCD25003	94.30	97.30	3.00	0.6	1	62	446	6	17	1	24	8			
BCD25004	97.30	100.30	3.00	0.5	1	126	400	6	16	1	27	4			
BCD25005	100.30	103.30	3.00	0.3	1	144	322	11	14	1	22	2			
BCD25006	103.30	105.50	2.20	1.2	1	179	2539	12	19	1	30	210			
BCD25007	105.50	108.50	3.00	1.2	1	192	2488	5	18	1	25	262			
BCD25008	108.50	111.50	3.00	0.5	1	222	864	5	16	1	21	101			
BCD25009	111.50	114.00	2.50	1.1	1	212	2651	9	17	1	25	278			
BCD25010	114.00	117.00	3.00	0.3	1	328	445	4	16	1	21	8			

HOLE NUMBER: TM 91-11

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25011	117.00	120.00	3.00	0.6	1	150	865	5	17	1	22	60		
BCD25012	120.00	123.00	3.00	0.4	1	220	300	13	16	1	20	2		
BCD25013	123.00	126.00	3.00	0.6	1	78	272	11	15	1	21	4		
BCD25014	126.00	129.00	3.00	1.3	8	69	954	13	19	1	16	70		
BCD25015	129.00	132.00	3.00	0.7	1	90	466	3	17	1	18	15		
BCD25016	132.00	135.00	3.00	0.7	1	237	690	4	18	1	32	60		
BCD25017	135.00	138.00	3.00	0.5	1	245	439	5	17	1	41	7		
BCD25018	138.00	141.00	3.00	0.5	1	272	283	3	19	1	42	8		
BCD25019	141.00	144.00	3.00	0.7	1	449	470	7	19	1	36	22		
BCD25020	144.00	147.00	3.00	0.8	1	697	1022	29	18	1	32	81		
BCD25021	147.00	149.35	2.35	0.5	1	226	327	28	16	1	41	10		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 0.60	«CSG»					
0.60 TO 66.80	«DIORITE»	<p>The main unit in this interval is dark green, fine to medium grained diorite which is mainly non-magnetic. In places the core loses its granular, intrusive texture and becomes very fine grained, dark green, and has an andesitic appearance. However this appears to be due to alteration, as patches of granular diorite occur in the midst of these zones, with a visible gradation between the two. Mt occurs as stringers 2-3mm wide with calcite, often altered to hematite; thus, patchy magnetism.</p> <p>‡4.17-4.57‡ «Fault Zone» Core is soft, crumbly and clay altered, plus fault gouge.</p> <p>‡6.15-6.2‡ «Fault» Limonitic clay gouge oriented to CA.</p> <p>‡9.2-10.67‡ «Fault Zone»</p> <p>‡11.47-12.5‡ «Fault Zone»</p> <p>From the top of the interval to 12.5m, the core is intensely fractured and rubble due to faulting. Limonite/goethite is abundant on fractures and in places the core is stained pale orange. For the most part the core is clay-altered and scratchable although there is minor silicification which is probably due to qz veining.</p> <p>16.25m: Clays, fault gouge</p> <p>Qz veining occurs from</p> <p>‡0.61-0.81‡ «Qz-Cp-Py-Mo? Vn»;</p> <p>at 6.45m (5cm), from</p> <p>‡8.14-8.74‡ «Qz-Plag? Vn» and from</p> <p>‡9.35-9.5‡ «Qz-Plag? Vn»</p> <p>Below this zone of fairly intense veining, fine Q/C stringers/veinlets crosscut the core at random orientations, approx 3-5%.</p> <p>23.45m: 10cm of intense Q/C + hematite, Py, veining oriented</p> <p>Between 35.92-36.5m, rare 1-3mm qz eyes occur in the diorite. These are possibly secondary in origin. The groundmass of the diorite has a pinkish cast in this zone; staining indicates it is due to hematite and not Kspar.</p> <p>38.05m: Shear fabric oriented</p> <p>to CA, with calcite, hematite, and chlorite string-</p>	<p>50</p> <p>60</p> <p>80</p>	<p>The main alteration assemblage is chlorite-zoisite? calcite. Sericite occurs as fine grained brownish-yellow flecks in the matrix (rare). Mafics are chloritized, and chloritic altn is often pervasive. Where this occurs, original textures are washed out and the core is very fine grained and dark green. Feldspar phenocrysts are altered to pale green calcite+zoisite?, or are washed out in the strongly chloritic areas. Zoisite altn is often patchy, bleached. The core is soft and clay + carbonate altered in patches. This occurs especially below the fault zones, dying out with distance from the faults.</p> <p>‡19.2-20.05‡ Patchy intense clay alteration, carbonate, and hematite. Q/C veinlet 3cm wide oriented 30 degrees to CA has bleaching associated with it; fine Q/C stringers crosscut the core.</p> <p>Abundant limonite in all the qz veins. Bright yellow powdery material at 8.25m may be ferrimolybdate? or jarosite. Minor talc along fractures in diorites.</p> <p>‡20.2-22.85‡ Very fine grained, strongly chlorite altered diorite that looks andesitic, with patchy granular dioritic textures.</p> <p>46.64-47.2m: Core soft, scratchable, clay altered.</p> <p>‡46.94-47.2‡ «Hem-stained Dior» Deep red colour, strong clay alteration, minor carbonate.</p>	<p>Py 1% along fractures, in Q/C veinlets, and disseminated. Cp is generally vfg dissem in matrix, or fine-med grained dissem in Q/C veinlets with Py, Mo, and minor epidote.</p> <p>17.3m: 1cm Py veinlet oriented 30 degrees to CA, with qz, carb.</p> <p>17.97m: Two 5mm Q/C veinlets perpendicular to CA, with 15% Mo, 5% Cp, 5% Py, and hematite (after Mt?).</p> <p>Molybdenite occurs in Q/C veinlets as very fine grained dissem and fracture coatings (<1%), with Cp, Py. The first noted occurrence is at 23.3m and it continues to end of interval.</p> <p>Tr Cp, tr Mo, Py <1%. Fine black streaks may be vfg sx. <1% dissem Py. Tr dissem Py.</p> <p>24.1-24.2m: Blebs of Cp (<1%) to 6mm, assoc with Q/C veining, chlorite.</p>	<p>Core Recovery: 0.61-4.57m: 37% 4.57-6.40m: 86%</p> <p>Fine white specks in qz vein may be feldspar phenocrysts.</p>

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>ers. 53.3-56.77m: Qz veinlets in diorite indicate open-space filling; 3mm-3cm Q/C veinlets have qz crystals growing perpendicular to walls (towards center), sometimes completely infilled. From 55.1- the diorite is lighter green, leucocratic, and moderately clay altered.</p> <p>58.52m: 10cm zone of vaguely banded Q/C veining, with streaky chlor, ser between veinlets. The largest veinlet (15mm) is oriented to CA and contains large qz crystals perpendicular to vein walls, indicative of open-space filling.</p> <p>‡58.2-62.06‡ Patchy, aphanitic, dark green chlorite-altered diorite.</p> <p>From 62.06-62.79m the core is weakly clay-altered, with patchy hematite staining.</p> <p>From 63.35-63.45m the core is clay altered with hematite and weak calcite.</p> <p>There is a gradational change from propylitically altered diorite to clay altered diorite from 62.0- approx 66.8m, at which point the argillic alteration is well-expressed.</p>	65		‡53.3-56.52‡ «Py 3%» Py mainly along 2-4mm veinlets.	
66.80 TO 73.48	«WK ARG ALT DIOR»	<p>Pale greenish leucocratic diorite. The core is soft, scratchable, and consists of approx 40% dark green chlorite altered mafic phenocrysts with 60% white, clay altered feldspar phenocrysts. The core is weakly to moderately carbonate altered. Banded Q/C veinlets with qz crystals perpendicular to walls occur at various orientations to CA. At 68.05m there is a 10cm Q/C vein with wallrock fragments oriented to CA. Small mm-scale blebs within vein material could be feldspar crystals.</p>	35	Pervasive clay alteration; chlorite. Moderate carbonate. Talc occurs as blebs and in qz veinlets.	Mo <1% as fracture coatings and in qz veinlets with Py, Cp. Cp <1%, also occurs dissem in diorite. Py 1%, occurs as coarse grained blebs and stringers as well as fine grained dissem.	Similar unit to that seen in TM 91-13.
73.48 TO 76.20	«CHL-SER ALT DIOR»	<p>Protolith was probably medium grained, leucocratic diorite. The core is greenish-grey overall and is non magnetic. Mafics are pervasively chloritized, with original shapes/textures no longer visible. Fspars are likewise obliterated and altered to a pale cream/green coloured mixture of sericite+carbonate. Q/C veinlets to 1cm occur to approx 5%. Some veinlets have drusy qz crystals lining vugs; incomplete fracture filling.</p> <p>74.96-75.08m: 12cm qz (+carb) vein oriented</p>	45	Talc along fractures. Chlorite, sericite and carbonate are main alteration assemblage. Approx 10% pale yellow-brown sericite flecks occur throughout. Hematite along Q/C veinlets.	Py occurs as fine stringers and dissem, <1%. Rare Cp occurs as dissem in veinlets, with Qz, Py.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		to CA. Few blebs of dissem Cp.				
76.20 TO 87.10	«INT CARB-SER DIOR»	Intense chlor-carb-sericite alteration of diorite? Colour varies from greenish to beige; alteration is patchy. The core is soft, scratchable, non magnetic. Few remnant feldspar phenos, clay-altered. Q/C veinlets with drusy qz xtals occur to 1cm; 8-10%. Microfracturing and random vein infillings quite abundant in this interval. 80.9-81.25m: Slicks oriented to CA. 86.08m: Clay fault gouge oriented to CA. ‡84.76-85.36‡ «Int Sil» Intensely silicified version of overlying unit. Sugary texture with dissolution along fractures, clays. Highly rubbled; possible fault zone.	10 45	Talc blebs. Carbonate alteration is moderate; the core stains 85% blue:15% pink (ankerite:calcite). Sericite occurs as VFG flecks, stringers that are pale yellow-brown in colour. In areas chlorite is pervasive; also can be in patches or streaks. 79.4-80.5m: Zone of intense car-ser alteration; beige in colour, less chloritic than other zones.	Very fine grained pyrite, dissem throughout matrix. Also occurs as stringers and fine grained blebs, approx 1%. Cp is minor, occurs as rare disseminations, usually with Py.	Gradational, indistinct contact with overlying unit. 78.03m: core is rubbled
87.10 TO 88.60	«CHL-SER AT DIOR»	As previous interval from 73.48-76.2m. Contact with overlying unit is gradational. Carbonate alteration moderate throughout matrix.			Few blebs of Cp in 1cm qz-carb-fspar-chlorite veinlet oriented 45 degrees to CA at 87.4m (looks like intrusive dykelet). Rare dissem of Cp throughout interval; Mo occurs in trace amounts in Q/C veinlets. Pyrite is very finely dissem throughout matrix and in Q/C veinlets, where it is coarser-grained (2% overall).	
88.60 TO 96.93	«CHERT/QZ VEIN?»	This unit consists of 80% fine grained, recrystallized chert, with 20% bands or patches of dull greenish-grey softer sericite-chlorite altered material that could be related to the overlying diorite. The contact with the overlying highly altered diorite is in a zone of intensely silicified diorite/chloritic chert. ‡95.66-96.0‡ «Fault Zone» Rubbled core, clay fault gouge, rehealed bx. It is likely that the chl-ser altered patches are small dioritic dykelets that intruded the chert and were subsequently altered. They are oriented (approx) to CA and are up to 45cm wide. Later hydrothermal activity is evidenced by silica healed microfractures, brecciation, open-space filling by qz/cc crystals, and cubic fluorite crystals (clear, 1-3mm). The core is vuggy, due to incomplete filling of open space. Vugs are lined with qz-cc-	45	Intrusive patches intensely chlorite-sericite altered. Few pale green chloritic stringers in chert; pale yellow sericitic stringers.	Trace Mo. VFG dissem Py occurs to about 5% in the chlor-ser altered zones. It is less abundant in the chert and is slightly coarser grained, often occurring along fractures. Cp appears to be negligible.	Could also be qz vein. The core is rubbly from 89.16-89.46m, and from 89.61-90.06m. These appear to be areas of rehealed bx.

HOLE NUMBER: TM 91-12

MINNOVA INC.
DRILL HOLE RECORD

DATE: 4-February-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		fluorite crystals. 95.56-96.32m: as interval below				
96.93 TO 97.23	«ALT VOLC?»	Dull green, aphanitic, clay altered volcanic(?). Intense alteration makes identification difficult. Core is very soft, non magnetic. Contains 10% 1-5mm darker, roundish blebs that may be remnants due to differential alteration. END OF HOLE		Chlorite; few streaks of sericite.	1% disseminated Py, as well as fine stringers.	Contact with overlying chert is abrupt, at approx 30 degrees.

HOLE NUMBER: TM 91-12

DRILL HOLE RECORD

LOGGED BY: M.MCDOWELL

PAGE: 5

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au		COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t	
BCD18880	0.60	3.60	3.00	0.8	44	68	970	27	22	1	54	21			
BCD21423	3.05	7.30	4.25												
BCD18881	3.60	6.60	3.00	1.2	117	74	542	22	20	1	35	73			
BCD18882	6.60	9.60	3.00	0.8	99	79	468	23	13	1	9	60			
BCD18883	9.60	12.60	3.00	0.7	42	91	2608	22	24	1	55	82			
BCD18884	12.60	15.60	3.00	0.6	1	333	440	10	22	1	64	22			
BCD18885	15.60	18.60	3.00	0.8	1	591	614	151	18	1	44	30			
BCD18886	18.60	21.60	3.00	0.9	6	175	506	71	21	1	42	18			
BCD18887	21.60	24.60	3.00	0.7	1	371	900	14	20	1	42	78			
BCD18888	24.60	27.60	3.00	0.5	1	227	443	4	17	1	49	22			
BCD18889	27.60	30.60	3.00	0.6	1	458	598	17	20	1	53	25			
BCD18890	30.60	33.60	3.00	0.5	1	304	584	18	17	1	47	35			
BCD18891	33.60	36.60	3.00	0.6	1	98	615	16	18	1	33	22			
BCD18892	36.60	39.60	3.00	0.4	1	222	419	30	19	1	35	18			
BCD18893	39.60	42.60	3.00	0.5	1	105	470	32	16	1	30	17			
BCD18894	42.60	45.60	3.00	0.3	1	280	210	43	18	1	32	4			
BCD18895	45.60	48.60	3.00	0.6	1	482	348	32	17	1	40	15			
BCD18896	48.60	51.60	3.00	0.6	1	252	243	17	20	1	46	16			
BCD18897	51.60	54.60	3.00	0.8	4	130	367	9	17	1	38	20			
BCD18898	54.60	57.60	3.00	0.6	4	142	346	29	16	1	43	18			
BCD18899	57.60	60.60	3.00	0.7	1	308	618	49	16	1	44	17			
BCD18900	60.60	63.60	3.00	0.9	4	390	879	21	20	1	44	30			
BCD25201	63.60	66.60	3.00	1.1	1	171	1085	33	16	1	19	41			
BCD25202	66.60	69.60	3.00	1	20	73	1286	19	17	1	41	80			
BCD25203	69.60	72.60	3.00	2.1	2	221	3408	36	21	2	21	154			
BCD25204	72.60	75.60	3.00	0.7	5	41	1046	6	22	1	35	90			
BCD25205	75.60	78.60	3.00	0.8	1	119	602	33	20	1	31	18			
BCD25206	78.60	81.60	3.00	1.3	1	98	871	8	19	1	25	42			
BCD25207	81.60	84.60	3.00	1.8	4	44	1270	30	21	1	27	60			
BCD25208	84.60	87.60	3.00	1	1	184	1254	3	26	1	58	61			
BCD25209	87.60	90.60	3.00	0.8	1	58	704	15	25	1	34	42			
BCD25210	90.60	93.60	3.00	1	1	48	196	5	11	1	5	12			
BCD25211	93.60	96.60	3.00	1	1	37	383	5	16	1	9	17			
BCD25212	96.60	97.23	0.63	0.3	1	58	542	5	22	1	23	44			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.05	«CSG»					
3.05 TO 24.55	«WK-MOD ARG DIORITE»	<p>Protolith consists of a fine to very fine grained dioritic intrusive. The diorite has undergone pervasive wk to moderate argillig alteration. The diorite has a uniform texture throughout except where it is strongly affected by faulting and localized, differential alteration. The core is moderately fractured. Fracture intensity increases in the vicinity of shears/faults. Fractures randomly oriented. There is approximately 1% white to grey quartz stringers and veinlets. The quartz veining is locally vuggy or drusy.</p> <p>3.05-8.0m: Core is extremely blocky. Some subcrop.</p> <p>8.2-5m: Narrow limonitic clay gouge zone.</p> <p>8.4-8.9m: 7% qtz veining.</p> <p>¶9.97-10.34¶ Limonitic «Flt Zone»</p> <p>10.85m: 5cm fault zone.</p> <p>14.02m: 2cm grey clay gouge zone.</p> <p>13.3-14.8m: Intermittent narrow faulted zones.</p> <p>¶21.3-21.9¶ «Brittle Flt Bx»</p> <p>¶22.0-22.25¶ «Flt Zone»</p> <p>¶23.6-23.8¶ «Flt Zone»</p> <p>24.37m: Narrow shear oriented at</p> <p>24.45-24.55m: 65% white to translucent qtz/fluorite (95/5) veining</p>	70	<p>The greenish colouration is derived from the chloritic alteration of the mafics and probably microscopic sericite as well. In general good chloritic surfaces are absent. Plag crystals are generally strongly altered to clays and argillic alteration is present. The degree of argillic alteration is weak to moderate to a depth of 24.37m, except between 15.4-24m where it is mod to intense. Fracture/weathered surfaces are strongly limonitic to 11m; the last of the limonitic staining occurs at 12.5m. The core is not noticeably calcareous but does take a stain: Fe-carb.</p> <p>6.6-7.0m: Patchy moderate hematite staining.</p> <p>18.4-22.7m: Patchy weak to moderate hematite staining affects 65% of the interval.</p>	<p>Only trace amounts of vfg chalcopryrite are present. Locally up to 3% pyrite. Overall pyrite content 1%. Pyrite is fine grained dissem to stringers.</p>	<p>Core recovery between 3.05-4.88m: 55%</p> <p>The interval is labelled as argillic because of the advanced state of clay alteration of the plagioclase (you can dig the crystals out with a knife). Some of the alteration could arguably be caused by weathering of feldspars in the fault zones, but the presence of hydrothermal systems in the hole (fluorite) and the presence of a (narrower) similar zone in TM 91-12 where there are no faults, argues for a more regional alteration.</p>
24.55 TO 53.64	«ALT DIORITE»	<p>This unit again consists of a very fine dioritic intrusive which has been variably altered. There are intervals within the unit, particularly towards the base, where the rock becomes extremely dark green in colour and most crystal textures are extremely vague or absent; near andesitic texture. Patchy, pale dioritic zones can usually be seen in the "andesitic" zones. There are no sharp contacts and alteration is gradational. Within the paler, more typical chlorite there are occasional very small "clast-like" patches of the dark green material-xenolithic frags?, variable alt? Core is non-magnetic.</p> <p>24.55-29m: The intrusive is (except for the interval 28.76-28.9m) noticeably coarser grained. Chloritized mafics reach lengths of up to 8mm.</p> <p>Between 28.76-28.9m: The rock and textures are</p>		<p>The mafics have been altered to chlorite. The plag is variably altered to clays and sericite. The core is not noticeably calcareous but does not take on an Fe-carb stain.</p> <p>¶24.55-28.76¶ «Weak Arg Alt»</p>	<p>There is <=1% dissem pyrite and Py stringers. Trace to minor Cp.</p>	<p>28.76-28.9m: Possibly a rock type similar to what has been mapped on surface as a hornblende diorite.</p> <p>40.5-45.0m: There is 3.2cm of core bet-</p>

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		highly reminiscent of a weakly bleached trachyte but staining does not indicate the presence of K-spar. ‡29.1-29.7‡ «Flourite Vn» Vuggy with cubic crystals. Vein is oriented at 31.9m: Preferential fracture oriented at ‡34-34.7‡ «Flt Zone» 36.3-36.7m: Weak fault zone. 50.3-50.45m: 20% white to grey vuggy Q/C stringers	40 40	31.9-32.1m: Pervasive hematite staining. 35.6-36.3m: Bleached core with a more sericitic alteration and 5% white carb, grey qtz stringers. 38-45.3m: Local hematite staining of fractures.		ween the blocks with no corresponding shortages nearby.
53.64 TO 82.50	«ALT VOLC»	The protolith appears to be a volcanic of andesitic composition. The unit has been variably altered throughout. ‡53.64-62.18‡ «Hydro. Alt. Vol» The interval is mottled shades of green, grey, buff. Interval is well fractured. Up to 20% grey to translucent qtz, fluorite veining. Veining is most prevalent between ‡59.4-62.18‡ «Qtz-Fluor. Vn» Veins are locally vuggy with euhedral qtz or fluoride crystal growth to 2mm. Veins comprose 30% of interval. Core is non-magnetic. 62.0-62.1m: Flt bx zone. 62.18-64.77m: Interval consists of a fine grained, green volcanic which contains feldspar crystals slightly coarser than the groundmass. The interval contains moderate tight fractures, randomly oriented. 2% Q/C stringers. Core is non-magnetic. Final 10 cm of the interval is rubbled. 64.77-69m: Massive, aphanitic altered andesitic? volcanic. <1% qtz stringers. Dark green colour. 69-77.0m: Core is mottled dark green and pale yellowish green; the latter is prevalent. <1% Q/C stringers; non-magnetic. 76-76.4m: Weak fault? brecciation rubbles core. 76.7-77.6m: Core has increasing numbers of open fractures and becomes intermittently fault brecciated at depth. ‡77-77.6‡ «Flt Bx» 82.35m: Grey silica patch. 82.5m: Irregular contact between volcanic and diorite oriented at	70	53.64-62.18m: The interval starts out moderately chloritic but is increasingly bleached with depth as the number of qtz/calcite/fluorite stringers and veins increase. The pale bleached core is caused by sericitic altn. The core is weakly calcareous. 62.18-64.77m: The interval is moderately calcareous primarily from the sausseritization of feldspar. Chlorite-sercarb altn. 64.77-69m: The andesite is weak to moderately calcareous. The andesite is moderately chloritized. 69-77.0m: The dark chloritized volcanic grades into a zone of bleached and sericite altered volcanics. Only minor carbonate is present. Between 77-77.6m the core is grading back into the dark green, chloritic altn 77.6-82.5m: Similar style of alteration as that between 64.77-69m. Fractures are bleached to pale yellowish green. Hematite occurs along some fracture surfaces. Between 81.1-81.38m there is	53.64-62.18m: 3% fine to med grained Py which occurs as dissem and stringers. 62.18-64.77m: 1% dissem Py. 64.77-69m: 2% Py. 69-77.6m: 2% Py. 76.5-77.4m: 75% core recovery. Core loss is most likely in the vicinity of the 77.4m block.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				moderate hematite altn.		
82.50 TO 91.35	«PROP DIORITE»	Fine grained, altered dioritic intrusive, 50% mafics and 50% feldspar. The core is weakly fractured. Fractures are locally hematitic or epidote altd. Minor white Q/C stringers. The core is weakly magnetic. 86.75m: 2.5cm calcite vein oriented at 89.85-90.2m: 5% brownish mineral, vfg leucoxene?	45	Mafics are chloritized. Weakly to moderately calcareous. 88-88.5m: Weak clay alteration of feldspar.	2% dissem Py. Locally Py occurs as semi-massive clots in Q/C stringers.	
91.35 TO 98.50	«PROP/SIL VOL»	Massive, green aphanitic volcanic, probably andesitic in origin. The core is non-magnetic. 1% Q/C stringers at random orientations. 91.35-91.65m: 10% Q/C stringers/patches. 91.86-91.93m: Diorite. 94.2-94.9m: «Diorite» Green, medium grained. Strongly chloritic. Non magnetic to very weakly magnetic. 97.3m: Quartz-py-hematite stringer oriented at	60	Base alteration is propylitic. Consists primarily of chlorite. 91.98-92.3m: Intense to weak silicification; intensity decreases downhole. 92.75-92.95m: Moderate silicification. 93.64-94.2m: Weak silicification. Core is a paler green colour, still chloritic but weakly bleached and possibly sericite altered. Calcite along fractures, stringers, and in small grey patches. 97.3-97.45m: Moderately silicified zone 97.85-98.5m: Core is quite strongly bleached. Fractures are carbonate coated. Very minor carbonate in groundmass.	<2% dissem/stringers of Py. 94.2-94.9m: 4% Py. Pyrite is concentrated in Q/C stringers and as an alteration halo around Q/C stringers. Trace Cp at 95.3m.	
98.50 TO 101.50	«ALT DIOR»	Protolith appears to have been a fine grained diorite. The unit has subsequently been strongly altered. 1% Q/C stringers (10/90%). Minor vugs present. Some offsets of stringers by fractures. There are minor volcanic inclusions present; most notably what appears to be a strongly bleached, carbonatized interval between 100-100.4m Upper contact is at Lower contact is at The core is non magnetic. Contact with the underlying volcanic unit is at	40 25 15	The diorite is strongly affected by propylitic altn. and bleaching. Chlorite is most intense along and in the vicinity of fractures. Minor patchy silicification present. Yellowish white sericite altn of feldspars.	3% fine grained pyrite occurs as dissem and stringers.	
101.50 TO 102.40	«PROP ALT AND?»	Massive, green andesitic? unit. 1% Q/C stringers. Minor patchy zones with intrusive textures.		Strong chloritic altn. Moderately calcareous. Minor hematite along stringers	1-2% Py as dissem and stringers.	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb			
BCD25022	3.05	6.40	3.35	0.6	31	284	656	7	16	1	32	62			
BCD25023	6.40	9.40	3.00	0.8	32	108	774	15	16	1	33	108			
BCD25024	9.40	12.40	3.00	1.1	11	80	802	25	18	1	37	59			
BCD25025	12.40	15.40	3.00	0.7	17	55	734	15	17	1	43	67			
BCD25026	15.40	18.40	3.00	0.5	15	34	650	9	16	1	55	64			
BCD25027	18.40	21.40	3.00	0.3	6	43	522	11	16	1	47	72			
BCD25028	21.40	24.40	3.00	0.6	14	91	578	4	17	1	51	38			
BCD25029	24.40	27.40	3.00	0.6	11	43	379	4	20	1	79	139			
BCD25030	27.40	30.40	3.00	1.1	32	272	314	8	22	1	46	156			
BCD25031	30.40	33.40	3.00	0.5	30	221	260	2	20	1	57	34			
BCD25032	33.40	36.40	3.00	1.2	10	183	641	5	16	1	38	68			
BCD25033	36.40	39.40	3.00	0.8	7	223	324	3	15	1	29	39			
BCD25034	39.40	42.40	3.00	1	3	407	348	5	15	1	28	41			
BCD25035	42.40	45.40	3.00	0.9	4	261	458	23	15	1	29	53			
BCD25036	45.40	48.40	3.00	0.9	1	380	357	3	15	1	29	32			
BCD25037	48.40	51.40	3.00	1.1	15	145	638	7	15	1	28	65			
BCD25038	51.40	53.64	2.24	1.1	7	121	532	6	14	1	24	40			
BCD25039	53.64	56.60	2.96	1.3	15	52	1031	9	14	1	19	63			
BCD25040	56.60	62.20	5.60	1.2	6	62	480	9	12	1	26	41			
BCD25041	62.20	65.20	3.00	1.1	4	27	421	9	16	1	17	20			
BCD25042	65.20	68.20	3.00	1	1	48	736	10	16	1	20	43			
BCD25043	68.20	71.20	3.00	1.1	5	121	660	13	13	1	15	58			
BCD25044	71.20	74.20	3.00	1.2	6	43	505	16	11	1	16	31			
BCD25045	74.20	77.00	2.80	0.9	10	49	536	13	11	1	16	27			
BCD25046	77.00	79.50	2.50	1	5	122	602	33	14	1	23	39			
BCD25047	79.50	82.50	3.00	0.8	3	160	422	10	14	1	23	28			
BCD25048	82.50	85.50	3.00	0.5	1	353	360	5	9	1	33	22			
BCD25049	85.50	88.50	3.00	0.5	1	367	386	9	13	1	36	60			
BCD25050	88.50	91.35	2.85	0.4	1	261	610	6	14	1	37	43			
BCD25051	91.35	94.00	2.65	0.7	6	100	468	1	14	1	29	36			
BCD25052	94.00	96.30	2.30	0.3	1	114	619	1	4	1	42	39			
BCD25053	96.30	98.50	2.20	0.2	1	74	380	4	6	1	43	18			
BCD25054	98.50	101.50	3.00	0.3	1	65	364	1	17	1	58	26			
BCD25055	101.50	102.40	0.90	0.2	1	27	555	1	16	1	56	40			

HOLE NUMBER: TM 91-13

GEOCHEM. SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD25026	15.40	18.40	3.00	0.01	2.12	18.9	61	0.3	3.05	0.61	0.553	108	0.09	6.93	108	27	16	71	<10	769	6.85	100.5

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 157.93	«					
3.05 TO 7.00	«BROKEN CORE»	This is broken core from oxidized zone of bedrock. It is extremely rubbly. This is most probably andesite, strongly weathered and oxidized. Occasional hydrothermal breccias and fracturing are seen. This will not be considered a "true unit".			Up to 10% Py that has been oxidized.	This interval is extremely broken and rubbly core with 30% recovery.
7.00 TO 15.22	«SIL. AND»	This interval consists of fine grained to medium grained silicified andesitic volcanics. Throughout this interval are smaller sections (up to 30cm wide) of hydrothermal breccias with Q/C healing. As well small Q/C stringers are present along fractures. ‡7.6-7.7‡ «Hthermal Bx» ‡8.39-8.68‡ «Hthermal Bx» These breccias are healed with silica and carbonate. ‡10.65-10.79‡ «Hthermal Bx»	30 75 62	‡7.0-15.22‡ «Sil» The interval is moderately to strongly silicified but some areas can still be scratched with knife ‡7.6-7.7‡ «Qtz Carb» ‡8.39-8.68‡ «Qtz Carb» Carbonate stains red. Moderate chlorite alteration throughout. ‡10.65-10.79‡ «Strong Silicification» ‡10.7-10.71‡ «Qtz Carb Vein» Silicification over this interval occurs as alteration halo to vein. ‡11.47-11.7‡ «20% Ser» ‡13.27-13.42‡ «Chl Selvage» Chloritic selvage around the banded Q/C vein.	‡7.0-15.22‡ «10% Diss Py» Local highs of up to 30-40% Py are present. ‡13.8-14.6‡ «20% Py» Occurs as disseminations and veins. In some areas the Fe sulphide appears to be marcasite. ‡8.39-8.68‡ «Py veins» Up to .5cm thick occurring along fractures. 10.65-10.79m: Minor Py with possible arsenopyrite. ‡13.89-13.92‡ «70% Py» Small injection of Py/marcasite.	
15.22 TO 19.13	«CROWDED FELDSPAR DYKE»	The interval consists of fine grained to medium grained crowded feldspar porphyry dyke. Feldspars are up to 2mm in length and are randomly oriented comprising up to 70-80% of core. ‡15.32‡ «Flt Gouge» Chloritic. ‡16.6-17.86‡ «Flt/Shear Zone» This is a post-dyke fault containing fragments of dyke within it.		Feldspars have been altered to clay, chlorite and epidote throughout interval. Occasional Q/C veinlets occur throughout interval, and two veins contain sericite. Some hematite may have been introduced. No magnetite is present. ‡15.22-19.13‡ «20% Chl, epidote» ‡15.7-15.9‡ «Sericite vein» oriented 26 degrees to Ca and 3mm thick. ‡16.6-17.86‡ «Talc Veins» ‡16.6-17.86‡ «Chlorite alteration» ‡19.0‡ «Qtz/Fluorite Vein» 1cm wide vuggy vein possibly comprised partially of fluorite.	Py occurs in trace amounts finely disseminated throughout. Tr Py as veinlets.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
19.13 TO 25.15	«HYDROTHERMAL BX»	This interval consists of grey green crowded feldspar porphyry dyke that has been hydrothermally brecciated. Small sections of faulted in dark green andesite occur in interval. ‡22.35-22.65‡ «Sil And» ‡23.0-23.57‡ «Sil And»		Interstices of breccia is flooded with silica. ‡19.13-25.15‡ «Clay alt.» ‡19.13-25.15‡ «Sericite» ‡19.13-19.6‡ «Stockwork Silica» ‡22.35-22.65‡ «Wk Magnetite» ‡22.35-22.65‡ «Strong Sil» ‡23.0-23.57‡ «Wk Magnetite» ‡23.0-23.57‡ «Strong Sil» ‡24.2-25.15‡ «Silicification»	Trace to 1% Py throughout. ‡22.35-22.65‡ «Tr to 1% Py» ‡23.0-23.57‡ «1% Py» ‡24.2-25.15‡ «2% Py»	Some of core is oxidized with rusty staining. From 24.2-25.15m core is broken and rubbly.
25.15 TO 28.35	«SIL AND»	This interval consists of fine grained dark green silicified andesite. Silicification is strongest near upper contact with breccia zone. ‡25.15-25.79‡ «Stockwork Silicification» Occasional Q/C stringers throughout.		‡25.15-28.35‡ «Strong Silicification» ‡25.15-28.35‡ «Chlorite Alteration»	‡25.15-28.35‡ «10-15% Py» ‡27.46‡ «Tr Cp» ‡27.8-27.9‡ «Py Vein» 1cm wide at 30 degrees to CA.	
28.35 TO 35.69	«CROWDED FELDSPAR DYKE»	The core is a greyish green fine grained to medium grained crowded feldspar porphyritic dyke. Small faults crosscut in areas as does hydrothermal bx. Feldspars are lath-like and on a 1-2mm scale. These are randomly oriented ‡29.19-29.23‡ «flt Zone» ‡29.23-29.26‡ «Sil And» ‡29.26‡ «flt Zone»	90 5	Q/C veins and veinlets crosscut core in several areas. These are vuggy generally and are occasionally oxidized to a rusty brown colour. Talc veinlets are associated with this interval as well. Feldspars are altered to clay. Possibly albite alteration in some areas. ‡28.35-35.69‡ «Talc Veins» ‡28.35-35.69‡ «Minor Qtz Carb Veins» ‡28.35-35.69‡ «Weak Clay Alteration» ‡30.0-30.32‡ «Qtz Vein» Dark grey qtz vein with stockwork fracturing; 3cm wide ‡32.2-32.4‡ «Hematite Vein» ‡34.33-35.69‡ «Albitization» Strong stockwork fracturing.	Sulphides generally occur in trace amounts to 5% locally. One Q/C vein is rusty in colour and must have had sx oxidized. ‡30.0-30.32‡ «20% Py» ‡32.8-33.1‡ «Pyritic Q/C Vein» This vein is oxidized to rusty brown and is vuggy. Oriented 45% to CA.	Many veins are vuggy in texture suggesting epithermal mineralization.
35.69 TO 36.98	«SIL AND»	The interval is a dark green fine grained silicified andesite. The unit has been stockwork fractured throughout to 5%. ‡35.69-36.98‡ «Stockwork Fractures»		‡35.69-36.98‡ «Mod Silicification» ‡35.69-36.98‡ «Mod Chloritization» ‡36.45-36.98‡ «Strong silicification»	‡35.69-36.98‡ «2% Diss Py» ‡35.83-35.86‡ «Podiform Py» ‡36.45-36.57‡ «10-15% Py» Dissem and fracture controlled. Py throughout this interval occurs as dissem and veinlets.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
36.98 TO 39.00	«CROWDED FELDSPAR DYKE»	This is a grey green fine to medium grained crowded feldspar dyke. Feldspars are lathlike and randomly oriented. Alteration varies down interval.		‡36.98-38.5‡ «Chl,Alb alteration» ‡38.5-39.00‡ «Sil»	‡36.98-38.5‡ «Tr Py» occurs as veinlets ‡38.5-39.0‡ «10-20% Py» Possibly marcasite.	
39.00 TO 42.40	«Mt,Sx Vn»	This interval contains a strongly oxidized zone containing 20-30% Mt as patchy blotches throughout. The remainder is possibly pyrite.		‡39.0-40.34‡ «Strong Chlorite» ‡42.05-42.2‡ «Stockwork Silicification» Vuggy Fe-rich silicification.	‡39.0-39.91‡ «20-30% Sx» ‡40.34-41.55‡ «30% Mt» ‡40.34-41.55‡ «60% Py» Mt occurs as patchy blotches throughout ‡41.55-42.05‡ «30% Mt» ‡42.2-42.4‡ «10% Py»	
42.40 TO 46.57	«CROWDED FELDSPAR DYKE»	The interval consists of fine to medium grained crowded feldspar porphyry dyke. In areas there are vuggy qz lined cavities.		‡42.4-46.57‡ «Talc» Talc occurs as veinlets and fracture fillings over the interval. It is apparent that magnetite grains have weathered out of this interval. Weak Mt is still present. Some minor oxidation is present. ‡42.4-46.57‡ «Chl» ‡44.7-45.1‡ «Sericite»	Fe oxidation suggests tr Py is present.	
46.57 TO 54.78	«AND»	This is a dark green medium grained andesitic volcanic unit that shows increasing alteration (silicification,sericitization,albitization) with depth. Fracturing,microfaulting and brecciation increases downhole as well. ‡51.0-54.78‡ «SIL AND» 54.78m: Fault		Quartz carbonate veins and veinlets occur throughout interval. ‡46.57-50.6‡ «Chl» ‡50.3‡ «Epidote» ‡51-51.4‡ «Sil,Ser» ‡51.7-54.78‡ «Sil,Alb,Ser»	Sulphide content increases downhole. ‡51.4-53.1‡ «5-10% Py» ‡53.1-53.77‡ «20-25% Py» ‡53.77-54.78‡ «5-10% Py»	
54.78 TO 55.40	«SIL,PY STOCKWORK»	This interval is a fine grained grey white zone of silic. and pyrite stockworking. Density of stockworking is about 70-80%. 55.4m: Flt Zone oriented	60	‡54.78-55.4‡ «90-100% Sil»	‡54.78-55.4‡ «30% Stockwork Py» ‡54.78-55.4‡ «Tr Cp»	Fractures are often open and vuggy.
55.40 TO 58.52	«SIL,CHL ALTERATION»	This is an interval of indistinguishable rock type characterized primarily by chlorite alteration overprinted by silica. ‡55.4-57.4‡ «Microfractures and Bx» 57.4-58.52m: The amount of microfractures and bx decreases considerably.		‡55.4-58.52‡ «Talc veinlets» ‡55.4-58.52‡ «Sil,Chl,alteration» 55.4-58.52m: Some areas of silicification and Q/C veining showing vuggy, drusy character.	‡55.4-58.52‡ «20% Py» Dissem and as stockwork veinlets.	
58.52 TO 60.66	«CHL ALTERATION»	This is similar to above unit but primarily chloritically altered. This interval is not strongly fractured. ‡59.73-60.23‡ «Shear Bx» This small shear appears ductile,medium grained with the occasional coarser	70	‡58.52-60.66‡ «Chl» ‡58.52-60.66‡ «Talc veinlets» ‡59.73-60.73‡ «Silicification» ‡60.23-60.66‡ «Albitization»	‡58.52-60.66‡ «10% Py» Py generally occurs as dissem and stringers.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		grained clast.				
60.66 TO 64.11	«STOCKWORK SIL»	This interval consists of a massive grey-white stockwork fractured unit (70-90%) with subsequent sililca healing along fractures. The unit may have been a chert and at 60.86m there may be relict bedding.	68	‡60.66-64.11‡ «80-90% Sil» 60.66-64.11m: Many of the fractures have chlorite laminae along them. The silicification is vuggy in areas with drusy qtz-lined cavities.	‡60.98‡ «Tr Cp» There is abundant Fe oxide staining along fractures. ‡60.66-64.11‡ «10% Py» Py occurs as disseminations and as stockwork veinlets throughout zone.	
64.11 TO 64.31	«SMALL SX VEIN»	This is a small semi-massive to massive Py vein consisting of 40-60% fine grained pyrite. Upper contact is at and may be a shear contact.	40	‡64.11-64.31‡ «30% Chl»	‡64.11-64.31‡ «40-60% Py» This is fine grained Py.	
64.31 TO 65.53	«SIL AND»	This consists of a medium grained green to greyish green silicified andesitic volcanic unit. Chlorite alteration is present but has been overprinted by silicification. Occasional zones of brecciation occur. Bottom contact is rubbly core.		‡64.31-65.53‡ «30-40% Sil» Silicification is not extreme. The core can still be scratched. ‡64.31-65.53‡ «10-20% Chl» ‡64.61-64.71‡ «wk Albite»	‡64.31-65.53‡ «5% Diss Py»	Core is rubbly throughout interval.
65.53 TO 66.13	«SHEAR ZONE »	This appears to be a small ductile shear zone unit with a fabric oriented at to CA. Minerals and fragments are elongated along this orientation. Bottom contact oriented	20 20	‡65.53-66.13‡ «20-30% diss Py» ‡65.53-66.13‡ «Trace Cp» Sulphides appear to have been introduced with Q/C alteration.		
66.13 TO 73.14	«CHL-MT ALTERATION»	The interval consists of a medium grained fractured (30%) grey green unit of magnetite and chlorite alteration. ‡69.7-71.69‡ «Shear Bx Zone» This zone contains brecciated fragments.	10	Magnetite through this interval averages 20% with local highs of 30-40%. It occurs as patchy, blotchy alteration from 2mm to 5mm in dimension. Chlorite alteration occurs throughout the core, and in the same form as the Mt is thus related to this alteration. ‡66.13-73.14‡ «20% Mt» ‡66.13-73.14‡ «20% Chlorite» Occasional vuggy qtz carb veins show bladed calcite replacement by silica.	‡66.13-73.14‡ «5-10% Diss Py» Occasional Py veins occur with Q/C veins. ‡69.7-71.69‡ «15% Py» ‡71.93-73.14‡ «20-30% Diss Py»	This unit may have been an ultramafic unit, but is not talcose.
73.14 TO 75.15	«CROWDED FELDSPAR DYKE »	The interval consists of a fine grained greyish green crowded feldspar porphyry dyke. Feldspars make up roughly 70% of groundmass and are lathlike and randomly oriented on a mm scale.		‡73.14-75.15‡ «30% Chl»		The core through this interval is extremely broken and rubbly.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
75.15 TO 80.75	«PYRITIC CHERT»	This is a fine grained grey cherty unit with weak stockwork silicification. Some bedding oriented is still visible.	38	‡75.15-80.75‡ «Wk Stockwork Sil» Some stockwork fracturing contains chlorite. Q/C veins are abundant and in areas are vuggy and drusy with bladed calcite replaced by qtz.	‡75.15-80.75‡ «Tr to 5% Py» Occurs as dissem and as veinlets.	
80.75 TO 96.36	«STKWK SIL»	The rock type consists of a zone of fine grained grey stockwork silicification. Fracture density is very high (up to 90%) and it is obvious silica has been introduced along these pathways. There is no preferential orientation to fracturing.		‡80.75-96.36‡ «80-90% Sil» This has been introduced by stockwork fracturing and subsequent healing. Occasional vuggy qtz veinlets. ‡93.27-96.36‡ «10-15% Chlorite»	‡80.75-96.36‡ «5% Py» Py occurs as dissem and as small stkwk veinlets. ‡93.27-96.36‡ «5-10% Py» ‡93.27-96.36‡ «Tr Cp»	
96.36 TO 99.07	«BX ZONE»	The interval consists of a grey to green brecciated zone of stockwork silicified fragments within a chloritic matrix. Some areas have open space indicating removal by solutions. Tectonic fabric is oriented to CA.	40	‡96.36-99.07‡ «Sil,Chl Alteration» Chlorite primarily comprises matrix and silicification is by stockworking.	‡96.36-99.07‡ «15-20% Py» ‡96.36-99.07‡ «Tr Cp» Sulphides occur as stkwk and dissem mineralization.	
99.07 TO 104.23	«PYRITIC CHERT ASH TUFF»	This interval is a fine grained grey green pyritic cherty ash tuff. It consists of alternating bands of siliceous cherty material and softer fine grained ashy material. Bedding is at to CA.	46	‡99.07-104.23‡ «Mod Sil» ‡99.07-104.23‡ «Chl,Ser»	‡99.07-104.23‡ «2-5% Py» Occurs as dissem and occasional veinlets.	
104.23 TO 108.51	«STKWK SIL»	This is a fine grained grey white unit, strongly fractured and subsequently healed by silica. The original protolith was most likely chert. Some fractures may contain sericite. ‡105.7‡ «Hthermal Bx» oriented Bottom contact is fault breccia.	40	‡104.23-108.41‡ «90% Sil» Stockwork silicification. ‡104.23-108.41‡ «Sericite» Occurs along fractures. Some qtz veins are vuggy drusy lined cavities with small qtz crystals.	‡104.23-108.41‡ «2-5% Py» as dissem and veinlets.	
108.51 TO 110.10	«ALTERED ANDESITE»	Both the upper and lower margins of this unit are strongly fractured and bleached, possibly with sericite alteration. ‡109.2‡ «Foliation» The central portion appears to have a strong foliation assoc. with it.	48	‡108.51-110.1‡ «Mod to strong Sil» ‡108.51-108.9‡ «Ser» ‡108.91-110.1‡ «Chl Fol»	‡108.51-110.1‡ «30% Py» Occurs dissem associated with foliation.	
110.10 TO 144.50	«STOCKWORK SIL»	This is fine grained grey white extremely stockwork fractured and silica healed zone. Within this interval are small intervals of fine grained grey green cherty ash units but these are no more than 50 cm thick and are not considered with much detail. The stkwk fracturing is approx 90% and occasionally contains Py veins. Bedding oriented	30	The primary alteration is silicification occurring along stkwk fracturing. ‡110.1-144.5‡ «Silicification» Occasional zones of intense sericite alteration are present generally associated with altered volcanics within interval. Occasionally sericitic fractures are associated with silicifica-	Pyrite occurs dissem and as fracture fillings and veinlets throughout. ‡110.1-144.5‡ «5% diss,stkwk Py» ‡124.1-126.3‡ «10-15% Py» ‡130.45-132.89‡ «10-15% Py» ‡135.6-138.6‡ «15-20% Py» ‡141.1-144.5‡ «15% Py, tr Cp» These sulphides occur as dissem and	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				tion. ‡119.9-121.0‡ «Strong Sericite,20%» ‡126.97*127.22‡ «60% Sericite» ‡128.7-130.35‡ «Ser,Sil» ‡143.8-144.5‡ «20% Sericite»	stkwk fracture veinlets.	
144.50 TO 147.00	«SERICITIC TUFF»	This is a fine grained to medium grained sericitically altered tuff. From 144.5-145.47m, fine grained beds are observed oriented to CA. Bottom contact	34 54	‡144.5-147.0‡ «Mod to strng ser» ‡145.47-147.07‡ «STOCKWORK SIL»	‡144.5-145.47‡ «Tr Py» ‡145.47-147.0‡ «2-5% Py»	
147.00 TO 151.90	«SIL AND»	The interval consists of medium grained green silicified andesite. Weak hydrothermal bx zones occur through core.		‡147.0-151.9‡ «Mod Silicification» The silicification is pervasive throughout overprinting a chlorite alteration. ‡147.0-151.9‡ «Chlorite» ‡149.3-150.4‡ «Stkwk Sil»	‡147.0-151.9‡ «Tr to 1% Py» ‡149.3-150.4‡ «2-5% Py» occurring as stringers and dissem.	
151.90 TO 153.50	«FAULT»	This interval consists of fault gouge and bx that has been chloritically altered. Bottom contact oriented	28	‡151.9-153.5‡ «Chlorite»		
153.50 TO 154.35	«FSPAR PORPH H DYKE»	This is a coarse grained feldspar porphyry intrusive with the feldspars strongly altered to sericite. The relict feldspars are up to 1cm in length and have a felty, feathery appearance. Occasional Py and talc veinlets occur throughout the interval.		‡153.0-154.35‡ «70% Sericite» Alteration of feldspars. ‡153.0-154.35‡ «Wk to mod Chl» ‡153.0-154.35‡ «Minor talc veins»	‡153.0-1574.35‡ «Tr Py» occurring as veinlets.	
154.35 TO 155.71	«STOCKWORK SIL»	As before there is a grey fine grained strongly fractured unit (to 90%) with subsequent silica overprint. Bottom contact The contact is altered and fragmented.	42	‡154.35-155.71‡ «80% Sil»	‡154.35-155.71‡ «15% Py» Occurs as fine grained dissem and veinlets.	
155.71 TO 156.82	«SIL AND»	This is a dark green fine grained, andesitic volcanic unit that has been moderately silicified. Both the top and bottom of the interval appear brecciated hydrothermally.		‡155.71-156.82‡ «Mod Sil» ‡155.71-156.82‡ «Mod Chlorite» There may be some minor sericite alteration.	‡155.71-156.82‡ «2-5% Diss Py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
156.82 TO 164.50	«CHERT/SIL»	This interval consists of fine grained to medium grained greyish green chert/silicification. In some areas it is clearly chert whereas elsewhere stockwork fracturing makes this similar to stkwk silicification unit. From 158.4-159.3m there is a small feldspar crowded dyke.		†156.82-164.5‡ «Mod Sil» †158.4-159.3‡ «Ser» Altered feldspars †158.4-159.3‡ «Carbonate vein»	†156.82-164.5‡ «5-10% Vn Py» Py occurs as dissem and veinlets.	
164.50 TO 166.12	«SER TUFF»	This is a strongly sericitically altered tuffaceous unit with bedding oriented to CA.	18	†164.5-166.12‡ «20-30% Ser» Occasional silica altered zones occur. Minor chlorite alteration occurs through interval.	†164.5-166.12‡ «Tr Py» Euhedral and dissem only assoc. with silica alteration.	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au		COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t	
BCD25137	7.00	10.00	3.00	0.9	22	46	66	1	10	1	47	22			
BCD25138	10.00	13.00	3.00	2.2	1	40	96	1	4	1	38	1			
BCD25139	13.00	15.22	2.22	2.2	1	54	87	1	4	1	39	2			
BCD25140	15.22	19.13	3.91	0.1	1	28	61	1	17	1	66	1			
BCD25141	19.13	22.13	3.00	0.1	1	15	58	1	16	1	60	8			
BCD25142	22.13	25.15	3.02	1.1	1	38	86	1	13	1	44	4			
BCD25143	25.15	28.35	3.20	2.5	1	50	59	1	5	1	41	5			
BCD25144	28.35	31.80	3.45	0.1	1	40	59	1	15	1	56	2			
BCD25145	31.80	35.69	3.89	2.3	1	44	41	1	7	1	31	1			
BCD25146	35.69	36.98	1.29	0.3	1	79	39	1	19	1	56	4			
BCD25147	36.98	39.00	2.02	0.1	1	27	54	1	20	1	48	3			
BCD25148	39.00	42.40	3.40	0.2	1	31	41	1	5	1	46	42			
BCD25149	42.40	46.57	4.17	0.3	1	14	28	1	9	1	54	40			
BCD25150	46.57	49.57	3.00	1.6	1	61	49	1	11	1	39	2			
BCD25276	49.57	52.00	2.43	1.1	6	42	136	1	15	1	33	1			
BCD25277	52.00	54.78	2.78	1.4	11	36	244	1	24	1	35	1000	1	0.029	
BCD25278	54.78	55.40	0.62	0.2	1	9	32	6	20	1	62	44			
BCD25279	55.40	58.52	3.12	1.2	1	24	196	1	32	1	137	86			
BCD25280	58.52	60.66	2.14	2.1	1	12	156	1	36	1	162	266			
BCD25281	60.66	64.11	3.45	4.4	19	18	94	9	499	3	1644	130			
BCD25282	64.11	64.31	0.20	16.2	934	2	1317	4	155	1	172	1500	1.78	0.052	
BCD25283	64.31	65.53	1.22	0.5	1	10	30	1	29	1	239	183			
BCD25284	65.53	66.13	0.60	10.5	298	8	1303	1	178	1	291	310			
BCD25285	66.13	69.63	3.50	2.7	69	11	69	1	247	1	1088	610			
BCD25286	69.63	73.14	3.51	2.9	8	15	98	1	44	1	211	2600	2.85	0.083	
BCD25287	73.14	75.15	2.01	2.5	1	23	18	1	1	1	127	1500	1.82	0.053	
BCD25288	75.15	78.15	3.00	1.2	19	22	39	2	39	1	80	219			
BCD25289	78.15	80.75	2.60	1.1	13	33	34	2	19	1	43	60			
BCD25290	80.75	83.85	3.10	1.4	21	18	60	4	11	2	25	15			
BCD25291	83.85	86.95	3.10	1.3	25	23	104	5	25	1	33	40			
BCD25292	86.95	90.05	3.10	1.2	56	7	44	7	16	3	38	1			
BCD25293	90.05	93.15	3.10	1.1	21	17	36	6	9	1	21	61			
BCD25294	93.15	96.36	3.21	1.2	20	46	224	12	57	2	176	94			
BCD25295	96.36	99.07	2.71	2.1	57	39	606	29	47	2	114	570			
BCD25296	99.07	101.65	2.58	1.2	15	49	138	7	14	1	19	19			
BCD25297	101.65	104.23	2.58	1.1	17	51	117	8	18	1	20	40			
BCD25298	104.23	106.32	2.09	1.3	33	16	104	10	19	1	42	60			
BCD25299	106.32	108.51	2.19	3.1	61	11	221	9	30	2	66	85			

HOLE NUMBER: TM 91-16

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25300	108.51	110.10	1.59	3.9	61	23	839	1	37	1	62	530		
BCD25301	110.10	113.10	3.00	0.9	19	16	210	3	15	1	136	230		
BCD25302	113.10	116.10	3.00	0.8	14	11	122	8	16	1	22	122		
BCD25303	116.10	119.10	3.00	0.8	12	20	83	5	14	1	21	117		
BCD25304	119.10	122.10	3.00	0.8	21	14	143	7	15	1	18	108		
BCD25305	122.10	125.10	3.00	0.9	19	11	199	6	14	1	17	71		
BCD25306	125.10	128.10	3.00	0.8	31	15	284	6	34	1	84	112		
BCD25307	128.10	131.10	3.00	1	16	15	198	4	14	1	17	338		
BCD25308	131.10	134.10	3.00	1	18	6	165	11	10	1	14	296		
BCD25309	134.10	137.10	3.00	1.3	32	7	223	6	10	1	12	214		
BCD25310	137.10	140.10	3.00	1.6	27	42	158	8	14	1	16	105		
BCD25311	140.10	143.10	3.00	2.7	36	5	161	3	280	1	1125	113		
BCD25312	143.10	144.50	1.40	1.8	45	5	125	8	35	1	141	119		
BCD25313	144.50	147.00	2.50	2	8	11	140	1	192	1	569	57		
BCD25314	147.00	149.50	2.50	1.2	1	43	50	1	13	1	43	6		
BCD25315	149.50	151.90	2.40	1.2	13	30	86	1	16	1	30	13		
BCD25316	151.90	153.50	1.60	0.2	1	28	117	1	20	1	51	8		
BCD25317	153.50	154.35	0.85	0.2	1	23	229	1	24	1	56	1360	1.08	0.032
BCD25318	154.35	155.71	1.36	0.6	7	9	56	6	14	1	22	4		
BCD25319	155.71	156.82	1.11	1.2	1	58	59	1	15	1	33	59		
BCD25320	156.82	160.66	3.84	0.8	6	13	74	4	13	1	28	10		
BCD25321	160.66	164.50	3.84	0.7	12	16	110	1	22	1	46	205		
BCD25322	164.50	166.12	1.62	0.2	1	27	157	1	22	1	72	52		

HOLE NUMBER: TM 91-16

ASSAY SHEET

PAGE: 10

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 4.27	«CSG»					
4.27 TO 6.62	«AND»	This is a medium grained dark green chloritic, weakly silicified andesitic volcanic.		‡4.27-6.2‡ «Wk to mod sil» ‡6.2-6.62‡ «Argillic»	‡4.27-6.62‡ «1-2% Py» Occurring as disseminations.	Core is very rubbly and broken.
6.62 TO 7.62	«ARGILLIC ALT»	This is an interval, probably feldspar porphyritic originally, that has undergone strong clay alteration. There was most likely abundant Py in this interval based on the rusty oxidized appearance.		‡6.62-7.62‡ «Strong Argillic»	There may be Py present in this sample that has oxidized out.	
7.62 TO 10.23	«DIOR»	This interval consists of medium grained feldspar porphyritic diorite. The feldspar phenocrysts are mm-scale and randomly oriented. This is a chloritically altered unit. Bottom contact oriented	30	‡7.62-10.23‡ «Chl» There may be alteration of feldspars to leucoxene and/or sericite.	‡7.62-10.23‡ «Tr Diss Py»	
10.23 TO 11.53	«AND TUFF»	This is a fine grained greyish green andesite with what appears to be bedding oriented to CA. Occasional sulphide veins and veinlets are oriented parallel to bedding.	20	‡10.23-11.53‡ «Chl»	‡10.23-11.53‡ «2% Py» As dissem and veinlets.	
11.53 TO 13.48	«BX, FELS INT»	From 11.53-12.14m this is a grey white brecciated unit with moderate silicification. Individual fractures contain chlorite and Py. From 11.72-11.76m is a pyritic vein oriented to CA with open tension gashes within and parallel to it. From 12.1-12.5m a granular felsic looking unit that may be an extreme felsic intrusion with weak argillic alteration. From 12.5-12.6m is a hydrothermal breccia oriented to CA containing cherty fragments followed by a small cherty unit from 12.6-12.7m. 12.7-13.48m consists of the same brecciated material found at the beginning of the interval. Pyrite is present along fractures and may have arsenopyrite and chalcopyrite as well.	30 30	‡11.53-12.14‡ «Mod Sil» ‡12.1-12.5‡ «Mod Argillic» ‡12.7-13.48‡ «Mod Sil»	‡11.53-13.48‡ «5-10% Py» Occurring as dissem and fracture fillings. ‡12.7-13.48‡ «15% Py, Tr Cp, Tr As»	Abundant open space throughout this interval.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
13.48 TO 15.85	«ALT AND»	This is a grey green fine to medium grained chloritically altered andesitic volcanic occasionally cut by feldspar porphyritic dykes. The feldspars in these are altered to sericite or leucoxene. Py content increases downhole.		‡13.48-15.85‡ «Chl,Ser» Strong bleaching occurs near bottom of interval.	‡13.48-15.85‡ «5-10% Py» Arsenopyrite may be present in trace amounts. Py occurs as disseminations and as veinlets.	Abundant vuggy drusy Q/C veins through interval.
15.85 TO 23.23	«FELSIC INTRUSIVE»	This is a grey white granular extremely felsic intrusive with virtually no mafic minerals. The grains appear to be plagioclase laths. Although siliceous in appearance the unit is fairly soft. From 16.9-17.6m is a small cherty unit. Bottom contact may show chilling and brecciation as well as sericite. Contact oriented	30	‡15.85-23.23‡ «Argillic» ‡22.70-23.23‡ «Strong Ser»	‡15.85-18.9‡ «5% Py,Tr As» Occurs as sulphide veinlets and dissem. ‡19.0-19.4‡ «10% Sx» Primarily Py, Tr As. ‡20.6-21.80‡ «Primarily diss Py with Tr As.	Vuggy cavities occur throughout and may contain fluorite.
23.23 TO 25.07	«AND TUFF»	This is a green fine grained homogeneous tuffaceous unit probably of andesitic composition. It is brecciated in areas with two pyritic Q/C veins cutting the core. One area of brecciation has numerous unfilled open spaces between fragments. Fabric (bedding) of this section is oriented to CA.	32	‡23.23-25.07‡ «Chloritic Alt» ‡23.23-23.53‡ «Mod Sil»	‡23.84-23.9‡ «30% Py» This Py occurs disseminated in a Q/C vein with true thickness of 4cm. The vein is oriented at 40 degrees to CA. ‡24.82-24.87‡ «60% Py vein» Again associated with qtz vein oriented 38 degrees to CA.	
25.07 TO 50.94	«DIOR PORPH»	This is a light green to dark green medium grained diorite porphyry. Feldspars comprise 60% of matrix and are equant (1mm) and euhedral to subhedral, randomly oriented. From 25.07-26.59m the diorite is a light green colour and has undergone strong chlorite alteration and clay alteration of feldspars. From 26.59m onward strong magnetite alteration occurs up to 40% as veins and flooding through porphyry matrix. Cross-cutting Q/C veinlets are common, as are Py veinlets with epidote selvages. Mt introduced with veining has been altered to hematite. From 33.53-34.6m the porphyry is altered to clay minerals; no magnetite. A qtz,hem,chl vein in this interval is oriented at 20 degrees to CA. From 43.28-50.94m the diorite porphyry again becomes light green in colour with strong argillic alteration. The interval is very soft, and in		‡25.07-26.59‡ «Argillic Alt» ‡25.07-26.59‡ «30% Chl Alt» ‡25.07-26.59‡ «Wk Mt,talc» ‡26.59-50.94‡ «Propylitic» ‡26.59-50.94‡ «To 40% Mt» ‡26.59-50.94‡ «Tr Hem» ‡33.53-34.6‡ «Argillic Alt» Epidote through this unit generally occurs as vein selvages along Q/C hematitic veins. ‡42.6-43.28‡ «5-10% Ser or leucoxene» This is a yellowish brown, soft mineral occurring in the matrix. ‡43.28-50.94‡ «Argillic + Talc» ‡43.28-50.94‡ «10-15% Ser or leucoxene» From 49.07-50.94m hematitic alteration increases up to 15% locally. ‡49.07-50.94‡ «Up to 15% hem»	‡26.59-43.28‡ «2-3% Py vnlets,diss» ‡34.16-40.53‡ «10% Diss Py,Tr Cp» ‡33.53-34.6‡ «10-15% Diss Py» ‡43.28-50.94‡ «Tr Py» ‡45.1-45.14‡ «15% Py» Occurs as dissem vein.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		areas has unfilled open space cavities.				
50.94 TO 65.14	«AND TUFF»	This unit is similar to that described from 23.23-25.07m. It is a fine grained homogeneous tuffaceous andesitic unit. Near its upper contact with the diorite it is hydrothermally brecciated with some small zones of silicification. Generally the unit is chloritically altered with small tectonic gashes filled by talc. Pyrite occurs with silicification. The core itself is quite broken and rubbly. Fracture fabric oriented Stockwork fracturing up to 70% occurs throughout and are chlorite filled. ‡60.2-65.14‡ «Breccia» This is a very broad zone of brecciation that may be part tectonic and part hydrothermal. Tension gashes within the zone suggest tectonic activity but many angular clasts floating in a chloritic matrix suggest hydrothermal. The larger fragments (up to 5cm) are generally rounded while interstitial fragments are angular. The fragments consist of some cherty andesitic tuff, and silicified fragments.	50 18	‡51.21-52.4‡ «60% Sil» ‡50.94-60.2‡ «Chloritic Alt» ‡54.15-54.25‡ «Sil» ‡60.2-65.14‡ «Chloritic Alt» ‡61.6-62.4‡ «Strong Sil» ‡60.2-65.14‡ «Talc Alt»	‡51.21-52.4‡ «15% Py» Occurs as disseminations and stockwork fillings. Some of the stockwork fracturing contains Py. ‡54.15-54.25‡ «20% Py» ‡54.25-60.2‡ «Tr-5% Py» ‡60.2-65.14‡ «Tr-2% Py» Average over interval generally occurring as small veinlets and fracture fillings.	
65.14 TO 67.40	«AND FLOW»	This interval consists of a fine to medium grained green chloritically altered andesite. Occasional Py veinlets crosscut the interval. From 66.76-66.96m is a small diorite dyke cross-cutting.		‡65.14-67.4‡ «Strong Chl Alt»	‡65.14-67.4‡ «Tr Py»	
67.40 TO 71.10	«AND TUFF»	This is a fine grained andesitic ash tuff, chloritically altered and in some areas silicified. Tension gashes occur through interval and fracturing contain chlorite and Py veinlets. From 69.5-71.2m the core is extremely broken and rubbly.		‡67.4-71.7‡ «Wk to mod sil» ‡67.4-71.7‡ «Mod Chl»	Trace diss Py, Cp There may be trace amounts of native Cu present along veinlets.	
71.10 TO 73.65	«CHRTY TUFF»	This interval is a fine grained grey green cherty andesitic tuff. From 71.1-71.8m the rock is stockwork fractured and siliceous as it is from 72.1-72.46m. The final 30cm is strongly fractured with talc alteration along fractures.		‡71.7-71.8‡ «Sil» ‡72.1-72.46‡ «Sil» ‡73.2-73.65‡ «Talc»	‡71.1-71.8‡ «10% Py» Occurs as disseminations and fracture fillings. ‡72.1-72.46‡ «2-5% Py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
73.65 TO 74.80	«FELSIC DYKE»	This is identical to extreme felsic intrusion described in hole TM 91-16. This is a fine grained white to grey white extremely felsic intrusive comprised primarily of feldspars. It has been argillically altered. Virtually no mafic minerals are seen.		‡73.65-74.8‡ «Argillic» Some areas show cavities of removed minerals by solution.	‡73.65-74.80‡ «1% Py» Py occurs finely dissem through matrix and as fine veinlets occasionally.	
74.80 TO 77.74	«AND TUFF»	This is a fine grained chloritically altered locally cherty andesitic tuff. Bedding is oriented to CA. Local cherty sections occur but are a maximum of 5cm wide. Chlorite occurs through matrix and is also introduced as veins containing Py. A 13cm wide semi-massive Py vein (80% Py) occurs from 75.0-75.13. From 77.0-77.14m a small argillically altered diorite dyke crosscuts the core.	40	‡74.8-77.74‡ «Chlorite» Occurs through matrix and also introduced as veinlets.	‡75.0-75.13‡ «Sm Sx Vein,Py» Approximately 80% euhedral Py. ‡75.13-77.74‡ «Tr-1% diss Py»	
77.74 TO 83.20	«DIOR»	This interval consists of diorite that has been selectively altered. 77.74-78.83m: Argillic Dior 78.83-79.99m: Mt Dior 79.99-83.20m: Prop Dior The argillically altered section consists of a light green medium grained feldspar phyric diorite. Feldspars are altered to clay minerals.		‡77.74-78.83‡ «Argillic Dior» Strong alteration of feldspars to clay;sericite veins and veinlets; nodular calcite in veins. ‡78.83-79.99‡ «Mt Dior» This is a dark green medium grained diorite containing approx 30% Mt. Epidote is seen with qtz carb veining. ‡79.99-83.2‡ «Prop Dior» This is propylitically altered diorite characterized by epidote, chlorite, and sericite.	‡77.74-78.83‡ «10% Diss Py» ‡78.83-79.99‡ «2% Py, Tr Cp» Cp occurs with epidote and Q/C veins. ‡79.99-83.20‡ «Tr-1% Py» Occasional Py veinlets occur.	
83.20 TO 88.30	«AND FLOW TUFF»	This interval consists of interlayered andesite flows and fine grained chloritic tuff. In general the interval is chloritically altered with occasional zones of silicification. Bedding is oriented to CA. ‡85.2-85.4‡ «Bx»	40	‡83.2-88.3‡ «Chloritic Alt» Chloritic alteration occurs throughout matrix and as chloritic laminae. ‡88.97-83.5‡ «Sil» This is complete silicification. ‡87.9-88.17‡ «Sil»	‡83.97-83.5‡ «10% Py» ‡83.20-88.30‡ «2% Py» Occurs primarily along fractures. ‡87.9-88.17‡ «10% Py»	
88.30 TO 98.40	«PROP DIOR»	This is a dark green medium grained propylitically altered diorite. Feldspars are euhedral, randomly oriented, 1mm in dimension. Epidote veins occur through interval with trace amounts of Cp assoc with them.		‡88.3-88.75‡ «Strong Chl» ‡89-89.7‡ «10% Mt» ‡89.7-92.1‡ «3-5% Ep Veins» ‡89.7-92.1‡ «Tr -1% Hem Vns» ‡92.1-94.52‡ «Extreme Chl» ‡94.52-96.5‡ «20-30% Mt» ‡94.52-96.5‡ «Ep Vns» ‡96.5-98.4‡ «Argillic Alt»	‡88.3-98.4‡ «2-5% Py» ‡89.7-92.1‡ «Tr Cp» Cp always occurs with epidote veining. ‡94.52-96.5‡ «Tr-1% Py veins»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
98.40 TO 103.70	«AND TUFF»	This is a green fine grained andesitic tuff that has been chloritically altered and locally silicified. From 98.4-99.9m the upper portion of core is broken and stockwork brecciated. Fractures tend to be filled with talc and one small hematite vein occurs at 103.7m. ‡101.6-102.12‡ «Felsic Dyke» Granular extremely felsic dyke, argillically altered.	90	‡98.4-103.7‡ «Chl» ‡98.4-103.7‡ «Talc Fractures» ‡99.36-99.46‡ «Sil» ‡100.7-100.83‡ «Sil» ‡101.6-102.12‡ «Argillic» ‡103.7‡ «Hem Vein»	‡99.36-99.46‡ «10% Py» ‡100.7-100.83‡ «15-20% Py» ‡101.6-102.12‡ «10% Py»	
103.70 TO 113.08	«DIOR»	This interval begins with a strongly argillically and chloritically altered diorite consisting of fine grained feldspar crystals of 1mm dimension. This is observed from 103.7-106.53 after which alteration grades into a patchy magnetite alteration zone followed by a massive magnetite alteration zone. This continues to 111m where the magnetite becomes patchy again and is subsequently followed by a chlorite and sericite alteration zone continuing to 113.08m.		‡103.7-106.53‡ «Chloritic Alt» Feldspar crystals are strongly altered to chlorite. ‡106.53-111.0‡ «40-50% Magnetite» ‡111.0-113.08‡ Str «Chlorite Altn» ‡106.53-111.0‡ «20-30% VFG Ep» Very fine grained dissem Ep. ‡106.53-111.0‡ «Stkww Sil» The core is strongly fractured (15%) with silica filling fractures. ‡111.0-113.08‡ «Sericite»	‡103.7-106.53‡ «5-10% Py» Occurs as dissem and veins. ‡106.53-111.0‡ «20% VFG Py» Very fine grained dissem Py.	
113.08 TO 114.60	«SIL AND»	This is a medium grained green siliceous andesite. Primary chloritic alteration has been overprinted by moderate silicification. Py is finely dissem throughout and comprises about 10% of the matrix. Occasional Q/C carbonate veins crosscut the unit and these generally contain greater amounts of Py.		‡113.08-114.6‡ «Mod Sil» ‡113.08-114.6‡ «30% Chl»	‡113.08-114.6‡ «10% Py» Occurs as disseminations.	
114.60 TO 118.50	«CHRTY TUFF»	This interval consists of fine grained grey green cherty tuff.		‡114.6-118.5‡ «50% Sil»	‡114.6-118.5‡ «2-5% Py» The Py seems to have been introduced with silica and primarily occurs with it.	
118.50 TO 122.53	«LKDR»	This is a greyish green medium grained leucodiorite. The core contains roughly 70% felsic minerals and 30% mafics. Epidote alteration occurs throughout matrix and is commonly associated with fine grained dissem Py. Chloritic alteration is also abundant. Occasional small zones of stockwork silicification occurs through interval. The interval becomes more mafic in appearance near base.		‡118.5-122.53‡ «40% Chloritic Alt» ‡118.5-122.53‡ «30% FG Ep»	‡118.5-122.53‡ «20% VFG diss Py» Occurs with epidote.	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb			
BCD25326	4.27	6.62	2.35	0.6	1	106	103	1	15	1	55	7			
BCD25327	6.62	7.62	1.00												
BCD25328	7.62	10.23	2.61	0.6	6	37	98	1	18	1	59	59			
BCD25329	10.23	11.53	1.30	0.2	1	12	119	1	5	1	72	2			
BCD25330	11.53	13.48	1.95	0.6	3	20	72	15	16	1	21	9			
BCD25331	13.48	15.85	2.37	0.4	1	15	89	4	19	1	43	1			
BCD25332	15.85	19.54	3.69	0.3	1	14	58	3	20	1	29	3			
BCD25333	19.54	23.23	3.69	0.2	3	14	210	4	20	1	37	8			
BCD25334	23.23	25.07	1.84	0.4	30	25	81	1	23	1	49	2			
BCD25335	25.07	26.59	1.52	0.1	19	16	122	1	27	1	96	1			
BCD25336	26.59	29.59	3.00	0.8	1	334	98	1	15	1	55	2			
BCD25337	29.59	32.59	3.00	1.1	1	126	134	1	15	1	43	1			
BCD25338	32.59	35.59	3.00	0.7	1	157	139	1	16	1	50	1			
BCD25339	35.59	38.59	3.00	1.2	1	336	136	1	15	1	44	1			
BCD25340	38.59	41.59	3.00	1.2	1	262	116	2	13	1	42	2			
BCD25341	41.59	43.28	1.69	0.7	1	120	137	1	17	1	50	3			
BCD25342	43.28	46.28	3.00	0.1	1	130	248	1	23	1	68	15			
BCD25343	46.28	49.28	3.00	0.1	1	59	203	1	24	1	102	6			
BCD25344	49.28	50.24	0.96	0.1	2	25	314	1	22	1	102	8			
BCD25345	50.94	53.94	3.00	0.5	1	292	119	2	22	1	45	22			
BCD25346	53.94	56.94	3.00	0.2	1	13	202	1	22	1	65	21			
BCD25347	56.94	59.94	3.00	0.3	6	30	91	1	28	1	56	21			
BCD25348	59.94	62.94	3.00	0.6	2	28	27	4	48	1	41	7			
BCD25349	62.94	65.14	2.20	0.6	16	26	82	22	23	1	32	22			
BCD25350	65.14	67.40	2.26	0.2	1	39	52	1	2	1	104	4			
BCD25351	67.40	71.10	3.70	0.4	1	58	48	1	22	1	52	17			
BCD25352	71.10	73.65	2.55	0.6	6	30	21	2	19	1	22	20			
BCD25353	73.65	74.80	1.15	0.5	9	19	30	1	22	1	23	15			
BCD25354	75.00	75.13	0.13	0.1	1	14	296	8	2	1	43	62			
BCD25355	75.13	77.74	2.61	0.3	1	30	46	1	16	1	49	19			
BCD25356	77.74	80.47	2.73	0.1	18	15	115	1	23	1	68	60			
BCD25357	80.47	83.20	2.73	0.2	1	25	223	1	20	1	91	18			
BCD25358	83.20	85.75	2.55	0.6	4	72	37	1	18	1	38	19			
BCD25359	85.75	88.30	2.55	0.6	1	136	65	3	34	1	54	12			
BCD25360	88.30	91.30	3.00	1.2	1	452	226	1	43	1	70	24			
BCD25361	91.30	94.30	3.00	0.1	1	118	170	1	24	1	78	21			
BCD25362	94.30	98.40	4.10	0.6	6	161	183	1	19	1	66	12			
BCD25363	98.40	101.05	2.65	0.2	1	20	73	1	22	1	64	2			

HOLE NUMBER: TM 91-17

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25364	101.05	103.70	2.65	0.4	1	29	62	1	22	1	58	1		
BCD25365	103.70	106.53	2.83	0.2	1	118	235	1	17	1	108	4		
BCD25366	106.53	109.53	3.00	0.1	1	194	62	1	3	1	89	1		
BCD25367	109.53	111.00	1.47	0.1	1	59	66	1	3	1	129	7		
BCD25368	111.00	113.08	2.08	0.1	1	7	302	1	3	1	153	12		
BCD25369	113.08	114.60	1.52	0.5	1	47	131	1	13	1	45	19		
BCD25370	114.60	118.50	3.90	0.8	5	27	121	2	18	1	23	2		
BCD25371	118.50	122.53	4.03	0.5	1	91	177	1	14	1	33	15		

HOLE NUMBER: TM 91-17

GEOCHEM. SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	NA2O %	MGO %	AL2O3 %	SI02 %	P2O5 %	K2O %	CAO %	TIO2 %	CR PPM	MNO %	FE2O3 %	RB PPM	SR PPM	Y PPM	ZR PPM	NB PPM	BA PPM	LOI %	SUM %
BCD25332	15.85	19.54	3.69	0.09	1.58	11.3	66.9	0.09	1.37	0.33	0.531	177	0.18	7.87	65	10	28	251	17	264	8.39	98.7

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
2.00 TO 11.28	«CHRT/STKWK»	This interval consists of white to orange-white		‡3.05-11.28‡ «Sil»	‡3.05-11.28‡ «10% fg diss Py»	
TO 11.28	SIL»	fine grained siliceous mass from 3.05-6.0. Fine fractures indicate introduced silica. Py occurs through the interval and pitting suggests oxidation of Py. ‡6.0-11.28‡ «Bx» From 6.0-11.28m this unit has undergone strong tectonic brecciation giving rise to angular fragments of varying size. It appears that many sx veinlets have crosscut the unit and have subsequently been oxidized.			Py occurs disseminated within the matrix and as fracture and open space fillings. ‡3.05-6.0‡ «Tr Cp»	
11.28 TO 12.63	«AND»	This is a fine grained green andesitic flow containing abundant chlorite. The bottom 10cm of the unit is strongly fractured.		‡11.28-12.63‡ «30% Chl»		
12.63 TO 14.10	«STKWK SIL»	This is a fine grained grey-white stockwork fractured (70-80%) and silica healed unit. Some vuggy, drusy lined cavities occur through interval. Again the pitted texture indicates some Py has been removed.		‡12.63-14.1‡ «80% stockwork sil»	‡12.63-14.1‡ «15% Diss Py» Py is diss throughout and has higher concentrations associated with fracture filling Py veinlets.	
14.10 TO 22.82	«AND FLOW + TUFF»	The interval consists of a fine grained to coarse grained mixture of andesitic flows and tuffs. From 14.4-15.4m is a coarse grained feldspar phyr-ic flow. This is underlain by a finer grained andesite flow with occasional hornblende phenocrysts which are coarser than the groundmass. This flow continues to approximately 19.2m and is followed by a fine grained chloritic tuffaceous interval to 22.82m.		‡14.1-22.82‡ «Chl,Ser»	Minor Py occurs through the interval.	
22.82 TO 24.03	«AND FLOW»	This is a medium grained green chloritic andesite flow. Grain size is roughly equant, and mineral grains are euhedral to subhedral. A Q/C vein occurs from 23.0-23.35m oriented to CA. Bottom contact oriented	8 54	‡22.82-24.03‡ «Chl Alt»	Iron staining along fractures suggest Py is present in very trace amounts.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
24.03 TO 28.90	«AND TUFF»	This interval ranges from fine grained to medium grained bedded andesitic tuff. The unit is chloritic throughout and contains roughly 5% dissem Py. Bedding is oriented to CA. From 27.68-28.22m is a medium grained felsic dyke, grey-white in colour. This is oriented to CA.	82 30	‡24.03-27.68‡ «Chl Alt» ‡27.68-28.22‡ «Sil» ‡28.22-28.9‡ «Chl Alt»	‡24.03-28.90‡ «5% Diss Py» Occasional Py veinlets occur through interval.	
28.90 TO 29.87	«BANDED FELSIC ASH»	This is a very fine grained ash unit with alternating grey-white, reddish, and green bands. Bedding is oriented to CA. The reddish bands may be hematitic.	68	‡28.9-29.87‡ «Clay Alt»	Tr diss Py occurs through interval.	
29.87 TO 30.45	«FELSIC INT»	This is a small fine grained grey-white granular felsic intrusive. It is made up primarily of feldspars with little to no mafic minerals.		‡29.87*30.45‡ «Wk Sil»	Only trace dissem Py occurs.	
30.45 TO 33.14	«AND TUFF»	This is an alternating sequence of fine grained and medium grained andesitic tuff. Bedding is to CA. From 32.31-33.14m this becomes lighter green in colour, more felsic. Minor fracturing occurs through interval.	70	‡30.45-33.14‡ «Chl Alt»	Py occurs in trace amounts generally as fracture fillings.	
33.14 TO 34.78	«PYRITIC INT»	The interval is an extremely oxidized fine grained pyritic intrusive. This may be the same as felsic intrusive described previously but far more Py.		‡33.14-34.78‡ «Oxidation» Some fractures are chloritic.	‡33.14-34.78‡ «30% Py?»	
34.78 TO 38.48	«AND TUFF»	This is a fine grained andesitic tuff that has undergone chloritic alteration. Minor fracturing occurs through much of the interval and are commonly filled with Py, silica, or talc veins. Occasional broader zones (3cm) of silicification are present. From 37.9-38.4m small hydrothermal breccias and hydrofractures occur and are vuggy open spaced locally.		‡34.78-38.40‡ «Chl Alteration» ‡35.85-35.94‡ «Strong Sil»	Tr Py as veinlets.	
38.48 TO 40.30	«BX/INT»	This interval is very broken and rubbly and is most likely a fault zone which includes brecciated fragments of a felsic dyke and andesite. Much of the core looks like a medium grained light grey to green felsic intrusion. The breccia/shear fabric is oriented at 48o to core axis.	48	‡38.40-40.3‡ «CHLORITE» ‡38.46-40.3‡ «TALC» Talc occurs along fracture surfaces.	‡38.7-38.8‡ «10% Py» Pyrite occurs as lenses along the shear fabric. ‡39.8-40.4‡ «10% Py» Pyrite occurs as small lenses and veinlets.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
40.30 TO 44.00	«AND. TUFF»	Again, this interval is broken and rubbly throughout but in general consists of interlayered fine grained and medium grained andesitic tuff. From 41.53 to 41.70 is a hydrothermal breccia. From 41.9 to 42.50 is a hydrothermal breccia with angular andesitic fragments in quartz carbonate matrix. Some breccia interstices show dissolution of minerals giving a vuggy appearance.		Talc is very common occurring as veinlets and fracutre fillings, and also as small blebs. Chlorite alteration is strong through the interval. ‡38.46-44.0‡«STRONG CHLORITE» ‡38.46-44.0‡«10% TALC»		
44.00 TO 44.84	«HEMATITE BRECCIA ZONE»	This is a puzzling zone of what may have been an intrusive that has subsequently been fractured, brecciated and hematitically altered. This could be alteration of magnetite although the interval shows no relict magnetic characteristics.		‡44.0-44.84‡«40% HEM» ‡44.0-44.84‡«20% TALC» Talc occurs primarily as veinlets but in the matrix as well.	Pyrite is present to about 15% throughout occurring along fracutres from 44.0 to 44.3. Traces of chalcopyrite are also present. From 44.3 to 44.84 pyrite occurs in what appear to nodules. This may be marcasite, as colloform banding is observed in one nodule. ‡44.0-44.3‡«15%PY, TRACE CP» ‡44.3-44.84‡«10% NODULAR MARCASITE»	
44.84 TO 55.00	«ALT'D ANDESITE FLOW OR TUFF»	This interval consists of an extremely chlorite and sericite altered andesite flow or tuff. In general it is medium to fine grained in areas with 5% resistant quartz grains in finer chloritic matrix. In areas quartz carbonate veins cross cut the core. These are locally vuggy with quartz crystal lined cavities. ‡46.94-47.54‡«HYDROTHERMAL BX» This is a strong hydrothermally brecciated zone consisting of 80% vuggy quartz veining. 47.34 A 1cm x 3 cm quartz crystal lined cavity is observed. From 47.95 to 48.13 is a finer grained less altered tuff containing occasional chloritic lapilli approximately 4 cm in length. ‡48.5‡«FLT GOUGE» From 48.7 to 50.1 a fragmental unit occurs that is stockwork fractured and brecciated. The unit consists of sericitically altered andesite fragments of variable size in a chloritic matrix. From 52.1 to 53.02 is a finer grained tuffaceous unit not as altered as previous intervals. Alteration is primarily chloritic. From 53.02 to 53.64 is an argillically altered diorite dyke.		‡44.84-55.00‡«CHL, SER ALT'N» ‡47.4-47.54‡«30% SER» ‡48.13-48.7‡«60% HEM» This is a hematite alteration zone similar to the interval described from 44.0 to 44.84. ‡48.7-52.1‡«SER, CHL» Chlorite occurs as a stockwork while sericite alteration is seen in the fragments. ‡53.64-55.0‡«30% CHL»	‡46.9-46.94‡«40% PY» ‡46.94-47.54‡«5-10% PY STKWRK» ‡44.84-55.0‡«TR TO 5% PY» ‡48.13-48.7‡«10% PY‡	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		From 53.64 to 55.0 is a section of fragmental andesite. This consists of andesite fragments of various size and shape from mm scale to 5 cm, primarily angular, contained in a chloritic matrix. The bottom contact of this interval is fault gouge. ‡55.0‡«FLT GOUGE»				
55.00 TO 56.40	«ANDESITE TUFF»	This is a green chloritic fine grained andesite tuff. The bottom contact is faulted. ‡56.4‡«FLT GOUGE»		‡55.0-56.4‡«STRONG CHL»	‡55.7-55.9‡«10% DISS PY»	
56.40 TO 57.37	«CHERT/SIL»	This is a fine grained cherty, siliceous unit that may actually be part of an alteration front related to the underlying intrusion as the boundary appears to be gradational. The interval is strongly fractured (60%) with chloritic and pyritic laminae.		‡56.4-57.37‡«SIL» ‡56.4-57.37‡«CHL»	‡56.4-57.37‡«2% PY» This occurs as fracture coatings.	
57.37 TO 69.70	«FELDSPAR PORPHYRY»	This is a dark green to black very coarse grained feldspar porphyry diorite. Feldspars are lath-like and euhedral up to 1cm in length. Mafic minerals are primarily coarse grained hornblende and this unit is most likely what has been mapped as coarse grained hornblende diorite on surface. In drill core, however, gradational textures and alteration are seen through the unit. From 57.37 to 66.0 the unit is a coarse grained diorite. From 66.0 to 67.2 the unit is a medium grained diorite. From 67.2 to 69.70 the unit is fine grained. ‡63.7-66.0‡«FLT ZONE» Core is extremely broken and rubbly. The final 70 cm of the unit appears to be a chill margin.	20	‡57.37-63.7‡«STRONG SIL» ‡63.7-66.0‡«CHL» ‡58.5-63.7‡«30-40% MT» Magnetite occurs as patchy alteration through this interval. ‡66.0-69.0‡«PROPYLITIC ALT'N» This consists of epidote, chlorite, albite, and silica. ‡62.3-62.4‡«STRONG CHL» ‡69.0-69.7‡«WK MT»	‡57.37-63.7‡«2% PY, TR CP» Occurs as veinlets and disseminations. ‡65.0-65.4‡«50% PY» This is within a quartz vein. ‡66.0-69.0‡«<1% PY VEINLETS» The Py is generally seen to occur with epidote.	
69.70 TO 71.00	«ANDESITE TUFF»	The interval consists of a chloritically altered, green, medium grained andesitic tuff. Occasional chloritic lapilli up to 2cm in length are seen. The bottom contact is brecciated. ‡70.8-71.0‡«FLT BX»		‡69.7-70.5‡«WK MT» ‡70.5-71.0‡«CHL»	‡70.5-71.0‡«20% PY»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
71.00 TO 85.84	«PYRITIC CHERT/SIL. TUFF»	This is a very fine grained to aphanitic unit consisting of alternating intervals of green chloritic siliceous very fine grained tuffaceous units, and grey very silicified or cherty units. Fracturing through the interval is weak, but fracture selvages are strongly bleached. A common fracture orientation is at 38 degrees to the C.A. From 78.85 to 80.00 is a medium grained feldspar porphyritic dyke (60% feldspars, 30% mafics, 10% Mt). Feldspars are subhedral to anhedral. From 82.3 to 81.8 fracture density increases to about 20%.	38	71.00-85.84 «WK CHL, STRONG SIL» 78.85-80.00 «10% MT»	71.00-85.84 «2%-5%PY» This occurs as disseminations and fracture filling veinlets.	
85.84 TO 91.90	«DIOR»	Compositionally this unit is most likely dioritic throughout, but mineralogic, alteration, and textural variations cause certain intervals to be felsic in appearance, while other intervals are very mafic looking. Generally this unit is grey green to black in colour with variable grain size. From 85.84 to 87.8 is a medium to coarse grained dark green diorite. Feldspars are subhedral making up 60% to 70% of the matrix. Hornblende phenocrysts comprise the majority of the remaining crystals, along with magnetite. From 87.8 to 89.3 is a light grey green medium leucodiorite. Quartz and feldspars comprise 80% of the unit. Small chlorite veins occur throughout. From 89.3 to 89.6 is a very coarse grained feldspar porphyritic phase (60% feldspars) that is weakly to moderately magnetic. This grades into a silicified area cross cut by small Py, Cp veins. From 89.6 to 91.90 is an extremely mafic looking intrusive with 40-50% hornblende. Quartz carbonate veinlets cross cut the interval.		85.84-87.8 «20-30% MT» 85.84-87.8 «20% SER» 86.8-87.0 «SIL» 87.8-89.3 «CHL, WK SER, MOD TO STRNG SIL» 89.3-89.6 «10% MT» 89.6-90.06 «MOD SIL» 89.6-91.90 «CHL»	85.84-87.8 «5% PY, TR CP» Mineralisation occurs as veinlets and disseminations. 87.8-89.3 «2-5% PY» 89.6-90.06 «1-2% PY, TR CP» 90.06-91.9 «TR PY, CP» Occurs primarily in veinlets associated with quartz carbonate stringers.	
91.90 TO 104.60	«MAFIC FRAG /LAP TUFF»	This unit consists of a green, grey green fine grained tuffaceous unit with larger fragments of various lithology. These fragments are up to 10 cm in dimension and range from mafic intrusive fragments to cherty fragments and volcanic fragments. The fine grained matrix is chloritic and sericitic. 92.8-93.1 «SHEAR» 93.27-94.2 «FLT» 94.7-95.0 «FLT»	24	91.90-94.2 «STRONG CHL» 97.74-97.84 «SIL» 101.19-101.54 «SIL»	101.19-101.54 «10% DISS PY, TR CP»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				extensively into wallrock. ‡150.5-150.95‡«STKWRK SIL, CHL» ‡150.95-151.0‡«SIL»		
151.00 TO 153.96	«DIOR»	This is a light green to dark green medium grained diorite dyke. Feldspars are approximately 1mm in length, euhedral to subhedral. Bottom contact...	10	Small carbonate veins cross cut the interval as do minor epidote veinlets. ‡151.0-153.96‡«20% CARB» Occurs within matrix and as veinlets. ‡151.0-153.96‡«10% SER, 2% HEM VEINLETS» ‡153.0‡«EPIDOTE VEINLETS» ‡151.0-153.96‡«WK MT»	‡151.0-153.96‡«TR-2% DISS PY» ‡153.0‡«CP VEINLET» This is a small 1mm wide veinlet oriented at 50 degrees to C.A. and associated with epidote. ‡153.2‡«CP VEINLET» Disseminated within a quartz-epidote-carbonate vein.	
153.96 TO 169.10	«SIL PORPH AND»	The interval consists of a fine grained black to dark green to light green strongly silicified porphyritic andesite. Certain intervals contain 2-5% large patchy white blebs which may be amygdules of silica, although occasional blebs appear to have the same shape as euhedral feldspar phenocrysts. At 166.4 is a small hydrothermal breccia. Bottom contact is hydrothermally brecciated...	42	The unit is weakly to moderately propylitically altered with epidote occurring as veinlets along fractures. Minor K' feldspar is seen. ‡153.96-169.1‡«60% SIL» ‡153.96-169.1‡«WK TO MOD PROPYLITIC» ‡153.96-169.1‡«WK K'SPAR» K'spar occurs in veinlets, as does hematite. The unit is weakly magnetic. ‡161.62-163.2‡«SIL FLOODING» ‡165.7-166.7‡«STRONG TALC, SER» ‡164.3-164.6‡«STKWRK EP VEINLETS» ‡165.6-166.73‡«STRONG ARGILLIC, 2% TALC» This interval appears extremely bleached to a grey white colour and altered to clay. Talc veinlets occur to 2%. One hematite veinlet is seen. ‡153.96-169.1‡«WK MT»	‡158.19-158.7‡«10% PY» ‡153.96-169.1‡«TR PY» Pyrite generally occurs with epidote. ‡161.62-163.2‡«5-10% DISS PY» ‡165.7-166.73‡«5-10% PY» From 166.73 to 169.1 small hematite and pyrite veinlets cross cut the core and vein selvages are altered to epidote. ‡166.73-169.1‡«2-5% DISS, VEIN PY»	
169.10 TO 172.30	«ANDESITE TUFF»	This is a strongly altered section that appears to consist of coarse grained chloritic fragments in a medium grained sericitically altered grey green matrix. Bottom contact...	58	Several small quartz veins cut the core at 38 degrees to the core axis. Some of these veins are chalcedonic. Chlorite and clay alteration are predominant with minor K'spar and silica. ‡169.1-172.3‡«CHL, SER, CLAY» ‡169.1-172.3‡«MINOR CHALCEDONY» ‡170.4-170.6‡«K'SPAR FLOODING»	‡169.1-172.3‡«15-20% PY» Occurs as disseminations and veinlets.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
172.30 TO 178.36	«SIL PORPH ANDESITE»	This a dark to light green porphyritic andesite identical to that described for the interval from 153.96 to 169.1.		The interval is weak to moderately propylitically altered with small zones of clay, chlorite, sericite alteration. ‡172.3-178.36‡«WK TO MOD PROP» ‡174.0-177.9‡«CLAY, CHL, SER» ‡172.3-174.0‡«WK MT»	‡172.3-178.36‡«TR-5% PY» This generally occurs as veinlets or disseminations always associated with quartz veining.	
178.36 TO 186.86	«ANDESITE»	The interval consists of a very fine grained altered andesite volcanic. In areas, high density stockwork fracturing is seen and chloritic and silicic alteration selvages extend outward from the fractures. ‡184.27-184.71‡«FLT»		Alteration consists of varying degrees of chloritization, silicification and introduction of magnetite. Some fractures show banded alteration haloes approximately 1/2 cm each side of fracture. The outermost band is chloritic, followed inward by alternating pyritic and silicic and possible feldspar alteration bands. The inner core is epidote/pyrite. ‡178.36-179.3‡«TALC, CHL» ‡179.3-181.1‡«SIL, 5% MT» ‡181.1-182.3‡«CHL, SIL» ‡182.3-185.4‡«CHL, SER» ‡185.4-186.86‡«SIL, 10% MT»	‡178.36-186.86‡«TR-2% PY»	
186.86 TO 189.70	«DIORITE DY KE»	This is a fine grained (1mm) green, chloritically and sericitically altered diorite dyke. Euhedral to subhedral feldspars comprise 60% of the matrix and are strongly altered. ‡187.0‡«FLT GOUGE» This is chloritically altered. ‡188.8‡«FLT GOUGE» ‡189.7‡«FLT GOUGE»...	54	‡186.86-188.82‡«CHL, SER» ‡188.82-189.7‡«SER, SIL» This interval consists of sericitically altered diorite with small quartz vein injections. ‡188.91-189.0‡«SIL» ‡188.6-188.8‡«SIL»	‡188.91-189.0‡«20% PY» ‡188.6-188.8‡«20% PY»	
189.70 TO 191.34	«AND»	The interval consists of a fine grained chloritized and silicified andesite. The first 20 cm of the interval is a flow top consisting of feldspar and chlorite filled vesicles. From 191.0 to 191.34 the unit is strongly fractured to 70% and strongly silicified along these fractures.		‡189.7-191.34‡«CHL, SIL»	Trace amounts of pyrite occur as veinlets through the interval.	
191.34 TO 199.34	«CHERTY AND ESITE TUFF»	This is a grey green to grey siliceous or cherty very fine grained andesitic tuff. Relect bedding is oriented... From 193.39 to 194.77 is a chloritic, silicified, sericitized andesite interflow. End of hole.	48	‡191.34-193.39‡«SIL, CHL» ‡191.34-199.34‡«MINOR TALC VEINS» ‡193.39-194.77‡«CHL, SER, SIL»	Only trace amounts of pyrite as veinlets occur through the interval.	

HOLE NUMBER: TM 91-18

MINNOVA INC.
DRILL HOLE RECORD

DATE: 4-February-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb			
BCD25372	3.05	6.05	3.00	1.6	8	9	360	6	7	1	5	81			
BCD25373	6.05	9.05	3.00	1	15	25	218	16	10	1	8	60			
BCD25374	9.05	11.28	2.23	1.3	19	12	1298	11	14	2	13	74			
BCD25375	11.28	12.63	1.35	0.9	2	32	2563	6	26	1	68	61			
BCD25101	12.63	14.10	1.47	1	28	7	3125	7	42	1	26	192			
BCD25102	14.10	16.60	2.50	0.2	38	48	1492	9	29	1	52	32			
BCD25103	16.60	19.10	2.50	0.6	12	48	340	2	20	1	26	3			
BCD25104	19.10	22.82	3.72	0.5	7	44	198	1	22	1	30	16			
BCD25105	22.82	25.82	3.00	0.6	15	40	21	2	20	1	27	18			
BCD25106	25.82	28.90	3.08	0.5	5	43	158	1	19	1	29	9			
BCD25107	28.90	29.87	0.97	0.7	5	21	123	1	22	1	41	4			
BCD25108	29.87	30.45	0.58	0.5	8	25	95	1	10	1	22	5			
BCD25109	30.45	33.14	2.69	0.5	3	28	141	5	19	1	30	2			
BCD25110	33.14	34.78	1.64	0.6	14	68	549	13	11	1	41	17			
BCD25111	34.78	38.40	3.62	0.7	10	17	242	10	18	1	46	1			
BCD25112	38.40	40.30	1.90	0.6	96	11	184	7	21	1	47	18			
BCD25113	40.30	44.00	3.70	0.6	19	25	72	2	18	1	24	3			
BCD25114	44.00	44.84	0.84	0.1	20	14	333	1	140	1	68	60			
BCD25115	44.84	47.84	3.00	0.6	25	17	101	4	41	1	27	2			
BCD25116	47.84	49.00	1.16	0.1	1	25	192	1	25	1	45	1			
BCD25117	49.00	52.00	3.00	0.6	10	19	73	1	21	1	34	6			
BCD25118	52.00	55.00	3.00	0.3	6	27	71	1	28	1	58	4			
BCD25119	55.00	57.37	2.37	0.5	4	21	125	1	20	1	57	1			
BCD25120	57.37	60.37	3.00	1.1	1	130	213	1	18	1	65	5			
BCD25121	60.37	63.70	3.33	0.3	1	37	421	1	18	1	52	10			
BCD25122	63.70	66.00	2.30	0.1	27	113	385	1	24	1	57	55			
BCD25123	66.00	69.70	3.70	0.7	6	185	268	1	1	1	87	36			
BCD25124	69.70	71.00	1.30	1.6	1	296	299	1	12	1	33	4			
BCD25125	71.00	74.00	3.00	0.6	3	66	36	4	16	1	28	1			
BCD25151	74.00	77.00	3.00	0.7	1	302	47	1	12	1	22	1			
BCD25152	77.00	78.85	1.85	0.5	1	76	41	1	16	1	25	2			
BCD25153	78.85	80.00	1.15	1.1	1	101	70	1	9	1	41	1			
BCD25154	80.00	83.00	3.00	0.7	14	26	25	34	13	1	17	1			
BCD25155	83.00	85.84	2.84	0.7	16	20	34	4	12	1	18	5			
BCD25156	85.84	88.84	3.00	1.1	1	78	223	1	12	1	35	10			
BCD25157	88.84	91.90	3.06	1.3	1	195	128	6	5	1	45	2			
BCD25158	101.19	101.54	0.35	0.3	13	11	203	3	15	1	22	12			
BCD25159	104.60	106.30	1.70	0.5	1	68	61	1	18	1	36	2			

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD25160	106.30	108.20	1.90	0.1	14	18	812	1	20	1	50	56		
BCD25161	108.20	111.20	3.00	0.6	1	81	194	1	20	1	63	15		
BCD25162	111.20	114.20	3.00	0.1	2	40	137	1	21	1	106	5		
BCD25163	114.20	117.20	3.00	1	1	140	133	1	15	1	53	1		
BCD25164	117.20	120.20	3.00	0.2	1	211	184	1	19	1	64	2		
BCD25165	133.90	136.90	3.00	0.1	5	228	115	1	20	1	58	1		
BCD25166	136.90	139.90	3.00	0.7	7	105	116	1	17	1	57	2		
BCD25167	139.90	142.90	3.00	1.4	1	110	64	1	13	1	50	1		
BCD25168	142.90	145.90	3.00	1.5	1	144	207	1	10	1	33	4		
BCD25169	145.90	148.90	3.00	1.6	10	55	96	1	29	5	57	2		
BCD25170	148.90	151.00	2.10	0.4	1	61	50	1	20	1	32	2		
BCD25171	151.00	153.96	2.96	1	1	88	281	1	10	1	64	6		
BCD25172	153.96	157.00	3.04	0.7	1	110	43	1	14	1	42	1		
BCD25173	157.00	160.00	3.00	1.4	1	61	87	1	8	1	40	4		
BCD25174	160.00	163.00	3.00	1.4	1	51	198	1	10	1	36	9		
BCD25175	163.00	166.00	3.00	1.5	1	114	63	1	10	1	38	3		
BCD25176	166.00	169.10	3.10	1.1	1	65	101	1	13	1	47	8		
BCD25177	169.10	172.30	3.20	0.7	6	60	520	1	12	1	39	67		
BCD25178	172.30	175.30	3.00	1.2	1	127	108	1	13	1	48	10		
BCD25179	175.30	178.36	3.06	0.2	4	38	184	1	19	1	54	51		
BCD25180	178.36	181.36	3.00	0.4	1	38	27	1	12	1	32	2		
BCD25181	181.36	184.36	3.00	0.2	1	27	115	1	20	1	58	1		
BCD25182	184.36	186.86	2.50	0.6	1	81	128	4	14	1	50	7		
BCD25183	186.86	189.70	2.84	0.2	4	33	405	1	18	1	59	12		
BCD25184	189.70	191.34	1.64	0.5	2	144	151	1	13	1	49	3		
BCD25185	191.34	194.34	3.00	0.2	1	38	66	1	16	1	37	1		
BCD25186	194.34	197.34	3.00	0.6	5	28	39	4	14	1	24	8		
BCD25187	197.34	199.34	2.00	0.5	3	31	16	1	16	1	21	2		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 7.32	«CASING»					
7.32 TO 16.60	«INT. TUFF AND CHERT»	This unit consists of approximately 50% greenish grey, aphanitic ash tuff and 50% grey-white chert. No bedding is evident and boundaries between the chert and tuff are indistinct; patches of tuff occur within the chert. The core is vuggy, due to dissolution along fractures. Drusy quartz lines the cavities.		Limonite is abundant on fracture surfaces. Volcanic component has been chlorite and/or sericite altered; in places this overprinted by silica.	Mineralization in this interval consists of Py that occurs locally to 15% mainly as fine grained disseminations. Py also occurs as coarsely disseminated blebs and along veinlets and fractures to 4 mm in width. At 14.48 there is a 10 cm zone of core with very fine grained Py at 45 degrees to the C.A. The Py occurs with soft black material (chlorite?) and brecciated wallrock fragments.	Core is rubbly in areas.
16.60 TO 46.90	«CHRT/STKWRK SIL»	This unit consists of massive, recrystallized chert that has been highly fractured and microfractured and silica healed. Some of the stockwork fractures are filled with pyrite and/or drusy quartz crystals. At 21.43 m there is a 10 cm zone of silica flooding and open space filling textures (banded qtz-carb crystal growth in cockscomb form) †38.7-39.6‡«INTENSE CHL-SER» This is a small zone of chert as above, but it is intensely cross-cut by pale yellow and greenish chlorite/sericite stringers. This is similar to the interbedded tuff/chert unit seen above (7.32-16.6). From 39.5 to 40.02 there is patchy brecciation; chert clasts occur in a black chloritic/clay matrix with fine-grained pyrite. Dissolution has occurred along fractures and there is some drusy quartz. At 45.5 m there are graphitic slickensides oriented.... Core is vuggy in areas due to dissolution along fractures.	45	Limonite is abundant on fracture surfaces. Chlorite, sericite occur along fractures and as stringers.	Pyrite occurs throughout the interval as fine grained disseminations and coarser blebs, averaging 5%. Pyrite is often fills the fine stockwork fractures and in areas occurs up to 10%. At 17.85 there is a speck of Cp in a silica-filled fracture. †16.6-46.9‡«5% PY»	Core is strongly broken in areas.
46.90 TO 55.20	«INT. TUFF AND CHERT»	This unit is similar to that seen at the top of the hole. It is green to grey white in colour and aphanitic. The contact with the overlying unit is gradational and is marked by an increase in chlorite and sericite altered tuffaceous patches. †48.06-48.79‡«CHERTY TUFF» Chlorite, sericite altered; stockwork fractured.		Moderate limonite on fracture surfaces. Tuffaceous areas are fine grained chlorite and sericite altered and moderately soft.	Mineralisation appears to consist only of pyrite which is finely disseminated throughout the interval. Pyrite also occurs along the stockwork fractures and in areas it coalesces into medium-grained blebs. There may be minor Cp +/- As at 55.1 m in a rubbly siliceous zone.	Core is well fractured and rubbly in areas.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		The core is cross-cut by fine stockwork fractures that have been filled with silica. Some of the core is vuggy and there are fine quartz crystals lining them. There are several calcite veinlets oriented 50 - 55 degrees to C.A., approximately 1cm wide. These contain soft, angular tuffaceous fragments. The amount of tuffaceous material increases towards the bottom of the interval.	50 55		‡46.9-55.2‡«3-5% PY»	
55.20 TO 63.40	«ANDESITE»	The unit consists of andesitic volcanics similar to those seen in the overlying units (with chert). The core is a medium greyish is a medium greyish-green colour and is v. fine grained to aphanitic. The core has a mottled appearance as it varies from massive, aphanitic andesite (ash tuff?) to streaky, banded andesite (flow?). At 59.7 and 60.44 m there is highly fractured core and minor fault gouge. The core is fairly soft and scratchable but there are patches of moderate silicification. These could be cherty interbeds. At 59.7 m there is about 10cm of a feldspar porphyritic intrusive which is oriented... The unit is moderately well crossed by fine stockwork silica-filled fractures. In places dissolution along fractures has occurred.	45	Moderate carbonate alteration of the matrix. Calcite veinlets to 15 mm occur oriented 60 degrees to C.A. A few blebs of talc occur in fine calcite stringers. Chlorite, sericite are the main alteration minerals and can be overprinted by silica. From 58.59 to 59.06 m there is a streaky zone of chloritic stringers surrounding soft, sericite altered fragments and patches.	Pyrite occurs as very fine grained disseminations throughout the core up to 10%. It also occurs as blebs up to 1cm across and in veinlets to 4mm. ‡55.2-63.4‡«8% Py»	
63.40 TO 65.00	«INT. TUFF & CHRT»	This is a grey-green-white, aphanitic unit similar to previous tuff and chert units observed. The chert component increases to bottom of interval where the tuff component is completely silicified. Approximately 10% fine stockwork calcite fractures and silica filled fractures are seen. Core is vuggy.		Chlorite, sericite alteration of volcanic component and stringers throughout the chert.	8% pyrite disseminated throughout matrix and along veinlets/fractures. ‡64.8-65.0‡«20% Py»	Core is rubbly in places.
65.00 TO 65.93	«ARG ALT'D FELSPAR PORPH»	This is a strongly altered green feldspar porphyry with grain size less than 2mm. The core is soft and clay altered and feldspars are washed out and vague. There are a few fine quartz veinlets.		Argillic alteration is moderate to strong. Mafics are chlorite altered and feldspars are altered to clays and sericite.	5% disseminated pyrite.	Core well fractured.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
65.93 TO 67.35	«F'SPAR POR PH»	This interval consists of a light green leucocratic coarse grained feldspar porphyritic intrusive. Feldspars comprise 60% of core, quartz grains up to 30% and other mafics to 10%. Feldspars are euhedral, up to 1 cm in length, and weakly altered to chlorite and sericite. Some weak K-spar alteration is present.		‡65.93-67.35‡«wk chl,ser» ‡65.93-67.35‡«wk potassic»		
67.35 TO 108.80	«DIOR TO QU ARTZ DIOR»	<p>The interval consists of intrusive rock showing a gradational variation from diorite to a quartz dioritic phase. Generally the quartz rich phases are coarser grained than the dioritic phases. The unit is dark green to light green in colour and fine to coarse grained.</p> <p>Propylitic alteration occurs throughout. Minor quartz carbonate veins cross cut the interval with occasional hydrothermal breccias. Pyrite occurs finely disseminated in trace amounts throughout and only increases in concentration when occurring as infrequent veinlets.</p> <p>Quartz diorite phase contains 60%-70% coarse grained euhedral feldspars, some chloritically altered. Quartz is generally amorphous. Mafics comprise only 5%. Diorite phase is finer grained with mafics up to 25%.</p> <p>Occasional small zones of argillic alteration occur.</p> <p>‡78.6-78.7‡«H'THERMAL BX» This is a small breccia filled by quartz-carbonate.</p> <p>‡88.25-89.15‡«H'THERMAL BX»</p>		‡67.35-75.8‡«wk prop,chl,ser» ‡75.8-79.73‡«wk argillic» Light grey wk alteration of feldspars to clay. ‡79.73-88.25‡«wk prop» ‡89.15-89.6‡«argillic» ‡93.9-95‡«argillic» ‡97-98.6‡«argillic» ‡102.4-108.8‡«argillic»	‡67.35-108.8‡«Tr to 2% Py» Generally occurring in trace amounts throughout except as ingrequent pyrite veinlets. ‡78.7‡«Pyrite vein» Oriented at 28 degrees to C.A. and associated with small hydrothermal breccia. ‡89.6-108.8‡«5%-8% Py»	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL											Aug/t g/t	Auozt oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Hg ppb	Fe %	S %				
BCD25251	7.32	10.32	3.00	0.5	25	37	158	2	53	1	76	3	.	.	.	.	.	.
BCD25252	10.32	13.32	3.00	0.4	22	48	135	2	30	1	70	1	.	.	.	.	.	.
BCD25253	13.32	16.32	3.00	0.5	30	36	260	6	19	1	61	6	.	.	.	.	.	.
BCD25254	16.32	19.32	3.00	1.7	111	22	431	15	36	3	69	56	.	.	.	.	.	.
BCD25255	19.32	22.32	3.00	1.1	60	15	151	6	36	1	74	4	.	.	.	.	.	.
BCD25256	22.32	25.32	3.00	0.8	31	16	107	6	21	1	37	1	.	.	.	.	.	.
BCD25257	25.32	28.32	3.00	1	72	11	280	4	121	2	185	8	.	.	.	.	.	.
BCD25258	28.32	31.32	3.00	0.9	58	8	282	17	20	3	32	13	.	.	.	.	.	.
BCD25259	31.32	34.32	3.00	1.3	83	9	301	38	66	3	197	22	.	.	.	.	.	.
BCD25260	34.32	37.32	3.00	1.5	79	9	387	13	58	3	136	11	.	.	.	.	.	.
BCD25261	37.32	40.32	3.00	0.7	77	12	325	13	46	3	117	53	.	.	.	.	.	.
BCD25262	40.32	43.32	3.00	1	34	11	192	11	33	1	86	10	.	.	.	.	.	.
BCD25263	43.32	46.32	3.00	1.4	42	16	229	14	65	1	239	78	.	.	.	.	.	.
BCD25264	46.32	49.32	3.00	0.5	21	25	88	4	16	1	38	59	.	.	.	.	.	.
BCD25265	49.32	52.32	3.00	0.7	18	36	80	4	15	1	36	9	.	.	.	.	.	.
BCD25266	52.32	55.32	3.00	1	24	77	129	5	15	1	34	60	.	.	.	.	.	.
BCD25267	55.32	58.32	3.00	0.2	1	139	245	1	13	1	30	266	.	.	.	.	.	.
BCD25268	58.32	61.32	3.00	0.1	1	33	196	3	16	1	47	304	.	.	.	.	.	.
BCD25269	61.32	63.40	2.08	0.2	5	25	270	2	12	1	33	642	.	.	.	.	.	.
BCD25270	63.40	65.00	1.60	0.8	14	18	250	4	16	1	22	115	.	.	.	.	.	.
BCD25271	65.00	67.35	2.35	0.1	1	30	92	1	8	1	64	91	.	.	.	.	.	.
BCD25272	67.35	70.35	3.00	1.8	1	63	93	1	4	1	45	74	.	.	.	.	.	.
BCD25273	70.35	73.35	3.00	0.8	12	146	51	1	3	1	59	458	.	.	.	.	.	.
BCD25274	73.35	76.35	3.00	1.6	1	59	197	1	8	1	61	114	.	.	.	.	.	.
BCD25275	76.35	79.35	3.00	1.1	6	50	160	1	20	1	382	122	.	.	.	.	.	.
BCD12376	79.35	82.35	3.00	1.8	26	61	103	1	9	1	53	108	.	.	.	.	.	.
BCD12377	82.35	85.35	3.00	2.8	1	60	49	1	3	1	39	63	.	.	.	.	.	.
BCD12378	85.35	88.35	3.00	1.4	1	80	204	1	4	1	57	112	.	.	.	.	.	.
BCD12379	88.35	91.35	3.00	0.7	1	200	350	1	6	1	67	119	.	.	.	.	.	.
BCD12380	91.35	94.35	3.00	2.6	1	85	319	1	8	1	52	639	.	.	.	.	.	.
BCD12381	94.35	97.35	3.00	2	1	59	98	1	9	1	55	133	.	.	.	.	.	.
BCD12382	97.35	100.35	3.00	1.2	1	47	97	1	8	1	49	788	.	.	.	.	.	.
BCD12383	100.35	103.35	3.00	2.2	1	43	99	1	10	1	48	368	.	.	.	.	.	.
BCD12384	103.35	106.35	3.00	0.1	17	17	51	1	16	1	74	376	.	.	.	.	.	.
BCD12385	106.35	108.80	2.45	0.1	1	20	79	1	13	1	87	158	.	.	.	.	.	.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.05	«CASING»					
3.05 TO 17.00	«BROKEN CORE»	Colour: dark green to reddish brown Grain size: variable This interval consists of broken rubble core of various rock types, but primarily of broken frags of strongly oxidized material of indeterminate origin		Strong oxidation	Possibly high concentration of pyrite that has been oxidized	
17.00 TO 19.84	«PYRITIC CHERT»	Colour: grey green Grain Size: f.gr. The core consist of fine grained grey to grey green pyritic chert. Occasional fractures contain chlorite. This interval is not stockwork fractured		‡17.00-19.84‡ «minor chl frac»	«17.00-19.84‡ «10-15% py» -occurs finely disseminated and along fractures	
19.84 TO 34.60	«SIL AND»	Colour: grey green Grain Size: f.gr. to m.gr. This is a fine to medium grained grey green silicified andesite flow. The interval is generally very weakly fractured with localised areas of high fracture density. This unit varies in grain size from a fine grained aphanitic phase to a medium grained feldspar phyric phase. Silicification varies from strong to moderate. Pyrite occurs finely disseminated in trace amounts throughout with increased concentrations associated with small quartz carbonate epidote veinlets and broader zones of silica introduction. Chalcopyrite occurs in trace amounts associated with pyrite 19.84-21.2 -a strongly fractured zone with chlorite along fractures 23.1-25.8 -a zone of very rubble oxidized broken core ‡28.1-29.9‡ «SHEAR»		‡19.84-34.60‡ «propylitic» ‡27.0-27.2‡ «SIL»	‡21.0-22.25‡ «10% py, tr cp» -mineralization occurs disseminated and as veinlets oriented 40 deg to c.a. ‡27.0-27.2‡ «10-15% py, tr cp» ‡28.1-29.9‡ «5-10% py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>-this section is very competent but is sheared strongly and silicified</p> <p>30.0 -small amygdules filled by quartz carbonate</p> <p>32.0-32.3 -small chert lens</p> <p>34.60 -bottom contact at 50 deg to c.a.; a small chill margin occurs</p>	50	<p>‡32.3-33.0‡ «SIL» -silicification is pervasive through matrix. A small 1 cm quartz carb vein also occurs oriented 60 deg to c.a.</p>	<p>‡32.3-33.0‡ «30% py, tr cp»</p> <p>‡33.0-34.60‡ «5-8% py»</p>	
34.60 TO 38.70	«DIOR/MONZ DIOR»	<p>Colour: drk grey Grain Size: f.gr. This interval consists of a fine grained, dark grey dioritic to monzo-dioritic intrusive, relatively unaltered. It is generally weakly silicified. Felsic minerals comprise roughly 60% while mafics, predominantly hornblende, make up the balance.</p> <p>37.9-38.1 -a small stockwork silicification zone occurs</p>		Weak silicification; occasional quartz carbonate veinlets cross cut interval	<p>Trace disseminated pyrite occurs throughout</p> <p>‡38.60‡ «py vein» -there is a small granular pyrite vein oriented at 50 deg to c.a.</p>	
38.70 TO 46.50	«AND»	<p>Colour: drk green Grain Size: m.gr. This is a medium grained dark green andesitic flow with occasional flow bands oriented at 70 deg to c.a.; small quartz carbonate veins cross cut the unit, generally with sericitically altered selvages extending up to 5 to 6 cm into wallrock. Banded pyrite quartz to carbonate epidote veinlets occur occasionally and are generally oriented at 50 deg. c.a. Minor cp occurs with the pyritic veinlets. One small qtz-carb-cp veinlet occurs at 45.43 m @ Two small interbeds of chert occur through the interval</p> <p>‡39.0-39.2‡ «CHERT» -the contact is at 80 deg to c.a. and is pyritic with trace cp. There may be some K'spar introduction at contacts</p>	70 50 50 80	<p>‡38.70-46.5‡ «minor prop» -generally epidote occurs in veinlets</p>	<p>‡38.70-46.50‡ «5% diss py, tr cp»</p> <p>‡45.43‡ «cp vein»</p> <p>‡45.53-46.50‡ «10% py, tr cp»</p> <p>‡39.0-39.2‡ «10-15% py, tr cp»</p>	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>‡40.3-41.4‡ «CHERT» -again the contact is at approximately to c.a. and is pyritic. The unit is stockwork fractured and silica healed and pyrite</p>	80	‡40.3-41.4‡ «STKWRK SIL»	‡40.3-41.4‡ «15% py, tr cp»	
46.50 TO 53.34	«CHRT/STKWR K SIL»	<p>Colour: green grey to grey Grain Size: f.gr. This interval consists of a fine grained to aphanitic green grey chert of silicified ash tuff which grades into a grey, pinkish grey zone of intense stockwork fracturing and silica healing from 48.0-48.4</p> <p>50.6-53.34 -the core is extremely broken and rubbly</p> <p>‡52.6-52.8‡ «FLT gouge» ‡53.0-53.2‡ «FLT gouge»</p>		‡46.5-49.9‡ «SIL, Chl fractures»	<p>Only trace amounts of pyrite occur through this interval</p> <p>50.6-53.34 -pyrite content increases to 2% primarily along fracture surfaces</p>	
53.34 TO 56.50	«FELSIC INT »	<p>Colour: grey Grain Size: f.gr. and m.gr. This is similar to extreme felsic intrusions described in previous holes (possibly alaskite) It consists of a granular unit intrusive in appearance and containing what appears to be relict fine grained feldspar phenocrysts. No mafic minerals are seen. The interval is strongly fractured (up to 60%) with sulphides occurring along the stockwork. These are primarily pyrite with trace amounts of cp. It is clearly seen that alteration fronts are introduced along these fracture planes. This may suggest this is an extremely argillicly altered intrusion of possibly a volcanic or volcanoclastic. Some dissolution along fractures give vuggy appearance. The bottom contact appears intrusive with an alteration front extending 5 cm into underlying unit</p>		‡54.86-56.50‡ «str. sil»	<p>‡53.34-56.50‡ «30% stkwrk py, tr cp» -sulphides occur as fracture fillings</p>	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
56.50 TO 60.66	«AND TUFF»	<p>Colour: green Grain Size: f. and m.gr. This is a fine grained to medium grained altered andesitic tuff. Small (1mm) felsic and mafic grains and fragments are visible in a finer grained groundmass that has been locally chloritically and argillically altered and silicified</p> <p>57.10-57.23 -hydro brecciated and silicified segment is seen</p>		<p>‡56.50-57.10‡ «Chl»</p> <p>57.23-57.91‡ «str. chl» ‡57.91-58.2‡ «chl» ‡58.2-58.6‡ «str clay, chl» ‡58.6-59.45‡ «str. sil» 59.45-60.66‡ «str. arg, sil»</p> <p>This particular interval resembles the previously described felsic intrusive but there is a clear gradation into it</p>	<p>56.50-58.6 -pyrite only occurs in trace amounts generally as frac. fillings assoc. with silica introduction.</p> <p>‡58.6-59.45‡ «25 py, tr cp, tr As» -there may be trace amounts of arsenopyrite in this interval</p> <p>‡59.4-60.66‡ «20% stkwrk py»</p>	
60.66 TO 83.20	«DIOR/HBDR»	<p>Colour: dark green to light green Grain Size; m.gr. to c.gr. This interval consists of medium to coarse grained hornblende diorite. Both feldspar and hornblende crystals are subhedral to euhedral up to 5 mm in length. The ratio of hornblende/mafic minerals to feldspars is roughly 50:50. The interval is cut by a number of major structures and where this occurs the core is strongly altered to clay, chlorite, sericite and epidote</p> <p>‡66.5-67.55‡ «clay gouge» ‡71.63-72.92‡ «gouge»</p> <p>‡75.1-75.6‡ «gouge»</p> <p>fabric oriented ‡77.2-77.5‡ «gouge»</p> <p>‡78.35-78.39‡ «h'thermal Bx» ‡78.7-78.9‡ «FLT Bx»</p> <p>-dissolution of some fragments gives vuggy appearance</p>	<p>20</p> <p>10</p> <p>64</p>	<p>As stated, alteration generally intensifies in areas of cross cutting structures. This is generalization and not always the case</p> <p>‡60.66-61.25‡ «chl, ser» ‡62.0-63.5‡ «chl, ser, ep» -epidote appears to occur after chlorite</p> <p>‡63.5-65.0‡ «sil» ‡65.0-68.0‡ «v. str. chl, ser, clay» -associated with fault</p> <p>‡70.65-72.54‡ «str. clay, ser»</p> <p>‡72.54-72.92‡ «str. ep» -associated with fault</p>	<p>20</p> <p>Generally pyrite occurs only in trace amounts through the interval primarily along infrequent fracture surfaces</p>	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		‡83.0-83.2‡ «Flt Bx»		‡75.1-75.94‡ «chl, ep» ‡75.94-77.72‡ «str. clay, ser» ‡78.35-79.0‡ «str. sil, ser» ‡79.9-80.1‡ «str. sil» ‡80.4-83.2‡ «v.str. chl, clay»		
83.20 TO 84.40	«CHERT»	Colour: grey green Grain Size: f.gr. This is a fine grained to aphanitic cherty segment which may be silicified andesitic volcaniclastic -relict bedding oriented this is strongly fractured with chloritic fractures over printed by silica	30	‡83.2-84.4‡ «chl, sil»	pyrite occurs only in trace amounts normally along fractures	
84.40 TO 88.09	«STKWRK SIL »	Colour: white Grain Size: f.gr. The interval consists of a white fine grained zone of what appears to be stockwork silicification. The uppermost contact is irregular but very sharp, fracturing occurs up to 70% with the subsequent introduction of silica		‡84.4-88.09‡ «silicif'n»	‡84.4-88.09‡ «2-5% stkwrk py, tr cp»	
88.09 TO 107.65	«INTERLAYERED ASH TUFF & CHERT STK WRK»	Colour: green to white Grain Size: f.gr. This interval consists of fine grained grey green andesitic ash tuff interlayered with zones of chert and stockwork fractured cherty units. Generally stockwork fracturing occurs through the interval. Bedding where seen is oriented at Core through the interval is strongly broken and rubbly, several small faults occur through interval ‡102.2‡ «Flt»	40	The cherty sequence contains fractures filled by silica while tuffaceous sequences are chloritic and sericitic ‡88.09-107.64‡ «chl, ser, sil»	Pyrite only occurs in trace to 1% throughout ‡88.09-106.38‡ «tr-1% py >tr cp» «106.38-107.64‡ «5% diss py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		‡104.36-104.94‡ «FLT gouge»				
107.65 TO 109.94	«AND FLOW»	Colour: green Grain Size: f.gr. & m.gr. This is a fine to medium grained green andesitic flow, flow banding is seen occasionally oriented 42 deg to c.a. The interval is weakly fractured with chlorite and pyrite lining fracture surfaces The bottom contact is sharp and oriented at	16	‡107.64-109.94‡ «sil, wk, chl» silicification is moderate throughout ‡107.64-109.94‡ «chl» -hematite occurs in trace amounts	‡107.64-109.94‡ «2-5% py, tr cp» sulphides occur disseminated in matrix and as small veinlets associated with quartz carbonate chlorite veinlets	
109.94 TO 112.85	«ARGILLIC ALT»	Colour: light grey green Grain Size: f.gr. This interval is of indeterminate origin but may possibly have been intrusive as occasional feldspar crystals may be seen. It is strongly altered to sericite, chlorite and clays. In areas the interval appears to be finely brecciated with black possibly sulphidic interstices ‡110.8-111.0‡ «H ¹ thermal Bx» -interstices are sulphidic The bottom contact of this interval is sharp but irregular and may be an alteration front	30	‡109.94-112.85‡ «str. ser, chl» -the core is easily scratched	Small sulphide veins occur roughly every 5 cm through interval. These have a common orientation at 30-40 deg to c.a. ‡109.94-112.85‡ «5% Sx veinlets» -this is primarily py with trace cp «110.8-111.0‡ «50% Sx» -sulphides are dark brown to black as breccia interstices	
112.85 TO 124.46	«ALT. DIOR»	Colour: dark green to light grey green Grain Size: f.gr. This is a fine grained strongly altered diorite to the point that it is unrecognizable in areas. Some areas of strong argillic alteration do however show definite feldspar crystals that are altered to clays ‡118.4-1118.6‡ «lt. thermal Bx» Breccia fragments are contained in a sericitic matrix	50	‡112.85-115.41‡ «str. chl» ‡115.4-119.7‡ «str. arg» This portion is strongly altered to clay minerals, small chloritic veinlets cross cut the interval	«112.85-124.46‡ «tr py, cp» -pyrite occurs as fine grained disseminations and as small veinlets	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				†119.7-124.46† «sil, chl» †121.47-122.1† «Qk, ser stkwrk»		
124.46 TO 135.04	«AND»	Colour: light green to dark green Grain Size: f.gr. This is a fine grained light green to dark green altered andesite. The interval is generally competent and is cut by the occasional sericite or quartz carbonate filled fractures 131.5-134.11 -the core is rubbly and broken †132.3-133.4† «SHEAR» 132.9-133.3 -the core is brecciated †133.4-133.5† «gouge» †135.04† «gouge»	30	†124.46-126.7† «chl, ser» †126.7-131.5† «sil, chl» †131.5-135.04† «str ser»	124.46-131.5 -pyrite occurs in trace amounts associated with quartz carbonate veinlets; minor cp is occasionally seen with pyrite in these veinlets	
135.04 TO 145.14	«DIOR»	Colour: dark green to light grey green Grain Size: f.gr to c.gr. This interval consists of gradational fine grained to coarse grained diorite intrusive 135.04-137.01 -there appears to be a weak strain fabric imparted to the intrusive oriented to c.a. @ 136.9-137.0 -a small quartz-carb stockwork fractures 135.04-139.16 -is coarser grained diorite 143.26 -finer grained crowded feldspar interval	26 37	†135.04-135.6† «chl, ep» †135.6-139.16† «str. sil» †139.16-140.31† «chl, ser» small quartz carbonate veinlets, occasionally cross and cut the interval †140.41-143.2† «chl, sil» †143.26-145.14† «arg» -felspars are altered to clay minerals †135.04-145.14† «105 carb alt.»	†135.04-137.0† «tr py» †137.0-137.6† «2-5% py» -disseminated †140.45† «py vn» -this is a sheared vein oriented 30 deg to c.a. †140.41-143.26† «5% py» -disseminated	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
145.14 TO 147.65	«SILIC BX FLT ZONE»	Colour: white, grey white Grain Size: var This is a white to grey white silicified breccia zone of variable grain size with graphitic breccia interstices. The hsear fabric seen in core is at 34 deg. to c.a. Fragments are of variuos sized and irregularly shaped. Much of the core is broken and rubbly	34	‡145.14-147.65‡ «str. sil» ‡145.14-147.65‡ «graph. chl fracs»	145.14-146.2 -very little sulphides are seen ‡146.2-146.5‡ «<5% py, tr-.5% cp» This occurs as veinlets and fracture fillings along shear fabric at 30 deg ‡146.5-147.65‡ «<5-10% py -the pyrite occurs as fracture and breccia infilling	
147.65 TO 153.40	«TERTIARY D YKE»	Colour: grey Grain Size: f.gr. to m.gr. This is competent unit, grey in colour with hornblende and feldspar subhedral and euhedral crystals in a fine grained to aphanitic matrix ‡149.0-149.6‡ «FLT gouge» 150.5-151.18 -the core is broken and rubbly and may be faulted		‡147.65-153.4‡ «clay, chlorite»	‡147.65-153.4‡ «5-10% diss. py»	
153.40 TO 156.70	«CP VN STKW RK»	Colour: Grain Size: This is a broad zone of chalcopyrite veins and veinlets generally paralleling each other at low angles to the core axis The veins range up to a maximum of 2 cm and are generally .5 cm to 1 cm. This appears to be late Tertiary mineralization as it cross cuts several units, one appearing to be a Tertiary dyke. The cp is always associated with quartz carbonate introduction In areas the veinlets form a "steplike" pattern as cores to quartz veinlets. One orientation is cut 48 deg to c.a. with a second orientation perpendicular to this at 45 deg to c.a. in opposite direction	10 48 45	‡153.4-153.6‡ «Q vn» ‡153.6-154.42‡ «And» «153.6-154.42‡ «CW, sil»		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>This is chloritically altered, silicified</p> <p>‡154.42-155.27‡ «Ter. dyke?» ‡155.27-156.7‡ «Q vn» ‡156.7-157.2‡ «FLT gouge»</p>	28	‡154.42-155.2‡ «chl, ser»		
156.70 TO 158.56	«DIOR»	<p>Colour: green, grey green Grain Size: f.gr. This interval consist of a fine grained greenish grey dioritic intrusion. The core through this interval is extremely broken and rubbly. Feldspar are fine grained euhedral</p>		‡156.7-158.56‡ «chl, sil»	‡156.7-158.56‡ «10% py» -as fine grained disseminations and as stockwork fracture fillings	
158.56 TO 172.21	«ASH TUFF»	<p>Colour: grey green Grain Size: f.gr. This is a fine grained grey green, ash tuff that is weakly chloritically altered and silicified. Very small diorite dykes cut the interval occasionally. The core is very broken and rubbly for the entire interval. Fractures occuring through this interval are generally filled by pyrite</p>		‡158.59-172.2‡ «wk, chl, sil»	‡158.56-172.2‡ «2% py» -occurs as fracture linings	

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL							Au g/t	Au oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb			
BCD12386	3.05	6.05	3.00	2.2	1	36	65	1	2	1	36	23			
BCD12387	6.05	9.05	3.00	0.9	1	63	92	1	2	1	52	22			
BCD12388	9.05	12.05	3.00	0.3	1	45	97	1	11	1	64	19			
BCD12389	12.05	15.05	3.00	0.3	1	62	154	1	2	1	53	6			
BCD12390	15.05	18.05	3.00	0.5	1	39	26	1	8	1	33	12			
BCD12391	18.05	19.84	1.79	0.4	1	19	86	1	16	1	13	20			
BCD12392	19.84	22.84	3.00	1.9	1	46	186	1	2	1	28	47			
BCD12393	22.84	25.84	3.00	0.8	1	42	119	1	10	1	81	39			
BCD12394	25.84	28.84	3.00	1.1	1	38	77	1	4	1	40	43			
BCD12395	28.84	31.84	3.00	1.7	1	32	247	1	2	1	33	80			
BCD12396	31.84	34.60	2.76	1.3	1	23	410	1	8	1	28	86			
BCD12397	34.60	36.60	2.00	2.4	1	27	101	1	3	1	29	39			
BCD12398	36.60	38.70	2.10	2.7	1	50	67	1	2	1	44	27			
BCD12399	38.70	42.60	3.90	1.4	1	55	52	1	5	1	28	18			
BCD12400	42.60	46.50	3.90	2.1	1	101	399	1	2	1	31	133			
BCD12401	46.50	49.92	3.42	0.6	5	26	58	4	18	1	9	19			
BCD12402	49.92	53.34	3.42	0.2	5	34	196	1	19	1	23	60			
BCD12403	53.34	56.50	3.16	0.2	34	31	437	1	14	1	21	40			
BCD12404	56.50	58.58	2.08	0.1	1	35	380	1	15	1	22	10			
BCD12405	58.58	60.66	2.08	0.3	9	15	382	1	17	1	18	21			
BCD12406	60.66	63.66	3.00	0.1	1	38	299	1	16	1	46	12			
BCD12407	63.66	66.66	3.00	1	1	55	115	1	8	1	53	101			
BCD12408	66.66	69.66	3.00	1.2	1	27	74	1	8	1	47	9			
BCD12409	69.66	72.66	3.00	0.1	6	15	113	1	19	1	52	22			
BCD12410	72.66	75.66	3.00	1.8	1	71	130	1	4	1	45	41			
BCD12411	75.66	78.66	3.00	0.1	1	26	295	1	13	1	59	40			
BCD12412	78.66	81.66	3.00	0.1	1	42	161	1	14	1	53	25			
BCD12413	81.66	83.20	1.54	0.1	1	52	303	1	7	1	56	59			
BCD12414	83.20	84.40	1.20	0.7	15	13	158	2	12	1	13	5			
BCD12415	84.40	86.40	2.00	0.9	12	13	94	3	9	1	8	4			
BCD12416	86.40	88.09	1.69	0.9	14	22	106	2	10	1	12	3			
BCD12417	88.09	91.10	3.01	0.8	7	63	64	1	14	1	13	4			
BCD12418	91.10	94.10	3.00	0.9	17	39	122	4	14	1	12	5			
BCD12419	94.10	97.10	3.00	0.9	19	35	87	3	13	1	10	2			
BCD12420	97.10	100.10	3.00	0.9	11	38	112	2	15	1	15	1			
BCD12421	100.10	103.10	3.00	0.9	10	30	71	5	15	1	11	2			
BCD12422	103.10	107.64	4.54	0.1	6	39	384	1	15	1	36	36			
BCD12423	107.64	109.94	2.30	1	1	108	332	1	3	1	38	10			

HOLE NUMBER: TM 91-20A

ASSAY SHEET

DATE: 4-February-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Au g/t	Au oz/t
BCD12424	109.94	112.85	2.91	0.6	4	53	329	2	17	1	38	22		
BCD12425	112.85	115.85	3.00	0.1	1	71	535	1	11	1	45	248		
BCD12426	115.85	118.85	3.00	0.3	1	232	252	1	15	1	58	28		
BCD12427	118.85	121.85	3.00	1	6	60	263	2	18	1	40	42		
BCD12428	121.85	124.46	2.61	0.3	1	84	209	1	16	1	53	40		
BCD12429	124.46	127.46	3.00	0.5	1	39	218	1	7	1	47	88		
BCD12430	127.46	130.46	3.00	1.8	1	52	180	1	4	1	34	129		
BCD12431	130.46	133.46	3.00	0.1	3	41	157	1	13	1	59	42		
BCD12432	133.46	135.04	1.58	0.1	1	38	52	1	17	1	61	29		
BCD12433	135.04	138.04	3.00	1.1	1	74	94	1	3	1	46	50		
BCD12434	138.04	141.04	3.00	1.7	1	103	151	1	7	1	45	100		
BCD12435	141.04	144.04	3.00	0.5	1	106	92	1	5	1	49	60		
BCD12436	144.04	145.14	1.10	0.3	1	45	313	1	9	1	39	80		
BCD12437	145.14	147.65	2.51	2.2	49	18	1663	1	16	1	46	425		
BCD12438	147.65	150.65	3.00	0.6	28	46	668	1	14	1	70	160		
BCD12439	150.65	153.40	2.75	0.5	3	72	616	1	13	1	25	280		
BCD12440	153.40	156.70	3.30	6.2	40	40	8321	10	20	3	130	5900	7.3	0.213
BCD12441	156.70	158.56	1.86	0.8	21	54	726	4	9	1	32	220		
BCD12442	158.56	161.56	3.00	0.6	10	153	254	4	14	1	24	412		
BCD12443	161.56	164.56	3.00	0.4	1	370	228	12	8	1	22	120		
BCD12444	164.56	167.56	3.00	0.4	2	83	170	1	11	1	19	81		
BCD12445	167.56	170.56	3.00	0.2	1	80	148	1	11	1	24	57		
BCD12446	170.56	172.21	1.65	0.2	2	87	291	1	13	1	22	339		

HOLE NUMBER: TM 91-20A

ASSAY SHEET

PAGE: 12

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.10	«CASING»					
6.10 TO 34.70	«INTERBEDDED ASH & XTL TUFF»	<p>Colour: green Grain size: v.f.gr. This unit is unusual in that in areas it appears layered with interbedded very fine grained chloritic ash and medium grained chloritic crystal tuff, while in other areas the xtal tuff units appear as angular fragments within the finer grained ash layers. One area of soft sediment deformation was observed with a lode cast indicating tops are uphole. The finer grained ash is dominant over the medium grained intervals and appear wispy in areas. Bedding (?) is contorted in areas but a definite fabric does exist. Small quartz rich sandstones occur through the interval and are generally oxidized</p> <p>10.3: bedding @</p> <p>¶15.56-16.36¶ «qtz sst» This is a quartz rich segment of 2-3 mm quartz pebbles</p> <p>18.8: bedding</p> <p>Some limited zones of fracturing occur and these contain small pyrite veinlets with strongly oxidized selvages</p> <p>28.20-34.70 -is an extremely oxidized zone, rusty brown in colour</p> <p>Bottom contact</p>	48 50 28	<p>Chlorite alteration is dominant through the interval</p> <p>¶6.10-34.70¶ «chlorite»</p> <p>¶15.56-16.36¶ «oxidation» A small vuggy chalcedony vein occurs at end of interval. This is lined by euhedral quartz</p> <p>«28.20-34.70¶ «str. oxidation»</p>	¶15.56-16.36¶ «10-15% py»	
34.70 TO 36.10	«SST»	<p>Colour: grey Grain Size: m.gr. This is a quartz rich well sorted equigranular sandstone interbed. It is strongly fractured throughout with pyrite veinlets along fractures</p>		¶34.70-36.1¶ «oxidation»	¶34.7-36.1¶ «15% diss, vn py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		that are oxidized				
36.10 TO 52.85	«SST/TUFF»	<p>Colour: grey, oxidized Grain Size: f.g. and m.gr. This is a fine to medium grained interval similar to 6.10-34.70 however it appears to be less chloritic, more quartz rich. It is fractured in areas with oxidized pyrite veinlets. The fine grained intervals appear to be chloritic ash tuff and is fairly soft. Within these are smaller intervals of quartz rich fine to medium grained quartz sandstone. These appear to have 40-50% very fine chloritic and pyrite laminae. Many small quartz carbonate veinlets occur through interval and are commonly vuggy by dissolution. Small hydrothermal and sedimentary breccias occur through the interval. Generally the brittle, sandstone units are more strongly fractured and contain more pyrite</p> <p>‡46.2-46.6‡ «H'thermal Bx» ‡43.59-43.79‡ «H'thermal Bx» ‡45.2-45.4‡ «Sed Bx»</p>	38 18	<p>‡36.1-38.4‡ «oxidation» -clay alteration is seen throughout</p> <p>‡36.1-52.85‡ «chl»</p>	<p>pyrite occurs in trace amounts as fracture fillings</p> <p>‡39.70-40.54‡ «10% stkrk py» -occurs along fractures in quartz rich units</p> <p>‡43.59-43.79‡ «10% py vnlt»</p> <p>‡45.2-45.4‡ «py vein» -oriented at shallow angle to c.a.</p> <p>‡46.55-49.17‡ «10% py, diss. vn»</p>	
52.85 TO 60.68	«QUARTZ PEBBLE CONGL.»	<p>Colour: brown, white Grain Size: var. This is a rusty brown to white, poorly sorted quartz to pebble conglomerates generally matrix supported. Quartz grains are subangular to subrounded. These are probably Tertiary as grains are unstratified.</p> <p>Bedding @</p>	30	<p>‡52.85-60.68‡ «oxid'n»</p>	<p>Occasional pyritic veinlets occur through interval. The strong oxid'n of this interval suggests these sediments are pyritic</p> <p>‡52.85-60.68‡ «<5% diss. py»</p>	
60.68 TO 102.68	«INT.BEDDED SST/SLT/TUF F+CONGLOM»	<p>Colour: brown, grey, white Grain Size: v.f.gr. to c.gr. This section consists of strongly oxidized interbedded very fine grained siltstone or tuffaceous</p>		<p>‡60.68-80.60‡ «oxid'n»</p>	<p>Again, judging from the extensive oxidation through this interval these</p>	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>siltstone, fine grained quartz rich sandstone and quartz pebble conglomerate. The finer grained ash tuff units are the same as that described from 36.1-52.85. These are very fine grained units, chloritically altered and silicified. They are similar to andesitic tuffs described in previous holes. The fine grained intervals have chloritic and occasionally pyritic laminae parallel to bedding where seen</p> <p>Fracturing is generally confined to the quartz pebble conglomerate which contain the majority of the sulphides</p> <p>85.62: bedding Quartz pebble conglomerate and quartz sandstone content decreases downhole</p>	44 24	<p>‡80.6-85.62‡ «chl, sil»</p> <p>The occasional quartz carb vein cuts the interval and is generally vuggy with oxidized selvages</p> <p>‡86.59-102.68‡ «chl, sil»</p>	<p>sediments are probably pyritic. Occasional pyrite veinlets occur through the interval at low angles (10 deg) to c.a. These are strongly oxidized</p> <p>‡60.68-80.60‡ «5% diss, vn py»</p> <p>‡85.62-86.59‡ «25% diss, vn py» -occurs as fracture lining in conglom.</p> <p>‡86.59-101.68‡ «tr. diss. vn py»</p>	
102.68 TO 149.35	«CHERTY TUFF, F.G. SANDY TUFF»	<p>Colour: grey green Grain Size: v.f.gr. to f.gr. This is essentially the same unit as above but without the coarser conglomerate and sandstone interbeds. This consists of interbedded very fine grained chloritic cherty tuffaceous seds and fine grained sandy tuffs. Chloritic laminae are abundant. Diss. pyrite generally occurs with the more permeable. Bedding is seen slightly contorted in areas</p> <p>104.6: bedding 109.8: bedding 113.6: bedding</p> <p>118.9-119.85 -a strong tectonic breccia with grains sizes ranging from 1 mm</p> <p>Up to 5 cm; fine grained pyrite is seen in the matrix of the breccia, fragments are comprised of the cherts tuffaceous sediments this fault zone crosses</p> <p>‡118.9-119.85‡ «FLT Bx» ‡134.4‡ «FLT gouge» 148.1: bedding</p>	10 34 32 30 90 20	<p>‡102.68-114.60‡ «chl, sil»</p> <p>‡114.60-119.85‡ «str. oxid'n» -very strongly oxidized</p> <p>‡119.85-124.95‡ «chl, sil»</p> <p>‡124.95-129.75‡ «oxid'n»</p> <p>‡129.75-149.35‡ «chl wk sil, wk oxid'n»</p> <p>From 124.95-129.75 -several vuggy quartz carbonate veins crosscut the core</p>	<p>Disseminated pyrite is generally associated with more permeable sandy tuffaceous units</p> <p>‡102.68-114.60‡ «tr to 1% diss py»</p> <p>The strong oxidation from 114.60-119.85 suggests pyrite content is high</p> <p>‡114.60-114.85‡ «15-20%»</p> <p>‡119.85-149.35‡ «tr py»</p>	

Sample	From (m)	To (m)	Length (m)	GEOCHEMICAL									AU-FIR PPB	COMMENTS
				AG PPM	AS PPM	BA PPM	CU PPM	MO PPM	PB PPM	SB PPM	ZN PPM			
BCD12447	6.10	9.10	3.00	.1	49	423	97	1	15	16	46	119		
BCD12448	9.10	12.10	3.00	.1	13	230	64	1	18	1	42	21		
BCD12449	12.10	15.56	3.46	.1	11	147	92	1	21	1	43	40		
BCS17051	15.56	16.36	0.80	1.6	13	758	236	7	18	1	20	39		
BCS17052	16.36	19.36	3.00	.1	19	334	117	1	15	1	54	24		
BCS17053	19.36	22.36	3.00	.1	11	214	97	1	19	1	50	16		
BCS17054	22.36	25.36	3.00	.3	12	224	162	1	18	1	45	15		
BCS17055	25.36	28.36	3.00	.2	7	203	77	1	20	1	46	4		
BCS17056	28.36	31.36	3.00	.1	23	188	38	1	21	1	64	4		
BCS17057	31.36	34.70	3.34	.2	57	178	76	2	18	1	42	18		
BCS17058	34.70	36.10	1.40	.1	61	138	298	1	16	1	32	68		
BCS17059	36.10	39.10	3.00	.1	17	232	74	1	18	1	43	44		
BCS17060	39.10	42.10	3.00	.2	9	768	103	1	17	1	38	28		
BCS17061	42.10	45.10	3.00	.6	8	271	66	2	19	1	41	19		
BCS17062	45.10	48.10	3.00	.4	36	170	116	3	20	1	43	22		
BCS17063	48.10	52.85	4.75	.3	26	79	63	1	14	1	59	48		
BCS17064	52.85	55.85	3.00	.4	33	109	68	2	17	1	40	17		
BCS17065	55.85	58.85	3.00	.8	23	57	58	3	15	1	30	21		
BCS17066	58.85	60.68	1.83	.9	15	40	92	2	15	1	26	82		
BCS17067	60.68	63.68	3.00	.1	24	85	36	1	21	1	46	23		
BCS17068	63.68	66.68	3.00	.2	42	105	84	1	18	1	48	54		
BCS17069	66.68	69.68	3.00	.6	27	65	91	1	17	1	34	44		
BCS17070	69.68	72.68	3.00	.5	26	62	76	1	24	1	43	39		
BCS17071	72.68	75.68	3.00	.9	16	103	148	1	19	1	45	68		
BCS17072	75.68	78.68	3.00	.6	28	74	154	1	22	1	43	240		
BCS17073	78.68	81.68	3.00	.2	24	70	105	1	18	1	51	60		
BCS17074	81.68	84.68	3.00	.6	2	48	50	1	17	1	57	18		
BCS17075	84.68	87.68	3.00	.4	28	40	149	1	17	1	56	81		
BCD35101	87.68	90.68	3.00	.8	22	36	75	1	15	1	56	40		
BCD35102	90.68	93.68	3.00	.3	6	42	59	1	14	1	78	22		
BCD35103	93.68	96.68	3.00	.1	2	82	92	1	21	1	94	25		
BCD35104	96.68	99.68	3.00	.4	23	86	80	1	17	1	81	48		
BCD35105	99.68	102.68	3.00	.1	16	130	58	1	21	1	69	16		
BCD35106	102.68	105.68	3.00	.8	15	141	75	1	18	1	73	42		
BCD35107	105.68	108.68	3.00	.9	10	163	79	1	17	1	58	36		
BCD35108	108.68	111.68	3.00	.5	5	147	78	1	18	1	49	46		
BCD35109	111.68	114.68	3.00	.1	7	152	114	1	24	1	62	50		
BCD35110	114.68	117.68	3.00	.1	69	307	69	1	21	1	59	17		

HOLE NUMBER: TM 91-21

ASSAY SHEET

DATE: 8-January-1992

Sample	From (m)	To (m)	Length (m)	AG PPM	AS PPM	BA PPM	CU PPM	MO PPM	PB PPM	SB PPM	ZN PPM	AU-FIR PPB
BCD35111	117.68	120.68	3.00	1.8	39	186	52	2	21	2	61	44
BCD35112	120.68	123.68	3.00	1.0	24	116	99	1	18	1	61	38
BCD35113	123.68	126.68	3.00	.2	24	119	50	1	22	1	79	15
BCD35114	126.68	129.68	3.00	.6	34	151	72	1	26	1	105	21
BCD35115	129.68	132.68	3.00	.4	24	106	46	1	21	1	127	19
BCD35116	132.68	135.68	3.00	1.0	57	140	98	1	104	1	178	29
BCD35117	135.68	138.68	3.00	.9	32	95	55	3	294	2	330	20
BCD35118	138.68	141.68	3.00	.8	29	89	69	1	101	2	285	38
BCD35119	141.68	144.68	3.00	.6	18	250	82	2	39	1	239	25
BCD35120	144.68	147.68	3.00	.5	30	182	66	1	301	1	399	91
BCD35121	147.68	149.35	1.67	.7	20	203	67	1	99	1	390	36

HOLE NUMBER: TM 91-21

ASSAY SHEET

PAGE: 7