824546 JC Option 82M/4W

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: MJC-1 | IMPERIAL UNITS: | METRIC UNITS: X

PROJECT NAME: JC
PROJECT NUMBER: 238
CLAIM NUMBER: JC 1
LOCATION:

PLOTTING COORDS GRID: CELEB
NORTH: 2580.00N
EAST: 500.00W
ELEV: 1090.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -70° 0' 0"
LENGTH OF THE HOLE: 337.10m
START DEPTH: 0.00m
FINAL DEPTH: 337.10m

COLLAR GRID AZIMUTH: 225° 0' 0"
COLLAR ASTRNOMIC AZIMUTH: 225° 0' 0"

DATE STARTED: January 29, 1988
DATE COMPLETED: February 3, 1988
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: TONTO DRILLING
CASING: 9.14M L.I.H.
CORE STORAGE: BARRIERE WAREHOUSE

PURPOSE: TO TEST EAGLE BAY FORMATION BELOW TERTIARY BASALTS

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.96	-	-72° 0'	ACID	OK		-	-	-	-	-	
121.92	-	-72° 0'	ACID	OK	INCOMP. LINE PLUG SUCKED IN	-	-	-	-	-	
182.88	-	-67° 0'	ACID		INCOMP. LINE PLUG SUCKED IN	-	-	-	-	-	
243.84	-	-69° 0'	ACID	OK		-	-	-	-	-	
337.10	-	-69° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
0.00 TO 9.14	OVERBURDEN <OB>					
9.14 TO 209.20	BASALT <BSLT>	Colour - black to dark green-black; white F.S. phenos. Grain Size - medium. Medium gr. Basalt up to 30% F.S. phenos occasional chlorite fragS, possible altered mafic phenos. Euhedral black Hbl? crystals throughout. Very slightly magnetic <1% Mag. 9.14 - 12.63 20-30% white F.S. as 2-4mm irregular shaped phenos. Black, moderately chloritic groundmass. 12.63 - 26.6 2-10% F.S. phenos, as above. 2-5% 2-4mm chl fragS? Occasional light grey cherty patches. 26.6 - 32.1 Chloritic Basalt. Moderately broken core with abundant chlorite on fractures, minor calcite. 32.1 - 48.3 Medium gr. basalt. F.S. 2-10% serp. on fracture surfaces. Occasional 5-10mm wide f. gr. lt. grey ash layers oriented at 30-50o to C.A. Ash layers Intense serp-calc over lower 10cm. 48.3 - 65.0 F.g. basalt with increased feldspar content. F.S. phenos are small (0.5-1mm) often concentrated in irregular patches 5-7mm wide; comprise 30-60% of rock. Mafic crystals poorly defined. 65.0 - 152.8 F.g. magnetic basalt. 10-30% F.S. clusters, rest is black f.g. mafics. Moderately magnetic in places due to increased magnetite content - especially in very dark patches and near fractures. Irregular, black 2-3mm fragS? (up to 59o). Gradational lower contact.	 40	<Serp. alt> Serpentenite is common on fracture surfaces. Occasional minor calcite veins with serp. 26.6 - 32.1 <10-30% chl> 10-30% Chl. 31 - 31.3 - 1-4mm calcite veinlets at 30o to C.A. - 0.5 - 2mm calcite veinlets at 10-15o to C.A. in opposite sense. 35.4 2-5mm wide calcite veins at 40 and 60o to C.A. 36.0 - 36.25 <int. calc.> Intense calcite flooding. 48.3 - 65.0 Serp. and minor calc. on fractures. Two sets at approximately 50o and 20o to C.A. 65.0 - 90.0 Serp/talc lined fractures predominately 0 - 20o to C.A. 90.0 - 146.5 Thin calcite veins parallel to frac-	<Tr mgt> Trace magnetite. 32.1 - 48.3 Tr magnetite especially in more mafic sections. 65.0 - 81.4 <2-5% mgt> 2-5% magnetite. 65.0 - 65.2 10% magnetite. 81.4 Slightly magnetitic < 1% magnetite.	Litho BCD 8027 14.0 - 17.0m 22.2 - 22.6 Broken core. Litho BCD 8027 71.0 - 74.0m 83.9 - 84.5 Mod. broken core 86.85 - 87.0 Broken core

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
				tures at 0-20o to C.A.		
				Fractures lined with medium green,		
				soft serp or similar mineral.		
				99.8 - 100.7		
				5% thin calcite veinlets discontinuous		
				at 80-90o to C.A.		
				121.3		
				2cm wide calcite vein at 10o to C.A.		
				┤146.5 - 152.8├ «tr hem.»		150.2 - 150.9
				Trace hematite on selvages of wallrock		Broken core
				of chlorite - filled fractures at 20o		
				and 50o to C.A.		
						153.3 - 153.7
						Broken core
		152.8 - 159.7		152.8 - 159.7	152.8 - 159.7	
		Porphyritic Basalt. F.g. dark green - green black		Trace hematite on selvages of serp/talc	Tr - 2% magnetite.	
		groundmass with 10-20% irregular shaped 1-5mm		fractures.		
		black phenos of hbl? Occasionally with inclusions				
		5-10% clusters (2-5mm) of white feldspar?				
		crystals. Slightly to moderately magnetitic.				
		Gradational contact.				
		159.7 - 187.6		159.7 - 187.6	159.7 - 187.6	
		Porphyritic Basalt. As above, but higher % of		Serp/talc filled fractures with minor	2-8% magnetite.	
		F.S. clusters (30-50%) gives white, spotted		calcite at 0-20o to C.A.	Tr hematite especially near margins of	
		appearance to core. Moderately magnetitic.		Hematite at selvages.	chlorite fractures.	
		173.1				
		2-5mm long calcite-chlorite filled amygdules in				175.05 - 175.3
		grey tuff layer 1cm thick, sub-parallel to C.A.				Broken core
		Gradational contact.				177 - 177.4
		F.S. clusters gradually disappear.				Broken core
		187.6 - 204.1		187.6	187.6	Litho
		F.g. porphyritic basalt. Irregular, dark green		Thin calcite-serp veinlets at 10-20o	Tr. magnetite.	BCD 8028
		to black 1-5mm phenos of partially chlorite		to C.A. 1 vein / 20-30cm.		189 - 192
		altered hbl? Phenos 10-30%. Groundmass is f.g.		Serp. calc. on fractures.		192 - 192.5
		lt. grey with 40-70% fine gr. feldspar. Rest is				Broken core
		f.g. mafics. Slightly magnetitic.				194 - 196.6
		Occasional 1 km wide v.f.g. layers at 40-60o to CA				Broken core
		Occasional 1-5mm rounded amygdules (calc-qtz				
		filled) noted over lower 5 metres.				
		Gradational lower contact.				
		Marked by absence of amygdules and presence of				
		fragments.				
		┤204.1 - 209.2├ «Bslt tuff»				
		Basaltic tuff. Small, black hbl? crystals as		Occasional very thin serp. veinlets.		
		above in lt. to medium grey-green groundmass.		206.0		
		Very faint lighter fragments also with hbl phenos.		Tr hematite in calcite vein.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		Very slightly magnetic. F.g. quartz phenos over lower 50cm.				
		Light green bands at	50			
		Lower contact is sharp, slightly undulating and bleached to a lt. brown over 2cm.				
		Lower contact	35			
209.20 TO 211.10	ARGILLITE & DEBRIS FLOW ‹Arg›	Colour - black, grey, brown. Grain Size - aphanitic to fine. Well-bedded argillite commonly Bedding at upper contact is 30-50o gradually steepening. Micro-faults displace bedding. 210.2 - 210.4 Debris flow. Sub-angular grey chert, qtz and green tuff frags in argillaceous matrix. 210.8 - 211.1 Debris flow. Gouged fractures with minor graphite. Lower contact is 5cm of gouge.	70	Quartz-carb veinlets over upper 1m, sub-parallel to C.A. Graphite on fractures.	‹10-30% py› 10-30% very fine grained disseminated pyrite. 210.5 5cm py band parallel to bedding.	
211.10 TO 222.20	SERICITE TUFF & CHERT ‹SERT&CHT›	Colour - light green to grey. Grain Size - fine - aphanitic. Fine grained grey to light green sericite tuff with grey chert fragments and layers. Foliation/bedding Bedding often contorted and folded. 216.7 - 217.2 Grey chert with "crackle" fractures. Light brown carb? in filling. Minor sections of medium to light grey tuff with thin, sericitic partings.	70	‹qtz vns› Occasional quartz veins (2-10mm) at 70-90o to C.A. Very tr hematite in quartz veins. Intense sericite alteration.		BCD 8030 Litho 212 - 215.0 214.5 - 215.5 Moderately broken core. START OF EAGLE BAY FORMATION.
222.20 TO 249.00	MAFIC GREY TUFF WITH CHERT ‹TUFF&CHT›	Colour - dark grey to green. Grain Size - fine. Fine grained grey - black mafic tuff with green sericitic layers. Grey chert frags and layers up to 30%. Bedding often distorted, chaotic. Commonly at 231.0 - 233.4 Well bedded grey tuff and green sericite tuff. Occasional discont. cherty layers. Vuggy quartz	70 60	‹Mod. ser alt.› Mod. sericite alteration. Stronger in well broken sections. Vuggy qtz, brown carb veins. Up to 13cm wide, usually 0.5 - 1cm. 1 vein/ 50-70cm, oriented at 60o to C.A. Veins more common in cherty sections.		225.8 - 227.7 Broken core 228.7 - 229.3 Broken core 234.5 - 236.6

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		veins sub-parallel to bedding.				Broken core, minor clay gouge.
						BCD 8031 - Litho
				236.6 - 238.1		239.0 - 242.0
				10 vuggy qtz veins 0.5-15cm wide.		
				Minor light brown carb. veins at 60o		
				to C.A.		
		238.7 - 239.3		238.1		
		3-6mm wide grey chert bands at 50-60o	60	5% thin, discont. light brown		
		in fine grained black argillaceous matrix with		carbonate bands and patches. Appear to		
		minor sericite.		be infilling crackle fractures. Often		
				cross-cut vuggy qtz veins.		
		245.3 - 245.6				
		Auto breccia chl altered tuff frags 2-10cm and				
		light green chert frags in green clay matrix.				
		Gradational lower contact.				
249.00 TO 252.25	SERICITE TUFF & CHERT <SERT&CHT>	Colour - med. green.		<qtz vns>		
		Grain Size - fine.		5% vuggy qtz & brown carb. veins.		BCD 8031 - Litho
		Sericite tuff, well bedded in places at	70	30-80o to C.A.		249 - 252
		Sub-angular grey to grey-green chert frags.				
		0.5 - 3cm; average is 1cm comprise 10-40% of rock				
		in chaotic sections. Well bedded sections lack				
		chert frags.				
252.25 TO 263.90	SERICITIC ASH TUFF <SER ASH>	Colour - light green.		<qtz-carb vns>		
		Grains Size - fine.		- Moderately pervasive sericite alt.		BCD 8035 - Litho
		Fine grained ash tuff, with prevasive sericite		- Moderate to intense qtz - brown		260 - 263m
		alt.		carb? veining.		
		Thin, mod. laminated at	70	Carb. comprises 30-50% of veins.		
		Occasionally light grey silicified patches.		Mostly at 60o.		
				253.9 - 254.6		
				Intense qtz-carb flooding. Wallrock is		
				bleached white or intensely sericitized		
					257.3	
					Tr hematite as 2mm square pseudo morphs	
					of pyrite?	
		262.4 - 262.8				
		20% 1-3mm chl altered phenos aligned parallel to				
		bedding.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
263.90 TO 291.10	ARGILLITIC DEBRIS FLOW <ARG DF>	Colour - grey to black. Grain Size - aphanitic. Argillite debris flow with grey, light green and occasional black chert frags. Frags are sub-angular to sub-rounded; 0.5 - 5cm long, average is 1-2cm. Comprise 20-40% of rock. Where argillite is well-layered chert frags are elongated & parallel to layering. Layering at 275m 263.9 - 264.8 Gradational contact zone with interbedded debris flow and sericitic tuff.	60		<Tr - 5% py>	
		264.8 - 270.8 Pyritic Debris Flow			264.8 - 270.8 Tr - 5% dissem. py. Conc. in cherty frags and dissem. on fractures.	BCD 8034 - Litho 265 - 268m. 268.6 - 269.4 Broken core with py & sericite on fractures.
		270.8 - 272.3 Grey to green chert. 5cm of light green fault gouge at lower contact.		270.8 - 272.3 10% light brown carb veins as patches and infilling crackle fractures.		
		272.3 - 278.4 Well-bedded argillite with green-grey chert frags elongated parallel to bedding. Minor 2mm - 7cm sericite bands.	60	272.3 - 286.6 Occasional qtz- brown carb patches of discont. veins. Sometimes vuggy.		
		278.4 - 291.1 Argillitic Debris Flow as above.		290.0 - 290.5 2% thin brown carb. veinlets.	288.5 - 291.1 Tr - 2% dissem. py.	BCD 8035 - Litho 282 - 285.0 290.3 - 290.45 Broken core.
291.10 TO 295.90	SERICITE TUFF WITH DEBRIS FLOW <SERT & ARG DF>	Colour - medium green, grey, black. Grain Size - fine. Interbedded argillite debris flow (similar to above) and sericitic tuff. Tuff is fine grained, medium green with 5-20% light green and grey chert frags. Sericite Tuff: Debris Flow = 60:40 increasing to 80:20 below 294m. Well bedded at	60		Occasional euhedral dissem. pyrite in argillitic zones.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
295.90 TO 299.10	SERICITIC TUFF «SERT»	Colour - medium green. Grain Size - fine. Fine grained, well-bedded sericite tuff. Rare argillitic beds. Lower contact marked by 10cm of qtz- brown carb? flooding.	60	«20-40% qtz vns» 20-40% qtz veins, 0.5 - 3mm at 50-60o to C.A. Light brown carbonate? over upper 25cm.		BCD 8036 - Litho 296 - 299
299.10 TO 335.60	MAFIC TUFF «MAF T»	Colour - light green - brown, medium grey-green. Grain Size - fine. Fine grained mafic tuff. Occasional faint layering at 50 - 60o varies from light green-brown to medium grey-green possibly due to weak sericite alteration. Overall, unit is very competent.	60	20% qtz veining, 0.5 - 10mm wide veins mostly at 50o to C.A. 305m 70o to C.A. qtz veins in opposite sense to 50o veins. Occasional sections of mod. sericite alteration. 299.8 - 300.0 Moderate sericite alteration. 307.2 - 307.3 Moderate sericite/chlorite alteration.	«Tr py» Tr py. Euhedral cubes up to 5mm concentrated in green-brown section. Occasional fine py at selvages at qtz veins. Very trace streaks of hematite.	BCD 8036 - Litho 301 - 304 307.3 - 308.4 Moderately broken core. 309.7 - 310.1 Well broken core. Minor fault zone.
		318.1 - 318.5 10% flattened grey chert frags; 1-15mm, avg. is 5mm. Frags become scarce & rounder towards base of section. 319.0 - 321.1 Light green, mod. sericite altered tuff. Banded texture at 60-70o	60	319.0 - 321.1 Mod. sericite alteration. Below 322 Qtz veins at 70-90o to C.A. and avg. 1cm wide.		
		327.6 - 335.6 Mod. sericite altered tuff. Thinly banded light green sericitic bands disrupted by qtz veining and 5-10mm long qtz lenses.	70	327.6 - 335.6 30-40% qtz veining and lenses.	327.6 - 335.6 1-3mm py cubes - up to 2%. Concentrated near quartz veins.	BCD 8038 - Litho 330 - 333

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		Below 332.6 40-60% mottled grey-white siliceous matrix with thin light green sericite bands. Possibly caused by silica flooding. 334.6 - 334.65 Argillite with grey chert frags. Lower 50cm has 10-30% elongated green chert frags and distorted bedding.		No distinct veins noted in this section.		
335.60 TO 337.10	ARGILLITE AND MAFIC TUFF <ARG & MAF T>	Colour - black, dark green. Grain Size - fine. Interbedded argillite and dark green tuff. Occasional grey chert frags in argillite. Bedding in argillite and tuff END OF HOLE	60	Graphite on fractures in argillite. 1cm qtz-calcite vein at upper contact.		BCD 8039 - Litho 335.6 - 337.1

Sample	From (m)	To (m)	Length (m)	AL2O3 %	BA %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	SIO2 %	SR %	TIO2 %	ZR %	AG PPM	AS PPM	B PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	TOT %
BCD8026	14.00	17.00	3.00	17.08	.056	8.39	9.45	1.14	6.11	.22	3.23	50.17	.06	1.49	.011	1.4	9	52	40	61	1	89	5	97.39
BCD8027	71.00	74.00	3.00	17.40	.044	8.66	9.48	1.02	5.53	.21	3.19	50.30	.05	1.51	.011	1.2	7	44	35	28	1	69	5	97.41
BCD8028	189.00	192.00	3.00	15.91	.233	6.94	8.78	1.82	7.70	.21	3.39	50.95	.08	1.18	.012	1.2	6	38	36	41	1	72	5	97.20
BCD8030	212.00	215.00	3.00	14.87	.055	.41	5.82	2.49	1.20	.30	.59	71.18	.02	.60	.004	1.0	4	22	41	91	1	86	5	97.54
BCD8031	239.00	242.00	3.00	17.27	.058	.16	6.48	2.95	1.33	.39	.73	67.39	.02	.77	.006	.9	12	34	62	57	2	90	15	97.55
BCD8032	249.00	252.00	3.00	16.94	.055	.035	8.84	2.26	2.74	.44	.48	64.60	.02	.78	.003	.9	19	33	62	49	3	104	5	97.51
BCD8033	260.00	263.00	3.00	16.35	.033	8.06	9.79	1.18	5.45	.33	2.19	46.89	.02	.83	.005	1.4	21	33	104	31	4	70	10	91.12
BCD8034	265.00	268.00	3.00	16.39	.050	.55	6.39	2.68	2.38	.20	.75	67.62	.01	.65	.004	.5	9	28	51	64	3	92	5	97.68
BCD8035	282.00	285.00	3.00	17.31	.054	1.65	6.63	3.02	2.21	.39	1.03	63.19	.02	.73	.006	1.3	5	25	55	42	4	96	5	96.23
BCD8036	296.00	299.00	3.00	15.70	.004	6.78	10.74	.02	8.19	.18	3.22	45.65	.02	1.04	.002	.4	27	44	72	38	7	85	5	91.55
BCD8037	301.00	304.00	3.00	18.44	.066	2.29	11.57	1.51	7.58	.37	1.57	52.61	.02	.96	.001	.3	6	41	98	40	7	44	10	96.99
BCD8038	330.00	333.00	3.00	15.53	.064	7.40	10.30	1.53	7.55	.35	1.76	45.93	.02	.91	.005	.4	22	38	94	31	1	75	5	91.35
BCD8039	335.60	337.10	1.50	13	.045	3.74	8.83	1.13	5.06	.16	1.23	60.00	.02	.84	.002	.3	6	31	87	33	5	125	5	94.05

MINNOVA INC.

DRILL HOLE RECORD

HOLE NUMBER: MJC-2

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: JC
PROJECT NUMBER: 238
CLAIM NUMBER: JC
LOCATION:

PLOTTING COORDS GRID: CELEB
NORTH: 2200.00N
EAST: 850.00W
ELEV: 1084.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -70° 0' 0"
LENGTH OF THE HOLE: 352.65m
START DEPTH: 0.00m
FINAL DEPTH: 352.65m

COLLAR GRID AZIMUTH: 225° 0' 0"

COLLAR ASTRNOMIC AZIMUTH: 225° 0' 0"

DATE STARTED: February 4, 1988
DATE COMPLETED: 0, 0
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: TONTO DRILLING
CASING: 12.19M
CORE STORAGE: BARRIERE WAREHOUSE

PURPOSE: TO TEST EAGLE BAY FORMATION BELOW TERT. BASALT.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.96	-	-71° 0'	ACID			-	-	-	-	-	
121.92	-	-72° 0'	ACID			-	-	-	-	-	
182.88	-	-72° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
0.00 TO 12.19	CASING					
12.19 TO 14.85	ARGILLITE & TUFF <ARG & T>	Colour - black, light grey-green. Grain Size - fine. Well-bedded argillite. Bedding at 0 - 30o. Often gently folded. 40% fine gr. green tuff layers over lower 1m. Occasional argillite inclusion in tuff. Sharp lower contact.	30 60	Fe ox. on fractures.	Tr - 2% py in argillite.	Mod. well broken.
14.85 TO 17.00	BASALT <BSLT>	Colour - dark grey. Grain Size - fine grained. Fine grained basalt. Mod. magnetic.			2-5% Magnetite.	
17.00 TO 25.50	<LAHAR>	Colour - dark grey-green. Grain Size - fine - medium grained. Matrix of fine to medium grained Basalt, slightly to moderately magnetic. - Irregular, embayed frags of white qtz. Up to 12cm long; avg. is 3-5cm. Distinct 1mm wide f.g. chill margin at contact of frags. Often very angular. Up to 30%. - Occasional irregular 2-5cm green chert frag. - faint grey tuff frags 2-5cm up to 20%. - 0.5 - 1cm black chlorite frags? 5-10%. Below 20.7 Matrix medium grained basalt. Qtz frags reduced to 1%. Chill margin increases to 2mm. - grey tuff frags more common to 20% - 10% chl frags. Lower 40cm - broken core.			2-5% Magnetite. Tr py often in tuff and qtz frags.	
25.50 TO 117.70	BASALT <BSLT>	Colour - dark grey-green, black. Grain Size - medium to fine grained. 1-5mm white F.S. needles; 20-40% in dark green - black matrix. - 5% 2-5mm irregular chlorite patches - possibly		Fractures commonly at 30o to C.A. With thin black chlorite coatings.	<2 - 8% mgt> 2 - 8% magnetite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		altered mafics. Moderately magnetic.				
		25.65 - 25.75 F.g. grey tuffaceous horizon. Contacts at 70 - 80o to C.A.	80			
		30.5 3cm tuffaceous layer at 60o to C.A.	60			
				Below 38.7 Thin calcite & chlorite on fractures.		
		Below 44.0m Basalt is finer grained, darker with lower % of Feldspar.				
						61.6 - 61.8 Broken core. Calcite & clay on fracture.
		67.6 - 67.8 Grey, silicified patch. Has remnant mafic phenos and tr. magnetite.				
		75.2 - 84.0 2 - 10% irregular qtz fragS, 1 - 10mm long, avg. 1-2mm. 75.9 - 76.5 10% qtz fragS.			75.3 Tr py with mgt near vesicle. 83.6 Tr hematite with chlorite in 20 - 30o to C.A. fractures.	
		96.4 2cm grey tuff band at 70o to C.A.	70			
		102.9 - 104.8 Fine qtz fragS as above.				
		104.8 - 116.4 Med. gr. Basalt. F.S. fine gr., not in needles as at top of sections. 10-30% 2-3mm chloritic altered hbl phenos?? F.g. dark green mafic matrix. 2-5% qtz fragS over upper 3m.		107 - 109 Qtz with chlorite on fracture surfaces.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		116.4 - 117.7 Fine gr. basalt. 2% siltstone fragS. Lower 6m of section are more broken than upper sections. Lower contact sharp at 60o, conformable to bedding. 1mm calcite veins cut contact at 30o to C.A. and continues into underlying siltstone.	60			116.5 - 117 Broken core, minor fault.
117.70 TO 128.60	SILTSTONE & MUDSTONE <SLST&MDST>	Colour - medium to dark grey. Grain Size - fine. Interbedded fine gr. grey siltstone and mudstone. Mostly well-bedded, occasional sections of distorted bedding, small scale folding. Siltstone : mudstone = 60:40. Lower contact broken 5cm of 20% py as large blebs at contact.	60		┤128.55 - 128.6├ <20% py>	┤124.5 - 126.6├ <FLT> Fault zone very broken core. 40% recovery.
128.60 TO 132.45	BASALT <BSLT>	Colour - dark grey-green. Grain Size - fine. Fine gr. Basalt as previous. Lower contact slightly irregular surface at Very fine gr. basalt 0.5cm from contact. Underlying siltstone is bleached light brown for 5cm.	60	Thin discontinuous. ┤132.15 - 132.45├ <Carb alt> Strong pervasive carb. alteration. Basalt is lighter green.	<Tr py> Tr py bordering veins and fractures.	128.6 - 130.2 Mod. broken core with chlorite on fractures.
132.45 TO 155.45	SILTSTONE & MUDSTONE <SLST&MDST>	Colour - medium to dark grey, medium brown-green. Grain Size - fine. Interbedded sediments as above. Occasional brown-green tuffaceous? layers well-bedded at Some folded layers. Occasional fine gr. greywacke layers with 5% hematite and tr py fragS. 154.1 - 154.4 Black, mudstone bed with 0.5 - 10mm grey siltstone fragS. FragS sub-rounded, elongated, parallel to bedding.	60	151.4 Light yellow euhedral calcite crystals on 50o fracture.	Very occasional 2-3cm sub-rounded f.gr. py patches. Always in siltstone layers. 150.3 5mm py layer at 60o to C.A.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
					155.3 2mm band with 30% f.gr. py.	
155.45 TO 155.74	BASALT ‹BSLT›	Colour - dark green. Grain Size - fine. Fine gr. Basalt. 2 - 5%, 1-3mm calcite amygdules? irregular shaped. Slightly magnetic. Lower 5cm v.f. gr. light brown with up to 5cm long thin frags of de-laminated black mudstone. Contacts parallel to bedding.	60	‹carb. alt.› Pervasive carbonate alteration.		
155.74 TO 158.64	SILTSTONE & MUDSTONE ‹SLST&MDST›	Colour - medium to dark grey, occasionally medium brown. Grain Size - fine. Interbedded sediments as above. Very well-bedded. Thin discont. mudstone lenses in siltstone.	60		157.4 6cm long f.gr. py bleb.	
158.64 TO 160.00	BASALT ‹BSLT›	Colour - dark grey-green. Grain Size - fine. Basalt. Slightly magnetic, 5-10% sub-rounded calcite filled amygdules. Size and percentage increases near upper and lower contacts. 158.64 - 158.87 0.5 - 3cm long calcite-filled amygdules. Irregular shaped, partially embayed by basalt. Occasional 1 - 1.5cm tuffaceous layers at 50-70o to C.A.		‹calc. amyd.› 158.64 - 158.87 Intense pervasive carbonate alteration. 159.9 - 160.0 Intense carbonate alteration. Thin calcite veinlets near lower contact at 35o to C.A.		
160.00 TO 165.60	SILTSTONE & MUDSTONE ‹SLST&MDST›	Colour - medium to dark grey and brown. Grain Size - fine. Well-bedded sediments as previous.	60			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		161.55 - 163.07 Massive grey mudstone. Elongated frags of light grey siltstone 2mm to 3cm. Increasing in size and frequency downhole - up to 30% elongated parallel to 60o. Similar sections at: 164.67 - 164.97 165.2 - 165.35. Occasional 1 to 2cm wide f.gr. greywacke bands. Sub-angular light brown frags with 5% hematite frags.				
165.60 TO 167.20	BASALT <BSLT>	Colour - dark grey-green. Grain Size - fine. Basalt with 2-5% 1-5mm irregular calcite-filled amygdules. Larger amygdules near contacts. Moderately magnetic. Lower contact has de-laminated mudstone bed. Contacts at Basalt is light grey, f.gr.	60		<5 - 10% mgt> 5 - 10% magnetite; Tr po.	
167.20 TO 176.85	MUDSTONE & SILTSTONE <MDST&SLST>	Colour - dark to medium grey. Grain Size - fine. Mudstone sections predominate - 70%. Sections of massive mudstone with siltstone frags at the base occur throughout. These are 20cm - 1m long and comprise 40-60% of unit. Separated by well-bedded mudstone/siltstone intervals. Bedding flattens at lower contact to 45-50o. 171.26 - 171.30 Hematitic greywacke.	70 50		Very trace 1-3cm long f.gr. py blebs - 3 blebs noted over intervals.	175.6 - 176.0 Minor fault. Broken core with slicken sides on fractures.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
176.85 TO 180.00	BASALT <BSLT>	Colour - dark grey-green. Grain Size - fine. Basalt. Moderately magnetic as above. Upper contact at 45o parallel to bedding - flattens near contact. Calcite-filled amygdules near upper contact. Lower contact is broken.	45	Thin calcite veins at 30o to C. A. in opposite sense of contact/bedding at upper contact continue into overlying sediments. Chlorite & calcite on fractures; commonly at 45o to C.A.	5 - 8% magnetite.	178.5 - 179 Moderately broken core.
180.00 TO 181.36	MUDSTONE & SILTSTONE <MDST&SLST>	Colour - dark grey. Grain Size - fine. Massive mudstone with minor siltstone beds. Broken lower contact.	60	Calcite veins and patches towards lower contact.		180.0-180.5 <FLT> Moderately broken core with minor slickensides on fractures.
181.36 TO 183.35	BASALT <BSLT>	Colour - dark grey-green. Grain Size - fine. Basalt as above. Moderately magnetic. 5% calcite-filled amygdules near lower contact. Lower contact slightly irregular.	60	2 - 10mm wide calcite veins at 20o and 40o to C. A. Chlorite on fractures.	5 - 8% magnetite.	181.36 - 181.56 Moderately broken.
183.35 TO 202.05	SILTSTONE & MUDSTONE <SLST&MDST>	Colour - medium to dark grey, occasionally green, brown. Grain Size - fine. Well-bedded sediments. Occasional f.gr. light green or brown greywacke beds.	60	185.9 - 186.0 Thin calcite vein at 20o to C.A. 1cm wide calcite gashes perpendicular to veins.	183.45 - 183.5 Two thin; 1-3mm wide discontinuous py beds. Parallel to bedding. 189.15 5cm long f.gr. pyrite bleb.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
				Below 193.7 Occasional calcite veins up to 5mm thick sub-parallel to bedding and at 40o.	199.1 - 199.15 Three 2-10mm wide discontinuous f.gr. py beds parallel to bedding.	
		Below 199.5 Bedding steeper at 70-80o	70			
		201.1 - 201.3 Micro faults disrupt bedding.				
						201.5 - 201.8 «FLT» Mod. broken core with slickensides on fractures. Minor fault.
		201.8 - 202.05 Massive dark grey mudstone with irregular siltstone layers. Lower contact irregular at Minor basalt frags in mudstone.	40		201.8 - 202.5 Tr 2-10mm f.gr. py blebs; rectangular.	
202.05 TO 217.00	BASALT «BSLT»	Colour - medium green-grey. Grain Size - fine. Porphyritic basalt. 10-30% dark green chloritic phenos?; 1-5mm, avg. 2-3mm in f.gr. matrix. Slightly magnetic. - 2-5% amygdules; sub-rounded 1-5mm; avg. is 2-3mm calcite-filled over upper 50cm. Below that filled with white qtz and/or soft reddish brown mineral.		Occasional calcite veins up to 1cm wide at 10-20o to C.A.	Tr magnetite.	
		209 - 215.8 No amygdules.		212.2 - 217 Pervasive carb. alteration in f.gr. light green basalt.		212.5 - 214.3 Moderately broken. Chlorite on fractures.
		215.8 - 217 Up to 20% calcite filled amygdules.				
		1cm of light brown bleached basalt at lower contact. Slightly irregular at	50			

FROM / TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
217.00 TO 221.50	MIXED SEDIMENTS <SEDS>	Colour - grey to medium brown. Grain Size - fine to medium. Interbedded, grey-brown siltstone, mudstone, greywacke. Greywacke has sub-angular frags, poorly sorted, up to 1cm, avg. is 1-2mm. Mixed chert, volc. and siltstone. 217.8 2mm wide band of black, carbonaceous material, moderately fractured. Possibly dessication surface. Often small scale folding. Well-bedded at 219.7	40		218.0 4cm long f.gr. pyrite frag.	
221.50 TO 221.95	BASALT <BSLT>	Colour - medium to light green. Grain Size - fine. Bleached, f.gr. basalt. 10% 1-2mm calcite-filled amygdules. Non-magnetic.		Thin, discontinuous calcite veins.		
221.95 TO 224.60	ASH & AGGLOMERATE <ASH & AGG>	Colour - dark brown. Grain Size - fine to coarse. Dark brown ash becoming agglomeratic below 225.8. Minor agglomerate sections in upper portion. - Frags are sub-rounded up to 5cm long. Avg. is 2-3mm. Mixed brown mudstone, black argillite, grey chert, quartz, sericitic tuff, siltstone. Appear to be mostly Eagle Bay? origin. Unsorted dark brown ash matrix.				
224.60 TO 238.60	BEDDED MUDSTONE, SILTSTONE, ASH/TUFF <MDST&SLST> <ASH>	Colour - dark brown, medium green. Grain Size - fine. Well-bedded. Dark brown mudstone, grey-green siltstone. Some f.gr. grey-green sections, ash/tuffaceous horizons. Well-bedded at	50			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
238.60 TO 239.73	BASALT <BSLT>	Colour - dark grey-green. Grain Size - fine. Basalt Flow. Moderately magnetic. 10-20% calcite-filled amygdules. Often partially open in centre. 1mm to 4cm; avg. is 2-4mm. Sub-rounded to elongated. Chilled irregular contacts approx. parallel to bedding.		Slightly - moderately pervasive carb. alteration.		
239.73 TO 250.70	MUDSTONE AND ASH/ TUFF <MDST&ASH>	Colour - dark brown, grey, green. Grain Size - fine to coarse. Well-bedded mudstone/siltstone f.gr. ash/tuff, minor agglomerate. 246.3 - 246.82 Medium olive-green altered ash. Very soft. Faint remnant bedding at 50-60o Ash layers often grade into f.gr. tuff. Below 244 Ash/tuff component dominates. Agglomerates increasing towards base of section. Gradational lower contact.	50 60	<carbon seams> Minor moderate metamorphosed carbonaceous.	Very trace py frags.	
250.70 TO 277.80	AGGLOMERATE & ASH <AGG>	Colour - light grey, black, green. Grain Size - very fine matrix, coarse frags. Coarse angular frags heterolithic. Mixed black argillite, sericitic tuff, grey tuff, white quartz. Frags up to 30cm, avg. is 1-2cm, unsorted, up to 70% of rock. Percentage is highly variable. Poorly aligned in places at Matrix is light grey-green. F.gr. black biotite? crystals visible under microscope. Breaks easily, where % of matrix is higher, rock is poorly consolidated. Occasional black, shiny meta-carbon frags and layers. 250.7 - 256.16 50-70% frags. Minor carbon seams. 256.15 - 256.45	 60			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		Large fragment of coarse tuff. 70% elongated grey chert frags in medium grained green tuffaceous matrix.				
		256.45 - 262.5 Poorly consolidated agglomerate. 60-70% matrix. Some 10-30cm long sections of tuff with chert frags as described previously.				
		262.5 - 277.8 Agglomerate 50-70% frags including chert frag tuff.		262.5 - 277.8 <Hem. alt.> Minor hematite altered matrix. Hematite strong over lower 1.5m.		
277.80 TO 288.70	ALTERED ARGILLITE <ALT ARG>	Colour - light green, black. Grain Size - fine. Grey altered argillite with irregular black relatively unaltered sections. Upper 30cm is very broken.		<ser. alt.> Slight sericite alteration.		Is this the start of Eagle Bay Fm??
		277.8 - 282.4 Grey and black argillite. Moderately well-bedded.	20			
		282.4 - 284.8 Fine gr. medium green argillite		282.4 - 284.8 Thin qtz veins with FeOx.		
		284.8 - 288.7 Grey and black argillite. Contorted layers. Moderately broken throughout.		288.15 - 288.3 Vuggy qtz vein with minor FeOx.		
288.70 TO 302.25	ARGILLITE, Mod altered	Colour - light grey-green, black. Grain Size - fine to medium. Light grey mod. altered argillite.		<qtz veins, ser. alt.>		
		Well-bedded with grey and black layers. Black layers often "bleed" into grey along fractures?	60			
				288.7 - 290.02 Vuggy white qtz vein with FeOx. Minor sericite of fractures.		
				290.9 - 291.25 Vuggy qtz vein.		
				292.2 - 292.4		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
				Broken, vuggy qtz vein.		
				296.57 - 296.62 Broken qtz vein.		
		301 - 302.25 Gradational zone. 60-80% green altered layers with black unaltered layers.				
302.25 TO 352.65	MUDSTONE, GREYWACKE <MDST&WAK>	Colour - black, grey-green. Grain Size - fine to medium. Well-bedded black mudstone and f.gr. grey-green wacke layers. Mudstone predominates at 60-80% Some sections of fine to medium gr. tuff?	60		Tr py as lenses in mudstone, diss. in wacke. Occasional py layers in wacke.	
		312.5 - 315.1 Fine to medium gr. greywacke, grey chert and black argillite frags 1 to 4mm. Fining towards top of unit. Several white quartz veins.	45	312.5 - 313.3 Vuggy white qtz veins.		
		319.1 - 321.1 F.gr. grey-green wacke. Faint alignment at 50-60o				
		Below 323 Occasional thin (up to 2cm in places) microfaults at 30o in opposite sense of bedding. Filled with soft brown clay? and frags of mudstone/ash.				
		333.55 - 333.65 Light brown clay? with 2-10mm frags of mudstone/wacke. Similar to filled microfaults noted above.				
		END OF HOLE				

				ASSAYS							GEOCHEMICAL							COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu %	Zn %	Pb %	Ag g/T	Au g/T	Sb ppm	As ppm	Cu ppm	Zn ppm	Pb ppm	SG	Ag ppm	Au ppb		
BCD8554	288.70	290.02	1.32								10	16	6			1		
BCD8555	290.90	291.25	0.35								19	26	4			1		
BCD8558	312.50	313.30	0.80								13	25	15			10		

Sample	From (m)	To (m)	Length (m)	AL2O3 %	BA %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	SIO2 %	SR %	TIO2 %	ZR %	AG PPM	AS PPM	B PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	TOT %
BCD8040	12.19	14.85	2.66	14.99	.282	1.73	8.10	3.10	2.11	.49	1.40	62.69	.04	.72	.014	1.9	18	43	55	24	1	133	10	95.68
BCD8041	17.00	20.00	3.00	13.76	.043	6.07	7.24	1.14	4.15	.18	2.67	60.80	.04	1.29	.010	3.0	9	25	43	53	1	85	10	97.39
BCD8042	26.00	29.00	3.00	14.62	.058	6.79	11.98	1.61	3.86	.36	3.48	51.13	.05	2.46	.024	3.2	9	18	54	25	1	92	10	96.40
BCD8043	66.00	69.00	3.00	17.14	.042	8.37	9.27	1.00	6.08	.21	3.28	49.55	.05	1.46	.011	1.1	14	40	26	26	4	64	5	96.47
BCD8044	114.50	117.50	3.00	16.40	.069	7.64	9.53	1.33	6.42	.20	3.45	49.80	.05	1.62	.014	1.3	19	37	36	26	1	74	5	96.52
BCD8045	118.00	121.00	3.00	14.40	.121	.88	5.45	2.51	2.04	.16	2.62	68.14	.02	.68	.018	1.2	7	25	23	24	2	61	10	97.06
BCD8046	129.00	132.00	3.00	16.69	.086	8.06	9.74	1.24	5.81	.20	2.89	49.40	.05	1.69	.013	1.8	19	37	36	28	1	81	5	95.86
BCD8047	148.00	151.00	3.00	16.13	.118	2.34	8.31	2.57	2.33	.36	1.40	61.61	.03	.76	.016	1.4	14	34	44	40	1	109	10	95.97
BCD8048	176.85	180.00	3.15	17.63	.069	8.09	10.23	1.24	5.64	.38	3.15	48.81	.06	1.75	.016	3.3	1	53	51	47	5	97	10	97.07
BCD8049	187.00	190.00	3.00	18.59	.139	1.91	10.64	3.15	2.67	.42	1.35	57.17	.04	.77	.016	1.8	6	48	71	50	6	151	15	96.86
BCD8050	227.00	230.00	3.00	17.70	.127	1.71	6.40	2.29	1.82	.13	1.40	64.19	.05	.98	.017	1.9	2	34	44	38	3	113	5	96.83
BCD8051	246.00	249.00	3.00	17.62	.151	2.09	5.46	1.64	1.94	.07	1.40	65.52	.08	.63	.026	1.3	2	35	21	27	2	85	5	96.63
BCD8052	268.00	271.00	3.00	12.98	.050	1.04	4.50	1.98	.76	.07	.40	74.48	.02	.53	.017	1.1	3	17	22	17	2	70	5	96.82
BCD8053	279.00	282.00	3.00	17.37	.117	.33	7.25	4.30	1.16	.07	.13	65.77	.02	.84	.021	.7	1	18	38	22	1	110	10	97.38
BCD8056	292.00	295.00	3.00	11.16	.079	.50	5.18	2.25	.79	.10	.33	76.31	.01	.55	.020	1.0	10	10	21	19	1	74	10	97.28
BCD8057	304.00	307.00	3.00	18.45	.132	.54	7.79	3.82	2.98	.06	.80	61.84	.02	.89	.023	.6	5	27	49	35	1	137	5	97.25
BCD8059	326.00	329.00	3.00	16.95	.089	.79	7.59	3.34	2.79	.17	.74	63.74	.02	.95	.020	.9	21	29	45	35	1	122	5	97.20
BCD8060	344.00	347.00	3.00	17.11	.097	.46	7.07	3.51	2.44	.10	.29	65.18	.02	.91	.020	.6	5	30	43	33	4	117	5	97.20

14.85
12.19

LITHOGEOCHEMISTRY

SAMPLE NUMBER	FROM (m)	TO (m)	MAJOR OXIDES SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3 FeO	MnO_2	TiO_2	BA P_2O_5	TRACE ELEMENTS ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	B Rock Type	ASR Alt	ZR Min	AS Grid	SB
8040	12.19	14.85	62.69	14.99	1.73	2.11	1.40	3.10	8.10	.49	.72	.282	55	133	24	1.9	10	43	.04	.014	18	1
Arg + tuff																						
8041	17.0	20.0																				
LAHAR																						
8042	26.0	29.0	51.13	14.62	6.79	3.86	3.48	1.61	11.98	.36	2.46	.058	54	92	25	3.2	10	18	.05	.024	9	1
BASALT																						
8043	66.0	69.0	49.55	17.14	8.37	6.08	3.28	1.00	9.27	.21	1.46	.042	26	64	26	1.1	5	40	.05	.011	14	4
BASALT.																						
8044	114.5	117.5	49.80	16.40	7.64	6.42	3.45	1.33	9.53	.20	1.62	.069	36	74	26	1.3	5	37	.05	.014	19	1
BASALT.																						
8045	118.0	121.0	68.14	14.40	.88	2.04	2.62	2.51	5.45	.16	.68	.121	23	61	24	1.2	10	25	.02	.018	7	2
SLST + MDST																						
8046	129	132	49.40	16.69	8.06	5.81	2.89	1.24	9.74	.20	1.69	.086	36	81	28	1.8	5	37	.05	.013	19	1
BASALT																						
8047	148	151	61.61	16.13	2.34	2.33	1.40	2.57	8.31	.36	.76	.118	44	109	40	1.4	10	34	.03	.016	14	1
SLST + MDST																						
8048	176.85	180																				
BASALT																						
8049	187	190																				
SEDS																						

Hole No. MJC-2 Entered by _____ Logged by S. LEMA Page No. 1

LITHOGEOCHEMISTRY

SAMPLE NUMBER	FROM ( )	TO ( )	MAJOR OXIDES SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	FeO	MnO	TiO_2	P_2O_5	TRACE ELEMENTS ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Rock Type	Alt	Min	Grid	
8550	227	230																				
cgl.																						
8551	246	249																				
Tuff/Asit																						
8552	268	271																				
Aggl.																						
8553	279	282																				
Asit																						
8556	292	295																				
Tuff/Asit																						
8557	304	307																				
MDST + Asit																						
8559	326.0	329																				
MDST + Asit																						
8560	344	347																				
SEDS.																						

Hole No. MJC-2 Entered by _____ Logged by _____ Page No. 2

ASSAY SHEET

	Sample Number	From (m)	To (m)	Estimate Cu	Estimate Zn	Length ( )	% Cu	% Zn	% Pb	gm/T Ag	gm/T Au	% SiO_2	% TiO_2	% Na_2O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au			
QV.	8554	288.7	290.02																					
QV	8555	290.9	291.25																					
QV	8558	312.5	313.3																					

HOLE NO MJC-2

PAGE 1

LITHOGEOCHEMISTRY

337.1
335.6
1.5

335.6
337.1
1.5

			MAJOR OXIDES										TRACE ELEMENTS								
SAMPLE NUMBER	FROM (m)	TO (m)	SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	FeO	MnO	TiO_2	P_2O_5	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Rock Type	Alt	Min	Grid	
8036	296	299																				
SER. TUFF																						
8037	301.0	304																				
MAFIC TUFF																						
8038	330	333																				
SER. TUFF.																						
8039	335.6	337.1																				
Arg + TUFF																						

Hole No. MJC-1 Entered by _____ Logged by S. LEAH Page No. 2

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LITHOGEOCHEMISTRY

SAMPLE NUMBER	FROM (m)	TO (m)	SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	FeO	MnO	TiO_2	P_2O_5	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Rock Type	Alt	Min	Grid	
BCD 8026	14.0	17.0																				
BASALT.																						
8027	71.0	74.0																				
Magnetic Basalt.																						
8028	189.0	192.0																				
ø Basalt.																						
8030	212.0	215.0																				
SER. TUFF																						
8031	239.0	242.0																				
Arg. tuff																						
8032	249.0	252.0																				
Tuff w/ chert.																						
8033	260	263																				
Ser. Ash T.																						
8034	265.0	268.0																				
Arg. Debris Flow																						
8035	282.0	285																				
Arg. Debris Flow																						

MAJOR OXIDES

TRACE ELEMENTS

Hole No. MSC-1 Entered by _____ Logged by S. LEAR Page No. 1

MINNOVA INC.

HOLE NUMBER: MJC-3

DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: JC
PROJECT NUMBER: 238
CLAIM NUMBER: JC 2
LOCATION:

PLOTTING COORDS GRID: CELEB
NORTH: 1700.00N
EAST: 1150.00W
ELEV: 1062.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -70° 0' 0"
LENGTH OF THE HOLE: 380.08m
START DEPTH: 0.00m
FINAL DEPTH: 380.08m

COLLAR GRID AZIMUTH: 225° 0' 0"

COLLAR ASTRNOMIC AZIMUTH: 225° 0' 0"

DATE STARTED: February 9, 1988
DATE COMPLETED: February 14, 1988
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: TONTO DRILLING
CASING: 14.32M L.I.H.
CORE STORAGE: BARRIERE WAREHOUSE

PURPOSE: TO TEST THE EAGLE BAY FORMATION BELOW TERTIARY BASALTS/SEDS.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.96	-	-72° 0'	ACID			-	-	-	-	-	
121.92	-	-73° 0'	ACID			-	-	-	-	-	
182.88	-	-73° 0'	ACID			-	-	-	-	-	
243.84	-	-74° 0'	ACID			-	-	-	-	-	
304.80	-	-74° 0'	ACID			-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
0.00 TO 14.32	CASING	Rubble of mudstone with coal seams.				
14.32 TO 124.90	MIXED SEDIMENTS «MDST,» «SLST, WAK»	«Coal seams» Colour - medium to dark grey. Grain Size - fine to coarse. Thinly laminated grey mudstone with siltstone, and coarse wacke. Minor coal seams. Wacke has sub-angular 2 to 4mm qtz frags and mudstone frags. Mod. to poorly consolidated.			«Tr py»	
		Laminations in mudstone.	50			
		20.4 - 20.8 Mod. grade coal with mudstone.			20.4 - 20.8 5% py along fractures in coal seam.	
		22.9 - 23.5 Minor coal with mudstone.				
		26.1 - 26.35 2 to 4mm angular qtz frags in poorly consolidated wacke.				
		26.5 - 28.34 «FLT» 1.5m of core lost. Possible fault zone. Chips of white qtz.				
		39.8 - 67.5 Mudstone & siltstone. Minor coal. No cg. wacke. Mudstone is very soft.				
		Bedding at 63.5m	70			
		67.5 - 73.5 Mudstone with m. gr. quartz wacke sections. Occasional qtz frags 1cm long in m. gr. wacke.				
		73.5 - 88.5 Well-bedded grey and brown mudstone, minor siltstone.	60		83.48 Wavy 2-10mm f.g. pyrite band. Parallel to bedding.	
		88.5 - 90.5 - f. gr. massive siltstone/wacke - m. gr. wacke with inclusions of siltstone up to 6cm long - well-bedded mudstones	70			

FROM / TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		90.5 - 124.9 Siltstone, mudstone, minor wacke. Well-bedded Wackes massive. Minor f.g. medium brown tuff/wacke layers.	60			109.4 - 109.56 <FLT> Broken core with clay. Minor fault.
124.90 TO 129.62	<ASH/TUFF> MINOR MUDSTONE	Colour - light green, brown, grey. Grain Size - fine. Distinct beds 2mm to 6cm wide of fine ash, f.gr. tuff layers, minor grey mudstone. Bedding	60	Occasional microfractures filled with calcite.	<Tr py> Very trace pyrite blebs, 2-5mm long.	
129.62 TO 176.63	BASALT <BSLT>	Colour - dark green - black. Grain Size - medium grained. Basalt. Patches of white, 2-5mm fine feldspar? give spotted appearance. Slightly magnetic. Dark f.gr. mafic groundmass. 129.62 - 130.1 F. gr. basalt near contact. Contact conformable with bedded tuff above. 2-4mm thick light brown chill margin. Basalt in this section is very homogeneous. 176.33 - 176.63 F. gr. Basalt with up to 5% 1-3mm calcite filled amygdules. Lower contact Conformable to bedding.	65	Chlorite on fractures. Occasional thin calcite veins at 20-30o to C.A. 129.62 - 130.1 <carb. alt.> Pervasive carbonate alteration.	<Tr mgt> Trace magnetite.	
176.63 TO 179.34	<ASH/TUFF>	Colour - light grey, green. Grain Size - fine Well-bedded ash and tuff layers. Layers 2mm to 5cm, avg. is 1-2cm.	65			
179.34 TO 179.44	BASALT <BSLT>	Colour - dark green. Grain Size - fine. Mod. magnetic basalt. Occasional 1 to 4mm calcite filled amygdules.		<calc. amygd.>	<Tr - 2% mgt> Trace - 2% magnetite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		Contacts conformable with bedding of tuff/ash units. 5mm wide light brown chill margins at contacts.	65			
179.44 TO 189.50	TUFF AND MUDSTONE «TUFF &» «MDST»	Colour - light to dark grey, minor dark purple. Grain Size - fine. Fine gr. well bedded tuff/ash grading into mudstone/tuff and then tuff near lower basalt contact.	70	«calc. vns»	«Tr py» Trace f.gr. py blebs, mostly in mudstone.	
		179.44 - 182.5 Predominately fine tuff/ash, light down to dark purple.		179.44 - 182.5 Occasional thin calcite veins at 0 to 20o to C.A.		
		182.5 - 188 Bedded mudstone and thin 1-15mm tuff beds.			183.1 - 183.3 6 to 8 f. gr. py blebs 2 to 10mm.	
		188 - 189.5 Light brown fine to medium grained tuff. Well-bedded	65			
189.50 TO 225.20	BASALT «BSLT»	Colour - dark green. Grain Size - medium grained. Basalt. Similar to above white Feldspar? spots comprise up to 60% of unit in places. Slightly magnetic.		«chl + calc fract.» Chlorite, minor calcite on fractures at 0 - 20o to C.A.	«Tr py»	
		189.5 - 189.9 F. gr. basalt near contact. Occasional calcite veinlets and 1-2mm amygdules.				
				207 - 207.2 4 green, light brown waxy serpentinite veins, vein/fractures at 60o to C.A. Widths 0.5 - 5cm.		
		224.75 - 225.2 F. gr. basalt with 10% calcite filled amygdules 1 - 3mm wide.		224.75 - 225.7 Pervasive carbonate alteration.	224.75 - 225.2 2% f. gr. py in calcite amygdules.	
		Lower contact at 2.5cm f. gr. light green to brown chill margin.	80			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
225.20 TO 282.50	MUDSTONE, SILTSTONE AND WACKE MINOR TUFF ‹MDST &› ‹WAK, TUFF›	‹carbon seams› Colour - medium grey, occasional green. Grain Size - fine. Well-bedded sediments Occasional brown or green tuffaceous layer. F. gr. py blebs occur in f.gr. wackes. Occasional thin carbon laminations. Two small f. gr. basalt flows at:	70	Calcite veins near upper contact.	‹Tr py›	226.05 - 226.3 Mod. broken core.
		┤227.7 - 227.9├ ‹Bslt› Amygdular basalt. Upper contact 70o to C.A. Lower contact irregular with irregular light brown chilled basalt frags in underlying seds., 5cm from contact.				
		┤228.23 - 228.4├ ‹Bslt› Amygdular basalt. Light brown. Upper contact irregular, distorted by calcite filled micro fractures.				
					229.0 Occasional elongate f.gr. py blebs 2-6cm long.	
		Bedding at 249.0m	60			
						┤252.7 - 252.8├ ‹FLT› Minor fault. Broken core with clay.
		253 - 273.87 Massive dark brown mudstone with flattened 2-5mm long light brown siltstone frags. Increase in volcanic component. Occasional m.gr. wacke with hematite frags. 273.4 - 273.87 Fine grey-green ash. Very soft & breaks easily. Grading into more competent ash over lower 20cm with thin dark green beds at Similar to ash units in MJC-2.	70		253.86 2-5cm py bed, irregular contacts in f.gr. wacke.	
		┤273.87 - 274.05├ ‹Bslt› Light grey-brown basalt. Fine calcite amygdules.		273.87 - 274.05 Pervasive carbonate alteration.		
		274.05 - 274.38 Dark green m.gr. tuff.				
		┤274.38 - 274.52├ ‹Bslt› Carb. alt. basalt as above. Contacts at 70o to C.A.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
282.50 TO 309.30	TUFF/ASH MASSIVE MUDSTONE, AGGLOMERATE ‹TUFF/ASH› ‹+ MDST,› ‹AGGL›	Colour - dark brown, grey. Grain Size - fine to medium. Well-bedded brown and green ash/tuff layers. Occasional med. gr. tuff layers with white frags often surrounded by f.gr. pyrite. Agglomerate sections have dark brown, tuffaceous matrix. Sub-angular green, volcanic frags mostly 1-2cm, up to 4cm long. Minor, thin black mudstone frags. Frags 10-20% roughly aligned at 60o to C.A. Aggl. sections: 289.15 - 289.7; 290.24 - 291.2 F. gr., dark grey mudstone sections, massive, competent: 291.2 - 292.1; 294.74 - 296.4; 296.5 - 297.6 304.0m - bedding 304.65 - 306.7 Medium brown, bedded tuff. 306.7 - 309.3 ‹Bx› Breccia. Angular frags of medium green and black chl alt. tuff in light brown tuff matrix as above. Occasional qtz frags. Frags up to 80%, usually fragment supported. Upper contact has interbeds of brown tuff, gradational. Tuff appears to have injected into fractured Eagle Bay Volcanics.	60 45 50		‹Tr py› 282.5 - 286.5 Tr py as f.gr. blebs in m.gr. tuff layers. 301.87 0.5 to 1.5cm f.gr. py bed in m.gr. wacke.	
309.30 TO 334.30	ALTERED ARGILLITE ‹ALT ARG›	Colour - medium green to black. Grain Size - fine. Fine gr. interlayered altered green and black argillite. Green argillite is slightly coarser grained and has 2-3mm wide cubic pyrite or cubic holes after pyrite. Green sections are 1-12cm long, approx. 40% of unit. Mod. to well-broken throughout. Layers at 45-70o. Avg.	60	‹strong ser› Strong ser/chl alteration. 309.8 - 309.9 Vuggy, broken qtz vein.	‹Tr - 2% py› Trace - 2% py as cubic crystals, 2-4mm wide.	Start of Eagle Bay Formation. 323 - 325 ‹Minor Flt› Minor fault, well broken core.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
334.30 TO 357.76	ARGILLITE, MODERATELY ALTERED «ALT ARG»	Colour - black, green. Grain Size - fine. Fine gr. argillite with faint remnant bedding. Upper contact gradational. Argillite is mod. competent, occasional elongate 2mm long light grey frags, parallel to bedding. Comprises 70% of unit. Green altered sections, similar to above with cubic pyrite.	60	Occasional thin, 1-5mm qtz veins in green sericitic sections.	«Tr - 2% py» Trace - 2% py as 1-3mm cubes in green tuff.	┤356.4 - 357.4├ «Minor Flt» Broken core, minor fault.
357.76 TO 380.08	ARGILLITE WITH WACKE «ARG & WAK»	Colour - medium to dark grey. Grain Size - fine. Argillite with siltstone interbeds. Bedding often highly contorted, 45-60o END OF HOLE	60	«Qtz/calc vns» 363.1 - 366.4 Strong qtz veining in fault zone. Minor calcite in veins. 373.3 - 380.08 Mod., thin qtz and calcite veins. Usually at 70o to C.A. ┤378 - 387.08├ «graph. fract.» Graphite on fractures.	«Tr - 2% py» Trace - 2% cubic py, mostly in siltstone layers.	┤363.1 - 366.4├ «Flt» Fault zone - broken core. 373.3 - 380.08 Mod. to well-broken core.

Sample	From (m)	To (m)	Length (m)	AL203 %	BA %	CAO %	FE203 %	K20 %	MGO %	MNO2 %	NA20 %	SIO2 %	SR %	TIO2 %	ZR %	AG PPM	AS PPM	B PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	TOT %
BCD8561	32.00	35.00	3.00	11.58	.069	.49	3.94	1.76	1.38	.08	1.32	76.14	.02	.77	.016	1.7	8	7	29	39	1	120	5	97.57
BCD8562	106.00	109.00	3.00	14.91	.106	1.57	5.39	2.60	2.08	.14	1.25	68.68	.02	.72	.019	2.0	12	12	46	39	1	140	5	97.48
BCD8563	125.00	128.00	3.00	18.03	.156	1.93	12.13	2.78	2.19	.52	1.30	56.72	.04	.92	.015	2.1	10	46	66	38	4	149	5	96.75
BCD8564	135.00	138.00	3.00	16.52	.048	7.89	9.89	1.31	5.87	.23	3.24	50.44	.05	1.78	.015	2.7	3	23	37	29	3	92	10	97.27
BCD8565	180.00	183.00	3.00	17.73	.166	.93	8.72	3.57	2.33	.68	1.95	60.50	.03	.68	.012	3.5	5	29	56	45	1	164	5	97.31
BCD8566	191.00	194.00	3.00	16.50	.050	8.09	9.98	1.08	6.07	.24	3.05	49.96	.05	1.73	.013	2.5	6	23	44	27	3	92	5	96.81
BCD8567	284.00	287.00	3.00	17.15	.136	2.89	9.06	2.26	2.41	.51	1.63	59.26	.06	.96	.013	2.5	7	28	60	51	3	127	15	96.35
BCD8568	314.00	317.00	3.00	17.06	.069	.14	7.92	2.98	3.21	.07	1.12	62.32	.01	1.09	.010	.3	12	19	52	41	3	135	5	96.01
BCD8569	340.00	343.00	3.00	17.34	.069	.36	8.29	3.16	3.24	.12	.98	62.72	.02	1.09	.014	.4	10	20	47	39	4	117	5	97.40
BCD8570	363.20	365.70	2.50	15.37	.059	1.20	8.48	2.91	3.38	.18	.62	64.14	.02	.95	.011	.7	4	17	50	44	4	128	5	97.32
BCD8571	368.00	371.00	3.00	17.09	.065	.65	8.48	2.91	3.85	.15	1.29	61.85	.01	1.12	.013	.4	16	21	49	35	3	135	5	97.49

MINNOVA INC.

HOLE NUMBER: MJC-4 DRILL HOLE RECORD IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: JC	PLOTTING COORDS GRID: CELEB	ALTERNATE COORDS GRID:	COLLAR DIP: -70° 0' 0"
PROJECT NUMBER: 238	NORTH: 330.00N	NORTH: 0+ 0	LENGTH OF THE HOLE: 297.18m
CLAIM NUMBER: JC 2	EAST: 400.00W	EAST: 0+ 0	START DEPTH: 0.00m
LOCATION:	ELEV: 1076.00	ELEV: 0.00	FINAL DEPTH: 297.18m

COLLAR GRID AZIMUTH: 225° 0' 0" COLLAR ASTRNOMIC AZIMUTH: 225° 0' 0"

DATE STARTED: February 15, 1988	COLLAR SURVEY: NO	PULSE EM SURVEY: NO	CONTRACTOR: TONTO DRILLING
DATE COMPLETED: February 19, 1988	MULTISHOT SURVEY: NO	PLUGGED: NO	CASING: LEFT IN HOLE
DATE LOGGED: 0, 0	RQD LOG: NO	HOLE SIZE: NQ	CORE STORAGE: BARRIERE WAREHOUSE

PURPOSE: TO TEST THE EAGLE BAY FORMATION BELOW TERT. BASALTS/SEDS.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.96	-	-72° 0'	ACID			-	-	-	-	-	
121.92	-	-74° 0'	ACID			-	-	-	-	-	
182.88	-	-72° 0'	ACID		INCOMPLETE	-	-	-	-	-	
243.84	-	-76° 0'	ACID			-	-	-	-	-	
365.76	-	0° 0'	ACID		INCOMPLETE	-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
0.00 TO 18.28	CASING <OB>					
18.28 TO 61.65	MUDSTONE, SILTSTONE, WACKE <MDST,SLST> <+WAK>	Colour - medium to dark grey. Grain Size - fine to medium. Interbedded sediments. Occasional bedding at	70			
		Wacke sections contain 10-30% angular qtz fragS, 0.5 - 5mm long. Also 5% biotite flakes in f.gr. dark grey matrix. Poorly sorted, moderately well consolidated. Minor mudstone fragS.				
		32.1 - 38.7 Wacke section.				
		42.7 7cm wide section of carbon laminations in wacke.				
61.65 TO 92.10	BEDDED TUFFS, MINOR SEDS, BASALT FLOWS <TUFF,SED> <+BSLT>	Colour - dark grey, grey-green, brown. Grain Size - fine to medium. Bedded tuffs, f.gr. brown. Sediments are m.gr. grey wackes with minor carbon laminations, similar to unit above. Possible tuffaceous component to wackes. Interlayered basalt flows.	70		<tr. py>	
		61.65 - 62.25 F.gr. bedded tuff. Very broken with graphite on fractures.				
		[67.76 - 69.02] <BSLT> F.gr. dark grey-green basalt. 20% 1 to 3mm black phenos. 10% 0.5 - 2mm calcite-filled amygdules. Upper contact broken for 15cm. Lower contact irregular. Distorted by micro-faults.		67.76 - 69.02 Calcite on fractures and veinlets.	67.76 - 69.02 Tr f.gr. py in calcite veinlets amygdules. Stronger over lower 20cm.	
		69.02 - 69.9 F.gr. bedded tuff? light grey and dark brown.	70	69.02 - 69.9 Strong carb. alteration especially in grey layers.		
		[69.9 - 70.13] <BSLT> Amygdular basalt as above. Chill margins, contacts at	70			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		70.13 - 70.63 Bedded brown tuff and light grey calcareous tuff as above. 70.63 - 71.8 Medium gr. greywacke?/tuff. 71.8 - 74.5 <BSLT> Amygdular basalt with black phenos. As above. Chilled contacts at	70	71.8 - 74.5 Fractures at 0-10o to C.A. with chlorite/calcite coatings. 74.5 - 74.6 Strong calcite altered tuff.		
		83.1 - 83.95 Bedded, light grey calcareous tuff? and dark grey tuff. 83.95 - 84.13 Amygdular basalt with brown chill margins at lower contact at 70o. Upper contact broken. 84.13 - 84.26 Calcareous tuffs. 84.26 - 88.1 <BSLT> Dark grey-green amygdular basalt. Amygdules calcite-filled, up to 1cm wide, 5-20%. Basalt finer gr., amygdules more common near contacts. Upper contact broken. Lower contact, chilled	70			
		88.1 - 89.37 Bedded dark grey tuff and light grey calcareous tuff. 89.37 - 92.10 Bedded tuffs.				
92.10 TO 114.00	SEDIMENTS/ TUFFS <SED&TUFF>	<carbon seams> Colour - medium grey, brown. Grain Size - fine to medium. Medium gr. greywacke with up to 5% carbonaceous laminations. 103.3 - 107.14 Well-bedded black mudstone and brown tuff at	80			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
114.00 TO 145.88	MUDSTONE/ TUFF «MDST&TUFF»	«carbon seams» Colour - medium grey, light brown, green. Grain Size - fine. Bedded mudstone and tuff. Occasional carbon laminations in seds. Beds thin 0.5mm - 2cm distinct. Volcanic component increases downhole. 142.5 1cm wide carbon + pyrite bed. Py blebs often in medium gr. light grey tuff beds with hematite frags. [143.55 - 143.8] «green ash» Olive green soft ash layer.	80		«Tr py» Very occasional f.gr. pyrite blebs.	
145.88 TO 151.32	AGGLOMERATE «AGG»	Colour - black, green, grey frags, brown matrix. Grain Size - coarse frags. Frags of mafic tuff and chl altered mafic tuff up to 8cm; avg. is 2-3cm. Angular, unsorted. Also minor grey tuff, qtz, and grey limestone frags. Matrix is f.gr. light brown tuff. Frags comprise 60-80% of rock. Gradational lower contact. Unit below is brecciated also.				Fragments of Eagle Bay Origin.
151.32 TO 169.10	BRECCIA, BEDDED TUFF «BX,TUFF»	Colour - medium green, black. Grain Size - fine. Fine gr. mafic tuff. Strong chl-altered black sections. Auto-brecciated over upper 1m, but also bedded sections 154.3 - 156.5 Moderately broken section of mixed green and black tuff. 156.5 - 160.4 Auto-breccia and bedded tuff	70 45	«chl/ser alt.» Strong chl/ser alteration.		[153.5 - 154.3] «FLT» Fault zone. Broken core. Represents post-depositional deformation of Eagle Bay Tuffs.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		Bx is black, chloritic tuff grading into grey chert with a thin network of light brown, clay-filled fractures.				
		160.4 - 164.6 Chert breccia. Sub-rounded grey chert frags 0.5 - 3cm wide, also black/green chloritic tuff frags in f.gr. medium green matrix. Frags comprise 60-70% of unit.		160.4 - 164.6 Thin fractures filled with light brown clay? and minor calcite.		
		164.6 - 166.4 «FLT BX» Fault breccia. 20-30% tuff and minor chert frags in poorly consolidated light green gouge.				
		166.4 - 169.1 Tuff - frag breccia with minor bedded tuff. Matrix is light green-brown, slight calcareous.				
169.10 TO 187.80	ALTERED ARGILLITE «ALT ARG»	Colour - dark green, black. Grain Size - fine. F.gr., dark green and black altered argillite.		«chl. alt.» Moderate - strong chl alteration. Occasional thin calcite veins increasing towards base of section.		Start of Eagle Bay?
		Sections of intense light brown clay-filled fractures. 175m, bedding	60			
		184.9 - 187.2 Several 20-50cm long sections of qtz-eye tuff. Qtz is smokey grey, 0.5 to 5mm long in medium grey matrix or altered light brown matrix. Qtz eyes rounded, slightly elongated. Bedding, 187m	45	183 - 187.8 Moderate sericite alteration. 2mm-2cm calcite veins at 40-60o to C.A., usually in opposite sense of bedding.		
187.80 TO 297.18	BEDDED SEDIMENTS, MINOR TUFF «SEDS&TUFF»	Colour - medium to dark grey, dark green. Grain Size - fine - medium. Well-bedded black argillite, arg grey siltstone/wacke. Some 10-15cm long sections of medium gr. wacke with 2-3cm long grey chert frags. Bedding at 197.5m	50	Occasional thin calcite veins at 40-60o in opposite sense of bedding.	«Tr py» Tr euhedral 2-5mm pyrite throughout. More prevalent in siltstone/wacke beds than in mudstone.	
		199.8 - 203.4 Thin, dark green tuff interbeds.		199.8 - 203.4 Zone, 5cm-15cm of carbonate flooding.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		203.4 - 246 Black mudstone, grey siltstone/wacke. Bedded at Py in siltstone layers/occasionally calcite veins. Minor chert-fragment wackes, euhedral py as previous. Minor tuff as noted: 228.7 - 229.8 Light green and black chloritic tuff. Occasionally bedded at	45 60	228.7 - 228.8 Intense carbonate alteration especially over 10 to 20cm at upper and lower contacts.		
		Bedding at 230.5m Bedding at 234m	60 45			
				239.07 - 242.3 <QV> White qtz vein. Minor calcite along thin fractures. Argillite interbeds and partings.	239.07 - 242.3 Very trace pyrite.	242.15 - 242.3 <FLT> Minor fault zone. Broken core. Minor graphite on fractures.
		246.0 - 258.2 Mudstone/siltstone with minor medium green tuff layers. Tuff layers usually 2-4cm wide. 255.74 - 256.04 Green tuff layer. Strong calcite veining. 256.5 - Tuff beds	 40	246.0 - 258.2 Irregular calcite veins, stronger near tuff layers. Quartz-calcite veins usually at 60o to C.A.		
		258.2 - 291.0 Mudstone, siltstone. Bedding varies. Py in coarser siltstone. Bedding at 272	 60	258.2 - 291.0 Calcite veins and calcite & qtz veins and flooding. Various orientations, often contorted.		
		291.0 - 297.18 Well-bedded, f.gr. mudstone/siltstone. Bedding very consistent.	 80	291.0 - 297.18 Very occasional <1mm calcite veins.	291.0 - 297.18 2% py. 2mm - 2cm cubes.	
		END OF HOLE 297.18				
297.18 TO 406.56						

				ASSAYS							GEOCHEMICAL						COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu %	Zn %	Pb %	Ag g/T	Au g/T	Sb ppm	As ppm	Cu ppm	Zn ppm	Pb ppm	SG	Ag ppm	Au ppb	
BCD8958	239.07	242.30	3.23								23	75	18		0.8	5	

Sample	From (m)	To (m)	Length (m)	AL2O3 %	BA %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	SIO2 %	SR %	TIO2 %	ZR %	AG PPM	AS PPM	B PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	TOT %
BCD8572	26.00	29.00	3.00	14.78	.106	1.96	4.69	2.52	2.19	.10	1.06	68.67	.02	.73	.021	1.6	9	7	45	30	1	138	5	96.86
BCD8573	35.00	38.00	3.00	10.26	.076	2.45	4.29	1.83	1.71	.15	1.05	73.87	.02	.69	.014	1.6	9	1	29	20	1	98	5	96.41
BCD8574	78.00	81.00	3.00	16.62	.151	1.02	5.62	3.26	2.41	.21	1.26	66.09	.03	.66	.022	1.3	12	9	41	35	1	121	10	97.35
BCD8575	84.50	87.50	3.00	16.60	.177	5.62	8.74	2.46	6.64	.20	3.45	51.60	.11	1.17	.018	2.3	14	17	28	38	1	91	5	96.78
BCD8951	142.00	145.00	3.00	16.52	.098	.92	7.27	3.90	.66	.13	1.06	65.56	.02	1.14	.021	1.6	15	7	51	24	1	108	5	97.31
BCD8952	147.00	150.00	3.00	15.07	.133	4.33	6.45	1.52	2.13	.36	1.49	61.57	.08	.66	.019	2.4	18	30	37	49	2	112	15	93.79
BCD8953	155.00	158.00	3.00	12.61	.099	1.86	7.41	2.98	.64	.21	.69	69.27	.02	.92	.016	1.7	11	9	42	29	3	131	5	96.72
BCD8954	181.00	184.00	3.00	13.75	.091	9.79	7.44	3.02	1.20	.15	.37	54.95	.01	.94	.015	1.7	2	1	40	20	2	82	5	91.72
BCD8955	188.00	191.00	3.00	15.53	.107	8.34	7.87	3.48	2.21	.14	.64	55.90	.02	1.09	.018	1.5	11	4	48	22	2	93	5	95.36
BCD8956	200.00	203.00	3.00	15.77	.107	4.53	8.80	3.37	1.72	.18	.73	59.81	.02	1.01	.016	1.4	14	6	36	26	1	104	10	96.06
BCD8957	235.00	238.00	3.00	16.00	.100	5.01	6.92	3.40	2.85	.15	.72	59.09	.02	1.00	.016	1.4	13	12	46	32	3	141	10	95.29
BCD8959	251.00	254.00	3.00	15.81	.096	3.72	7.43	3.05	2.44	.19	.77	59.96	.02	.91	.016	1.5	8	16	48	40	2	148	5	94.43
BCD8960	267.00	271.00	4.00	18.24	.098	1.27	8.46	3.37	3.40	.11	.91	59.75	.02	1.06	.017	.9	15	18	41	39	1	132	5	96.69
BCD8961	291.50	294.50	3.00	15.63	.078	2.73	8.50	2.83	3.73	.18	.86	61.67	.02	.96	.018	.9	16	15	49	42	2	138	5	97.21