Hole Id	**MS10**	**Project**	QUEENSTOWN	**EOH**	656.40
Type	DD	**Prospect**	BEATRICE	**Commenced**	5/08/99
Year	1999	**Tenement No.**	EL 6/98	**Completed**	17/09/99

Wedge / Extension	Parent Hole ID	Wedge Depth

UTM East	385348.60	**Local East**		**Dip**	-82.00
UTM North	5347908.40	**Local North**		**True Az (UTM)**	
UTM RL	738.60	**Local RL**		**Mag Az**	302.00
UTM Grid	AMG66_55	**Local Grid**		**Local Az**	290.00
UTM Datum	AGD66				

From	To	DH Type
0.00	4.50	DD
4.50	56.10	DD
56.10	656.40	DD

Logged by	KPD
Sampled by	AA/CA
Exploration Co.	Pasminco
Drilling Contractor	Diamond Drilling T
Drill Rig	CS1000 P4

Casing Type	40mm cl
Depth From	0.00
Depth To	656.40
Casing Diam.	40mm

Downhole Geophysics

Reason for hole / Target Test centre of PL anomaly west of Itat Ck Fault.

Visible Mineralisation

Best Intersection(s)

Summary Geology

From	To	Lithology	Description

Comments 3m 150mm PVC left as collar

Hole Id	MS11	**Project**	QUEENSTOWN	**EOH**	602.30
Type	DD	**Prospect**	BEATRICE	**Commenced**	30/09/99
Year	1999	**Tenement No.**	EL 6/98	**Completed**	17/11/99

Wedge / Extension	Parent Hole ID	Wedge Depth

UTM East	385486.60	**Local East**		**Dip**	-72.00
UTM North	5347742.10	**Local North**		**True Az (UTM)**	
UTM RL	754.20	**Local RL**		**Mag Az**	296.00
UTM Grid	AMG66_55	**Local Grid**		**Local Az**	284.00
UTM Datum					

From	To	DH Type
0.00	7.00	DD
7.00	98.00	DD
98.00	602.30	DD

Logged by	KPD
Sampled by	AA/CA
Exploration Co.	Pasminco
Drilling Contractor	Diamond Drilling T
Drill Rig	CS1000 P4

Casing Type	40mm cl
Depth From	0.00
Depth To	602.30
Casing Diam.	40mm

Downhole Geophysics

Reason for hole / Target Test centre of PL anomaly in hangingwall and footwall of Itat Creek Fault

Visible Mineralisation

Best Intersection(s)

Summary Geology

From	To	Lithology	Description

Comments 3m 150mm PVC left as collar

Hole Id	**MS12**	**Project**	QUEENSTOWN	**EOH**	282.00
Type	DD	**Prospect**	BEATRICE	**Commenced**	7/12/99
Year	1999	**Tenement No.**	EL 6/98	**Completed**	9/02/00

Wedge / Extension	Parent Hole ID	Wedge Depth

UTM East	384325.60	**Local East**		**Dip**	-48.00
UTM North	5347609.10	**Local North**		**True Az (UTM)**	
UTM RL	690.00	**Local RL**		**Mag Az**	300.00
UTM Grid	AMG66_55	**Local Grid**		**Local Az**	288.00
UTM Datum					

From	To	DH Type
0.00	6.00	DD
6.00	282.00	DD

Logged by	AMcN
Sampled by	AA/CA
Exploration Co.	Pasminco
Drilling Contractor	LIDDS
Drill Rig	Hydracore 28

Casing Type	40mm cl
Depth From	10.00
Depth To	282.00
Casing Diam.	40mm

Downhole Geophysics

Reason for hole / Target Test West Beatrice PL and resistivity anomaly

Visible Mineralisation

Best Intersection(s)

Summary Geology

From	To	Lithology	Description

Comments

Hole Id	**MS13**	**Project**	QUEENSTOWN	**EOH**	468.20
Type	DD	**Prospect**	BEATRICE	**Commenced**	14/02/00
Year	2000	**Tenement No.**	EL 6/98	**Completed**	21/03/00

Wedge / Extension	Parent Hole ID	Wedge Depth

UTM East	385480.00	**Local East**		**Dip**	-68.00
UTM North	5347732.70	**Local North**		**True Az (UTM)**	
UTM RL	759.30	**Local RL**		**Mag Az**	272.00
UTM Grid		**Local Grid**		**Local Az**	260.00
UTM Datum					

From	To	DH Type
0.00	2.00	DD
2.00	68.50	DD
68.50	468.20	DD

Logged by	AMcN
Sampled by	AA/CA
Exploration Co.	Pasminco
Drilling Contractor	DDT
Drill Rig	CS1000 P4

Casing Type	40mm cl
Depth From	0.00
Depth To	468.20
Casing Diam.	40mm

Downhole Geophysics

Reason for hole / Target Test DHEM anomaly from MS11

Visible Mineralisation

Best Intersection(s)

Summary Geology

From	To	Lithology	Description

Comments

Pasminco Exploration

Downhole Survey Report

Hole Id	Depth	Dip	Azimuth (True)	Azimuth (Mag)
MS1	0	-60	300	
MS1	60	-58	304	
MS1	120	-58	309	
MS1	180	-55	312	
MS1	240	-50	317	
MS1	300	-49	320	
MS1	329.1	-60	300	
MS10	0	-82	302	290
MS10	30	-81	296.8	284.8
MS10	60	-81	296.7	284.7
MS10	90	-81	297.6	285.6
MS10	120	-81	302.5	290.5
MS10	150	-81	309	297
MS10	180	-81	318.9	306.9
MS10	210	-80	327.5	315.5
MS10	240	-80	335.2	323.2
MS10	270	-79	344	332
MS10	300	-79	346	334
MS10	330	-79	349.4	337.4
MS10	360	-77	358.1	346.1
MS10	390	-76	5	353
MS10	420	-75	5.6	353.6
MS10	450	-75	6.5	354.5
MS10	480	-74	8.6	356.6
MS10	510	-73	11.4	359.4
MS10	540	-73	13	1
MS10	570	-72	15.3	3.3
MS10	600	-70	18.3	6.3
MS10	630	-68	19.7	7.7
MS10	648	-68	21.1	9.1

Hole Id	Depth	Dip	Azimuth (True)	Azimuth (Mag)
MS11	0	-72	296	284
MS11	15	-72	296	284
MS11	60	-72	301	289
MS11	112	-70	303	291
MS11	167	-70	309	297
MS11	230	-69	316	304
MS11	260	-68	317	305
MS11	293	-68	317	305
MS11	323	-68	317	305
MS11	353	-68	318	306
MS11	383	-68	321	309
MS11	413	-67	321	309
MS11	443	-67	323	311
MS11	473	-66	326	314
MS11	523	-65	329	317
MS11	575	-64	333	321
MS11	602	-63	334	322
MS12	0	-48	300	288
MS12	30	-48	297	285
MS12	83.2	-48	296	284
MS12	120	-47	296	284
MS12	170	-47	293	281
MS12	282	-45	292.5	280.5
MS13	0	-68	272	260
MS13	15	-68	274	262
MS13	60	-68	276	264
MS13	110	-67	278	266
MS13	140	-67	280	268
MS13	170	-66	283	271
MS13	200	-66	283	271
MS13	230	-65	283	271
MS13	260	-64	282	270
MS13	290	-64	282	270
MS13	320	-63	282.5	270.5
MS13	350	-63	283	271
MS13	380	-62	282	270
MS13	410	-62	285	273
MS13	468	-60	288	276

Pasminco Exploration

Downhole Survey Report

Hole Id	Depth	Dip	Azimuth (True)	Azimuth (Mag)
MS2	0	-61	55	
MS2	60	-55	55	
MS2	120	-40	57	
MS2	180	-35	59	
MS2	240	-30	60	
MS2	300	-27	64	
MS2	301	-61	55	
MS3	0	-56	50	
MS3	60	-53	52	
MS3	120	-47	52	
MS3	180	-42	53	
MS3	240	-40	54	
MS3	300	-38	56	
MS3	328	-56	50	
MS4	0	-59	305	
MS4	60	-59	313	
MS4	120	-56	317	
MS4	180	-55	320	
MS4	240	-54	324	
MS4	300	-54	330	
MS4	350	-59	305	
MS5	0	-60	296	
MS5	139	-60	296	
MS6	0	-50	144	
MS6	30	-50	143	
MS6	60	-50	143	
MS6	90	-49	143	
MS6	120	-48	145	
MS6	150	-47	146	
MS6	180	-46	146	
MS6	210	-46	147	
MS6	240	-45	148	
MS6	270	-45	146	
MS6	288.8	-50	143	

Hole Id	Depth	Dip	Azimuth (True)	Azimuth (Mag)
MS7	0	-60	60	48
MS7	62	-61	63	51
MS7	122.2	-61	65	53
MS7	176	-57	66.5	54.5
MS7	239	-56	65	53
MS7	308	-56	66	54
MS7	371	-55	67	55
MS7	427	-54	66	54
MS7	506	-53	68	56
MS7	550	-52	69	57
MS8	0	-60	112	100
MS8	29	-61	113	101
MS8	100	-61	116	104
MS8	150	-61	117.5	105.5
MS8	250	-61	117.5	105.5
MS8	300	-61	119	107
MS8	350	-61	119	107
MS8	400	-60	122	110
MS8	450	-60	122	110
MS8	500	-60	122	110
MS8	550	-60	121	109
MS8	607	-60	121	109
MS8	650	-59	122	110
MS8	700	-59	121	109
MS8	750	-59	123	111
MS8	798	-58	122	110
MS9	0	-65	290	278
MS9	31	-65	290	278
MS9	62	-64	290	278
MS9	100	-64	286	274
MS9	152	-64	286	274
MS9	199.8	-64	284	272
MS9	251	-64	287	275
MS9	305	-64	290	278
MS9	353	-64	290	278

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DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queenston
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	Beatrice
Geologist	KPD	Date	29/10/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
0									
						1 mm vertical fractures	0.0 – 33.0m – Pink grey feldspathic siltstone → mudstone (ashy volcanic). The unit is moderately sericite altered. Rare green spots 2–3mm are interpreted as chlorite predominate locally.	mod. Se	
5									
10									
15									
								chl spots	
20									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenston
Hole_Type	DIAMOND	Tenement_No	EL6/98
Year	1999	Prospect	BEATRICE
Geologist	KDD	Date	29/10/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
20									
								↑ mod Ser mod Chl spotty	
							23.0 – 24.8m the core is badly broken and minor peg development at 23.7 and 24.8m.		
25						≈			
30								So (≈10)	
								↓	
		072					33.0 – 51.4m mottled green (spotted) and pink green fine grained volcanic. Chlorite spots ⌀ 2-3mm are common	↑ mod-	
35		918							
							throughout the unit and the intensity + proportion increases towards the base of unit.	Strong chlorite alt°	
		919					From 38 – 41.8m Feathery remobilised pale yellow sphalerite are common.		
		920					From 39 – 44m clots of darkened sphalerite/galena and pyrite ⌀ 8mm are common. carbonate		yellow SP
		921							
40		922							

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queensland
Hole_Type	DIAMOND	Tenement_No	6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	29/10/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
40		072							
		923							
		924							yellow Sp
		925						mod-strong	
		926						chlorite	
45								alt^n.	
		927							
		928							
50		929							
		930	51.4				51.4 - 60.8m. Mottled Dark green - pale yellow chlorite altered ashy volcanic. The unit is dominantly chlorite altered but locally it is sericite altered with dolorite spots to 2-3mm. The unit is cut by		
		931							
55		932						Chl_4	
		933					irregular tension gashes filled with carbonate from 51.4 - 57.4m but became basemetal rich from 57.4 to 60.8m. The majority of basemetal is galena (5%) with chalcopyrite (1%) and minor sphalerite (1%). From 59.1 - 59.4m a breccia vein is intersected, qtz/banded carbonate/sphalerite/galena ↑epithermal? colloform textures	Sericite$_4$ in bands.	
		906	88	3500	3250				sph±py±spy
		907	2290	12900	7450				
60		908	2430	22500	25500				

	Ag	Au
	3.2	0.19
	13	2.6
	27	1.7

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Ouesnelia
Hole_Type	DIAMOND	Tenement_No	EL6/98
Year	1999	Prospect	BEATRICE
Geologist	KDM	Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm; Ag / Au; 0.1 1 2 4 10)	Comments	Alteration	Mineralisation
60		6.0							
		909 61.0	3540	33000	15600	28 3.2	60.8 – 62.6m. Orange grey sericite altered ashy volcanic, cut by a network of ga/sph (8%) minor chalcopyrite veinlets		
		910 61.8	1350	30500	21500	19.7 2.05		Se_4	
		911 62.6m	1270	25500	37000	34 2.3			
		912 63.5m	1545	13700	13000	46 0.9		Chl_4	
		934	64.5				62.6 – 63.5m As at 57.4 – 60.8m		
65							63.5 – 71.8m Pale green chlorite altered ashy volcanic		
		935					from 70.0 – 71m a series of quartz-carbonate ± chalcopyrite ± galena ± sphalerite veins and veinlets (10mm – 150mm).	Chl_2	
		936							
		937							
70									qtz, ch, ±cpy ±ga ±sph
		938							
		939	71.8m				71.8 – 97.3m. Mottled yellow-green moderately sericite altered feldspathic sandstone. Mottled appearance is due to less altered wisp of sandstone to 3-4mm.		
		941						Se_3	
75									
		942						Chl_{1/clh_3}	
		943							
		944						So (74)	
80									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Quarantine
Hole_Type	DIAMOND	Tenement_No	EC6/KD
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
80									
		945	81.1				80.2 – 81.1 m calcareous - quartz galena pyrite veining (5%)		
		~~946~~							
		947							
85									
		948							
		949							
90									
		950					92.1 m – 93.6 m Siltstone grading to 5mm with varying proportions of galena and sphalerite.		5mm
		951							
		952						chl 3	sp/gn/py 2mm
95								Spotty	
		953	97.3 m				97.3 – 103.8 m Green with dark green chloritic spots. ashy volcanic.		5mm sp/gn
		954							
100		955						So/30	

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	3/11/99.

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
100									
		956						chl3 Sph/Py.	
			103.8				103.8 – 128m. Pale grey ash volcanic, locally coarser grained, well bedded with So // to VCA.		
105		957						Ser	
		958							
		959							
110									
			110.3m				110.3-110.4m pug fault,		
		961					From 110.3-128m the unit is cut by 3-5mm ch/qtz veinlets		So/005
		962				So			
115									
		963							
		964							So/015
		965							
120									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queensto
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KDD	Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
120									
		966							
		967						S_{o_2}	
125		968					from 124.1 - 128 m pale brown lithic? grain to 15mm.		
		969					128.0 - 147.2 m.		
		970					pinkish green to pink variably chlorite and K-feldspar altered lithic pumice grit/sandst		diss black sulfide; 3mm qtz bk sphalm
130		971							
		972						chl_3 K_1	
		973							
135									
		974							25%
		975						K_4 chl_2	qtz/cb/ K-feldspar veining.
		976							
140									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
140									
		977							
		978							
145									
		979						Chl_4.	
		981					147.2 – 149.9m. Well bedded pale brown ashy volcanic	Se_2	S./023
		149							
150		913 150.1	61	1455	360		149.9 – 151.6m semi-massive sulfide in chlorite altered feldspathic sandstone. Sulfide is commonly galena and forms an anastamosing network. from 150.1 – 150.9m galena / sulfides (30%), 150.9 – 151.6m – galena (10%) sphalerite (3%), pyrite 5%.)		
		914 150.9	1675	+10%	4.85%			Chl_4	
		915 151.7	940	7.65%	5.45%				
		916 153	62	1460	1130			K_4	
		982					151.6 – 185.3m. pink and green variably altered lithic pumice crystals/lava grading		
155		983	1547					1547	
		984							
		985						Chl_2	
		986							
160									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queanbeyan
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	ICPD	Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
160									
								Chl_3	
165								Chl_5 Pumice	
170									
								Chl_3 K_2	
175									
180									

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DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KDD	Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
180									
			182.0m					K4	diss py.
			183.6m						
185			185.2m				185.3m – 197.0m. faulted fine ash volcanic, badly broken core and localized py zones at 191 – 191.2m, 192 – 193.1m, Is this the Ilat Creek Fault? fractures / crush zones at 190m and 196m are at a low angle (<20°) to the core	fault 008	
190									
195								fault 004.	
200							197.0 – 244.6m Lithic sandstone → cobble → conglomerate. Lithic clasts are predominantly pink rhyolite clasts, green wispy sericite, altered pumice and limestone.	K3	

drillog

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
200									
							clasts predominates in the coarser section		
205									9½/cb/cl/ veins
								K_3	
210									
								—	—
215								Se_4	
							limestone	of pumice.	
220									

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DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queensborough
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999 (RPD)	Prospect	BEATRICE
Geologist		Date	3/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
220									
225									
230							Wbr orientated -68.5° → 316 AMG S_0 57 → 265	S_2	
235									
240									

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DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Dugald River
Hole_Type	DIAMOND	Tenement_No	6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
240									
245									
250								Se2	
255						finely bedded	← 20cm limestone breccia		
260									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Quamby
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
260									
							K feldspar alteration increasing		
							↓ 274.6m.		
265									
								$Ch1_2$	
								K	
270									
							274.6 – 292.2m		
275							Pink and green		
							K- feldspar and albite altered lithic sandstone/volcanic.	K_3	
								$Ch1_3$	
280									

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DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queanbeyan
Hole_Type	DIAMOND	Tenement_No	6/98
Year	1999	Prospect	BEATRICE
Geologist	KMD	Date	4/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
280								K_3 Chl 3.	
285									
290									
295							292.2 – 314.3m Mottled pink and green strongly K-feldspar altered clasts and selective beds, chlorite altered lithic sandstone – siltstones.	K_4	
300						finely bedded.	The unit is cut by a series of 5–20mm wide quartz-chlorite-carbonate veinlets. There are clear distinct pink rhyolitic clasts but there is also more indistinct "clasts" which are probably alteration domains rather than clasts.	Chl_4	S0/027 qtz-cb-c

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queanbeyan
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KRD	Date	

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
300									
305								K_4	
							305 - 314.3m abundant quartz, chlorite, feldspar veinlets typically chl 4. 4-5mm wide.		QFS Fly-chl-feld
310									
315									
							314.3 - 343.0m Variably chloritic and K-feldspar altered ashy volcanic → lithic grit.	chl_4	
								K_3	
								chl_3	
320									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	EL6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	4/11/99.

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
320									
								K_3	
325								chl_3	
							from 331.0–335.8m are series of 5–100mm quartz-carbonate-chlorite veins are intersected.		
330								chl_1	ab-chl
								K_{1-2}	chl
335									
340									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Duncan Stn
Hole_Type	DIAMOND	Tenement_No	EL6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	4/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
340									
							gradational contact.		
							343.0 – 355.3m.		
							Lithic pumice sandstone/grit. Lithic clasts are light grey – pink rhyolite clasts, pumice is flattened and dark green sericite altered		
345								Se-pumice 4	
								Se 1	
350									
355									
							355.3 – 381.5m. Coarse grained limestone, rhyolite lithic pumice conglomerate. Numerous limestone clasts to 30mm and pumice typically 3–10mm but up to 30mm.		
360									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenston
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KDD	Date	4/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
360									
365									
370							· S_o 45 → 223°	Sericite Soil	
375									
380									

369.3m S_o:

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queenston
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KDD	Date	4/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
380									
							381.5 – 398.8 m. pink + green fine – coarse grained lithic pumice sandstone => siltstone. Dominant K-feldspar alteration is invaded with green chlorite alteration (eg. 384.2) and has a pseudo breccia appearance.	Sc+	
385									
								K_2	
390								Cl_2	
							From 397 – 405.6 m 5–10 cm calcite veinlets are intersected with 3–4 veins/metre.		
395									
									/
400									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queanbeyan
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	4/11/99.

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
400							398.8 – 440.3m (Series of upward downhole graded slitstone + pumice silt (to 70% in coarser sections) sandstones/grits → siltstones.		
405									
410								Sc2 pumice	
415									
420									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	4/11/99.

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
420									
425									
430							joined orientations at 428.3 - 434.3m with approx 10° error ✓ • 427.2m: 74 → 201°, = contact, 428.8m So 44 → 304° 429.9m 38 → 350° = contact, 432.1m So 31 → 284° 432.1m So 34 → 294°	contact. 021 So Contact.	
435								So Se2 pumice	
440									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KDD	Date	5/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
440								Wbio	
							440.3 – 486.6m. Grey green homogeneous feldspar phyric volcanic, the entire unit is mottled with 20% 2-3mm clots of white mica. Locally bedded.		
445							447.5m So: 61° → 210°	Se 3	clots
450							pumice		
455									
460									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATREE
Geologist	KPD	Date	5/11/99.

Depth	Lithology		Cu	Pb	Zn	Graphic Log	Comments	Alteration	Mineralisation
	Code	Colour				mm 0.1 1 2 4 16			
460									
465									
470									
475									
480									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	5/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
480									
485									
490							486.6m – 495.9m. Pale green-grey-brown fine grained, massive ashy volcanic.		
495							From 490–494m a series of quartz-feldspar-chlorite veins to 15cm are intersected.		
500							495.9–551m. Series of upholes? Lacing graded sandstone-siltstone. Coarse bases are feldspar (to 2mm) rich with rare lithics to 15mm.		

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Quarantine
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	5/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
500									
505									
510									
							From 513 - 513.6m quartz-chlorite veins with minor galena are intersected		alt-chl - ga
515									
								mt4	030
							From 517.6 - 521.8m massive magnetite veins to 25mm are intersected.		25mm magnetite vein
520									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Dubbo/Tor
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	5/11/99

Depth	Lithology		Cu	Pb	Zn	Graphic Log	Comments	Alteration	Mineralisation
	Code	Colour				mm 0.1 1 2 4 16			
520									
								Mt4	
525									
530									
535									
540									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Queenstown
Hole_Type	DIAMOND	Tenement_No	6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	5/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
540									
							from 539.6 – 546.2m: a series of 50 – 150mm quartz-feldspar chlorite veins are intersected.		
545									
550									
							551.0 – 573 m: Uniform, monotonous patchily K-feldspar altered lithic sandstones and siltstones	K_3 patchy.	
555									
560									

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS 11	Project	Duncaster
Hole_Type	DIAMOND	Tenement_No	EL 6/98
Year	1999	Prospect	BEATRICE
Geologist	KPD	Date	16/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
560									
565									
570								K_3 Pahk	
575							573–598.2m Pale green volcanic with patchy K-feldspar alteration. Small chlorite patches to 3–4mm (are possibly pumice) have 1–2mm rims of K-feldspar. K-Spar. 2–4mm carbonate veinlets ± quartz		10cm qtz - chl qtz
580									

50/51

DIAMOND DRILL HOLE LOG

PASMINCO EXPLORATION

Hole_ID	MS11	Project	Queen Four
Hole_Type		Tenement_No	6/98
Year		Prospect	BEATRICE
Geologist		Date	16/11/99

Depth	Lithology Code	Lithology Colour	Cu	Pb	Zn	Graphic Log (mm: 0.1, 1, 2, 4, 16)	Comments	Alteration	Mineralisation
580							are very common in the interval 586.5–594.0m and are typically at an angle of 30° to TCA		
									alt- chl-fol'n veinlet
585									
590									
595									
600							598.4–602.3m (EOH) Sericite altered volcanic, coarse rhyolite lithic breccia from 600.4–601.3m with subrounded to rounded clasts to 45mm	Ser	

PASMINCO ...PLORATION **DIAMOND DRILL HOLE LOGGIN...** Input

Hole_ID	MS-12	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	Torrey.	Date	30/3/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
0											
	IRPO	Pk	Quartz-feldspar-porphyry Strongly weathered Qz-phen to 8mm diameter	Si kfs (1)			Qz Cb ± chl (3)				
5.0	4.7			4.7			4.7		4.7 Broken		4.7-6.0 lost
	VN 6.0	wh.	quartz ± Carbonate vein	6.0			5 Qz Cb		6.0 Broken		Core/Cavity
							6.0 Qz Cb ± chl (3)				
10.0											
	IRPO	Pk-br	Quartz-feldspar porphyry Strongly weathered to 20.8m Qz + fld. phen to 10mm diameter. alteration typical Star Creek Porphyry				11.9				
15.0											
							Qz (1)				
20.0											
		20.8		20.8							20.8m base of strong weathering.
		Pk-Gn		Si kfs (2) Per. Chl (2) Pot.							
25.0		24.9					24.9		24.9 Irregular		

PASMINCO E LORATION — **DIAMOND DRILL HOLE LOGGING** — Input

Hole_ID MJ-12	roject
Hole_Type	Tenement_No.
Year	Prospect
Geologist	Date

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
25	CPSA	PL-SA	Polymict xtal-rich volcaniclastic sandstone			50 x 60° to CA.			25.9 Irregular		
			qtz + fd xtals, Qtz porphyry clasts (coarse at base)	25.9		25.7	25.9				
			minor siltstone intervals. + mar fine chl-pumice?								
30.0											
							Qz (1)				
35.0											
	IRPO	PL-SA	Quartz-feldspar-porphyry	Si Ktd (2) (pervasive)							
			Minor biotite phenocrysts.	Chl (1) (patchy)							
			Some narrow zones look brecciated with a sandy xtal-rich matrix, eg 47.7-48.2m boundaries of these units are diffuse				39.5				
40.0											
							Qz Cb ± Chl (2)				
							42.8				
45.0											
							Qz Cb (1)				
50.0											

PASMINCO ... LORATION

DIAMOND DRILL HOLE LOGGIN...

Input

Hole_ID	MS-12	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMN	Date	10/2/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
							Qzcb (1)				
							52.3				
55.0											
							Qzcb ± chl (2)				
60.0											
							60.2				
	IRPD	Pk-Gn	Quartz-feldspar-porphyry.	Silctd (2) - Pervasive							
				Chl (2) - Patchy							
65.0											
							Qz (1)				
		68.1	68.1 – 71.3 leached (weak) with minor oxidised joints + fractures.	68.1							
		Br-Gn		Weathered							
70.0									69.9 Broken		
		71.3		71.3				70.4/0.5/?/Br	70.4 Broken		
				Silctd (1) - Pervasive		73.6 FB = 65°/bca					Weak fault-bounded by chl-rich dykes.
		Pk-Gn		Chl (2) - Patchy				74.0/0.02/30/sh			
75.0											

PASMINCO E LORATION — **DIAMOND DRILL HOLE LOGGING** — Input

Hole_ID	MB-1L	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMcN	Date	20/5/00

Depth	Lithology Code	Lithology Colour	Comments	Alteration (Up to 3 codes w. intensities (1-3))	Mineralisation (Up to 3 codes with %)	Structure	Veining	Faults		Graphic Log	
			Quartz-feldspar-porphyry	Silcfd (1) Chl (1)							
			76.0								
	IRPO/	Pk-Gr	Quartz-feldspar-porphyry with narrow zone of porphyry breccia with volcaniclastic sandstone matrix	Silcfd (1) Chl (2)							
80.0	CPSA		Minor chloritic alteration in QFP					82.6/0.a/?/ox,Gr			f
			83.4		85.6						
85.0	IRPO	Lt pk-grn	Quartz-feldspar-porphyry	83.4 Silcfd (2)							
			86.2	Chl (2) 86.2					86.2 sharp, irregular		
	CPBR	gn-grn	Polymict volcaniclastic breccia with lithic-rich base. Clasts: Sericitic black shale, Q-f-porphyry, rare fp-Pumice, Siliceous non-phyric volcanic. Clasts to 100mm. Generally sb-rounded to angular.	Silc (2)	dss Py (tr)		Qz (1)				
90.0			Matrix is xtal-rich, Qz + felt. Unit appears un-graded.								
			91.9	91.9					91.9 sharp, irregular		
	CRBR	Pk-grn	Rhyolitic volcaniclastic breccia. Graded top to vbl. st. Clasts dominated by quartz-feldspar-porphyry. (no obv. shale) to 150mm diameter. Matrix is volcanogenic. (chl + ?)	Silc (1)				94.6/0.1/?/Gr	95.2, gradational over 0.1m; f		
95.0			95.6	95.2 Silc (2)							
	CPBR	Pk-grn-Blk	Polymict volcaniclastic breccia. un-graded but upper most shale matrix - lower part Sand matrix. clasts as per unit above; clasts to 60mm dia. clasts Sb A to sb-rounded 97.6 - one calcareous siltstone clast.	97.6	97.6		97.6	97.6/0.3/?/Broken	97.5 broken 97.6 broken		f
	VDBR	Grn-grey	feldspar-phyric dacitic lava breccia Not a typical Bentrim lithology !!	Silc (3)			Cl (2)				
100.0											

PASMINCO 'LORATION

DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID	MS-13	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMW	Date	21/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %					
105				Chl (3) spots. Ser (3) pervasive	Sp+Gn (0.1-2) Vn 101.9 Sp+Gn (tr) Vn.	100.6 S_0 = 30° to LCA 104.0 S_0 = 25° to LCA	Qz Cb ± Chl (2)	102/0.03/35/Veinel + bxten 103.5/0.02/55/Veinel		
110	CFSS	Sm-br	Volcaniclastic siltstone	105.9 Chl (3) Spots Se Si Chl (2) pervasive	107.9 Sp+Gn (0.2-2) Vn 109.4	106.6 S_0 = 15° to LCA	107.9 108.6 Qz Chl (3) Qz Cb Chl (4) 108.8 Qz Cb (1)	105.1/0.01/65/Veinel 108/0.2/6/Veinel + brecciated.		
115			110.9		110.9 Sp+Gn (tr)		110.9 Qz Cb (3) 114.3		110.9 Sharp. Irregular/Veinel	
120	IRRH	Pk-Grn	Massive to weakly flow-banded Qtz-Feldspar-phyric rhyolitic ? intrusive	Ser Chl Py/Gn (2) Pervasive		116.8 Flow banding = 20° to LCA 119.2 Flow banding = 5° to LCA	Qz Cb (2) 116.2 Qz Cb (1)			
125							123.8 Qz Cb (3) 129.9			

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DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID	MS-12	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AM(N)	Date	31/5/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
130	CPBR		Polymict downwards fine matrix volcaniclastic breccia clasts to 2cm diameter clast lithologies as for previous core. Note: disrupted calcareous siltstone layers in groundmass 130.1	Ch(2) Ser(1) Sil(1) Clasts.	Py (tr) diss	125.7 $\delta_1 = 70°$ to CA	Qzch(1) 127.1		130.1, Sharp Irregular		
	SOSH	Bk	black shale 135.8		130.1 Py (1%) diss, Vn+ nodules. 135.7	130.4 $\delta_2 = 60°$ to CA	Qzch(1) 133.2		132.8 broken		
135					Py (0.1%) Vn+ diss						
	CDBR	gn-grn	Dacite volcaniclastic breccia, matrix fluke to sand grade; clasts to 1cm in diameter. Also shale intraclasts. 137.9	Ser(1) Cb(1)	136.0 Py (tr) dis.		Qzch(2)		137.9 Planar-irregular		
140	CPBR	Bk-Grn	Polymict shale matrix volcaniclastic breccia. Clasts as above but with one limestone clast! matrix: shale, calcareous siltstone, + Serpentine. 140.2	Sil(1) Ch clasts	Py (0.1%) diss						
	CPSA	Pk-grn	Pumice-rich Polymict coarse volcaniclastic sandstone. rare lithic clasts + shale intraclasts.	140.2 Sil(1) Ser(1) Kfd(1)	140.2 Py(tr) dis		140.2 Qzch(2)	145.0/0.2/?/Br	140.2 sharp Planar		
145					146.1			146.1/0.02/Su/Pk			
			149.0	148.0				149.0/1.9/?/Br, Bx	148.0 fault.		
150	VDDA	gn-Pk	Massive feldspar-phyric dacitic lava strongly deuteritized	Chl (2) other phen. Sil(1) Pervasive							

PASMINCO .PLORATION

DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID MJ-11	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist AMcN	Date 31/3/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
155					155.0 cpy, fg, sp (tr) yn dis 150.5		155 Qtz ch ch (4)	152.2/0.1/?/Br			
160				Si ch l (2) Pervasive ch l (3) ↓ Phenocryst.			157.0				
165	VDDA	gn-pk	Massive sericitic feldspar-phyric dacite lava	162.0			Qtz ch (2)				
170			below 166m obvious 0.8 cm, rounded chloritic patches in matrix ↓	Si ch l (2) pervasive clay (3) ↓ phenocryst.			167.0				
175							Qz ch chl (2)				

PASMINCO PLORATION

DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID	MS-16	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMN	Date	3/4/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
180							Qz cl chl (1)				
185		sa-pk		Si chl (1) Pervasive Chy (3) @ phenocrysts.	188.0 Py (tr) fg.		188.9				
190	VDDA	185.2 pk 189.0	Massive feldspar-phyric Dacitic lava. Sphenolithic Minor rounded ch-filled ? vesicles below 180m	189.2 Si kfs (1) chl (1) Pervasive 189.8	186.0 Py (0-1) Vn disp SP. 189.4		Qz cl chl (1) 186.5 Qz cl chl (1) 188.4	185.9 2.9 ? Bx			
195		sa-ck 193.0		Si chl (1) Pervasive 193.0	193.7 Py (1-3%) Vn, disp		Qz cl (2) ± chl ± kfs. 193.8 Mnt6 Qz cl Py (4)				
200		Pink		Si kfs (2) chl (1) Pervasive	196.8 Py (tr-0.1) Vn SP 197.5 198.6 Cpy (0.1) Vn		Qz ± cl ± chl (2) 198.2 Qz cl chl ± cpy (4) 199.2				

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DIAMOND DRILL HOLE LOGGIN.

Input

Hole_ID	MJ-11	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMcN	Date	3/4/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
205		Pk		Sk/qtz (2) chl/Se(1) 202.6 Pervasive	Cpy (0.1%) Vn 202.6		qtz chl (Qtz) 201.0				
		202.6									
210		Pk-Gn		S chl/Se (2) Pervasive	209.3		Qtz chl (1)				
211	VDDA	214.5	Massive Siltstone-Arkosic Dacitic lavas Sylvolitic Minor Chl tilted Veinlets.	214.5			212.6				
220		rd-Pk		Se kfs/he (2) Chl/Se (1)	Py(tr-0.1%) Vn ± diss +/- Sp.		Qtz ch ± chl (2)	452/01/60/Br			
		220.5		220.5	221.0						
225		Pk-Gn		Si chl/Se (2) Pervasive				224.0/01/?/Br			

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DIAMOND DRILL HOLE LOGGING

Input

Hole_ID	MJ-11	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	A.Mc W	Date	4/3/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
230		pk-gn		Si chl/Se (2) Pervasive			Qz cb chl (2)				
235		211.4 pk 232.8		234.4 Si bts (2) 231.9 chl/Se (2)			211.0 211.7 Qz cb (3) Qz cb chl Se (4) 222.6				
240	VDDA		Massive feldspar-phyric Dacitic lava. spherulitic Rare cb filled vesicles?								
245		Pk-gn		Si chl/Se (2) Pervasive			Qz cb (2) 202.0 Qz cb (3) 243.0				
250							Qz cb (2)				

PASMINCO E LORATION — DIAMOND DRILL HOLE LOGGINC — Input

Hole_ID	M1-11	roject	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMW	Date	4/4/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
255							Qz Ch (2)				
260					260		253.2 Qz Ch Chl (3) 256.2				
265	VDDA	Pk-SA	Massive feldspar-hbic dacitic lava; spherulitic	Si Chl/Se (2) Pervasive	260.4 Py (tr) Jt. 264.3		Qz Ch (2) 262.6 Qz Ch ± Chl (3) 265.8				← 262.2 Ign dk. Chl/Ch filled Vnlets
270					266.5 Py (tr-0.1%) Vn. 267.0 Py + Ca (tr) Vn.		Qz Ch (2) 267.0 Qz Ch (3) ± Chl				
275		274.1		274.1	270.4 272.2 Py (tr) Vn. 272.6		270.4 Qz Ch (2) 272.2 Qz Ch (3) 272.6 Qz Ch (2)	274.1/0.05/30/RH			

PASMINCO E LORATION

DIAMOND DRILL HOLE LOGGING

Input

Hole_ID	MJ-12	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	A.N.W	Date	4/4/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
280	VDDA	Pk	Altered feldspar-phyric dacitic lava.	si Kfs (2) chl/Se(1)	276.7 Py (f_1) Vn 277.5 279.35		Qz Ch ± chl (2) Qz Ch chl (3) 278.9	277.6/0.01/60/ah			
		276.7 Pk-g	282.0	280.7 si chl/Se (2)	Py (f_2) J.P.		Qz Ch chl (2) Qz (1)				282.0m
			E.O.H.								E.O.H.

PASMINCO [illegible] LORATION — DIAMOND DRILL HOLE LOGGIN[illegible] — Input

Hole_ID MS-8	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist AMcN	Date 15/7/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
			No Core								
5											
	CFSI	br	Volcaniclastic siltstone; Strongly weathered fractured broken; no obvious bedding	Cll (2) calcite							
10											
		10.5		10.5				10.5/0.1/?/broken	10.5 fault		
	CFSA	br	Volcaniclastic Sandstone - Strongly weathered bd Mostly pumice clasts	Cll (2) calcite Si (2) recursive			Cb (1)				
		12.9		12.9				13.0/0.05/20/Pw	12.9 broken		
15								15.1/0.1/20/Br/Pw			
	CFSI	br-gn	Volcaniclastic siltstone; No obvious bedds; core thin (<10cm) vfcl Sandstone interbeds Sympt So in Sc // to LCA. vfcl SST are pumiceous	Cll (2) cont. Seli (2) recursive		18.5 Ws? = 5° to LCA.		18.4/0.2/?/broken			Ws = Some Weathering.
		19.5									
20											
		kh-gn									
25											

PASMINCO L LORATION — **DIAMOND DRILL HOLE LOGGIN** — Input

Hole_ID	MS-13	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AM(1)	Date	16/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
							er. o				
		kh-gn		Chl (1) Sericite (1)			Qz Cb (1)				
					27.5	27.5	25.5				
		27.5		Chl (1) Sericite (1)							
30				Sil≥ kfs/hm (2)	Py (fr) dis	29.5 So = 5° to LCA	Qz Cb (1)				
								31.9/32/30/Pg+ broken			
		gn-pk	Volcaniclastic siltstone; weakly laminated in part.	32.2	32.2		32.2				fault zone
35							Qz Cb (2)				
							34.9				
							Qz Cb (1)				
	CFSI			Chl (1) Sericite (2) Pervasive kfs/hm (1) patchy	Py (fr) Vn + dis Sp + Gn (fr) Vn	37.9 So = 5° to LCA	37.2 Qz Cb (2)	40.0/42/?/ broken			fault zone
40											
						41.2 So = 10° to LCA.					
					42.2 Sp + Gn (0.1-2) Vn Py (fr)		41.2 Qz Cb (3)				
45					44.9		44.7				
			45.7 Rhyolitic Volcaniclastic Sandstone; sub-a-sub clasts of pink? rhyolitic lava and chl/ser altered pumice to 100mm dia. (rare) 47.7	45.5 Chl (2) Silkfs/hm (2)	Py (fr) dis. Sp + Gn (fr) Vn vdis	45.5 So = 10° to LCA.	Qz Cb (2)		45.5 Shear ? conformable		
	CRSA	gn-pk				47.7 So = 5° to LCA.			47.7 Sharp ?conformable		
	CFSS	br-gn	Volcaniclastic siltstone; weakly laminated	Ser (2) Pervasive Chl (3) Spot				49.1/49.4/?/ broken + Pus.			
50											

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DIAMOND DRILL HOLE LOGGIN.

Input

Hole_ID	MJ-11	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMW	Date	16/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
		br-gn		Seri(3) Pervasive Chl(3) Scats	Py(tr) Va Sp+Gn (tr) Va+dis	50.3 So=5° to LCA.					
55		55.0		55.0	52.4 Py (tr) Va Sp+Gn (0.1-0.2%) dissVn 55.0			54.9/0.2/?) Broken			
	CFSI	gn-br	Volcaniclastic Siltstone	Seri(3) pervasive Chl(3) Scats.	Py (0.1-0.2%) Sp(0.5%) Va+dis Gn (tr) 57.1	58.3 So=20° to LCA.	QZ Cb(2)				
65					Py (0.1-0.3%) dissVn Sp(tr-0.1%) Va+dis Gn (tr) Va.	64.6 So=20° to LCA					
		67.8 Or-gn 68.9		67.8 Chl(2) sskts/hm (2) 68.9 Chl Scats (4)	68.2 Py (tr) Vn Sp+Gn (tr) Vn		68.2 69.1 QzCb(3)	67.8/0.02/30/Rug		68.5	HQ NQ
75		gn-br	71.2	Ser Si (3) 71.2	71.2		QzCb (1)		71.2 broken - ad Grun!		
	IRRH	bh-Or	Massive, Sheeted devitrified Sands Quartz + feldspar-phyric Rhyolitic intrusive?	si less/hm(2) Cb(3) patchy.	Py (tr) Va.						

PASMINCO .PLORATION — DIAMOND DRILL HOLE LOGGING — Input

Hole_ID	MS-15	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AM+N	Date	21/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
80					Py (1-2) Vn 77.1 Py (0.5?) dis 78.0 Sr+Gn (1-2) Vn. Py (0.1?) Vn+		QzCb(1) 77.7 QzCb(3) 79.0 QzCb(2)				
85					80.8 dis Sr+Gn (1-2) Vn 81.5 Py (1-2) Vn	83.6 flow banding = 45° to LCA 84.5 flow banding =	80.8 QzCb(3) 81.5 QzCb(2) 85.0				
90	IRRH	Lt-Dr	Aphanitic Rhyolitic intrusive devitrified. Patchily flow-banded in part.	Ser ky/hm(2) Cb (3) patchy	86.3 Py (1-2) dis Py (1-2) dis+ Vn 89.0 Py (2-3) dis.	35° to LCA.	86.3 QzCb(3) QzCb(2) 89.2				
95				Cb (2) patchy	90.1 Py (1-2) Vn.	92.4 flow banding = 40° to LCA.	QzCb(1)				
100		96.9		hm (3) in fd. phen. 96.9 Si Ser (2)	96.9 Sr+Gn (0.1-1) Vn 97.5 Sr+Gn (0.5?) Vn. 98.2 Sr+Gn (1?) Cm (1-2) Py (2-3) 99.2 Sr+Gn (0.1?)	97.4 to 20° to LCA.	97.5 Qz Cb Sr+Gn (3) 99.5 QzCb(2)		96.9 Sharp Irregular		
	CFSI	Sm-Dr	Volcaniclastic siltstone	Si+Cb (3) Pervasive 97.8 Cb (3) Sat. Si Ser (3) pervasive							

PASMINCO 'LORATION

DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID	MS-13	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMW	Date	21/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %					
105				Chl (3) spots. Ser (3) pervasive	Sp+Gn (0.1-2) Vn 101.9 Sp+Gn (tr) Vn.	100.6 S_0 = 30° to LCA 104.0 S_0 = 25° to LCA	Qz Cb ± Chl (2)	102/0.03/35/Veinel + bxten 103.5/0.02/55/Veinel		
110	CFSS	Sm-br	Volcaniclastic siltstone	105.9 Chl (3) Spots Se Si Chl (2) pervasive	107.9 Sp+Gn (0.2-2) Vn 109.4	106.6 S_0 = 15° to LCA	107.9 108.6 Qz Chl (3) Qz Cb Chl (4) 108.8 Qz Cb (1)	105.1/0.01/65/Veinel 108/0.2/6/Veinel + brecciated.		
115			110.9		110.9 Sp+Gn (tr)		110.9 Qz Cb (3) 114.3		110.9 Sharp. Irregular/Veinel	
120	IRRH	Pk-Grn	Massive to weakly flow-banded Qtz-Feldspar-phyric rhyolitic ? intrusive	Ser Chl Py/Gn (2) Pervasive		116.8 Flow banding = 20° to LCA 119.2 Flow banding = 5° to LCA	Qz Cb (2) 116.2 Qz Cb (1)			
125							123.8 Qz Cb (3) 129.9			

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DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID MS-13	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist AMcW	Date 20/4/05

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
130							Qz Cb (tr)				
	IRRH	Pk-Grn	Rhyolitic intrusive as above.	Ser (1) kfs/Ab (2) Pervasive Cb (1) soffted.	131.8 Ser+Gn (Tr) Va.	131.5 Flow Lam. = 15° to Ca.	130.6 Qz Cb kfs (3)		134.9 Sharp.		
135			134.8	134.8	134.8		134.9				
	IRBR	Grn-Pk	brecciated Rhyolitic intrusive	Ser (3) Saussuritised kfs/Ab (2) Chlorb.	Gn (0.5%) Va Py (Tr) Va		Qz Cb Chl (3)	136.1/0.1/50/Py.	137.2 broken; sharp.		
			137.2		137.2		135.1	136.5/0.01/40/Py.			
		Pk-Grn		Ser Cl (2) kfs/Ab (2) Chlorb.			Qz Cb (2)	137.2/0.01/?/broken			
140							140.2				
	CRSA	Pk-Grn	Massive Rhyolitic Volcaniclastic Sandstone. No angular Chorts & pink felsic lapilli, pk-grn Vlcl. siltstone and Green Sericitic pumice to 15mm dia. No obvious beddin or intercalated fine sediments.	142 Alb/Ab (3) Ser Cl (2) 144	Py (Tr)		140.8 Qz Cb Chl kfs (3) 142.2 Qz Cb (2) 143.2 Qz Cb Chl kfs (3) 144.1				
145											
		Grn-Pk	147.4 0.2m lam irregular intrusive ? green-grey Volcaniclastic siltstone	Ser Cl (2) kfs/Ab (2) Chlorb.	147.4 py (1%) Alb. 147.6 Py (Tr)		Qz Cb (2)				
150											

PASMINCO [illegible] LORATION

DIAMOND DRILL HOLE LOGGIN[illegible]

Input

Hole_ID MS-13	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist Anjin	Date 31/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %					
		grn-olc	150.7 Vlcl. Sandstone	Sec(2) kfs(1)chl(1)		150.7 So=5° to Ca			150.7 Sharp Conformable	
					fg (tr)		Qz Cl(2)			
155				Se Si (2) Chl(1) spots		154.1 So= 25° to Ca				
							155.1 Qz Cl kfs (3)			
	CFSI/ CRSA	li-Sra	Predominantly vlcl. Siltstone with interbed of fine rhyolitic Volcaniclastic sandstone to 0.4m thick Sandstone units very similar to those above & below.	158.9	157.0	158.0 So = 15° to Ca	158.9 Qz Cl(2) 158.4	157.5/0.01/10/Rug.		
160										
				Se Si (2) kfs/Chl (1)	fg (tr) diss+Vn Sec Gn (tr) Vein Chl (V. tr) Vein	161.7 Ca = 25° to Ca	Qz Cl Chl (2)			
165				165.1						
	CRSA	Pk-grn.	165.1 Volcaniclastic Sandstone - rhyolitic. clasts of felsic lava + pumice to 8mm ; Sub ang-sub - Sub rounded	Se Cl (2) kfs/Chl (2) clasts 169.5		167.1 So: 15° to Ca.	167.6 Qz Cl Chl kfs (3) 169.0	165.1/0.1/?/broken 169.7/01/?/broken	165.1 fault	
170										
			171.7	Se Chl (1) 171.2	171.7		Qz Cl (2) 171.1 171.7 Qz Cl Chl (3)	170.5/0.2/?/broken 171.2/0.1/?/broken	171.7 fault.	
	CFSI	Pk-brn	Volcaniclastic siltstone - weakly laminated.	Si Se Chl (2) kfs/Chl (2-3)	Py (2) diss+Vn Gn Py (1-2) Veins		Qz Cl kfs (3)			
175										

PASMINCO ... LORATION

DIAMOND DRILL HOLE LOGGIN...

Input

Hole_ID MJ-15	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist AM-W	Date 6/6/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
			177.2	Si3c chl (2) kfs/hm (1)	175.4 Py+Sp (0.5%) Vn Py (1%) diss		175.4 Qz Cb chl (2)	176.2/0.01/Qz/Py	178.2 sharp - irregular		
				177.1 kfs/hm (3) Ser (2)	177.7 Cp (2%) diss.		177.8				
180				179.1	179.1						
	CPSA	Pk-Grn	Volcaniclastic Sandstone - Polymict, Rhyolitic, Massive clasts of pumice, felsic lava, volcaniclastic siltstone and limestone to 25 mm dia. generally sub-angular	Si3c (3) kfs/hm (2)			Qz Cb (3)				
185											
			185.6			185.6 Sz = 35° to LCA			185.6 sharp Irregular		
	CFSI	Pk-Grn	Volcaniclastic siltstone - brecciated in Part.						187.1 gradational over 0.2m.		
			187.1	187.4	Py (4%) diss.		187.4 Qz Cb chl (3)				
190							189.5				
	CESA	Pink	Massive medium grained Rhyolitic, Polymict, Volcaniclastic sandstone. Sub angular clasts of pumice, felsic lava and volcaniclastic siltstone to 15 mm dia. Matrix Supported.	Si ha/kfs (3) Sc (2)			Qz Cb (2)				
195											
			195.9				195.9		195.9 sharp irregular		
	CFSI	Gra-Pk	Rhyolitic Volcaniclastic siltstone; massive				Qz Cb (3)		196.7 sharp, Irreg.		
			196.7		197.1 Py (0.5%) diss.		196.7				
	CESA/ CRBL	Pink	Polymict rhyolitic Volcaniclastic sandstone and minor Conglomerate. Clasts in conglomerate are lavas to limestone to 80 mm dia. clasts generally sub-angular.		197.1		Qz Cb (1)			Fining	
200											

PASMINCO [LORATION **DIAMOND DRILL HOLE LOGGIN(** **Input**

Hole_ID MJ-13	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist	Date 6/6/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
		Pk	Rhyolitic polymict Volcaniclastic Sandstone on show.	Sx kfs/lhn (3) Se (2)			Qz Ch (1)				
			202.9	202.9	202.4		202.0				
	CFSI	grn-pk	Volcaniclastic siltstone	Si (3) kfs/lhn (2)	Sy HGn (tr) Vn Py (tr) dis	203.7 Sx=10° to Lca.	Qz Ch Chl (3)		202.9 slump irregular		
			203.7	203.1	202.2		203.7 Qz Ch (3)				
205							202.9		203.7 sharp irregular		
							Qz Ch (1)				
							207.6				
							Qz Ch Chl (3)				
210							209.6				
								211.0-211.6 Veinl breccia.			
	CRSA	grn-pk	Massive Rhyolitic Polymict Volcaniclastic Sandstone Sub-angular clasts of felsic lava, pumice, Limestone and Volcaniclastic siltstone to Sandsize.	SeSi (2) kfs/lhn (1)			Qz Ch (2)				
215											
			Matrix SeSi: + fd & q xtals. Common leucoxene xtals								
220											
							223.0 Qz Ch Chl (3) 224.0				
225							Qz Ch (2)				

PASMINCO PLORATION

DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID	MS13	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMN	Date	10/04/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
	CRSA	Gy	Volcaniclastic Sandstone	SSi (2) Ky/Ja/Hm (1)	223.6 Py (1) Sp (1) dis	227.1 Contact = 35° to LCA			227.1 Sharp Irregular		
	CFSI	Pk-Grn	Volcaniclastic siltstone	Sil Ab (1)	225.6 Py (1-2) Hm + Sp Gn (1-2) Hm	229.2 Contact = 35° to LCA.			229.2 Sharp Irregular		
230					229.2		Qzcb (2)				
	CRSA	Grn	Polymictic coarse volcaniclastic Sandstone (clasts) sub-angular rhyolite, tuff stone and pumice to 50mm dia. in a med. sand matrix Mod. chl overprint	Si Se (2)					234.0 Sharp		
235	CFSI	Pk	234.9 Volcaniclastic siltstone - minor altd-rich beds.	Si Ab (2)		234.9 Sp = 35° to LCA.	234.0 Qz Cb (3)		234.9 Planar		
							235.3 Qzcb (2)				
240											
	CPSA	grn-Gy	Gradel to massive Polymict Volcaniclastic Sandstone - breccia with minor Volcaniclastic Siltstone. Sub-angular clasts of rhyolitic lava, dacite lava, volcaniclastic Siltstone, tuff stone and pumice in a sandy matrix. Clasts to 30 mm dia.	Si Se (2) Cb (1)			240.8 Qzcb (3) 241.8 Qzcb (1)	240/0.01/90/Sh	240.8 Irregular 243.5 Sharp Irregular		
245			obvious fine leucocrene in mtx.								
250											

PASMINCO PLORATION

DIAMOND DRILL HOLE LOGGIN

Input

Hole_ID	MSD	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	Andrew	Date	10/4/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
255											
260							Qz cb (2)				
265	CRSA	9a-9y	scaled to massive lobular Volcaniclastic breccia and Volcaniclastic sandstone. clasts generally as above except: i) 261.2 - 265.0m Numerous angular limestone to 30mm	Si Sc (2) Co (1)	261.2 Py (tr) disseminated Sp (tr) Vn		261.0 Qz cb (3) 262.8		261.2 gradational over 0.3m 265.0 gradational over 0.2m		Mineralisation generally in clasts rather than matrix
270			ii) 265 - 275.0m rare, well-rounded clasts of Vfel siltstone, pumice and feldspar-hbl?-phyric Andesite to 200 mm dia. generally 1-3mm to 40mm dia. think it all one unit - but ss. variation suggests may be more		Gn (tr) Vn		Qz cb (2)				
275											

PASMINCO EXPLORATION — DIAMOND DRILL HOLE LOGGING — Input

Hole_ID MJ-B	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist ARKN	Date 26/04/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
	CPSA		266.0			276.0 Contact @ 40° to LCA			276.0 Abrupt		
	CFSI	pk-br	Volcaniclastic siltstone.	Si Ab(2) (2) Sc(1)				277.8/0.3/45/Sharp	277.8 fault		
280			277.8	277.8							
	CPSA	gn-sy	graded to massive robust volcaniclastic breccia and sandstone	Si Sc(2) cb(1)	283.0		Qz Cb(2)				
285											
			289.1	289.1	Py (tr) diss (in chert)		289.0 Qz Cb(4) 289.1 Qz Cb(2)		289.1 Broken		
290		pk-grn	Volcaniclastic siltstone	Si Ab (1)							
	CFSI		291.5	Cb1 (2) 289.1		291.2 50=15° to LCA	Qz Cb(3) 291.3		291.3 Broken		
	CFSA	grn-sy	Volcaniclastic sandstone. rare limestone and andesite clasts to 140mm dia.	Si Sc(2) cb(1) 295.0	294.8						
295			Majority of clasts (pumice, lst, chert, ?rhyolitic lava) <1cm dia and sub-angular 297.5	Si Sc(2) cb(2) 297.5	Py (0.5%) Vn+ diss 297.5		Qz Cb(1)	297.0/0.1/30/Py 297.5/0.2/30/Sh.+ Py.	297.5 faulted		= Ittat Creek fault?
	CFSI	sy	Volcaniclastic siltstone. Massive to crudely laminated No obvious lithics or other clasts	Sc(2) 299.0 Sc(1)	Py (1%) Vn+ diss 298.5 Py (3-5%) Vn+ diss.	300.0 50=35° to LCA.	299.0 Qz Cb(2)				
300											

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Input

Hole_ID	MS- 13	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMcN	Date	4/5/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
305					Py (3-5%) Vn, diss, belled		Qz Cb (1) 309.8				
310	CFSI	SD	Volcaniclastic siltstone, weakly laminated Minor irregular Volcaniclastic sandstone interbeds. Beds defined in parts by concentration of pyrite	Se (1)		307.8 So = 10° to Ca. 308.2 So = 15° to Ca. 309.6 So = 25° to Ca.	Qz Cb (1) 308.4 Qz Cb (3) 308.8				308.2 Core orient. 308.7 So = 85° to 052° Mag.
315					311.5 Py (1-2%) Vn + diss.		Qz Cb (2)				309.6 So = 85° to 075° Mag.
320			319.3	319.3	319.3	316.2 So = 5° to Ca. 319.3 So = 10° to Ca	317.0 Qz Cb (3) 317.8 Qz Cb (2) 319.0 Qz Cb (1) 319.3		319.3 Sharp Conformable		317.2 Core orient. — Not useable 321.4 So = 89° to 258° Mag. 321.8 So = 11° to 150° mag.
325	CFSA	gn-bh	fine grained Volcaniclastic sandstone; weakly laminated to 2.5m; difficult to resolve clast types; minor Volcaniclastic siltstone interbeds.	Se (2)	Py (0.5%) diss. 323.4 Py (3%) Vn 323.7 Py (0.5%)	322.0 So = 15° to Ca.	Qz Cb (2) 325.8 Qz Cb (3)				322.7 So = 85° to 170° mag. 323.2 Core Orient.

PASMINCO PLORATION **DIAMOND DRILL HOLE LOGGIN** **Input**

Hole_ID	MS-15	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMCN	Date	8/5/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
330				Se(2)	Py (0.5%) Vn.	327.4 So = 15° to LCA. 350.0 So = 15° to LCA.	QLCb(3) 327.9 QLCb(2) 329.0 QLCb(3) 329.2				329.2 Core orient.
335	CFSA	gn-bh	fine-medium grained Volcaniclastic Sandstone rapid increase in grain-size at approx. 336.5m.	Se(2) chl(2) Sands.	334.0 Sy(1-2%) Vn Py(0.5%) Vn Gn(tr) Vn. 334.0		QLCb(2) 334.0 QLCb(3) 334.2				329.8 So = 55° to 320° Mag. 330.4 So = 55° to 296°
340					Py(tr) diss 338.6 Se(1%) fn Py(0.5%) Vn		QLCb(2)				339.2 Core Orient. 340.4 So = 70° to 296° mag
345	CFSI	gy	340.3 Volcaniclastic siltstone, weakly laminated. 342.6	340.3 Se(1) 342.6	340.3 Py(1-2%) Sr(tr)	340.3 So = 60° to LCA			340.3 Abrupt Conformable 342.6 gradational		342.2 So = 70° to 286° mag.
	CPSA	gn-bh	Rumbled/brecciated fine-coarse volcaniclastic sandstone, clasts of 343.9 Porcine, Vlcl. Siltstone, ? chalcite	Se(1) 343.9	Py(tr) Sr(tr)	343.9 So = 15° to LCA			343.9 Abrupt, Conformable		344.2 Core Orient. - Not useable
350	CFSS	gy-gn	dominantly weakly laminated Volcaniclastic siltstone ± minor, irregular, <0.5cm, strongly Se altered Volcaniclastic Sandstone interbeds.	Se(2) Siltstone Se(3) Sandstone	346.2 So(1%) Vn. 347.4 Se(2-3%) diss + Vn.	346.0 So = 15° to LCA	347.0 QLCb(3)	346.7/0.05/30/rh 348.0/0.1/45/rh			

PASMINCO .PLORATION **DIAMOND DRILL HOLE LOGGIN.** **Input**

Hole_ID MS-13	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist AM·N	Date 9/5/08

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
155	CFSI	gn-gn	dominantly weakly laminated Vfcl. Siltstone ± Irregular seen Sandstone interbeds.	Se(1) siltstone Se(1)Chl(1) 133.4 Sandstone Se(1) Cb(3)	Sp(2-3%) di/a + Vn Gn(tr) Py(tr) Py(2?) Sp(tr)	357.5 So=0° to LCA 373.7 So=25° to LCA	Qzcb(3) Qzcb Sp(3)	352.0/0.2/?/Br			
160		357.4		Se(1) Si Se(3)	Sp(1-2%) Vn. Gn(tr) Vn		356.4	356.4/0.4/35/Ch.	356.4 Faulted		
				Se(1) Cl(1) Se(2) Cb(3) 357.4	356.4 Py(2%) Vn Sp(0.1%) Vn	357.6 So=25° to LCA. 373.5 So=20° to LCA.					
165	CFSA	gn-kh	fine grained, weakly laminated Volcaniclastic Sandstone. leucocene-rich; clasts difficult to differentiate bc fine grained matrix + pinkish ground. At 165m grades rapidly into massive fine-medium grained Volcaniclastic Sandstone ± obvious shale clasts.	Se(3) Cl(1)	163.7 Si(1%) Vn	So=30° to LCA 362.3m	Qzcb(2)				
			366.5		Py(tr) Vn 366.5				366.5 Irregular Abrupt		
170	CFSA	gn-kh	graded units; Vfcl siltstone bse to Punicean Vfcl SST. bse.	Se(3)Chl(1) 369.8	Si(2%) Vn Py(0.5%) Vn 368.9	367.6 So=30° to LCA.	367.2 Qzcb(3) 367.9		369.8 Abrupt Irregular.		
	CFSI	gn-gy	Poorly laminated Volcaniclastic Siltstone	Se(2)	Si(1%) Vn. Py(1%) 372.5	370.3 So=45° to LCA	Qzcb(2)	372.6/0.4/?/Br			
175		gn-gy	373.7 well laminated Volcaniclastic siltstone	373.7 Se(3)	Si(0.5%) Vn Py(3-5%) Vn Gn(tr)	374.9 So=5° to LCA.	373.2 Qzcb(3) 373.8 Qzcb(2)	373.3/0.3/?/Kh-Br	373.7 fault		373.6m to Abp in fault.

PASMINCO .PLORATION

DIAMOND DRILL HOLE LOGGING

Input

Hole_ID MS-13	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist AMcN	Date 10/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
		Gn-Grn	Well laminated Vlcl. Siltstone	Se (3)	Sp(0.5?) Vn Py(1-5?) Vn	375.6 So = 10° to LCA.		376.7/0-1/15/Rh	376.7 fault		
	CFSI	Grn	376.7 Weakly laminated Volcaniclastic Siltstone	Se(1)	376.7 Sr(1-2) Vn Py(0.5%) Vn	379.9 So = 10° to LCA.	QLCG(2)				
390							390.2				
			380.6	380.6	380.6		390.4 QLCG(3)		380.6 sharp ? fault.		
	CFMf	Gn	graded mm-thin unit; Vlcl siltstone top grads to coarse Vlcl sandstone base ± rare lithics to 90 mm dia. clasts mainly pumice + Limestone clasts.		Sp(0.5?) Gn + Py (tr) 383.1 Se(0.1-2) Vn	382.5 So = 30° to LCA.					
385											
				Se(2) Chl(1)	Py (0.5?) ± tr Gn, Cpy 387.0 Sp (0.5?) Py(0.5?) Vn 389.7	386.9 So = 20° to LCA.	QLCL(2)				
390											
		391.2			Sp(1?) Py(1?) Gn(tr)	391.3 So = 30° to LCA.			391.2 sharp conformable		Some Se as initial replacement of clasts!
	CFMF	Lgt-dk Gn	Stacked 1.0-1.5m thick mm-thin units; graded - clast dominated by pumice ± minor Volcanics		Sp(0.1?) Py(0.5?)	392.9 So = 30° to LCA. 394.1 So = 25° to LCA.				Facing	
395											
			?Limestone		395.7 Se(1-2?) Vn Py(1?) 397.2 Se(1?) Ga(1?) diss Py(tr) Vn.	399.8 So = 5° to LCA.					from 397.2 – 400m some light-Honey coloured Se.
400											

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING** Input

Hole_ID	MS-6	Project	
Hole_Type		Tenement_No.	
Year		Prospect	
Geologist	AMEN	Date	10/5/00

Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
	CFMF	lgt-dk gn	stacked thin-flow units (see above)	Se(2) chl(1)	Se(1) Gn(1) Py, Cpy (tr)		Qz Cb (2)				
			402.9	402.9	402.9	402.9 So <10° to LCA	402.5 Cb (qz) (3) 402.7		402.9 Slty Carbonatic		
405					Py (tr)	405.3 So = 40° to LCA					
	CFSS/ SOSH	gn-blk	interbedded green Volcaniclastic siltstone, fine Volcaniclastic Sandstone and black shale. - rare grey calcareous silt nodule. Unit transitional from shale to Vcl.	Se Cb (2) chl (1)	Py (tr)			406.6/0.1/6/RL (VN)			409.3 - three stretches of both facies
			408.4	408.4	407.2 Py (12) 408.4 Se (tr)	408.3 So 6° to LCA	Qz Cb (2)		408.4 Slty Carbonatic	fault zone	
410											
	SOSH	blk	black shale, laminated bk laminations locally disrupted by cleavage & shearing.	Cb (2)	Py (1-3%) Vn + diss + framboids		411.3 Qz Cb (3) 412.6 Qz Cb (1)	411.6/2.6/40/Br, Py			
415					415.2						
			Pyritic framboids common.				416.0				
			below 416.0 are discrete calcareous siltstone beds ± nodules		Py (10%) diss + Vn + framboids	419.9 So = 40° to LCA	Qz Cb (3)				
420											
					421.6 Po (2%) diss + Vn Py (3%) Vn + diss 423.5 Po (1%) Vn, Py (10%) 423.7 Py (10%) Vn + diss	424.1 So 40° to LCA	424.7				
425											

PASMINCO E.../LORATION

DIAMOND DRILL HOLE LOGGING

Input

Hole_ID MS-15	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist ANLN	Date 15/5/00

Depth	Lithology Code	Lithology Colour	Comments	Alteration (Up to 3 codes w. intensities (1-3))	Mineralisation (Up to 3 codes with %)	Structure	Veining	Faults		Graphic Log	
430				426.0? Cb(2)	425.4 Py(15) dis+Vn Py(7?) dis+Vn. 427.4	427.5 So=45° to LCA.	Qz Cb(2)				427 Core orient 427.4 So=25° to 318° mag
435	SOSH	Dk.	Weakly laminated black Shale. Beddings disrupted by shearing / Shearing. Py framboids common Grey-brown calcareous nodules and thin (<1cm) beds become more common below 438m.	Cb(1)	Py(7-10?) dis+Vn + framboids	434.6 So=65° to LCA. 437.4 So=70° to LCA.	436.0 Qz Cb(3) 437.2 Qz Cb(2)	434.9/0.2/?/Broken			434.2 Core Orient 438.9 So=40° to 072° 434.9 So=35° to 358°
440			442.2	442.2	442.2 Py(15) dis 444.6 Py(3?) dis	440.8 So=50° to LCA	441.7 Qz Cb(3) 441.9 Qz Cb(2)	440.8/0.7/?/Broken 441.9/0.4/?/Sh	442.2 Sharp Broken		
445	CFNF	Grey	Graded mass flow units: Sharp Conformable (?) base. Massive. Clasts in Coarse units are Limestone, pumice, green-grey chert and some Siltstone. Clasts generally <40 mm except for 448.6-448.9 where limestone clasts are up to 90 mm dia.	Se Si (2) Cb(1)	Py(2?) dis.	445.6 So=30° to LCA.	449.9 Qz Cb(3)		445.6 Sharp conformable		facing.
450			rare siltstone clasts to 60mm dia in bar vfcl. siltstone unit								

PASMINCO E.../LORATION

DIAMOND DRILL HOLE LOGGING

Input

Hole_ID MS-B	Project
Hole_Type	Tenement_No.
Year	Prospect
Geologist AMcN	Date 15/5/00

Depth	Lithology		Comments	Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour		Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
		Brec	slated mass flows as above	Se Si (2) Cb (1)			451 Qzcb(2)		450.2 broken		
	CFSS	450.9 Grey 452.9	Weakly laminated vfcl siltstone	Se Si (1) 452.3	Py (2) diss		451.0 Qzcb(3) 452.9	452.9/dip/to/veined	Core missing? 452.9 short ? Conformable		
455	CPSA	gny-grn	Volcaniclastic Sandstone - fine-grained; Lst + Pumice clasts.	Si Cb (1)							
		455.9		455.9	455.9		Qzcb(2)	457.0/dip?/broken	455.9 short Broken		
460					Py (tr.2) fine div	458.9 So = 50° to LCA.					
	SSSH/ CFSA	blk-grn	Shale/siltstone roor-well laminated; thin (to 0.4m) units of shale matrix volcaniclastic & common Sericitic Pumice & rare lithics.	Se (3) & Pumice Se Cb (1)	K(ft) dis.	463.2 So = 50° to LCA.	462 Qzcb(1) 461.5				
465									465.2 short Conformable		
	CFSA	gny-grey	468.2 Shale matrix vfcl. sandstone; clasts & pumice (to 40mm) limestone and f.g. volcanics? 468.2		467.1 Py (1) diss	466 So = 50° to LCA.	Qzcb(2)				468.2 End of Hole
470											