PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID	WSP 13	Project	White Star
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	12/10/04

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 %						
5											
10											
15	SSGW/ SSSH	bn-lgt gn	interbedded fg. Micaceous greywacke and shale. Broken core with Mn-oxide coated joints / fractures. Greywacke has fine lithic fragments (1-3mm diameter) & irreg-black shale and Cream ?volcanics. Scattered, rounded siltstone clasts, especially close to contacts with siltstone bands - "rip up" clasts.			43m So = 30° to LCA			Oxidised (3) & broken.		
20											
25						21.7 So = 20° to LCA.		22.1/0.1m/Pug/55			f

(1)

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID	WSP 13	Project	White Jaw
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	12/10/04

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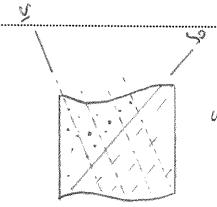
Depth	Lithology			Alteration	Mineralisation	Structure	Veining	Faults		Graphic Log	
	Code	Colour	Comments	Up to 3 codes w. intensities (1-3)	Up to 3 codes with %						
		bn - lgt gy.									
30											
		30.8			30.8						
						32.9 S_1 = 35° to LCA.					
			Interbedded fine to medium grained greywacke / lithicwacke with subordinate interbedded light to dark grey siltstone / shale.			33.7 S_0 = 30° to LCA.			up hole fining ⇧ (Humes)		
35	SSGW / SSSH.										
		sy - bn.	Greywacke is micaceous with common <2mm diameter shale and white / cream volcanogenic lithics and scattered 1-5cm diameter, rounded grey to black shale clasts.		trace Py (on joint planes)				Oxidised (1) & broken.		
40											
						41.9 S_0 = 35° to LCA.			uphole ⇧ fining (Humes)		
								42.7/0.02/lug/30			
45											
			 Cleavage at a high angle to S_0.								
50						50.0 S_0 = 30° to LCA					

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID	LJSP13	Project	Chile Spur
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AM:N	Date	12/10/04

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 %						
		GY-LN							Oxidised (1)		
		55.0				52.9 bo = 45° to LCA			55.0 Fresh Rock		Narrow brk folded interval.
55											
						59.2 bo: 20° to LCA			Up hole facing ⇧ (Hcore Structures)		HQ
60											
	SSGW/ SSSH	GY	Interbedded greywacke/lithicwacke and subordinate shale/siltstone as described previously.		trace Py on fracture & joint planes.	61.5 bo = 35° to LCA					60.3
						64.9 bo = 35° to LCA					NQ
65											
					67.3						
					67.0 2-2% Py Ds and in Veins						
						69.4 bo: 20° to LCA	68.8				
70											
							Cb (1)				
						72.0 bo = 20° to LCA					
75											

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DIAMOND DRILL HOLE LOGGING

Hole_ID	WSP13	Project	White Spur
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	12/10/04

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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 %						
	SSGW/ SSSH	Gy-gn	Interbedded Greywacke and shale/ siltstone as described above.								
			77.6		Py (tr) on joint planes + fractures.						
	SPGR	Lgt gy	Massive, strong vn-hole. lithic wacke / Grnst with dominant black shale, grey chert and Quartzite clasts to 2-3cm dia.								
80			80.0 Clasts are Sub-angular to Sub-rounded.						Fining vn-hole ⇧		
					80.4						
					Py (05-10%) on bedding planes.	81.0 So = 30° to LCA.					
					82.9				Minor shear foliations in SSSH units.		
	SSGW/ SSSH	Gy-gn	Interbedded fg. micaceous greywacke / Lithicwacke and lesser green shale/ siltstone.								
85			85.0						85.0		
		Lgt gn - gy	Shale / siltstone variably laminated, some units with irregular shear foliation.						Str. bleached.		
		88.8				86.5 So = 30° to LCA.	Cb (1)		88.8		
			Many lithic / greywacke units are weakly graded with lithic clasts (lithic, chert) concentrated at the base of units. Scattered 1-3 cm grn to black shale clasts.		Py (tr) on joints & fractures						
90			Most contacts between siltstone and greywacke units are disrupted with shear fractures indicating vn-hole facing						vn-hole facing ⇧		
									(Shear fractures)		
		Gy Grn									
95						94.5 So = 30° to LCA.					
						98.3 So = 35° to LCA					
			99.4								
100	SPGR										

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	LWR13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMW	Date	18/10/04

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 %						
	SPGR	lgt gy	Polymict grit with clasts of black shale, chert etc.								
			100.7								
105						105.0 bo 45° to LCA					
	SSGW/ SSSI	gy-gn	Interbedded units of greywacke/lithicwacke, with clasts of black shale and grey chert, fining up-hole into weakly laminated grey siltstone/shale. Scattered intraclasts of grey shale. both lithotypes micaceous.				Cb (1)				
110											
					Py (fr) on beddings, joints & fractures	110.8 So=40° to LCA.	110.8		up-hole fining (flame structures)		
							Cb (2)				
115											
			116.2	116.2		115.2 So=40° to LCA.	116.2	116.2/0.01/25/Rh			
	SSGW	gy-Bn	116.7 strongly cb-veined greywacke	Cb (1)			Cb (3) fe-rich				
				116.7			116.7	116.7/0.01/30/Rh			
	SSGW/ SSSI	gy-gn	Interbedded greywacke/lithicwacke and siltstone/shale								
120											
						121.6 So=40° to LCA	Cb ± Py (2)		up hole fining (flames)		
125											

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DIAMOND DRILL HOLE LOGGING

Hole_ID	WSB 13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AWKN	Date	19/10/04

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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						127.0 So=45° to LCA.					
135					Py (tr) on bedding planes, joints & fracture	133.5 So=40° to LCA.	Cb (2)				
140	SSSI/ SSGW	gy-gn	Interbedded fg to M.g. micaceous greywacke / lithicwacke, with bt shale and occ chert clasts, and gy-gn siltstone and shale. rel. proportion of greywacke to siltstone / shale is decreasing downhole - i.e. getting more sltst/sh-rich. Scattered shale intraclasts in greywacke.			135.1 So=40° to LCA.					
145			at 145.4 - greywacke bed has been completely disrupted and bears sub-rounded clasts in a siltstone matrix. fining of units into whole facing.			140.5 So=50° to LCA.	143.0				
150						150.0 So=50° to LCA.	Cb ± Py (2)				

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DIAMOND DRILL HOLE LOGGING

Hole_ID	LSP 13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMN	Date	18/10/04

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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 %						
								H1·1/0·1/?/broken + Sheared		F	
	SSSI/ SSGw	Gy-Gn	Interbedded gy siltstone/shale and grey-green micaceous Greywacke/lithwacke.								
155			Number and thickness of greywacke beds decreases down hole, some beds contorted discrete and form "Clasts" in Siltstone/Shale.		Py (tr) bedding planes.	153·9 So=50° to LCA					
			Scattered shale intraclasts in greywacke to 3-4cm diameter		Joint & fracture surfaces & in Cb veins.						
								158·0/0·1/65/Rh		F	
			158·8		158·8	158·8 So=55° to LCA					
160											
	SSSI/ SSSH/ SSGW	gy-gn-bk	Unit marked by appearance of clean thick intervals of black shale - these intervals get thicker and more common downhole.				Cb ± Py (2)				
165			Unit predominantly gy siltstone with thin (<0.3m) fine grained greywacke/lithwacke beds.		Py (tr-0.5%) Predominantly in irregular veinlets & bedding planes (particularly in black shale beds)	164·9 So=55° to LCA					
						168·6 So=60° to LCA					
170											
			173·8						173·8		
			bn-gy 175			174·6 So=65° to LCA			Broken Core Sheared but not faulted.		
175											

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID	USP B	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	Anne	Date	19/10/04

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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 %						
	SSSI/ SSSH/ SSGW	gy-gn-bk	Interbedded thin (<10cm) black shale beds, gy-gn siltstone and greywacke/lithicwacke beds. Black shale interbeds get more common downhole.		Py (tr to 0.5%)		Cb ± Py (?)				
180							180.0				
			180.9		180.9	181.6 So=65° to LCA					
185						184.2 So=70° to LCA					
	SSSH/ SSSI	Sk-gy	Well bedded (defined by fewins & pyrite spots) black shale interbedded with generally <5cm thick units of grey lithicwacke (thicker than usual) and rare <0.8m thick intervals of grey siltstone with black shale interclasts. Overall the unit has a banded appearance from 1-2cm thick Cb+Py ± Po veins. Most are sub-parallel to bedding.		Py (1-3%) in veinlets, Cb. veins, disseminated on bedding planes. Po (<1%) in veinlets		Cb + Py (?) + Po	186.3/0.01/60/Rh			
190								191.0/0.01/50/Rh			
						192.2 So=80° to LCA		192.3/0.01?/broken			
195											
						199.6 So=75° to LCA					
200											

PASMINCO EXPLORATION | **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WSH B	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMSW	Date	23/11/04

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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						204.0 b_a = 70° to LCA.	Cb + Py + Po (3) 208.4				
210						209.0 b_a = 75° to LCA.					
215	SSSH/ SSSI	bk-gy	Well bedded black shale interbedded with generally <10cm thick units of lithic wacke, and, below 206m, gy-gn volcaniclastic siltstone. Bedding defined by variations & concentration of Py + Po.		Py (1-3?) in veinlets, cb-veins and diss. on bedding planes. Po (1?) in veins & on bedding planes		Cb + Py + Po (2)				
220	SSSH/ CFSI	219.7 gy-gy bk	219.7 black-gry shale interbedded with grn siltstone		201.7	216.0 b_a = 85° to LCA 219.5 b_a = 75° to LCA.	219.0 Cb + Py (3)				
	SSBR	220.8 bk-gy	220.8 Unusual angular breccia : angular shale clasts and minor volcaniclastic sl. clast to 1cm dia in a cl-Sa matrix	220.8 Clse (2)	Py (<1%) diss and in veinlets		221.1 Cb (1)		221.1 Contact missing!		
225	CFSI	221.1 kh-gy-gy	221.1 khaki green volcaniclastic siltstone (clast-rich?) with minor interbedded grey volc. siltstone. Laminations/fronts distorted above 1220m.	221.1 Silc (2)	Sp (1%) in veinlets.	223.9 b_a = 65° to LCA					

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID WSP13	Project
Hole_Type DDH	Tenement_No.
Year 2004	Prospect
Geologist AMIN	Date 23/11/04

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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 %						
230					Py (<1%) disc and in Veinlets.	228 So=30° to LCA.	Cb (1)				
	CFSI	kh-sn	Volcaniclastic st. as above.	Ksi (2)		232.0 to=60° to LCA.	233.3 Cb (2)				
235	CFBR		233 Volcaniclastic st with scattered 10cm dia. Qz+Sp-phyric Pumice 234.2		233.3						
	CFSI		Volcaniclastic siltstone (?shard-rich) weakly bioturbated by lam, fm, lot bn fracture.		Py (1%) in veinl and on joints	237.3 to=50° to LCA.	fine veins & rare coarse veins & minor cl.				
240							240.0	240.0/0.01/70°/Ch			
		kh-sn			at 241.3m a few long cbl & semi-massive PO.		Qtzcb (2)				
245											
			247.9	Ksi (2)							
250	CFSI/ CFSA.		Volcaniclastic siltstone with fine sand size feldspar phenocryst fragments. - transitional to sandstone unit below.						broken 245.6-247.8m		

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID	LS13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	23/4/04

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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	CESI/ CFSA	lt-gn	Volcaniclastic siltstone, massive, with increasing number (and better sorting) of feldspar xtal fragments (minor Qz xtal fragments). Gradational contact with unit below	SeSi (2)	Py (tr)						
			256.9								
260				256.9	258.0						
265	CFSA	gy-gn	Massive, feldspar >> Quartz-Augite Volcaniclastic Sandstone & Scattered blood shale and unidentifiable Volcanogenic lithic clasts that gradually increase in size and abundance downhole; gradational contact with underlying breccia unit	SeCl (2) Si (1)	Py (tr to 0.5%) · disc. · Veinlets. · on fracture planes.	No obvious bedding	Qz Cb (2)	No obvious faults			
270			Possible bone Pumice clast near base of unit. matrix fine stained 92-lt-cl.								
					272.0						
275	CFBR	gy-gn	272.9 Massive, feldspar > Quartz (to 3mm dia.) -Augite Volcaniclastic breccia & angular, irregular clasts of black shale to 20cm diameter, keratite pumice, and locally altered volcanogenic lithics to 3-4 cm diameter	SeCl (2) Si (1)	Py (tr)						

Continued over....

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WP15	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AWN	Date	6/12/04

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 %						
280			Quartz > feldspar-phyric Volcaniclastic breccia with angular, irregular clasts of black shale, brown-cream Siliceous volcanics (? lavas) and keratic pumice.		Py (tr)		Qz Cb (1)				
	CFBR	gy-gn					288.1				
			283.4		283.4				Contact marked by appearance of coarse shale clasts.		
295											
	CFBR	gy-gn	Volcaniclastic breccia as above but with shale clasts 20-40 cm in diameter & volcanogenic lithics to 5-10cm diameter.	Se Cl (2) Si (1)	Py tr-0.5% Most in Sh clasts.		(Qz Cb (2)				
			287.7		287.7						
290							298.7				
	CFBR/ CFSA	gy-gn	Volcaniclastic breccia as per 2738-2834m.		Py (tr)		Qz Cb (1)				
295							292.2				
			296.1	296.1		296 So: 40° to LCA.	Qz Cb (2)	296.1/0.3/?/ broken core	Contact marked by broken core		
	CFSI	gn-br	Volcaniclastic siltstone with weak Lamination. Coarse, to >10cm, feldspar > Quartz-phyric pumice clasts in upper 16m of unit. Scattered shale and Volcanogenic lithics to 0.5cm	Se Si (1)							
300			diameter								

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WP 13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	6/12/04

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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							Qz Cb (1)				
310	CFSI	gy-Gn	Volcaniclastic siltstones, weakly laminated with narrow bands of tuff breccia. Scattered <0.5cm diameter clasts of lt Shale and Lcm Silicified volcanic. Coarse pumice clasts to 20cm diameter in Lower 2m of unit.	SeSi (1)	Py (tr)		305.8				305.9 - 308.0 m Broken Core
			311.4		311.4		Qz Cb (3)	311.4/0.01/50/Pug	?faulted Contact		
315	SSSH	lt-gy	Well laminated Shale.		Py (0.5-1.0%) Ds + Vn.	315.0 S_0 = 50° to L.C.A.		313.6/0.1/?/broken +sheared			
			316.0		316.0				316.0 Contact gradational over 20cm		
320	CFSI	gy-Gn	Volcaniclastic siltstone, weakly laminated. rare felsitic crystals and feldsar > Qz-rhyolite Pumice (at 323.0m - 5cm diameter).	SeS (1)	Py (tr) 319.6	320.0 S_0 = 55°					
			No obvious grading in the Base of unit		Py (tr) Sp + Cp (tr) - Vn 321.4	to LCA.	321.4 Cb (2)	323.8/0.01/60/Ro, RS.			
325						324.5 S_0 = 50° to LCA.					

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WSP 13	Project	
Hole_Type	DD	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	7/12/04

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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							Cb (2) 329.5				
335						332.4 So = 50° to L.C.A.	Q2Cb (2) 332.4 Q2Cb(2) + tr Sl 333.5			Sp Sp	
340	CFSI	GY-GN	Weakly laminated very fine grained volcaniclastic siltstone. No obvious lithics, but irregular coarser "sands beds" above 341.0m that appear to be more strongly devitrified intervals.	SeSi (1)	Py (tr)		Q2Cb (2)				
345		345	Lamination becomes less obvious downhole.					342.1/01/80/RL			
350		GN					349.0 Q1Cb (1)				

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID	USP 13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMW	Date	7/12/04

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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 %						
	CFSI	gn	Volcaniclastic siltstone as above - weakly laminated (related to devitrification?)				Qz Cb (1)				
351							354.0				
			356.7								
	CFSI/ CFSA	Mottled gy-gn	e.g. Volcaniclastic Siltstone and f.g. Volcaniclastic Sandstone - unit marked by appearance of feldspar >>	Se Si (1)	Py (tr)				356.7m gradational Contact.		
360			Quartz crystal fragments and some possible pumice. No obvious lithics								
			upper and lower Contacts gradational.				Qz Cb (2)				
			364.1						364.1 gradational contact.		
365											
	CFSA	Mottled gy-gn	Typical massive volcaniclastic Sandstone, feldspar > Quartz-phyric with Pumice, and black shale and gy-gn Siliceous volcanic lithics <1cm in diameter matrix f.g. Se-Cl-Qz.	Se Cl (2) Si (1)	Py, Po (tr) Sp (tr) in veinlets.						
370			369.7		369.7						
	CFSA/ CFBR	Mottled gy-bn	Massive breccia unit with lithic clasts (shale, siltstone, green silicified volcanic) to 10cm diameter in a typical Volcaniclastic Sandstone matrix. Most lithics < 2-3 cm diameter		Py, Po (tr-0.5%) Sp (tr) in Veinlets.						
			374.0								
375	CFSA	gy-bn	Volcaniclastic Sandstone.								

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOGGING

Hole_ID	WJ15	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	15/12/04

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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 %						
					Py, Po (tr-0.5%) in Qz (tr) veins.		Qz Cb (2)				
380					379.6		379.3 Qz Cb (4) 379.6	379.6/0.3/60/Rh			
							Qz Cb ± Py (2)				
385											
	CFSA	gy-kh	Massive feldspar > Quartz-phyric Volcaniclastic sandstone with Pumice clasts and rare Coarse shale clasts (to 10cm dia. at 379.0m) and angular grey-green silicified volcanics.	Se Cl (2) Si (1) Pervasive	Py (tr)		394.7 Qz Cb (1) 397.9 Qz Cb (2)				
390											
395	395.2										
	CFBR	kh-blk.	Coarse (to 30 cm), angular, irregular lithics of well bedded siltstone and black shale in a typical volcaniclastic sandstone (feldspar > Quartz-Phyric) matrix. Minor volcanogenic lithics to 2cm diameter		397.6 Py (0.5-1.0%) Veins.		397.6 Qz Cb ± Cl ± Ch (4)		395.2 - Contact gradational over 10 cm.		
400											

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WSP13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	13/12/04

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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 %						
	400.5			400.5	400.5			402.5/04/60/NW			
	CFSA	lh	feldspar-phyric pumiceous Sandstone, massive, not bedded.		fy (tr)		Qz Cl ± Py (3)				
405			Scattered fine (<1cm) lithics. - grey silicified volcanics.		404.0		403.5				
	405.9								gradational Contact		
410											
	CFSA/ CFBA	lh-gn	massive to weakly graded, feldspar >> Quartz-phyric Volcaniclastic Sandstone / fine breccia, matrix-supported.	Se Si (2) Cl (1)	fy (0.5?) largely in lithic clasts.		Qz Cl (2)				
415			Clast types: · Pumice								
			· grey Siliceous feldspar-phyric lava · grey-brown, Siliceous, volcaniclastic Siltstone. · Semi-massive to massive Pyrite. · black shale · dk gn-gn clk scatted Andesitic lava? · Volcaniclastic Sandstone Qz-feldspar-phyric. ⇒ Polygenic.		416.6 fy (1?) Largely in Lithic clasts.						
420											
			Clast size & abundance increase downhole.		Si (tr-0.5?) Vein & diss.						
	422.9				422.9				gradational contract		
425	CFBR	gy-gn	Coarse, polygenic breccia, matrix supported. clasts to 10cm diameter. clasts as per unit above with addition of grey limestone?, Qz-phyric lava		Py (0.5-1.0?) Si (tr) - in clasts						banded massive sulphide clast.

* And at 422.25m a banded Si-rich massive Sulphide clast

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	LJSP 13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	Amp	Date	22/12/04

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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 %						
430	CPBR	gy-Gn	Coarse, polymict, clast supported breccia as above. clasts to 35cm diameter	SeSi (2) Cl (1)	Py (0.5-1.0?) Sl(T_1) - in clasts Po (T_1)		Qz Cb (2)			SeSi	
			432.2	432.2	432.2		432.2		432.2 Conformable irregular		
450						433.3 S_0 = 40° to LCA.					
	SSSH/ SSSI	bk	Well laminated black shale with, at 437.7m, < 5cm thick gy-Gn volcaniclastic siltstone interbed. Below 440m grey siltstone beds become common. Bedding planar to weakly Contorted.		Py (0.5-1.0%) dss + Veins. Po (T_1-0.5%) Veins.	437.1 S_0: 45° to LCA.	Qz Cb ± Gy ± Po (3)				
470						441.3 S_0 = 60° to LCA.		440.3/0.2/?/broken 442.1/0.01/65/Pl			
445		445.0			445.0	444.1 S_0 = 55° to LCA.	444.0				
		bk-gy			Py (0.5-1.0?) diss. nodule.		Qz Cb ± Py (2)				
450						448.9 S_0 = 70° to LCA.					

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	LHP 13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	22/12/04

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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 %						
	SSH/ SSI	bl-gy	Shale interbedded with siltstone		Py (0.5-1.0%)	451.0 bo: 80° to LCA.	Qz Cb ± Py (1)	451.5/0.01/70/Rh		F	White spur Formation
	SSSH/CFSA	gy	451.5 feldspar-phyric CFSA interbedded with shale.	452.0	452.0						
	CFSA	gy-Sn	feldspar-phyric Sandstone - no dacron lithics.		Py (2-3%) dis		453.0		452.0 Alt cut ± Planar Contact.		CVC
	CFSI	gn-bn	452.7 Weakly laminated volcaniclastic Siltstone with feldspar-phyric pumice clasts.		452.7 Py (1%) dis						
455		454.9			458.0				454.9 Contact gradational over 10 cm.		
	CFSA	gn-tan	Mottled tan-green, weakly laminated, feldspar-phyric Volcaniclastic Sandstone. Pumiceous with rare dk gn siliceous volcanogenic lithics to 1cm diameter.								
460											
		461.9		Se Si (2)	Py (tr-0.5%) Sp (tr) - as spots & clots and in late veins		Qz Cb ± Chl (1)				
						463.1 bo: 70° to LCA					
465											
	CFSI	gn	Weakly laminated volcaniclastic siltstone with minor feldspar-phyric pumice clasts (to 1-2 cm diameter).			469.9 bo: 75° to LCA.					
470											
		470.3				bo: 70° to LCA			470.3 gradational Contact.		
	CFSA/ CFBL	gn-Sug	Massive feldspar-phyric volcaniclastic Sandstone or Pumice breccia? Scattered dk grey siliceous volcanogenic clasts, generally <0.5 cm diameter but up to 2cm. and fine sericitic pumice.								
475											

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WSP 16	Project	
Hole_Type	Diam	Tenement_No.	
Year	2004	Prospect	
Geologist	ANON	Date	23/12/04

(20)

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 %						
	CFSA/ CFMF	Gn-Gy	Massive, feldspar-phyric volcaniclastic sandstone / mudstone. Scattered clasts < 1cm; ?pumiceous	ScSi (2)	Py (tr - 0.5?) W (tr) 479.0		Qz Ch & chl (1)			SS	
480										SS	
							481.3 Qz Ch (2)			SS	
485		484.6		484.6	Py (tr) joint planes, disseminated in late veins.		484.6			SS	
	CFSJ	Pk-bn		ScSi (2) ht (1)			Qz Ch Chl (3) ± Ep (tr)			SS	
		485.7		485.7						SS	
490										SS	
	CFMF/ CFSA	Pk-bn-Gn mottled.	Massive, feldspar-phyric volcaniclastic sandstone / mudstone. Scattered volcanogenic lithics, to 1-2cm diameter, < 5% 495.0m. ?Pumiceous - looks pumiceous but can't identify individual pumice clasts.	ScSi (2) ht/kfs (2) Chl (1)	491.0		491 Ch Chl (1)			Pk	
495										Pk	
		496.5		496.5						Pk	
		bn-Gn 499.0		ScSi (2) 499.0			498 Ep (2) Ch (1)			SS	
500		Pk-gy-bn mottled		ScSi kfs/ht (2)						SS	

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WP 15	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	ARKN	Date	23/12/04

(21)

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 %						
							Ep(2) Chl Cb(2)				
		mottled pk-gn-brn		Ses; kfs/ht (2)			501.7				
505							Chl cb (3) Ep (1)				
		507.7		507.7	507.6		507.9				
		pk-rd > gn		kfs/ht chl (3)							
510											
		510.6		510.6	Py (tr-0.5%)						
	CFSV CFFF	gn-br > pk	feldspar-chlorite, massive volcaniclastic as above.	Ses; kfs/ht (2)	disc & on joint planes.		chl cb ± Qz (2)				
515		514.2		514.2							
		pk-rd > gn		kfs/ht + chl (3)			517.6				
							Qz cb chl (3)				
520		519.5		519.5			518.1				
		Lgt gn-pk		Ses; kfs/ht (2)	← 523.9, 1cm thick, irreg. Py vein		Qz cb chl (2)				
525											

PASMINCO EXPLORATION **DIAMOND DRILL HOLE LOGGING**

Hole_ID	WH13	Project	
Hole_Type	DDH	Tenement_No.	
Year	2004	Prospect	
Geologist	AMcN	Date	23/12/04

(4)

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 %						
		Lt gn - pk		Ser kfs/ht (2)	525.5 Py (tr - 5%) diss + veins		Qz chl cb (2)				
		527.3		527.3			Py (2) Qz ch. chl (2)				525.5 - 530.7 Py diss bd most in narrow (<1cm) irreg. veinlets.
530											
		gn - gy		Ser (2)	530.3		520.3			Py	Py+ tr Sph 550.7 m - banded.
		532.5		532.5							
		grn - pk		Chl kfs/ht (3)	Py (tr - 10?) diss + veins		Py (1) Qz chl cb (2)				
535											
		538.1		538.1							
	CFMF/ CFDA	gn	Remove, felsitic - rhyolitic unit as above.	Ser ± chl (2)							
		538.2		537.2	539.4		538.4				
540											
		pk - g -		Chl kfs/ht (3)	Py (tr) diss + veins.		Chl cb ± Qz (2)				
		544.0		544.0							
545											
		gn		Ser ± chl (2)							
			547.0								547.0 E.O.H.