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BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES
Location: Netherdale/Dalrymple Heights
Client: Queensland Hydro
Job No.: PS138693

Position: Upper Reservoir
Coords: 657821.6 m E 7667799.1 m N MGA2020-55
Surface RL: 850.8 m AHD
Contractor: Twin Hills Engineering & Drilling Drill Rig: Hanjin D&B-8D(D)
Inclination: -64° Direction: 131°

Sheet 1 of 14
Date Started: 22/9/2023
Date Completed: 20/10/2023
Logged: NLP/JRC/DD

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
ADV	E		0	850.76				ML	Sandy SILT (INFERRED): low plasticity, pale brown to red brown, sand is fine to coarse grained; trace fine gravel.			Inferred RESIDUAL SOIL	
			1								0.40: 0.00 - 1.50 m : the depth interval was not logged due to installing outer drilling casing during establishment of the borehole.		
			1.50	849.41	U75 1.50-1.98 m PB-BHUA-11-001			ML	Sandy SILT: non plastic, pale brown to red brown, sand is fine to coarse grained; trace fine gravel; trace black mineral.	w<PL		EXTREMELY WEATHERED MATERIAL	
			1.98	848.98	PP 1.98 m >600 kPa				With fine to medium, quartz gravel.				
			3	3.00	848.06	U75 3.00-3.43 m PB-BHUA-11-002			CI	Sandy CLAY: medium plasticity, pale brown to orange brown, sand is fine to coarse grained; with fine to medium, quartz gravel; trace black mineral.			
			4			PP 3.43 m >600 kPa				w=PL			
			4.50	846.71	U75 4.50-4.95 m PB-BHUA-11-003			MH	Clayey SILT: high plasticity, pale brown to orange brown, trace fine to coarse gravel; trace black mineral.				
			5			PP 4.95 m >600 kPa				H			
			5.50	845.82				ML	Clayey SILT: high plasticity, pale brown to orange brown, trace fine to medium grained sand; trace black mineral.				
			6			U75 6.00-6.34 m PB-BHUA-11-004							
7			PP 6.50 m >600 kPa										
WB	E-F		7.50	844.02	U75 7.50-7.82 m PB-BHUA-11-005			ML	Sandy SILT: low plasticity, pale brown to orange brown, sand is fine to coarse grained; with clay; trace fine grained gravel; seams of orange and black mineral.	w<PL			
			8			PP 8.00 m >600 kPa							
			9	9.00	842.67	U75 9.00-9.40 m PB-BHUA-11-006			ML	LAMPROPHYRE: fine to medium grained, orange-red mottled dark brown, porphyritic, recovered as Clayey SILT, low to medium plasticity, trace fine grained sand, seams of orange to black minerals.			
						PP 9.50 m >600 kPa				H - Fr			
10													
Comments													
										Checked	GEM		
										Date	16/10/2024		



BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES

Location: Netherdale/Dalrymple Heights

Client: Queensland Hydro

Job No.: PS138693

Position: Upper Reservoir

Coords: 657821.6 m E 7667799.1 m N MGA2020-55

Surface RL: 850.8 m AHD

Contractor: Twin Hills Engineering & Drilling

Inclination: -64° Direction: 131°

Sheet 3 OF 14

Date Started: 22/9/2023

Date Completed: 20/10/2023

Logged: NLP/JRC/DD

Drilling						Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)		AVERAGE DEFECT SPACING (mm)	
									■ - UCS				
				10									
				11									
				12									
				13									
				14									
				15									
				16									
				16.30			Continuation from non-cored borehole						
				17	836.11		LAMPROPHYRE: fine to medium grained, brown-orange, porphyritic, massive, irregular incipient black microfractures throughout, very close to close spacing.	HW		16.46: J, CN, PR, SM 16.53: J, 35°, SN, UN, RF 16.65: J, SN, PR, RF 16.66: J, 30°, SN, PR, RF 16.73: J, 5°, CN, ST, RF 16.92: J, CN, PR, RF 17.06: J, SN, PR, RF 17.10: J, 20°, SN, CU, RF 17.23: J, 20°, CN, CU, RF 17.30: J, 10°, CN, PR, RF 17.38: J, CN, PR, RF 17.49: J, 40°, SN, UN, RF 17.72: J, 5°, CN, UN, RF 17.91: J, 45°, SN, PR, RF 17.97: J, 20°, SN, UN, RF 18.06: J, 70°, SN, PR, RF 18.05-18.08: EW, clay, PR, SM, 3 mm 18.14: J, SN, PR, RF 18.17: J, 50°, SN, UN, RF 18.19: J, 10°, SN, ST, RF 18.22: J, 25°, CN, PR, SM 18.28: J, 5°, SN, ST, RF, possible DB 18.35: J, CN, UN, RF, possible DB 18.40-18.43: EW, 10°, clay, PR, RF, 3 mm 18.44: J, 10°, SN, PR, RF 18.47-18.51: CS, VN, ST, RF, angular rock fragments >10mm 18.50: J, 10°, SN, ST, RF 18.53: J, 50°, SN, ST, RF 18.54: J, 5°, SN, CU, RF			
				18									
				19									
				19.65									
				19.85									
				19.85			NO CORE 0.20m (19.65-19.85)						
				20				MW					

Comments

Checked GEM
Date 16/10/2024



BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES

Location: Netherdale/Dalrymple Heights

Client: Queensland Hydro

Job No.: PS138693

Position: Upper Reservoir

Coords: 657821.6 m E 7667799.1 m N MGA2020-55

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Inclination: -64° Direction: 131°

Sheet 4 OF 14

Date Started: 22/9/2023

Date Completed: 20/10/2023

Logged: NLP/JRC/DD

Drilling						Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)		AVERAGE DEFECT SPACING (mm)	
				20			LAMPROPHYRE: fine to medium grained, brown-orange, porphyritic, irregular incipient black joints throughout, becoming less frequent with depth.	MW		18.53-18.56: CS, 20°, VN, UN, RF, angular rock fragments >10mm			
			100	37						18.57: J, 55°, VN, ST, RF			
					20.56					18.58-18.61: CS, 40°, VN, UN, RF, angular rock fragments >7mm			
			100	0	832.28		METAGRANITE: pale red, white and pale grey, crystalline, highly altered granite, pink alteration, fabric shows metamorphic crystal reorientation.	MW		18.62: J, 40°, SN, UN, RF			
			100	80				SW		18.63: J, 90°, VN, ST, RF			
										18.65: J, VN, UN, RF			
				21						18.66-18.74: CS, 30°, VN, UN, RF, angular rock fragments >10mm			
			100	76						18.85: J, 10°, CN, PR, SM			
										18.98: J, SN, UN, RF			
										19.08: J, 50°, SN, ST, RF			
										19.11: J, SN, PR, RF			
										19.15: J, 55°, VN, ST, RF			
										19.23: J, CN, PR, SM			
										19.29: J, CN, PR, RF			
										19.39: J, CN, ST, RF			
										19.51: J, 30°, SN, ST, RF			
										19.57: J, SN, CU, SM			
										19.63: J, SN, PR, RF			
										19.85: J, 25°, SN, PR, RF			
			100	55						20.05: J, 15°, CT, PR, RF			
										20.13: J, 10°, CT, PR, RF			
										20.37: J, 15°, SN, ST, RF			
										20.51: J, 65°, SN, UN, SM			
										20.67: J, 65°, VN, PR, RF			
										20.83: J, 60°, VN, PR, RF			
										20.89: J, 65°, SN, PR, RF			
										20.98: J, 10°, SN, ST, RF			
										21.12: J, 90°, CN, PR, SM			
										21.14: J, 80°, SN, PR, RF			
										21.27: J, 35°, SN, UN, RF			
										21.48: J, 65°, SN, UN, RF			
										21.63: J, 15°, VN, UN, RF			
										21.71: J, 30°, VN, UN, RF			
										21.86: J, 30°, SN, UN, RF			
										21.90: J, 75°, VN, ST, RF			
										22.02: J, 65°, SN, PR, RF			
										22.09: J, 40°, VN, UN, RF			
										22.13: J, 75°, VN, CU, RF			
										22.16-22.23: Js, 20 - 50°, SN, PR, very closely spaced, angular rock fragments >20 mm			
										22.29: J, 30°, SN, PR, RF			
										22.40: J, 20°, SN, UN, RF			
										22.47: J, 65°, VN, UN, RF			
										22.49: J, 20°, SN, ST, RF			
										22.65: J, 65°, SN, PR, RF			
										22.66: J, 80°, SN, CU, RF			
										22.69: J, 50°, SN, PR, SM			
										22.74: J, 55°, SN, PR, RF			
										22.92: J, 50°, SN, CU, RF			
										22.96: J, 55°, SN, PR, SM			
										23.11: J, 30°, SN, UN, RF			
										23.22: J, 30°, SN, PR, RF			
										23.40: J, 30°, SN, ST, RF			
										23.41: J, 65°, SN, UN, SM			
										23.56: J, 65°, SN, PR, SM			
										23.58: J, 10°, SN, UN, RF			
										23.64: J, SN, ST, RF			
										23.65: J, 35°, SN, UN, RF			
										23.78: J, 70°, SN, PR, RF			
										23.78-23.80: Js, 40 - 50°, SN, PR, SM, very closely spaced, angular rock fragments >20 mm			
										23.79: J, 10°, VN, PR, RF			
										23.84: J, 60°, VN, PR, SM			
										23.87: J, 60°, SN, PR, SM			
										23.90: J, 60°, SN, UN, RF			
										23.95: J, 65°, SN, ST, RF			
										23.96: J, 5°, SN, ST, RF			
										23.96: J, 60°, SN, PR, RF			
										24.03: J, 15°, SN, PR, RF			
										24.04: J, 60°, SN, PR, RF			
										24.08: J, 20°, SN, UN, RF			
										24.10: J, 70°, SN, PR, SM			
										24.25: J, 30°, SN, UN, RF			
										24.33: J, 20°, VN, UN, RF			
										24.41: J, 45°, VN, PR, RF			
										24.44-24.51: AZ, 45°, gr mi, PR, zone of hJs, 3 mm spacing			
										24.65: J, 20°, VN, PR, SM			
										24.79: J, 75°, SN, PR, SM			
										24.79: J, CN, ST, SM			
										24.97: J, 5°, SN, PR, SM			
										24.98: J, 6°, SN, UN, RF			
										25.17: J, 20°, SN, UN, RF			
										25.28: J, 55°, SN, PR, SM			
										25.30: J, 5°, SN, PR, RF			
										25.48: J, 20°, SN, UN, RF			
				29									
			100	83									
			100	83									
				30									

Comments

Checked GEM
Date 16/10/2024



BOREHOLE: BHUA-11

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	5 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657821.6 m E 7667799.1 m N MGA2020-55	Date Started:	22/9/2023
Client:	Queensland Hydro	Surface RL:	850.8 m AHD	Date Completed:	20/10/2023
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Hanjin D&B-8D(D)	Logged:	NLP/JRC/DD
		Inclination:	-64° Direction: 131°		

Drilling						Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)		AVERAGE DEFECT SPACING (mm)	
HQ3		100	83	30			METAGRANITE: coarse grained, yellow orange, pale red, white, pale grey and black, crystalline, with numerous microfractures with black mineral infill, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation.	MW		25.56: J, 75°, CN, PR, SM 25.62: J, 45°, CN, PR, SM 25.65: J, 5°, SN, PR, RF 25.79: J, 55°, SN, PR, SM 25.81: J, 20°, CN, PR, SM 25.85: J, 60°, SN, ST, SM 25.90: J, 60°, SN, PR, RF 25.93: J, SN, ST, RF 26.00: J, 50°, SN, PR, RF 26.09: J, 25°, CN, PR, RF 26.21: J, 40°, SN, PR, RF 26.22: J, 5°, SN, PR, RF 26.28: J, 45°, SN, UN, RF 26.37: J, 45°, SN, UN, SM 26.44: J, 30°, SN, CU, RF 26.49: J, 40°, SN, UN, RF 26.53: J, 75°, SN, UN, RF 26.53-26.60: Js, 75°, SN, UN, RF, very closely spaced, crushed rock fragments >25 mm 26.67: J, 20°, SN, PR, RF 26.68: J, 75°, CN, CU, RF 26.74: J, 60°, SN, ST, RF 26.75: J, 85°, SN, UN, RF 26.79: J, 40°, SN, PR, RF 26.79: J, 65°, SN, ST, RF 26.84-26.90: J, 30 - 60°, SN, UN, SM, very closely spaced, angular rock fragments >25 mm 26.88: J, 50°, SN, PR, RF 26.88: J, 35°, SN, PR, SM 27.00: J, 40°, SN, PR, RF 27.04: J, 85°, SN, PR, RF 27.07: J, 25°, SN, UN, RF 27.08: J, 40°, SN, PR, RF 27.09: J, 5°, SN, PR, RF 27.13: J, 60°, SN, UN, RF 27.15: J, 20°, SN, CU, RF 27.16: J, 20°, SN, PR, RF 27.20: J, 55°, SN, UN, RF 27.21: J, 75°, SN, PR, SM 27.22: J, 10°, SN, PR, RF 27.25: J, 45°, SN, UN, RF 27.30: J, 70°, SN, PR, RF 27.45: J, 10°, VN, UN, RF 27.49: J, 5°, SN, PR, RF 27.53: J, 65°, SN, UN, RF 27.67: J, 40°, SN, PR, RF 27.67: J, 60°, SN, PR, RF 27.69: J, 20°, SN, ST, RF 27.76: J, 50°, SN, PR, RF 28.20: J, 40°, VN, UN, RF 28.29: J, 35°, SN, UN, RF 28.66-28.90: PLT (A) Is 50 = 5.40MPa (M) : PLT (D) Is 50 = 8.30MPa (M) 28.90: J, 5°, SN, UN, RF 29.27: J, 25°, CN, PR, RF 29.33: J, CN, UN, RF 29.52: J, 80°, CN, PR, RF 29.66: J, 45°, SN, PR, RF 29.67: J, 60°, SN, PR, SM 29.68: J, 60°, SN, PR, RF 29.69: J, 50°, SN, PR, RF 29.70: J, 25°, CN, PR, RF 29.72: J, 10°, VN, PR, RF 29.76: J, 10°, CN, PR, RF 29.90: J, 35°, SN, UN, RF 30.03: J, 30°, CN, UN, RF 30.07: J, 25°, CN, ST, RF 30.15: J, 35°, gr VN, PR, SM 30.23: J, 70°, gr and or-br SN, PR, RF 30.47: J, 35°, SN, PR, RF 30.60: J, 35°, SN, PR, RF 30.60: J, 75°, VN, PR, SM 30.67: J, SN, PR, RF 30.68: J, 65°, SN, PR 31.00: J, 65°, SN, PR, RF 31.01: J, SN, ST, RF 31.03: J, 80°, SN, PR 31.08: J, 25°, SN, ST, RF 31.09: J, 50°, SN, PR, RF 31.26: J, 80°, VN, PR, RF 31.31: J, 5°, SN, UN, RF 31.33: J, 40°, SN, UN, RF 31.35: J, 31.75°, gr VN, PR, RF 31.39: J, 60°, SN, UN, RF 31.39: J, 40°, gr VN, PR, SM 31.68: J, 45°, SN, PR, RF 31.76: J, 45°, gr and bk VN, PR, SM 31.95: J, 60°, gr SN, UN, RF 32.41: J, 45°, VN, PR, SM			
		100	0					SW					
		100	75	31									
				31.60	822.36		White, pale grey, pale red and black.						
		100	72	32									
				33									
		100	90	34									
				35									
		100	74	36			Coarse grained, white, pale grey, pale red, black and green, crystalline.						
				36.07	818.65		LAMPROPHYRE: fine grained, dark grey, porphyritic, white phenocrysts, numerous healed microfractures.						
				36.07	818.25		METAGRANITE: coarse grained, white, pale grey, black green, crystalline, massive, with numerous microfractures with black mineral infill, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation.						
							White, pale grey, black with pale red.						
		100	100	37									
				38									
		100	100	39									
		100	100	40			40.00						
Comments													
										Checked	GEM		
										Date	16/10/2024		



BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES

Location: Netherdale/Dalrymple Heights

Client: Queensland Hydro

Job No.: PS138693

Position: Upper Reservoir

Coords: 657821.6 m E 7667799.1 m N MGA2020-55

Surface RL: 850.8 m AHD

Contractor: Twin Hills Engineering & Drilling

Inclination: -64° Direction: 131°

Sheet 6 OF 14

Date Started: 22/9/2023

Date Completed: 20/10/2023

Logged: NLP/JRC/DD

Drilling						Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)		AVERAGE DEFECT SPACING (mm)	
				40	814.81		METAGRANITE: coarse grained, white, pale grey, black with pale red, crystalline, massive, with numerous microfractures with black mineral infill, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation.	SW		32.45: J, SN, UN, RF			
			100							32.49: J, 60°, gr SN, PR, SM			
										32.68: J, 70°, SN, PR			
										32.72: J, 15°, SN, PR, RF			
										32.74: J, 10°, SN, UN, RF			
										32.74: J, 55°, CN, UN, RF			
										32.82: J, 30°, SN, PR, RF			
										33.05: J, 20°, SN, UN, RF			
										33.06: J, 75°, CN, PR, RF			
										33.10: J, 60°, CN, PR, RF			
										33.13: J, 20°, SN, PR, RF			
										33.22: J, 55°, CN, PR, RF			
										33.25: J, 20°, CN, PR, RF			
										33.27: J, 40°, CN, PR, RF			
										33.84: J, 30°, SN, PR, RF			
										34.20: J, 60°, SN, ST, RF			
										34.21: J, 25°, SN, PR, RF			
										34.26: J, 5°, SN, UN, RF			
										34.30: J, 80°, SN, UN, RF			
										34.30: J, 70°, SN, PR, RF			
										34.34: J, 15°, CN, UN, RF			
										34.66: J, SN, UN, RF			
										34.67: J, 35°, SN, ST, RF			
										34.68: J, 55°, SN, UN, RF			
										34.93: J, 65°, SN, PR, RF			
										34.97: J, 15°, SN, PR, RF			
										35.13: J, 65°, SN, PR, RF			
										35.17: J, 20°, SN, UN, RF			
										35.37: J, SN, UN, RF			
										35.66: J, 65°, CN, PR, RF			
										35.67: J, 65°, CN, PR, RF			
										35.67: J, 30°, VN, UN, RF			
										36.10-36.20: complete water loss			
										36.15: J, 20°, CN, ST, RF			
										37.15: J, 70°, SN, PR, RF			
										37.15: J, SN, ST, RF			
										37.45: J, 20°, SN, ST, RF			
										37.77: J, 10°, CN, ST, RF			
										38.19: J, 20°, CN, PR, RF			
										38.35: J, 20°, CN, PR, RF			
										38.55: J, 50°, gr SN, PR			
										38.68: J, 10°, CN, PR, RF			
										38.95: J, 10°, CN, PR, RF			
										39.86: J, 30°, SN, UN, RF			
										40.08: J, 30°, CN, ST, RF			
										40.12: J, 30°, CN, IR, RF			
										40.13: J, 70°, CN, PR, RF			
										40.39: J, 20°, SN, UN, RF			
										41.05: J, 15°, SN, UN, RF			
										41.18: J, 35°, SN, UN, RF			
										41.54: J, 25°, CN, PR, RF			
										41.68: J, 30°, SN, UN, RF			
										41.90: J, 70°, gr and rd VN, PR, SM			
										41.91: J, 40°, CN, ST, RF			
										41.94: J, 10°, CN, PR, RF			
										42.09: J, 50°, SN, UN, RF			
										42.85: J, 55°, SN, PR, SM			
										42.87: J, CN, ST, RF			
										43.45: J, 40°, CN, UN, RF			
										43.56: J, 40°, CN, PR, RF			
										43.62: J, 50°, CN, PR, RF			
										43.63: J, 80°, bk SN, UN			
										43.65: J, CN, PR, RF			
										43.87: J, CN, UN, RF			
										44.07: J, 20°, CN, PR, RF			
										44.19: J, 15°, CN, ST, RF			
										44.20: J, 65°, bk SN, PR, RF			
										44.26: J, CN, PR, RF			
										44.28: J, CN, PR, RF			
										44.40: J, 45°, CN, PR, RF			
										44.53: J, 70°, CN, PR, RF			
										44.54: J, 75°, CN, PR, RF			
										44.58: J, CN, PR, RF			
										44.65-44.71: Js, 10 - 40°, bk SN, PR, RF, very closely spaced, angular rock fragments >25 mm			
										45.12: J, CN, PR, RF			
										45.20: J, 35°, CN, PR, RF			
										45.20: J, 60°, CN, PR, RF			
										45.21: J, CN, IR, RF			
										45.25: J, CN, IR, RF			
										45.27: J, 55°, CN, ST, RF			
										45.33: J, 20°, CN, UN, RF			
										45.60: J, 65°, CN, PR, SM			
										45.92: J, 65°, rd and gr VN, PR, SM			
										46.00: J, 65°, rd and gr VN, PR, SM			
										46.49: J, CN, IR, RF			
										46.53: J, 55°, CN, PR, RF			
										46.57: J, 55°, CN, PR, RF			
										46.65: J, 70°, SN, UN, RF			
				50									

Comments

Checked GEM
Date 16/10/2024



BOREHOLE: BHUA-11

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	7 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657821.6 m E 7667799.1 m N MGA2020-55	Date Started:	22/9/2023
Client:	Queensland Hydro	Surface RL:	850.8 m AHD	Date Completed:	20/10/2023
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Hanjin D&B-8D(D)	Logged:	NLP/JRC/DD
		Inclination:	-64° Direction: 131°		

Drilling					Field Material Description					Defect Information				
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)			AVERAGE DEFECT SPACING (mm)	
									VL-2 J M H VH-200 EH				10 30 100 300 1000 3000	
HQ3		100	100	50			METAGRANITE: coarse grained, pale grey, pale red with white, black and green, crystalline, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation.	SW		46.67: J, CN, PR, RF 46.72: J, 75°, VN, UN, RF 46.76: J, 55°, SN, PR, RF 46.77: J, 40°, CN, PR, RF 46.78: J, 25°, CN, UN, RF 47.48: J, CN, UN, RF 47.67: J, 45°, gr SN, PR, RF 47.69: J, 15°, gr SN, UN 48.14: J, 30°, gr SN, PR, RF 48.17: J, 65°, gr SN, UN, RF 48.24: J, CN, UN, RF 48.27: J, 50°, CN, UN, RF 48.29: J, 65°, CN, PR, RF 48.31: J, 55°, gr and wh VN, PR, RF 48.42: J, CN, UN, RF 48.43: J, 50°, bk SN, PR, RF 48.64: J, 50°, CN, UN, RF 49.26: J, 40°, SN, PR, RF 50.16: J, 15°, CN, PR, RF 50.55: J, 70°, bk SN, PR, RF 50.55: J, 20°, CN, UN, RF 50.56: J, 30°, bk SN, PR, RF 50.67: J, 60°, bk SN, PR, RF 51.16: J, 25°, CN, PR, RF 51.41: J, 15°, CN, UN, RF 51.42: J, 35°, bk SN, PR, RF 51.49: J, 10°, CN, PR, SM 51.54: J, 75°, bk SN, UN, RF 51.63: J, 70°, gr SN, PR, SM 51.64: J, 10°, gr SN, ST, RF 51.66: J, 70°, CN, PR, RF 52.00: J, 40°, CN, PR, RF 52.24: J, 25°, CN, PR, RF 52.27: J, 70°, CN, UN, RF 52.55: J, 50°, CN, UN, RF 52.56: J, 20°, CN, UN, RF 52.66: J, 50°, gr SN, UN 52.96: J, 50°, wh VN, UN, RF 53.60: J, 25°, gr SN, UN, RF 53.70-54.00: PLT (A) Is 50 = 4.50MPa (M) 53.82: J, 35°, br SN, PR, RF 53.83: J, 20°, CN, ST, RF 53.85: J, 65°, wh, gr, and gy CT, UN 54.06: J, 60°, gr and bk VN, ST, RF 54.51: J, 55°, CN, UN, RF 54.57: J, 55°, bk VN, UN, RF 55.00: J, 30°, gr SN, PR, RF				
				51										
		100	98											
				52										
				52.36	803.70		LAMPROPHYRE: fine to medium grained, dark grey green, porphyritic, white phenocrysts 1 mm rounded, black phenocrysts 2 mm rounded, black phenocrysts up to 5 mm angular to angular elongated.							
				52.65	803.44									
				53			METAGRANITE: coarse grained, white, pale grey, black and red, crystalline, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation.							
				53.10	803.03		LAMPROPHYRE: fine to medium grained, grey and pale / grey, porphyritic.							
				54			Grey, pale grey and green, black and white phenocrysts 2 mm rounded, black angular phenocrysts up to 6 mm.							
				54.06	802.17		METAGRANITE: coarse grained, white, pale grey, black and pale red, crystalline, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation.							
				54.30	801.89		LAMPROPHYRE: fine grained, dark grey and black, porphyritic.							
				55			METAGRANITE: coarse grained, white, pale grey, black and pale red, porphyritic, with numerous microfractures, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation.							
		100	100											
				56										
				56.62	799.87		White, pale grey and black.							
				57										
				57.05	799.48		Trace orange brown staining.							
				58										
				58.27	798.39		White, pale grey and black with pale red, trace orange brown staining.							
		100	76											
				59										
				59.87	796.95									
		100	90											
Comments											Checked	GEM		
											Date	16/10/2024		



BOREHOLE: BHUA-11

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	8 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657821.6 m E 7667799.1 m N MGA2020-55	Date Started:	22/9/2023
Client:	Queensland Hydro	Surface RL:	850.8 m AHD	Date Completed:	20/10/2023
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Hanjin D&B-8D(D)	Logged:	NLP/JRC/DD
		Inclination:	-64° Direction: 131°		

Drilling						Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)		AVERAGE DEFECT SPACING (mm)	
HQ3		100	90	60			LAMPROPHYRE: fine to medium grained, dark grey green, porphyritic, black phenocrysts 2-3 mm angular and rounded.	SW	VL J M H VH EH		58.62: J, 45°, or-br SN, UN, RF 58.73: J, 70°, or-br and bk VN, UN, RF 58.78: J, 45°, wh, bk, and gr VN, PR, RF 59.25: J, 45°, gr and bk VN, UN, RF 59.54-59.60: AZ, 30 - 65°, bk and or-br SN, PR 59.63: J, 50°, CN, PR, RF 59.65: J, 60°, CN, PR, SM 59.68: J, 60°, or-br SN, UN, RF 59.70: J, 65°, or-br SN, PR, SM 59.87: J, 20°, CN, ST 59.89: J, 70°, CN, PR, RF 59.95: J, 15°, or-br SN, UN, RF 59.96: J, 50°, CN, PR, RF 60.36-60.63: PLT (A) Is 50 = 9.40MPa (M) : PLT (D) Is 50 = 4.10MPa (W) 60.65: J, 65°, CN, PR, SM 60.69: J, 85°, CN, PR, RF 60.71: J, 85°, CN, PR, RF 60.71: J, 65°, CN, PR, RF 60.75: J, 65°, CN, PR, RF 60.76: J, 60°, CN, PR, RF 61.30: J, 45°, CN, UN, SM, up to 2 mm bleached halo 61.78: J, 55°, bk and or SN, PR, SM 61.92: J, 65°, CN, PR, RF 61.93: J, 65°, CN, PR, RF 62.04: J, 35°, yl mi, PR 62.08: J, CN, IR, RF 62.31: J, 45°, ph bk SN, PR, SM 62.78: J, 45°, CN, UN, RF 63.38: J, 30°, CN, PR, SM, possible DB 64.04: J, 50°, bk SN, PR, RF 64.66: J, 85°, CN, PR, SM, possible DB 64.89: J, 65°, bk SN, PR, SM 64.96: J, 55°, ph bk SN, PR, SM, wh mi VN 65.40: J, CN, PR, RF, possible DB 66.00-66.39: PLT (A) Is 50 = 8.80MPa (M) : PLT (D) Is 50 = 8.20MPa (M) 68.97: J, 30°, gy SILT (possibly drilling muds) VN, IR, RF, possible DB		
				60.94 795.99	61		METAGRANITE: coarse grained, white, grey, black and pale brown, crystalline, highly altered granite, pink, grey, brown alteration, with white and pale orange bleached halos.						
		100	93										
					62								
		100	100										
		100	100										
					63								
		100	89										
					64								
		100	100										
					65	65.00 792.34		LAMPROPHYRE: fine to medium grained, white, grey and black, porphyritic, pale green grey alteration, with black elongated randomly oriented phenocrysts to 5mm in diameter.					
		100	100										
				66									
	100	100											
				67									
				67.75 789.78	68		Pale grey to pale green, black phenocrysts in pale green grey matrix. Fine to medium grained, white, grey and black, porphyritic, massive, white phenocrysts to 2mm diameter.						
	100	99											
	100	98											
	100	98			69.80 70.00		Pale grey to pale green, highly altered, green grey						

Comments	Checked	GEM
	Date	16/10/2024



BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES

Location: Netherdale/Dalrymple Heights

Client: Queensland Hydro

Job No.: PS138693

Position: Upper Reservoir

Coords: 657821.6 m E 7667799.1 m N MGA2020-55

Surface RL: 850.8 m AHD

Contractor: Twin Hills Engineering & Drilling

Inclination: -64° Direction: 131°

Sheet 9 OF 14

Date Started: 22/9/2023

Date Completed: 20/10/2023

Logged: NLP/JRC/DD

Drilling					Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)		AVERAGE DEFECT SPACING (mm)
									VL-2 L -6 M -20 H -60 VH-200 EH			10 30 100 300 1000 3000
HQ3		100	98	70	787.84		alteration. White, grey and black, white phenocrysts to 2mm diameter.	SW				
		100	100	71			LAMPROPHYRE: fine to medium grained, white, grey and black, porphyritic, massive, white phenocrysts to 2mm diameter.					
					71.53							
					786.47		Pale grey to pale green, highly altered, green grey alteration.					
		100	78	72								
					72.40							
					72.55		White, grey and black, highly altered, green grey alteration, brecciated and recemented angular gravels.					
					785.55		Fine to medium grained, white, grey and black, massive, white and black phenocrysts to 2mm diameter.					
		100	100	73								
					73.68							
				784.54			Pale grey to pale green, numerous healed microfractures, abundant white phenocrysts and minor black phenocrysts, fine grained dark grey matrix.	MW				
				784.34								
				74.27		METAGRANITE: coarse grained, grey, black, white, and pale brown, crystalline, highly altered granite, pink, brown, grey alteration, fabric shows metamorphic crystal reorientation, pale brown may be due to being slightly altered.						
				74.46								
				783.83		LAMPROPHYRE: fine grained, black and white, porphyritic, massive, abundant white phenocrysts in a fine grained black matrix.						
	100	100	75									
				74.98		METAGRANITE: coarse grained, grey, white, black, and pale brown, crystalline, highly altered granite, pink, green, grey alteration, fabric shows metamorphic crystal reorientation.						
				783.37		LAMPROPHYRE: fine to coarse grained, black and pale grey, porphyritic, abundant medium to coarse grained pale grey phenocrysts in a black fine grained matrix.						
				75.98		Decreasing amount of white phenocrysts.						
				782.47								
	80-90% Water Return			76	76.18		Becoming grey-green, abundant moderately weathered bands containing many irregular white mineral veins.	MW to SW				
		100	100		782.23		Dark grey, brown, strongly deformed, with multiple fractures and sheared zones.					
				77								
					77.57							
					780.90		METAGRANITE: coarse grained, pale brown and grey, crystalline, highly altered granite, pink alteration, fabric shows metamorphic crystal reorientation.					
				78			NO CORE 0.08m (77.64-77.72)					
							METAGRANITE: coarse grained, pale brown and grey, crystalline, highly altered granite, pink alteration, fabric shows metamorphic crystal reorientation.					
				79								
					79.35							
					779.44		Microfractures present, extremely to very closely spaced becoming partly healed fractures throughout.					
		100	88									
					80.00							

Comments

Checked GEM
Date 16/10/2024



Sheet 10 OF 14

Date Started: 22/9/2023
Date Completed: 20/10/2023
Logged: NLP/JRC/DD

HQ3

Checked	GEM
Date	16/10/2024



BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES

Location: Netherdale/Dalrymple Heights

Client: Queensland Hydro

Job No.: PS138693

Position: Upper Reservoir

Coords: 657821.6 m E 7667799.1 m N MGA2020-55

Surface RL: 850.8 m AHD

Contractor: Twin Hills Engineering & Drilling

Inclination: -64° Direction: 131°

Sheet 11 OF 14

Date Started: 22/9/2023

Date Completed: 20/10/2023

Logged: NLP/JRC/DD

Drilling						Field Material Description				Defect Information							
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)		AVERAGE DEFECT SPACING (mm)					
HQ3	100% Water Return		100	90	769.87		METAGRANITE: coarse grained, black, white, and pale brown, crystalline, with numerous healed microfractures, decreasing amount of healed joints and veins.	SW		89.94: J, CN, IR, SM							
					90.70		White , pale grey and dark grey.			90.39: J, 30°, gr SN, PR, SM, possibly altered face							
					769.24					90.54: J, 35°, CN, PR, SM							
			100	91						91.07: J, 45°, CN, PR, RF							
										91.49: J, 40°, CN, ST, RF							
			100	92						92.03: J, 65°, CN, UN, RF							
										92.16: J, 30°, gr SN, UN							
			100	93						92.18: J, 40°, wh VN, UN							
										92.23: J, 35°, gr VN, UN							
			100	94						92.38-92.67: PLT (A) ls 50 = 5.60MPa (M)							
										92.50: J, 80°, gr SN, UN							
HQ3	100% Water Return		100	95						93.25: J, 50°, rd SN, UN, RF							
										93.49: J, 40°, gr SN, UN, RF							
			100	96						93.60: J, 40°, CN, UN, RF, possible DB							
										93.97: J, 50°, SN, PR, RF, rd SN, alt halo							
			100	97						94.76-94.84: Vs/hJs, 30 - 40°, gr mi, UN							
										95.14: J, 50°, gy CLAY VN, PR, RF							
			100	98						95.14: J, 50°, gy CLAY VN, PR, RF							
										95.40-95.62: Vs/hJs, 20 - 40°, gr mi, UN, <3 mm							
			100	99						96.20-96.28: Vs/hJs, 30 - 90°, UN, <10 mm, 6 mm spacing							
										96.29: J, 40°, gr VN, UN, RF							
HQ3	100% Water Return		100	100						96.46: J, 60°, bk and gr VN, PR, SM							
										96.48: J, 20°, or-br VN, PR, RF							
			100	99						96.52: J, 65°, bk and gr VN, PR, SM							
										96.59: J, 20°, or-br SN, PR, RF							
			100	98						98.22-98.30: AZ, 45°, IR, extremely to very closely spaced zone of IR hJs							
										98.56: J, 45°, wh ph mi VN, IR, SM							
			100	97						99.03: J, 65°, bk SN, PR, SM, 5 mm bleached halo							
										99.19: J, 40°, CN, PR, SM							
			100	96													
			100	95													
			100	94													
			100	93													
			100	92													
			100	91													
			100	90													

Comments

Checked GEM
Date 16/10/2024



Sheet 12 OF 14

Date Started: 22/9/2023
Date Completed: 20/10/2023
Logged: NLP/JRC/DD

Checked	GEM
Date	16/10/2024



BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES

Location: Netherdale/Dalrymple Heights

Client: Queensland Hydro

Job No.: PS138693

Position: Upper Reservoir

Coords: 657821.6 m E 7667799.1 m N MGA2020-55

Surface RL: 850.8 m AHD

Contractor: Twin Hills Engineering & Drilling

Inclination: -64° Direction: 131°

Sheet 13 OF 14

Date Started: 22/9/2023

Date Completed: 20/10/2023

Logged: NLP/JRC/DD

Drilling					Field Material Description			Defect Information							
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)				
								VL-2 L-4 M-20 H-40 VH-200 EH	■ - UCS		10 30 100 300 1000 3000				
HQ3	100% Water Return			110	751.89		BASALT: fine grained, grey-green, becoming grey. Becoming grey-green.	FR			110.72: J, 65°, wh mi, UN 112.16: J, 20°, SN, PR, RF 112.98: J, 15°, pale yl SN, PR, RF 113.58: J, 60°, SN, PR, RF 114.59: hCS, 50°, pl yl mi, UN 115.25-115.28: hCS, 20 - 25°, PR, sa-sr fragments <6 mm, black matrix of Vs 116.01: S, 90°, UN, ~5 mm of displacement, <5 mm bh 118.18: J, 25°, CN, UN, RF 118.20: J, 45°, pk mi SN, CU, RF 118.21: J, 10°, CN, UN, RF 118.29: J, 45°, pale yl CN, PR, RF 118.37-118.82: PLT (A) Is 50 = 11.00MPa (M) : PLT (D) Is 50 = 3.80MPa (w) 118.45: J, 35°, bk and gn mi, PR 119.08: J, 20°, bk mi, PR 119.30: J, 55°, pk br mi SN, PR, RF 119.36: J/DB, 5°, br SN, UN, RF				
					751.82										
		100	100												

Comments

Checked GEM
Date 16/10/2024



BOREHOLE: BHUA-11

Project: Pioneer-Burdekin PHES

Location: Netherdale/Dalrymple Heights

Client: Queensland Hydro

Job No.: PS138693

Position: Upper Reservoir

Coords: 657821.6 m E 7667799.1 m N MGA2020-55

Surface RL: 850.8 m AHD

Contractor: Twin Hills Engineering & Drilling

Inclination: -64° Direction: 131°

Sheet 14 OF 14

Date Started: 22/9/2023

Date Completed: 20/10/2023

Logged: NLP/JRC/DD

Drilling						Field Material Description				Defect Information		
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa)	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)	
HQ3	100% Water Return	100	95	120	742.90		METAGRANITE: coarse grained, pale brown to pink, black, and grey, crystalline, minor red staining.	FR		120.22: J, 5 - 15°, CN, UN, RF		
		100	100	121	740.94		LAMPROPHYRE: fine grained, dark grey to black, porphyritic, minor medium grained white phenocrysts, coarsening with depth.			121.13: J, 25°, CN, PR, RF 121.22: J, 30 - 45°, CN, CU, RF 121.45: J, 55°, CN, PR, SM 121.64: J, 5°, CN, PR, SM UCS test result at 121.43m affected by plane of weakness in sample		
HQ3	100% Water Return	100	100	122	740.69		Fine to medium grained, grey, white, black, abundant white and black medium grained phenocrysts in a fine grained grey matrix.	FR				
		100	100	123	739.61		Hole Terminated at 123.67 m Target depth. Vibrating Wire Piezometers Installed					
HQ3	100% Water Return	100	100	124	739.61			FR				
		100	100	125	739.61							
HQ3	100% Water Return	100	100	126	739.61			FR				
		100	100	127	739.61							
HQ3	100% Water Return	100	100	128	739.61			FR				
		100	100	129	739.61							
HQ3	100% Water Return	100	100	130	739.61			FR				
		100	100	130	739.61							

Comments

Checked GEM
Date 16/10/2024



Pioneer-Burdekin Pumped Hydro Energy Scheme: Tranche 1 – BHUA-11 Defects List

Refer to Explanatory Notes sheets for abbreviation definitions

PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	16.36				MB												
BHUA-11	16.46				J					CN	PR	SM					
BHUA-11	16.53				J		35			SN	UN	RF					
BHUA-11	16.65				J					SN	PR	RF					
BHUA-11	16.66				J		30			SN	PR	RF					
BHUA-11	16.73				J		5			CN	ST	RF					
BHUA-11	16.92				J					CN	PR	RF					
BHUA-11	17.06				J					SN	PR	RF					
BHUA-11	17.10				J		20			SN	CU	RF					
BHUA-11	17.23				J		20			CN	CU	RF					
BHUA-11	17.30				J		10			CN	PR	RF					
BHUA-11	17.38				J					CN	PR	RF					
BHUA-11	17.49				J		40			SN	UN	RF					
BHUA-11	17.72				J		5			CN	UN	RF					
BHUA-11	17.91				J		45			SN	PR	RF					
BHUA-11	17.97				J		20			SN	UN	RF					
BHUA-11	18.05	18.08			EW				clay		PR	SM		3			
BHUA-11	18.06				J		70			SN	PR	RF					
BHUA-11	18.14				J					SN	PR	RF					
BHUA-11	18.17				J		50			SN	UN	RF					
BHUA-11	18.19				J		10			SN	ST	RF					
BHUA-11	18.22				J		25			CN	PR	SM					
BHUA-11	18.28				J		5			SN	ST	RF					possible DB
BHUA-11	18.35				J					CN	UN	RF					possible DB
BHUA-11	18.40	18.43			EW		10		clay		PR	RF		3			
BHUA-11	18.44				J		10			SN	PR	RF					
BHUA-11	18.47	18.51			CS					VN	ST	RF					angular rock fragments >10mm
BHUA-11	18.50				J		10			SN	ST	RF					
BHUA-11	18.53	18.56			CS		20			VN	UN	RF					angular rock fragments >10mm
BHUA-11	18.53				J		50			SN	ST	RF					
BHUA-11	18.54				J		5			SN	CU	RF					
BHUA-11	18.57				J		55			VN	ST	RF					
BHUA-11	18.58	18.61			CS		40			VN	UN	RF					angular rock fragments >7mm
BHUA-11	18.62				J		40			SN	UN	RF					
BHUA-11	18.63				J		90			VN	ST	RF					
BHUA-11	18.65				J					VN	UN	RF					
BHUA-11	18.66	18.74			CS		30			VN	UN	RF					angular rock fragments >10mm
BHUA-11	18.85				J		10			CN	PR	SM					
BHUA-11	18.98				J					SN	UN	RF					
BHUA-11	19.04				hJ		50				PR						
BHUA-11	19.08				J		50			SN	ST	RF					
BHUA-11	19.11				J					SN	PR	RF					
BHUA-11	19.15				J		55			VN	ST	RF					
BHUA-11	19.23				J					CN	PR	SM					
BHUA-11	19.27				hJ		20				PR						
BHUA-11	19.29				J					CN	PR	RF					
BHUA-11	19.39				J					CN	ST	RF					
BHUA-11	19.42				hJ		50				UN						
BHUA-11	19.48				hJ		50				CU						
BHUA-11	19.51				J		30			SN	ST	RF					
BHUA-11	19.57				J					SN	CU	SM					
BHUA-11	19.63				J					SN	PR	RF					
BHUA-11	19.85				J		25			SN	PR	RF					
BHUA-11	20.02				hJ		70				PR						
BHUA-11	20.05				J		15			CT	PR	RF					
BHUA-11	20.13				J		10			CT	PR	RF					
BHUA-11	20.37				J		15			SN	ST	RF					
BHUA-11	20.51				J		65			SN	UN	SM					
BHUA-11	20.59				hJ		60				PR						
BHUA-11	20.60				hJ		55				CU						
BHUA-11	20.61				hJ		55				PR						
BHUA-11	20.62				hJ		35				UN						
BHUA-11	20.65				hJ		70				PR						
BHUA-11	20.67				J		65			VN	PR	RF					
BHUA-11	20.83				J		60			VN	PR	RF					
BHUA-11	20.89				J		65			SN	PR	RF					
BHUA-11	20.89				hJ		80				PR						
BHUA-11	20.93				hJ		60				PR						
BHUA-11	20.94				hJ		50				PR						
BHUA-11	20.98				J		10			SN	PR	RF					
BHUA-11	21.04				hJ		30		gr mi		PR						
BHUA-11	21.12				J		90			CN	PR	SM					
BHUA-11	21.14				J		80			SN	PR	RF					
BHUA-11	21.18				hJ		70				UN						
BHUA-11	21.24				hJ		70		gr mi		ST						
BHUA-11	21.27				J		35			SN	UN	RF					
BHUA-11	21.32				hJ		70		gr mi		UN						
BHUA-11	21.34				hJ		35				PR						
BHUA-11	21.37				hJ		85				UN						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	21.38				hJ		85				UN						
BHUA-11	21.39				hJ		85		gr mi		UN						
BHUA-11	21.48				J		65			SN	UN	RF					
BHUA-11	21.50				hJ		85		gr mi		UN						
BHUA-11	21.51				hJ		75		gr mi		UN						
BHUA-11	21.52				hJ		90		gr mi		UN						
BHUA-11	21.59				hJ		60				CU						
BHUA-11	21.63				J		15			VN	UN	RF					
BHUA-11	21.71				J		30			VN	UN	RF					
BHUA-11	21.74				hJ		60				CU						
BHUA-11	21.77				hJ		70				UN						
BHUA-11	21.78				hJ		65				PR						
BHUA-11	21.79				hJ		10				UN						
BHUA-11	21.84				hJ		85				UN						
BHUA-11	21.86				J		30			SN	UN	RF					
BHUA-11	21.90				J		75			VN	ST	RF					
BHUA-11	21.93				hJ		35				CU						
BHUA-11	22.02				J		65			SN	PR	RF					
BHUA-11	22.09				J		40			VN	UN	RF					
BHUA-11	22.13				J		75			VN	CU	RF					
BHUA-11	22.16	22.23			Js		20	50		SN	PR					very closely	angular rock fragments >20 mm
BHUA-11	22.29				J		30			SN	PR	RF					
BHUA-11	22.31				hJ		30				PR						
BHUA-11	22.34				hJ		35				UN						
BHUA-11	22.40				J		20			SN	UN	RF					
BHUA-11	22.42				hJ		70				ST						
BHUA-11	22.44				hJ		50				UN						
BHUA-11	22.47				J		65			VN	UN	RF					
BHUA-11	22.49				J		20			SN	ST	RF					
BHUA-11	22.58				hJ		90				UN						
BHUA-11	22.65				J		65			SN	PR	RF					
BHUA-11	22.66				J		80			SN	CU	RF					
BHUA-11	22.69				J		50			SN	PR	SM					
BHUA-11	22.74				J		55			SN	PR	RF					
BHUA-11	22.76				hJ		45		gr mi		PR						
BHUA-11	22.77				hJ		35		gr mi		PR						
BHUA-11	22.86				hJ		50				PR						
BHUA-11	22.87				hJ		55				UN						
BHUA-11	22.88				hJ		40				PR						
BHUA-11	22.92				J		50			SN	CU	RF					
BHUA-11	22.96				J		55			SN	PR	SM					
BHUA-11	23.02				hJ		55				UN						
BHUA-11	23.05				hJ		55				PR						
BHUA-11	23.08				hJ		55				PR						
BHUA-11	23.09				hJ		55				UN						
BHUA-11	23.11				J		30			SN	UN	RF					
BHUA-11	23.12				hJ		10				CU						
BHUA-11	23.13				hJ		75				UN						
BHUA-11	23.14				hJ		75				ST						
BHUA-11	23.17				hJ		45				UN						
BHUA-11	23.19				hJ		60				ST						
BHUA-11	23.20				hJ		30				ST						
BHUA-11	23.22				J		30			SN	PR	RF					
BHUA-11	23.24				hJ		50				UN						
BHUA-11	23.29				hJ		60				PR						
BHUA-11	23.30				hJ		60				PR						
BHUA-11	23.34				hJ		55				PR						
BHUA-11	23.36				hJ		75				ST						
BHUA-11	23.38				hJ		15				CU						
BHUA-11	23.40				J		30			SN	ST	RF					
BHUA-11	23.41				J		65			SN	UN	SM					
BHUA-11	23.50				hJ		70				IR						
BHUA-11	23.54				hJ		70				PR						
BHUA-11	23.56				hJ		70				PR						
BHUA-11	23.56				J		65			SN	PR	SM					
BHUA-11	23.58				J		10			SN	UN	RF					
BHUA-11	23.61				hJ		65				PR						
BHUA-11	23.62				hJ		70				UN						
BHUA-11	23.64				J					SN	ST	RF					
BHUA-11	23.65				J		35			SN	UN	RF					
BHUA-11	23.67				hJ		25				CU						
BHUA-11	23.70				hJ		65				PR						
BHUA-11	23.74				hJ						IR						
BHUA-11	23.78				J		70			SN	PR	RF					
BHUA-11	23.78	23.80			Js		40	50		SN	PR	SM				very closely	angular rock fragments >20 mm
BHUA-11	23.79				J		10			VN	PR	RF					
BHUA-11	23.84				J		60			VN	PR	SM					
BHUA-11	23.86				hJ		35				PR						
BHUA-11	23.87				J		60			SN	PR	SM					



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BHUA-11	23.90				J		60			SN	UN	RF					
BHUA-11	23.92				hJ		60				UN						
BHUA-11	23.95				J		65			SN	ST	RF					
BHUA-11	23.96				J		5			SN	ST	RF					
BHUA-11	23.96				J		60			SN	PR	RF					
BHUA-11	23.99				hJ		65				PR						
BHUA-11	24.01				hJ		55				PR						
BHUA-11	24.02				hJ		55				PR						
BHUA-11	24.03				J		15			SN	PR	RF					
BHUA-11	24.04				J		60			SN	PR	RF					
BHUA-11	24.05				hJ		70				UN						
BHUA-11	24.07				hJ		70				PR						
BHUA-11	24.08				J		20			SN	UN	RF					
BHUA-11	24.10				J		70			SN	PR	SM					
BHUA-11	24.16				hJ		50				UN						
BHUA-11	24.16				hJ		25				PR						
BHUA-11	24.17				hJ		30				UN						
BHUA-11	24.18				hJ		30				UN						
BHUA-11	24.19				hJ		30				UN						
BHUA-11	24.21				hJ		40				UN						
BHUA-11	24.25				J		30			SN	UN	RF					
BHUA-11	24.33				J		20			VN	UN	RF					
BHUA-11	24.36				hJ		80				PR						
BHUA-11	24.37				hJ		75				UN						
BHUA-11	24.37				hJ		40				UN						
BHUA-11	24.38				hJ		80				ST						
BHUA-11	24.41				hJ		75				PR						
BHUA-11	24.41				J		45			VN	PR	RF					
BHUA-11	24.42				hJ		65				ST						
BHUA-11	24.44				hJ		65				PR						
BHUA-11	24.44	24.51			hJ		40		gr mi		PR						
BHUA-11	24.44				AZ		45		gr mi		PR						zone of hJs, 3 mm spacing
BHUA-11	24.45				hJ		45				PR						
BHUA-11	24.46				hJ		60				ST						
BHUA-11	24.50				hJ		70				PR						
BHUA-11	24.51				hJ		40				CU						
BHUA-11	24.52				hJ		75				PR						
BHUA-11	24.62				hJ		35		gr mi		PR						
BHUA-11	24.63				hJ		45				UN						
BHUA-11	24.65				J		20			VN	PR	SM					
BHUA-11	24.68				hJ		25				PR						
BHUA-11	24.71				hJ		35				PR						
BHUA-11	24.73				hJ		40				PR						
BHUA-11	24.75				hJ		65				PR						
BHUA-11	24.79				J		75			SN	PR	SM					
BHUA-11	24.79				J					CN	ST	SM					
BHUA-11	24.82				hJ		35				PR						
BHUA-11	24.84				hJ		85				PR						
BHUA-11	24.86				hJ		65				PR						
BHUA-11	24.87				hJ		85				ST						
BHUA-11	24.89				hJ		60				UN						
BHUA-11	24.92				hJ		65				UN						
BHUA-11	24.93				hJ		50				UN						
BHUA-11	24.97				J		5			SN	PR	SM					
BHUA-11	24.98				J		6			SN	UN	RF					
BHUA-11	25.05				hJ		80				UN						
BHUA-11	25.07				hJ		30				UN						
BHUA-11	25.09				hJ		65				PR						
BHUA-11	25.11				hJ		15		gr mi		PR						
BHUA-11	25.12				hJ				gr mi		PR						
BHUA-11	25.14				hJ				gr mi		PR						
BHUA-11	25.17				J		20			SN	UN	RF					
BHUA-11	25.28				J		55			SN	PR	SM					
BHUA-11	25.29				hJ		50				PR						
BHUA-11	25.30				J		5			SN	PR	RF					
BHUA-11	25.33				hJ		70		gr mi		PR						
BHUA-11	25.33				hJ		55				PR						
BHUA-11	25.34				hJ		15		gr mi		PR						
BHUA-11	25.36				hJ		60		gr mi		PR						
BHUA-11	25.36				hJ		30				PR						
BHUA-11	25.37				hJ		35				UN						
BHUA-11	25.38				hJ		10		gr mi		PR						
BHUA-11	25.41				hJ		20				CU						
BHUA-11	25.42				hJ		40				PR						
BHUA-11	25.46				hJ		60				UN						
BHUA-11	25.48				J		20			SN	UN	RF					
BHUA-11	25.52				hJ		60				PR						
BHUA-11	25.55				hJ		15				PR						
BHUA-11	25.56				J		75			CN	PR	SM					



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BHUA-11	25.57				hJ		10		gr mi		PR						
BHUA-11	25.62				J		45			CN	PR	SM					
BHUA-11	25.65				J		5			SN	PR	RF					
BHUA-11	25.66				hJ		55				PR						
BHUA-11	25.67				hJ		55				PR						
BHUA-11	25.68				hJ		65				PR						
BHUA-11	25.71				hJ		5				PR						
BHUA-11	25.73				hJ		50				PR						
BHUA-11	25.74				hJ		45				PR						
BHUA-11	25.75				hJ		50				PR						
BHUA-11	25.77				hJ		5				PR						
BHUA-11	25.79				J		55			SN	PR	SM					
BHUA-11	25.81				J		20			CN	PR	SM					
BHUA-11	25.85				J		60			SN	ST	SM					
BHUA-11	25.87				hJ		65				UN						
BHUA-11	25.88				hJ		60				ST						
BHUA-11	25.90				J		60			SN	PR	RF					
BHUA-11	25.91				hJ		80				PR						
BHUA-11	25.93				J					SN	ST	RF					
BHUA-11	25.95				hJ		40				PR						
BHUA-11	26.00				J		50			SN	PR	RF					
BHUA-11	26.09				J		25			CN	PR	RF					
BHUA-11	26.15				hJ		55				PR						
BHUA-11	26.16				hJ		55				PR						
BHUA-11	26.17				hJ		70				PR						
BHUA-11	26.18				hJ		15				PR						
BHUA-11	26.21				J		40			SN	PR	RF					
BHUA-11	26.22				J		5			SN	PR	RF					
BHUA-11	26.23				hJ		15		gr mi		PR						
BHUA-11	26.24				hJ		40		gr mi		PR						
BHUA-11	26.25				hJ		40		gr mi		PR						
BHUA-11	26.26				hJ		40		gr mi		PR						
BHUA-11	26.28				J		45			SN	UN	RF					
BHUA-11	26.32				hJ		45				PR						
BHUA-11	26.36				hJ		45				PR						
BHUA-11	26.37				J		45			SN	UN	SM					
BHUA-11	26.38				hJ		55				UN						
BHUA-11	26.38				hJ		50				PR						
BHUA-11	26.38				hJ		45				UN						
BHUA-11	26.40				hJ		40				ST						
BHUA-11	26.40				hJ		25				UN						
BHUA-11	26.41				hJ		50				UN						
BHUA-11	26.43				hJ		45				PR						
BHUA-11	26.44				J		30			SN	CU	RF					
BHUA-11	26.46				hJ		60				PR						
BHUA-11	26.47				hJ		60				UN						
BHUA-11	26.48				hJ		60				PR						
BHUA-11	26.48				hJ		45				PR						
BHUA-11	26.49				J		40			SN	UN	RF					
BHUA-11	26.52				hJ		50				CU						
BHUA-11	26.53				J		75			SN	UN	RF					
BHUA-11	26.53	26.60			Js		75			SN	UN	RF				very closely	crushed rock fragments >25 mm
BHUA-11	26.56				hJ		70				PR						
BHUA-11	26.67				J		20			SN	PR	RF					
BHUA-11	26.68				J		75			CN	CU	RF					
BHUA-11	26.74				J		60			SN	ST	RF					
BHUA-11	26.75				J		85			SN	UN	RF					
BHUA-11	26.76				hJ		20				PR						
BHUA-11	26.79				J		40			SN	PR	RF					
BHUA-11	26.79				J		65			SN	ST	RF					
BHUA-11	26.84	26.90			J		30	60		SN	UN	SM				very closely	angular rock fragments >25 mm
BHUA-11	26.88				J		50				PR	RF					
BHUA-11	26.88				J		35			SN	PR	SM					
BHUA-11	26.92				hJ		85				PR						
BHUA-11	26.95				hJ		35		gr mi		PR						
BHUA-11	26.97				hJ		85				UN						
BHUA-11	26.98				hJ		90				UN						
BHUA-11	27.00				J		40			SN	PR	RF					
BHUA-11	27.03				hJ		45				PR						
BHUA-11	27.04				J		85			SN	PR	RF					
BHUA-11	27.06				hJ		25				PR						
BHUA-11	27.06				hJ		15				PR						
BHUA-11	27.06				hJ		30				PR						
BHUA-11	27.07				J		25			SN	UN	RF					
BHUA-11	27.08				J		40			SN	PR	RF					
BHUA-11	27.09				J		5			SN	PR	RF					
BHUA-11	27.11				hJ		50				CU						
BHUA-11	27.13				hJ		15				PR						
BHUA-11	27.13				J		60			SN	UN	RF					



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BHUA-11	27.15				J		20			SN	CU	RF					
BHUA-11	27.16				J		20			SN	PR	RF					
BHUA-11	27.18				hJ		25				UN						
BHUA-11	27.20				J		55			SN	UN	RF					
BHUA-11	27.21				J		75			SN	PR	SM					
BHUA-11	27.22				J		10			SN	PR	RF					
BHUA-11	27.23				hJ		60				UN						
BHUA-11	27.25				J		45			SN	UN	RF					
BHUA-11	27.30				J		70			SN	PR	RF					
BHUA-11	27.30				hJ		40				PR						
BHUA-11	27.31				hJ		50				UN						
BHUA-11	27.32				hJ		35				UN						
BHUA-11	27.33				hJ		30				PR						
BHUA-11	27.34				hJ		40				PR						
BHUA-11	27.35				hJ		50				PR						
BHUA-11	27.38				hJ		45				PR						
BHUA-11	27.40				hJ		75				UN						
BHUA-11	27.43				hJ		50				UN						
BHUA-11	27.45				J		10			VN	UN	RF					
BHUA-11	27.49				J		5			SN	PR	RF					
BHUA-11	27.51				hJ		5				CU						
BHUA-11	27.53				J		65			SN	UN	RF					
BHUA-11	27.56				V		50		bk mi		PR						
BHUA-11	27.58				hJ		45				UN						
BHUA-11	27.64				hJ		70				PR						
BHUA-11	27.64				hJ		20				PR						
BHUA-11	27.65				hJ		60				UN						
BHUA-11	27.67				J		40			SN	PR	RF					
BHUA-11	27.67				J		60			SN	PR	RF					
BHUA-11	27.69				J		20			SN	ST	RF					
BHUA-11	27.70				hJ		35				PR						
BHUA-11	27.70				hJ		60				PR						
BHUA-11	27.73				hJ		20				PR						
BHUA-11	27.74				hJ		20				PR						
BHUA-11	27.75				hJ		25				PR						
BHUA-11	27.76				hJ		35				PR						
BHUA-11	27.76				J		50			SN	PR	RF					
BHUA-11	27.77				hJ		35				PR						
BHUA-11	27.80				hJ		45				UN						
BHUA-11	27.86				hJ		45		gr mi		PR						
BHUA-11	27.89				hJ		35				PR						
BHUA-11	27.91				hJ		20				PR						
BHUA-11	27.92				hJ		65		gr mi		PR						
BHUA-11	28.18	28.23			V		35		bk mi		PR						
BHUA-11	28.20				J		40			VN	UN	RF					
BHUA-11	28.22				hJ		10				PR						
BHUA-11	28.23				hJ		35				PR						
BHUA-11	28.24				hJ		55				PR						
BHUA-11	28.25				hJ		35				PR						
BHUA-11	28.25				hJ		10				PR						
BHUA-11	28.25				hJ		40				PR						
BHUA-11	28.28				hJ		5				PR						
BHUA-11	28.29				J		35			SN	UN	RF					
BHUA-11	28.29				hJ		90		gr mi		UN						
BHUA-11	28.30				hJ		5				PR						
BHUA-11	28.31				hJ		10		gr mi		IR						
BHUA-11	28.41				hJ		70				UN						
BHUA-11	28.43				hJ		35		gr mi		PR						
BHUA-11	28.48				hJ		40		gr mi		UN						
BHUA-11	28.49				hJ		40		gr mi		UN						
BHUA-11	28.52				hJ		40				PR						
BHUA-11	28.57				hJ		40				PR						
BHUA-11	28.58				hJ		40				PR						
BHUA-11	28.60				hJ		30		gr mi		PR						
BHUA-11	28.61				hJ		30		gr mi		PR						
BHUA-11	28.61				hJ		20				PR						
BHUA-11	28.63				hJ		30				PR						
BHUA-11	28.64				hJ		30				PR						
BHUA-11	28.68				hJ		85		bk mi		UN						
BHUA-11	28.69				hJ		5				PR						
BHUA-11	28.70				hJ						PR						
BHUA-11	28.70				hJ						PR						
BHUA-11	28.74				hJ		20				PR						
BHUA-11	28.75				hJ		45		gr mi		PR						
BHUA-11	28.79				V		50		bk mi		PR						
BHUA-11	28.81				hJ		60				PR						
BHUA-11	28.82				hJ						PR						
BHUA-11	28.82				hJ		45				PR						
BHUA-11	28.83				hJ		40				UN						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	28.89				hJ		25				PR						
BHUA-11	28.90				J		5			SN	UN	RF					
BHUA-11	28.99				hJ		10				PR						
BHUA-11	29.01				hJ		30				PR						
BHUA-11	29.03				hJ		55				UN						
BHUA-11	29.07				hJ		65				ST						
BHUA-11	29.11				hJ		25				PR						
BHUA-11	29.13				hJ						PR						
BHUA-11	29.15				hJ		65				PR						
BHUA-11	29.21				hJ		40				PR						
BHUA-11	29.22				hJ		5				UN						
BHUA-11	29.23				hJ		70				PR						
BHUA-11	29.23				hJ		70				PR						
BHUA-11	29.23				hJ				gr mi		PR						
BHUA-11	29.25				hJ		70				PR						
BHUA-11	29.26				hJ		70				PR						
BHUA-11	29.27				J		25			CN	PR	RF					
BHUA-11	29.29				hJ		25				PR						
BHUA-11	29.30				hJ		65				PR						
BHUA-11	29.31				hJ		55				PR						
BHUA-11	29.33				J					CN	UN	RF					
BHUA-11	29.44				hJ		80				PR						
BHUA-11	29.44				hJ		10				PR						
BHUA-11	29.47				hJ		10		gr mi		PR						
BHUA-11	29.49				hJ		25		gr mi		PR						
BHUA-11	29.50				hJ		5		gr mi		PR						
BHUA-11	29.52				J		80			CN	PR	RF					
BHUA-11	29.60				hJ		70				IR						
BHUA-11	29.60				hJ		40		gr mi		UN						
BHUA-11	29.65				hJ		65				PR						
BHUA-11	29.65				hJ		30				PR						
BHUA-11	29.66				hJ		30				PR						
BHUA-11	29.66				hJ		60				PR						
BHUA-11	29.66				hJ		60				UN						
BHUA-11	29.66				J		45			SN	PR	RF					
BHUA-11	29.67				J		60			SN	PR	SM					
BHUA-11	29.68				J		60			SN	PR	RF					
BHUA-11	29.69				J		50			SN	PR	RF					
BHUA-11	29.70				J		25			CN	PR	RF					
BHUA-11	29.72				J		10			VN	PR	RF					
BHUA-11	29.73				hJ		20		gr mi		PR						
BHUA-11	29.74				hJ		10		gr mi		PR						
BHUA-11	29.75				hJ		85				ST						
BHUA-11	29.76				J		10			CN	PR	RF					
BHUA-11	29.77				hJ		60				PR						
BHUA-11	29.77				hJ		10				PR						
BHUA-11	29.79				hJ		20				PR						
BHUA-11	29.80				hJ		15		gr mi		PR						
BHUA-11	29.81				hJ		20				PR						
BHUA-11	29.86				hJ		25		gr mi		PR						
BHUA-11	29.88				hJ		25		gr mi		PR						
BHUA-11	29.89				hJ		25		gr mi		PR						
BHUA-11	29.90				J		35			SN	UN	RF					
BHUA-11	29.91				hJ		20				PR						
BHUA-11	29.91				hJ		30		gr mi		PR						
BHUA-11	29.92				hJ		20		gr mi		PR						
BHUA-11	29.93				hJ		50				PR						
BHUA-11	29.94				hJ		60				PR						
BHUA-11	29.96				hJ		65				PR						
BHUA-11	29.97				hJ		25				PR						
BHUA-11	29.98				hJ		20				PR						
BHUA-11	29.99				hJ		50				PR						
BHUA-11	30.00				hJ		55				PR						
BHUA-11	30.03				J		30			CN	UN	RF					
BHUA-11	30.05				hJ		10		gr mi		PR						
BHUA-11	30.06				hJ		20				PR						
BHUA-11	30.07				J		25			CN	ST	RF					
BHUA-11	30.08				hJ		30		gr mi		PR						
BHUA-11	30.11				hJ		25				PR						
BHUA-11	30.14				hJ		65				PR						
BHUA-11	30.14				hJ		35		gr mi		UN						
BHUA-11	30.15				J		35		gr	VN	PR	SM					
BHUA-11	30.15				hJ		35				PR						
BHUA-11	30.17				hJ		60				PR						
BHUA-11	30.23				J		70		gr and or-br	SN	PR	RF					
BHUA-11	30.34				hJ		15				PR						
BHUA-11	30.35				hJ						PR						
BHUA-11	30.38				hJ		20				UN						
BHUA-11	30.40				hJ		40				PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	30.42				hJ		30				PR						
BHUA-11	30.44				hJ		40				PR						
BHUA-11	30.46				hJ		35				PR						
BHUA-11	30.47				J		35			SN	PR	RF					
BHUA-11	30.50				hJ		60				PR						
BHUA-11	30.55				hJ		5				UN						
BHUA-11	30.56				hJ				gr mi		UN						
BHUA-11	30.57				hJ		80		wh mi		PR						
BHUA-11	30.60				hJ		70				PR						
BHUA-11	30.60				hJ		80				ST						
BHUA-11	30.60				hJ		60				PR						
BHUA-11	30.60				J		35			SN	PR	RF					
BHUA-11	30.60				J		75			VN	PR	SM					
BHUA-11	30.61				hJ		70				PR						
BHUA-11	30.61				hJ		45				PR						
BHUA-11	30.67				J					SN	PR	RF					
BHUA-11	30.68				J		65			SN	PR						
BHUA-11	30.73				hJ		80			SN	ST						
BHUA-11	30.77				hJ		55				PR						
BHUA-11	30.77				hJ		65				UN						
BHUA-11	30.78				hJ		50				PR						
BHUA-11	30.80				hJ		90				PR						
BHUA-11	30.80				hJ		60				PR						
BHUA-11	30.85				hJ		60				PR						
BHUA-11	30.86				V		50		bk mi		PR			2			
BHUA-11	30.89				hJ		50		gr mi		PR						
BHUA-11	30.94				hJ		75				PR						
BHUA-11	30.95				hJ		65				PR						
BHUA-11	30.95				hJ		70				UN						
BHUA-11	30.96				hJ		50				PR						
BHUA-11	30.98				hJ		50				PR						
BHUA-11	30.99				hJ		50		gr mi		UN						
BHUA-11	31.00				J		65			SN	PR	RF					
BHUA-11	31.01				J					SN	ST	RF					
BHUA-11	31.03				hJ		40				PR						
BHUA-11	31.03				J		80			SN	PR						
BHUA-11	31.04				hJ		40				PR						
BHUA-11	31.05				hJ		40				PR						
BHUA-11	31.05				hJ		45				PR						
BHUA-11	31.05				hJ		55				PR						
BHUA-11	31.06				hJ		60				PR						
BHUA-11	31.07				hJ		90				UN						
BHUA-11	31.08				J		25			SN	ST	RF					
BHUA-11	31.09				J		50			SN	PR	RF					
BHUA-11	31.26				J		80			VN	PR	RF					
BHUA-11	31.31				J		5			SN	UN	RF					
BHUA-11	31.33				J		40			SN	UN	RF					
BHUA-11	31.35				hJ		5		gr mi		PR						
BHUA-11	31.35				J		31.75		gr	VN	PR	RF					
BHUA-11	31.36				hJ		15		gr mi		PR						
BHUA-11	31.39				J		60			SN	UN	RF					
BHUA-11	31.39				J		40		gr	VN	PR	SM					
BHUA-11	31.41				hJ		30				UN						
BHUA-11	31.42				hJ		80				PR						
BHUA-11	31.43				hJ		80				PR						
BHUA-11	31.43				hJ		40				PR						
BHUA-11	31.44				hJ		80				PR						
BHUA-11	31.48				hJ		30			SN	PR	RF					
BHUA-11	31.53				hJ		10				PR						
BHUA-11	31.55				hJ		55				PR						
BHUA-11	31.56				hJ		55				PR						
BHUA-11	31.58				hJ		25				PR						
BHUA-11	31.59				hJ		25				UN						
BHUA-11	31.60				hJ		25			SN	PR	RF					
BHUA-11	31.62				hJ		35			SN	PR	RF					
BHUA-11	31.62				hJ						PR						
BHUA-11	31.63				hJ		10				PR						
BHUA-11	31.65				hJ		15		gr mi		PR						
BHUA-11	31.67				hJ		70				PR						
BHUA-11	31.68				J		45			SN	PR	RF					
BHUA-11	31.69				hJ		65		gr mi		PR						
BHUA-11	31.70				hJ		75				UN						
BHUA-11	31.71				hJ		65		gr mi		PR						
BHUA-11	31.72				hJ		10		gr mi		PR						
BHUA-11	31.76				J		45		gr and bk	VN	PR	SM					
BHUA-11	31.78				hJ		40		gr mi		PR						
BHUA-11	31.80				hJ		70		gr mi		PR						
BHUA-11	31.81				hJ		75				PR						
BHUA-11	31.82				hJ		40		gr mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	31.84				hJ		70				PR						
BHUA-11	31.95				J		60		gr	SN	UN	RF					
BHUA-11	31.97				hJ		75				PR						
BHUA-11	31.98				hJ		50		gr mi		UN						
BHUA-11	31.99				hJ		80		gr mi		ST						
BHUA-11	32.00				hJ						PR						
BHUA-11	32.01				hJ		75				UN						
BHUA-11	32.03				hJ		20		gr mi		PR						
BHUA-11	32.03				hJ		25		gr mi		PR						
BHUA-11	32.04				hJ		90		gr mi		UN						
BHUA-11	32.10				hJ		20				PR						
BHUA-11	32.11				hJ		75				UN						
BHUA-11	32.15				hJ		78				PR						
BHUA-11	32.20				hJ		10				PR						
BHUA-11	32.22				hJ		10				PR						
BHUA-11	32.23				hJ		70				UN						
BHUA-11	32.23				hJ		70				UN						
BHUA-11	32.27				hJ		30		gr mi		UN						
BHUA-11	32.29				V		20		gr mi		PR		<	5			
BHUA-11	32.31				hJ		50				PR						
BHUA-11	32.32				hJ		30				PR						
BHUA-11	32.35				hJ		45				ST						
BHUA-11	32.38				hJ		70		gr mi		PR						
BHUA-11	32.40				hJ		60				PR						
BHUA-11	32.41				hJ		10				PR						
BHUA-11	32.41				J		45			VN	PR	SM					
BHUA-11	32.43				hJ		15		gr mi		PR						
BHUA-11	32.45				J					SN	UN	RF					
BHUA-11	32.48				hJ		40				PR						
BHUA-11	32.49				hJ		5				PR						
BHUA-11	32.49				J		60		gr	SN	PR	SM					
BHUA-11	32.50				hJ		25				PR						
BHUA-11	32.54				hJ		20				PR						
BHUA-11	32.55				hJ		40				PR						
BHUA-11	32.57				hJ		20				PR						
BHUA-11	32.58				hJ		40				PR						
BHUA-11	32.58				hJ		75				ST						
BHUA-11	32.59				hJ		50				PR						
BHUA-11	32.60				hJ		55		gr mi		PR						
BHUA-11	32.60				hJ		45		gr mi		PR						
BHUA-11	32.61				hJ		30				PR						
BHUA-11	32.64				V		45		gr mi		PR			4			
BHUA-11	32.65				V		75				PR			2			
BHUA-11	32.67				V		60		gr mi		PR						
BHUA-11	32.68				J		70			SN	PR						
BHUA-11	32.72				J		15			SN	PR	RF					
BHUA-11	32.74				J		10			SN	UN	RF					
BHUA-11	32.74				J		55			CN	UN	RF					
BHUA-11	32.77				hJ		15		gr mi		PR						
BHUA-11	32.78				hJ		25		gr mi		PR						
BHUA-11	32.80				hJ		15				PR						
BHUA-11	32.80				hJ		30				PR						
BHUA-11	32.80				hJ		20				PR						
BHUA-11	32.82				J		30			SN	PR	RF					
BHUA-11	33.00				V		55		wh mi		UN			4			
BHUA-11	33.05				J		20			SN	UN	RF					
BHUA-11	33.06				J		75			CN	PR	RF					
BHUA-11	33.07				hJ		65				PR						
BHUA-11	33.08				hJ		10				PR						
BHUA-11	33.09				hJ		35				PR						
BHUA-11	33.09				hJ		65				PR						
BHUA-11	33.10				J		60			CN	PR	RF					
BHUA-11	33.10				hJ		65				PR						
BHUA-11	33.12				hJ		15				PR						
BHUA-11	33.13				J		20			SN	PR	RF					
BHUA-11	33.14				hJ		35				PR						
BHUA-11	33.16				hJ		60				PR						
BHUA-11	33.22				hJ		60				PR						
BHUA-11	33.22				J		55			CN	PR	RF					
BHUA-11	33.25				hJ						PR						
BHUA-11	33.25				J		20			CN	PR	RF					
BHUA-11	33.27				J		40			CN	PR	RF					
BHUA-11	33.28				hJ		30		gr mi		PR						
BHUA-11	33.30				hJ		50				PR						
BHUA-11	33.31				hJ		15		gr mi		PR						
BHUA-11	33.34				hJ		10		gr mi		PR						
BHUA-11	33.35				hJ		50				ST						
BHUA-11	33.36				hJ		5		gr mi		PR						
BHUA-11	33.38				hJ		35				PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	33.40				hJ		40		gr mi		PR						
BHUA-11	33.42				hJ		10		gr mi		PR						
BHUA-11	33.44				hJ		5		gr mi		PR						
BHUA-11	33.50				hJ		5		gr mi		PR						
BHUA-11	33.52				hJ		10		gr mi		PR						
BHUA-11	33.54				hJ		5		gr mi		PR						
BHUA-11	33.57				hJ				gr mi		PR						
BHUA-11	33.58				hJ		10		gr mi		PR						
BHUA-11	33.59				hJ		5		gr mi		PR						
BHUA-11	33.60				hJ		65				UN						
BHUA-11	33.60				hJ		50				PR						
BHUA-11	33.61				hJ		60				PR						
BHUA-11	33.66				hJ		5		gr mi		PR						
BHUA-11	33.70				hJ		5		gr mi		PR						
BHUA-11	33.72				hJ		80				PR						
BHUA-11	33.76				hJ		60				PR						
BHUA-11	33.82				hJ		25		gr mi		PR						
BHUA-11	33.84				J		30			SN	PR	RF					
BHUA-11	33.90				hJ		35		gr mi		PR						
BHUA-11	33.93				hJ		60				PR						
BHUA-11	33.96				hJ		30				PR						
BHUA-11	33.99				hJ		40				PR						
BHUA-11	34.07				hJ		50				PR						
BHUA-11	34.14				hJ		50				PR						
BHUA-11	34.15				hJ		70		gr mi		UN						
BHUA-11	34.19				hJ		65				PR						
BHUA-11	34.19				hJ		65				ST						
BHUA-11	34.20				J		60			SN	ST	RF					
BHUA-11	34.21				J		25			SN	PR	RF					
BHUA-11	34.26				J		5			SN	UN	RF					
BHUA-11	34.30				J		80			SN	UN	RF					
BHUA-11	34.30				J		70			SN	PR	RF					
BHUA-11	34.34				J		15			CN	UN	RF					
BHUA-11	34.47				hJ		60		gr mi		PR						
BHUA-11	34.51				hJ		65				PR						
BHUA-11	34.66				J					SN	UN	RF					
BHUA-11	34.67				J		35			SN	ST	RF					
BHUA-11	34.68				J		55			SN	UN	RF					
BHUA-11	34.77				hJ		70				PR						
BHUA-11	34.78				hJ		35				PR						
BHUA-11	34.80				hJ		75				PR						
BHUA-11	34.81				hJ		75				PR						
BHUA-11	34.93				J		65			SN	PR	RF					
BHUA-11	34.94				hJ		75				PR						
BHUA-11	34.97				J		15			SN	PR	RF					
BHUA-11	34.97				hJ		15				PR						
BHUA-11	35.13				J		65			SN	PR	RF					
BHUA-11	35.17				J		20			SN	UN	RF					
BHUA-11	35.21				hJ		10		gr mi		PR						
BHUA-11	35.23				hJ		20		gr mi		PR						
BHUA-11	35.26				hJ		20		gr mi		PR						
BHUA-11	35.30				hJ		65				PR						
BHUA-11	35.31				hJ		5				PR						
BHUA-11	35.34				hJ		75		wh mi		PR						
BHUA-11	35.34				hJ		20				PR						
BHUA-11	35.36				hJ		30				PR						
BHUA-11	35.37				J					SN	UN	RF					
BHUA-11	35.38				V		20				PR			5			
BHUA-11	35.40				hJ		25		gr mi		PR						
BHUA-11	35.42				hJ		40		gr mi		PR						
BHUA-11	35.44				hJ		5				PR						
BHUA-11	35.44				hJ		20		gr mi		PR						
BHUA-11	35.46				hJ		25				PR						
BHUA-11	35.47				hJ		55				UN						
BHUA-11	35.49				hJs		0	45	gr mi		PR						
BHUA-11	35.50				hJ		60				PR						
BHUA-11	35.60				hJ		70				PR						
BHUA-11	35.61				hJ		90				UN						
BHUA-11	35.62				hJ		60				PR						
BHUA-11	35.64				hJ		10				PR						
BHUA-11	35.66				J		65			CN	PR	RF					
BHUA-11	35.67				J		65			CN	PR	RF					
BHUA-11	35.67				J		30			VN	UN	RF					
BHUA-11	36.01				hJ						PR						
BHUA-11	36.03				hJ		65				PR						
BHUA-11	36.05				hJ		85				UN						
BHUA-11	36.08				hJ		90				UN						
BHUA-11	36.12				hJ						PR						
BHUA-11	36.13				hJ		80				PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	36.14				hJ		90				UN						
BHUA-11	36.15				J		20			CN	ST	RF					
BHUA-11	36.15				hJ		90				UN						
BHUA-11	36.18				hJ		80				UN						
BHUA-11	36.20				hJ		80				UN						
BHUA-11	36.23				hJ		30				UN						
BHUA-11	36.33				hJ		75				UN						
BHUA-11	36.36				hJ		80				UN						
BHUA-11	36.37				hJ		20		gr mi		PR						
BHUA-11	36.41				hJ		80				UN						
BHUA-11	36.42				hJ		85				PR						
BHUA-11	36.50				hJ		90				UN						
BHUA-11	36.51				hJ		60				PR						
BHUA-11	36.54				hJ		80				UN						
BHUA-11	36.55				hJ		80				UN						
BHUA-11	36.69				hJ		60		gr mi		UN						
BHUA-11	36.71				hJ		55		gr mi		PR						
BHUA-11	36.74				hJ		65		gr mi		UN						
BHUA-11	36.76				hJ		10		gr mi		PR						
BHUA-11	36.77				hJ		80		gr mi		PR						
BHUA-11	36.78				hJ		10				PR						
BHUA-11	36.78				hJ		10		gr mi		PR						
BHUA-11	36.79				hJ		10		gr mi		PR						
BHUA-11	36.79				hJ		85				PR						
BHUA-11	36.81				hJ		60				UN						
BHUA-11	36.82				hJ		90				UN						
BHUA-11	36.88				hJ		10				UN						
BHUA-11	36.90				hJ		80				UN						
BHUA-11	36.91				hJ		70				UN						
BHUA-11	36.97				hJ		60		gr mi		PR						
BHUA-11	36.98				V		40		gr mi		UN			4			
BHUA-11	36.98				hJ		60		gr mi		PR						
BHUA-11	37.03				hJ		60		gr mi		PR						
BHUA-11	37.05				hJ		60				PR						
BHUA-11	37.09				hJ		20				PR						
BHUA-11	37.11				hJ		65				PR						
BHUA-11	37.12				hJ		45				PR						
BHUA-11	37.12				hJ				gr mi		PR						
BHUA-11	37.13				hJ		55				PR						
BHUA-11	37.13				hJ		50		gr mi		PR						
BHUA-11	37.15				J		70			SN	PR	RF					
BHUA-11	37.15				J					SN	ST	RF					
BHUA-11	37.18				hJ		10				PR						
BHUA-11	37.19				hJ		70				UN						
BHUA-11	37.24				hJ		25				UN						
BHUA-11	37.27				hJ		65		gr mi		PR						
BHUA-11	37.35				hJ		70		gr mi		UN						
BHUA-11	37.41				hJ		65				PR						
BHUA-11	37.45				J		20			SN	ST	RF					
BHUA-11	37.45				hJ		65				PR						
BHUA-11	37.46				hJ		65				PR						
BHUA-11	37.51				hJ		70		gr mi		PR						
BHUA-11	37.54				hJ		55				PR						
BHUA-11	37.63				hJ		70				PR						
BHUA-11	37.64				hJ		75				PR						
BHUA-11	37.69				hJ		35		gr mi		PR						
BHUA-11	37.69				hJ		5				PR						
BHUA-11	37.70				hJ		50		gr mi		UN						
BHUA-11	37.71				hJ		45				PR						
BHUA-11	37.73				hJ		70				PR						
BHUA-11	37.74				hJ		60		gr mi		PR						
BHUA-11	37.75				hJ		70				PR						
BHUA-11	37.77				J		10			CN	ST	RF					
BHUA-11	37.80				hJ		70				PR						
BHUA-11	37.85				hJ		75				PR						
BHUA-11	38.01				hJ		20		gr mi		UN						
BHUA-11	38.17				V		60		gr mi		PR			6			
BHUA-11	38.17				hJ		75		gr mi		UN						
BHUA-11	38.17				hJ		80				UN						
BHUA-11	38.19				J		20			CN	PR	RF					
BHUA-11	38.23				hJ		30				PR						
BHUA-11	38.24				hJ		50				IR						
BHUA-11	38.26				hJ		35				PR						
BHUA-11	38.29				hJ		45		gr	SN	UN	RF					
BHUA-11	38.30				hJ		60				PR						
BHUA-11	38.31				hJ		65				PR						
BHUA-11	38.33				hJ		30		gr mi		UN						
BHUA-11	38.35				J		20			CN	PR	RF					
BHUA-11	38.40				hJ		20		gr mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	38.41				hJ		60		gr mi		UN						
BHUA-11	38.42				hJ		25		gr mi		PR						
BHUA-11	38.43				hJ		75		gr mi		PR						
BHUA-11	38.47	38.52			hJ		40		gr mi		PR						
BHUA-11	38.52				hJ		5		gr mi		PR						
BHUA-11	38.53				hJ		65				PR						
BHUA-11	38.54				hJ		75				PR						
BHUA-11	38.55				J		50		gr	SN	PR						
BHUA-11	38.60				hJ		20		gr mi		PR						
BHUA-11	38.60				hJ		70				UN						
BHUA-11	38.61				hJ		5		gr mi		PR						
BHUA-11	38.63				hJ		15				PR						
BHUA-11	38.65				hJ		70				PR						
BHUA-11	38.67				hJ		20				PR						
BHUA-11	38.67				hJ		10				PR						
BHUA-11	38.68				J		10			CN	PR	RF					
BHUA-11	38.73				hJ		50				PR						
BHUA-11	38.74				hJ		20		gr mi		UN						
BHUA-11	38.78				hJ		10				PR						
BHUA-11	38.80				hJ		40		gr mi		PR						
BHUA-11	38.81				hJ				gr mi		PR						
BHUA-11	38.82				hJ		5		gr mi		PR						
BHUA-11	38.83				hJ		50				PR						
BHUA-11	38.86				hJ		15				PR						
BHUA-11	38.95				J		10			CN	PR	RF					
BHUA-11	39.20				hJ		70				UN						
BHUA-11	39.26				hJ		65				UN						
BHUA-11	39.28				hJ		70				PR						
BHUA-11	39.28				hJ		75				UN						
BHUA-11	39.30				hJ		70				PR						
BHUA-11	39.31				hJ					CN	CU	RF					
BHUA-11	39.31				hJ		70				PR						
BHUA-11	39.33				hJ		70				PR						
BHUA-11	39.38				hJ		90				UN						
BHUA-11	39.40				hJ		80				PR						
BHUA-11	39.46				hJ		70				PR						
BHUA-11	39.48				hJ		80		bk mi		UN						
BHUA-11	39.54				hJ		10				UN						
BHUA-11	39.59				hJ		65				PR						
BHUA-11	39.63				hJ		65		gr mi		UN						
BHUA-11	39.63				hJ		5		bk mi		PR						
BHUA-11	39.63				hJ		70		bk mi		PR						
BHUA-11	39.65				hJ		65		bk mi		PR						
BHUA-11	39.68				hJ		80		gr mi		UN						
BHUA-11	39.70				hJ		70		bk mi		PR						
BHUA-11	39.74				hJ		35				PR						
BHUA-11	39.75				hJ		55		bk mi		PR						
BHUA-11	39.77				hJ		60				PR						
BHUA-11	39.82				hJ		65				PR						
BHUA-11	39.83				hJ		70				UN						
BHUA-11	39.86				J		30			SN	UN	RF					
BHUA-11	39.91				hJ		35		gr mi		UN						
BHUA-11	39.95				hJ		30				PR						
BHUA-11	39.97				hJ		40		gr mi		UN						
BHUA-11	39.99				hJ		55				PR						
BHUA-11	40.01				hJ		65				UN						
BHUA-11	40.08				J		30			CN	ST	RF					
BHUA-11	40.10				hJ		50		gr mi		PR						
BHUA-11	40.12				J		30			CN	IR	RF					
BHUA-11	40.13				J		70			CN	PR	RF					
BHUA-11	40.16				hJ		35				PR						
BHUA-11	40.16				hJ		35				PR						
BHUA-11	40.17				hJ		20				PR						
BHUA-11	40.23				hJ		85				PR						
BHUA-11	40.24				hJ		30		gr mi		PR						
BHUA-11	40.26				hJ		75		bk mi		UN						
BHUA-11	40.28				hJ		85				PR						
BHUA-11	40.29				hJ		25		gr mi		PR						
BHUA-11	40.31				hJ		25		gr mi		UN						
BHUA-11	40.32				hJ		65				PR						
BHUA-11	40.39				J		20			SN	UN	RF					
BHUA-11	40.56				hJ		25		bk mi		UN						
BHUA-11	40.57				hJ		75		gr and bk mi		UN						
BHUA-11	40.63				hJ		90		gr and bk mi		UN						
BHUA-11	40.65				hJ		75				PR						
BHUA-11	40.67				hJ		70		gr and bk mi		UN						
BHUA-11	40.67				hJ		40		bk mi		PR						
BHUA-11	40.69				hJ		55		gr mi		PR						
BHUA-11	40.71				hJ		55		bk mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	40.73				hJ		75		gr and bk mi		UN						
BHUA-11	40.76				hJ		50		gr mi		PR						
BHUA-11	40.78				hJ					CN	UN						
BHUA-11	40.85				hJ		80		bk mi		UN						
BHUA-11	40.87				hJ		85		bk mi		UN						
BHUA-11	40.94				hJ		30		gr mi		PR						
BHUA-11	40.95				hJ		40				PR						
BHUA-11	40.98				V		70		gr mi		PR			4			
BHUA-11	41.03				hJ		90				UN						
BHUA-11	41.05				J		15			SN	UN	RF					
BHUA-11	41.15				hJ		10		gr mi		UN						
BHUA-11	41.16				hJ		20		gr mi		UN						
BHUA-11	41.18				J		35			SN	UN	RF					
BHUA-11	41.20				hJ		35		gr mi		UN						
BHUA-11	41.21				hJ		65		gr mi		PR						
BHUA-11	41.30				hJ		50		gr mi		PR						
BHUA-11	41.38				hJ		65		gr mi		UN						
BHUA-11	41.42				hJ		55		gr mi		UN						
BHUA-11	41.47				hJ		65		gr mi		UN						
BHUA-11	41.47				hJ		65		gr mi		UN						
BHUA-11	41.48				hJ		80		gr mi		UN						
BHUA-11	41.50				V		30		gr mi		PR						
BHUA-11	41.51				V		30		gr mi		PR			3			
BHUA-11	41.52				hJ		60		gr mi		PR						
BHUA-11	41.54				J		25			CN	PR	RF					
BHUA-11	41.56				hJ		65		gr mi		UN						
BHUA-11	41.68				J		30			SN	UN	RF					
BHUA-11	41.73				hJ		55		bk mi		UN						
BHUA-11	41.75				hJ		50		gr mi		PR						
BHUA-11	41.78				hJ		40				PR						
BHUA-11	41.79				hJ		65				PR						
BHUA-11	41.80				hJ		70		gr mi		UN						
BHUA-11	41.80				hJ		55				PR						
BHUA-11	41.89				hJ		30		gr mi		UN						
BHUA-11	41.90				J		70		gr and rd	VN	PR	SM					
BHUA-11	41.91				J		40			CN	ST	RF					
BHUA-11	41.94				J		10			CN	PR	RF					
BHUA-11	42.09				J		50			SN	UN	RF					
BHUA-11	42.09	42.21			hJs	/Js	75		bk mi		PR						
BHUA-11	42.10				hJ		45		bk mi		PR						
BHUA-11	42.13				hJ		30		gr mi		PR						
BHUA-11	42.21				hJ		70		bk mi		PR						
BHUA-11	42.26				hJ		80		bk mi		PR						
BHUA-11	42.29				hJ		70		bk mi		PR						
BHUA-11	42.30				hJ		70		bk mi		PR						
BHUA-11	42.32				hJ		45		bk mi		UN						
BHUA-11	42.33				hJ		60		bk mi		UN						
BHUA-11	42.34				hJ		60		bk mi		PR						
BHUA-11	42.34				hJ		60		gr mi		UN						
BHUA-11	42.35				hJ		40		gr mi		UN						
BHUA-11	42.38				hJ		70		bk mi		UN						
BHUA-11	42.38				hJ		70		gr mi		UN						
BHUA-11	42.38				hJ		40		bk mi		PR						
BHUA-11	42.39				hJ		65		bk mi		ST						
BHUA-11	42.41				hJ		40		bk mi		UN						
BHUA-11	42.43				hJ		80		bk mi		PR						
BHUA-11	42.44				hJ		55		bk mi		PR						
BHUA-11	42.44				hJ		60		bk mi		PR						
BHUA-11	42.44				hJ		60		bk mi		PR						
BHUA-11	42.44				hJ		75		bk mi		PR						
BHUA-11	42.45				hJ		60		gr mi		UN						
BHUA-11	42.46				hJ		70		bk mi		PR						
BHUA-11	42.47				hJ		85		gr mi		UN						
BHUA-11	42.47				hJ		80		gr mi		UN						
BHUA-11	42.49				hJ		75		gr mi		PR						
BHUA-11	42.50				hJ		75		gr mi		PR						
BHUA-11	42.51				hJ		45		gr mi		UN						
BHUA-11	42.55				hJ		40		gr mi		UN						
BHUA-11	42.56				hJ		45		gr mi		PR						
BHUA-11	42.57				hJ		60		bk mi		UN						
BHUA-11	42.66				V		85		gr mi		UN						
BHUA-11	42.66				hJ		60		gr mi		UN						
BHUA-11	42.66				hJ		80		gr mi		UN						
BHUA-11	42.85				J		55			SN	PR	SM					
BHUA-11	42.87				J					CN	ST	RF					
BHUA-11	43.34				hJ		65		bk mi		PR						
BHUA-11	43.45				J		40			CN	UN	RF					
BHUA-11	43.56				J		40			CN	PR	RF					
BHUA-11	43.62				J		50			CN	PR	RF					



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BHUA-11	43.63				J		80		bk	SN	UN						
BHUA-11	43.65				J					CN	PR	RF					
BHUA-11	43.66				hJ		80		gr mi		UN						
BHUA-11	43.73				DB					CN	UN	RF					
BHUA-11	43.77				hJ		60		gr mi		UN						
BHUA-11	43.87				J					CN	UN	RF					
BHUA-11	43.91				hJ		70		gr mi		PR						
BHUA-11	43.96				hJ		75		gr mi		UN						
BHUA-11	44.07				J		20			CN	PR	RF					
BHUA-11	44.15				hJ		70		wh mi		PR						
BHUA-11	44.16				hJ		70		bk and gr mi		UN						
BHUA-11	44.19				J		15			CN	ST	RF					
BHUA-11	44.19				V		65		gr mi		UN			3			
BHUA-11	44.20				J		65		bk	SN	PR	RF					
BHUA-11	44.20				hJ		65		wh mi		PR						
BHUA-11	44.23				hJ		50		bk mi		PR						
BHUA-11	44.24				hJ		25		gr mi		PR						
BHUA-11	44.25				hJ		80		bk mi		PR						
BHUA-11	44.25				hJ		80		gr mi		UN						
BHUA-11	44.26				J					CN	PR	RF					
BHUA-11	44.28				J					CN	PR	RF					
BHUA-11	44.28				hJ		55				PR						
BHUA-11	44.29				hJ		80		gr mi		UN						
BHUA-11	44.31				hJ		85		gr mi		PR						
BHUA-11	44.31				hJ		40				PR						
BHUA-11	44.32				hJ		80				PR						
BHUA-11	44.32				hJ		90		bk mi		PR						
BHUA-11	44.33				hJ		70		bk mi		PR						
BHUA-11	44.35				hJ		90		bk mi		UN						
BHUA-11	44.36				hJ		40				PR						
BHUA-11	44.40				J		45			CN	PR	RF					
BHUA-11	44.49				hJ		75		gr mi		UN						
BHUA-11	44.53				J		70			CN	PR	RF					
BHUA-11	44.54				J		75			CN	PR	RF					
BHUA-11	44.56				hJ		90		bk mi		PR						
BHUA-11	44.58				J					CN	PR	RF					
BHUA-11	44.60				hJ		80		gr mi		ST						
BHUA-11	44.65	44.71			Js		10	40	bk	SN	PR	RF				very closely	angular rock fragments >25 mm
BHUA-11	44.71				DB					CN	CU	RF					
BHUA-11	44.73				hJ		65		bk and gr mi		UN						
BHUA-11	44.74				hJ		40		gr mi		PR						
BHUA-11	44.75				hJ		25		gr and bk mi		UN						
BHUA-11	44.77				hJ		80		bk mi		PR						
BHUA-11	44.77				hJ		65		bk mi		UN						
BHUA-11	44.79				hJ		50		bk mi		PR						
BHUA-11	44.79				hJ		40		gr mi		UN						
BHUA-11	44.80				hJ		60		bk mi		PR						
BHUA-11	44.81				hJ		80		gr mi		CU						
BHUA-11	44.83				hJ		70		bk mi		UN						
BHUA-11	45.04				V		75		gr mi		UN						
BHUA-11	45.07				hJ		75		gr mi		UN						
BHUA-11	45.10				hJ		30		gr mi		PR						
BHUA-11	45.12				J					CN	PR	RF					
BHUA-11	45.13				hJ		90		gr and bk mi		UN						
BHUA-11	45.17				hJ		35		gr mi		PR						
BHUA-11	45.17				hJ		65		bk mi		PR						
BHUA-11	45.20				J		35			CN	PR	RF					
BHUA-11	45.20				J		60			CN	PR	RF					
BHUA-11	45.21				J					CN	IR	RF					
BHUA-11	45.25				J					CN	IR	RF					
BHUA-11	45.27				J		55			CN	ST	RF					
BHUA-11	45.31				hJ		30				UN						
BHUA-11	45.32				hJ		85		gr mi		ST						
BHUA-11	45.33				J		20			CN	UN	RF					
BHUA-11	45.38				hJ		90		gr mi		PR						
BHUA-11	45.38				hJ		35		gr mi		UN						
BHUA-11	45.39				hJ		80		bk mi		PR						
BHUA-11	45.39				hJ		25		gr mi		UN						
BHUA-11	45.40				hJ				gr mi		PR						
BHUA-11	45.41				hJ		40		gr mi		PR						
BHUA-11	45.46				hJ		45		gr mi		PR						
BHUA-11	45.47				hJ		60		gr mi		UN						
BHUA-11	45.48				hJ		55		gr mi		IR						
BHUA-11	45.50				hJ		65		gr mi		PR						
BHUA-11	45.60				J		65			CN	PR	SM					
BHUA-11	45.61				hJ		55		gr mi		UN						
BHUA-11	45.61				hJ		40		bk mi		PR						
BHUA-11	45.64				hJ		65		gr mi		UN						
BHUA-11	45.71				hJ		70		gr mi		UN						



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BHUA-11	45.73				hJ				gr mi		UN						
BHUA-11	45.85				hJ		75		gr mi		PR						
BHUA-11	45.87				hJ		90		gr mi		PR						
BHUA-11	45.90				V		10				PR			3			
BHUA-11	45.92				J		65		rd and gr	VN	PR	SM					
BHUA-11	45.98				hJ		60		gr mi		PR						
BHUA-11	45.99				hJ		70		gr mi		PR						
BHUA-11	46.00				J		65		rd and gr	VN	PR	SM					
BHUA-11	46.00				hJ		85		gr mi		PR						
BHUA-11	46.00				hJ		50		gr mi		PR						
BHUA-11	46.01				hJ		45		gr mi		PR						
BHUA-11	46.01				hJ		10		gr mi		PR						
BHUA-11	46.03				hJ		60		gr mi		PR						
BHUA-11	46.07				hJ		40		gr mi		PR						
BHUA-11	46.07				hJ		70		gr mi		PR						
BHUA-11	46.09				hJ		60		gr mi		PR						
BHUA-11	46.09				hJ		65		gr mi		PR						
BHUA-11	46.10				hJ		65		gr mi		PR						
BHUA-11	46.12				V		10				PR			3			
BHUA-11	46.13				hJ		70		gr mi		UN						
BHUA-11	46.13				hJ		30		gr mi		PR						
BHUA-11	46.13				hJ		40		bk mi		UN						
BHUA-11	46.14				hJ		65		gr mi		PR						
BHUA-11	46.21				hJ		20		gr mi		PR						
BHUA-11	46.22				hJ		10		gr mi		UN						
BHUA-11	46.32				hJ		55		gr mi		IR						
BHUA-11	46.36				hJ		10		gr mi		PR						
BHUA-11	46.37				hJ		65		gr mi		PR						
BHUA-11	46.38				hJ		30		gr mi		PR						
BHUA-11	46.40				hJ		65		gr mi		PR						
BHUA-11	46.40				hJ		5		gr mi		PR						
BHUA-11	46.41				hJ		15		gr mi		PR						
BHUA-11	46.42				hJ		90		gr mi		PR						
BHUA-11	46.43				hJ		90		gr mi		PR						
BHUA-11	46.44				hJ		50		gr mi		UN						
BHUA-11	46.44				hJ		40		gr mi		PR						
BHUA-11	46.44				hJ		80		gr mi		PR						
BHUA-11	46.45				hJ		70		gr mi		UN						
BHUA-11	46.46				V		30		gr mi		PR						
BHUA-11	46.46				hJ		35		gr and bk mi		PR						
BHUA-11	46.47				hJ		35		bk mi		PR						
BHUA-11	46.47				hJ		60		bk mi		UN						
BHUA-11	46.49				J					CN	IR	RF					
BHUA-11	46.50				hJ		60		gr mi		PR						
BHUA-11	46.51				hJ		60		gr mi		PR						
BHUA-11	46.52				hJ		60		bk mi		PR						
BHUA-11	46.53				hJ		60		gr mi		PR						
BHUA-11	46.53				J		55			CN	PR	RF					
BHUA-11	46.55				V		20		gr mi		PR			4			
BHUA-11	46.55				hJ		30		rd-br mi		PR						
BHUA-11	46.56				V		55		bk mi		PR			3			
BHUA-11	46.57				hJ		85		gr mi		PR						
BHUA-11	46.57				J		55			CN	PR	RF					
BHUA-11	46.57				hJ		75		bk mi		PR						
BHUA-11	46.58				hJ		60		bk mi		PR						
BHUA-11	46.59				hJ		85		bk mi		PR						
BHUA-11	46.60				hJ		55		bk mi		PR						
BHUA-11	46.60				hJ		35		wh mi		UN						
BHUA-11	46.61				hJ		80		bk mi		PR						
BHUA-11	46.62				hJ		45		bk mi		PR						
BHUA-11	46.62				hJ		75		bk mi		PR						
BHUA-11	46.63				hJ		45		bk mi		UN						
BHUA-11	46.63				hJ		70		bk mi		PR						
BHUA-11	46.63				hJ		75		bk mi		PR						
BHUA-11	46.65				J		70			SN	UN	RF					
BHUA-11	46.66				hJ		55		bk mi		UN						
BHUA-11	46.67				J					CN	PR	RF					
BHUA-11	46.68				hJ		35		wh mi		PR						
BHUA-11	46.69				hJ		65		bk mi		UN						
BHUA-11	46.71				hJ		45		bk mi		PR						
BHUA-11	46.72				J		75			VN	UN	RF					
BHUA-11	46.73				hJ		75		wh mi		PR						
BHUA-11	46.74				hJ		65		bk mi		PR						
BHUA-11	46.76				J		55			SN	PR	RF					
BHUA-11	46.77				J		40			CN	PR	RF					
BHUA-11	46.78				J		25			CN	UN	RF					
BHUA-11	46.80				hJ		40		wh mi		PR						
BHUA-11	46.80				hJ		70		bk mi		UN						
BHUA-11	46.81				hJ		75		bk mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	46.81				hJ		30		wh mi		PR						
BHUA-11	46.82				DB					CN	IR	RF					
BHUA-11	46.87				hJ		80		bk mi		UN						
BHUA-11	46.88				hJ		30				PR						
BHUA-11	46.90				hJ		30				PR						
BHUA-11	46.90				hJ		50		bk mi		PR						
BHUA-11	46.90				hJ		65		bk mi		PR						
BHUA-11	46.91				hJ		60		wh mi		PR						
BHUA-11	46.94				hJ		60		bk mi		PR						
BHUA-11	46.95				V		75		bk mi		PR			3			
BHUA-11	46.97				hJ		60		wh mi		PR						
BHUA-11	46.99				hJ		60		bk mi		PR						
BHUA-11	47.00				hJ		20		bk mi		PR						
BHUA-11	47.01				hJ		65		wh mi		ST						
BHUA-11	47.04				hJ		75		gr mi		UN						
BHUA-11	47.05				hJ		50		bk mi		PR						
BHUA-11	47.06				hJ		70		gr mi		UN						
BHUA-11	47.09				hJ		50		gr mi		PR						
BHUA-11	47.09				hJ		80		bk mi		PR						
BHUA-11	47.10				hJ		70		bk mi		UN						
BHUA-11	47.10				hJ		25		gr mi		PR						
BHUA-11	47.10				hJ		45		gr mi		PR						
BHUA-11	47.10				hJ		90		rd-br mi		PR						
BHUA-11	47.11				hJ		40		bk mi		UN						
BHUA-11	47.11				hJ		15		gr mi		PR						
BHUA-11	47.11				hJ		10		gr mi		PR						
BHUA-11	47.14				DB					CN	IR	RF					
BHUA-11	47.15				hJ		60		bk mi		PR						
BHUA-11	47.17				hJ		50		bk mi		PR						
BHUA-11	47.17				hJ		50				PR						
BHUA-11	47.17				hJ		80		bk mi		PR						
BHUA-11	47.19				hJ		80		bk mi		PR						
BHUA-11	47.21				V		35		bk mi		UN			5			
BHUA-11	47.23				hJ		55		bk mi		PR						
BHUA-11	47.24				hJ		40		bk mi		PR						
BHUA-11	47.24				hJ		30		gr mi		UN						
BHUA-11	47.26				hJ		80				PR						
BHUA-11	47.27				hJ		60		bk mi		PR						
BHUA-11	47.28				hJ		65		bk mi		PR						
BHUA-11	47.29				hJ		60		bk mi		PR						
BHUA-11	47.29				hJ		70		bk mi		PR						
BHUA-11	47.30				hJ		70		pl gy mi		PR						
BHUA-11	47.31				hJ		65		bk mi		PR						
BHUA-11	47.34				V		65		gr and wh mi		PR						
BHUA-11	47.41				hJ		90		bk mi		PR						
BHUA-11	47.44				hJ		70		gr mi		UN						
BHUA-11	47.45				hJ		85				UN						
BHUA-11	47.48				J					CN	UN	RF					
BHUA-11	47.51				hJ		45		gr mi		UN						
BHUA-11	47.65				hJ		65		bk mi		UN						
BHUA-11	47.67				J		45		gr	SN	PR	RF					
BHUA-11	47.69				hJ		30		wh mi		PR						
BHUA-11	47.69				J		15		gr	SN	UN						
BHUA-11	47.72				hJ		20		gr mi		UN						
BHUA-11	47.73				hJ		75		wh mi		PR						
BHUA-11	47.78				hJ		45				PR						
BHUA-11	47.79				hJ		70		wh mi		UN						
BHUA-11	47.81				hJ		70		gr mi		UN						
BHUA-11	47.86				hJ		55		bk mi		UN						
BHUA-11	47.88				hJ		60		gr mi		UN						
BHUA-11	47.92				hJ		55		gr mi		UN						
BHUA-11	47.92				hJ		80		gr mi		UN						
BHUA-11	47.93				hJ		70		gr mi		UN						
BHUA-11	47.95				hJ		45		gr mi		PR						
BHUA-11	47.96				hJ		50		wh mi		PR						
BHUA-11	47.97				hJ		50		wh mi		PR						
BHUA-11	47.98				hJ		70		wh mi		UN						
BHUA-11	48.04				hJ		20		wh mi		UN						
BHUA-11	48.06				hJ		50		bk mi		PR						
BHUA-11	48.08				hJ		30		gr mi		UN						
BHUA-11	48.09				hJ		65		gr mi		UN						
BHUA-11	48.10				hJ		50		gr mi		PR						
BHUA-11	48.11				hJ		65		gr mi		PR						
BHUA-11	48.12				hJ		20		gr mi		PR						
BHUA-11	48.14				J		30		gr	SN	PR	RF					
BHUA-11	48.14				hJ		40		bk mi		PR						
BHUA-11	48.16				hJ		55		wh mi		PR						
BHUA-11	48.16				hJ		55		gr mi		UN						
BHUA-11	48.16				hJ		55		gr mi		UN						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	48.16				hJ		40		gr mi		PR						
BHUA-11	48.17				J		65		gr	SN	UN	RF					
BHUA-11	48.17				hJ		35		wh mi		PR						
BHUA-11	48.18				hJ		65		gr mi		UN						
BHUA-11	48.18				hJ		65		gr mi		UN						
BHUA-11	48.18				hJ		60		gr mi		UN						
BHUA-11	48.19				hJ		60		gr mi		UN						
BHUA-11	48.20				hJ		60		gr mi		UN						
BHUA-11	48.20				hJ		55		gr mi		PR						
BHUA-11	48.20				hJ		55		gr mi		PR						
BHUA-11	48.21				hJ		70		wh mi		PR						
BHUA-11	48.21				hJ		65		gr mi		PR						
BHUA-11	48.24				J					CN	UN	RF					
BHUA-11	48.25				hJ		55		bk mi		PR						
BHUA-11	48.25				hJ		65		wh mi		PR						
BHUA-11	48.25				hJ		65		wh mi		PR						
BHUA-11	48.27				J		50			CN	UN	RF					
BHUA-11	48.28				hJ		60		wh mi		PR						
BHUA-11	48.29				J		65			CN	PR	RF					
BHUA-11	48.30				hJ		60		gr mi		UN						
BHUA-11	48.31				J		55		gr and wh	VN	PR	RF					
BHUA-11	48.32				hJ		70		wh mi		PR						
BHUA-11	48.42				J					CN	UN	RF					
BHUA-11	48.43				J		50		bk	SN	PR	RF					
BHUA-11	48.43				hJ		15				UN						
BHUA-11	48.46				hJ		20		wh mi		UN						
BHUA-11	48.51				hJ		60		wh mi		PR						
BHUA-11	48.57				hJ		75		wh mi		UN						
BHUA-11	48.59				hJ		10		wh mi		UN						
BHUA-11	48.63				hJ		70		gr mi		UN						
BHUA-11	48.64				J		50			CN	UN	RF					
BHUA-11	48.64				hJ		40		gr mi		PR						
BHUA-11	48.65				hJ		70		wh mi		UN						
BHUA-11	48.65				hJ		60		wh mi		CU						
BHUA-11	48.71				hJ		40		gr mi		PR						
BHUA-11	48.80				hJ		90		gr mi		UN						
BHUA-11	48.82				hJ		60		wh mi		PR						
BHUA-11	48.85				hJ		40		bk mi		UN						
BHUA-11	48.86				hJ		70		gr mi		PR						
BHUA-11	48.87				hJ		70		gr mi		UN						
BHUA-11	48.88				hJ		28		gr mi		PR						
BHUA-11	48.89				hJ		70		wh mi		PR						
BHUA-11	48.90				hJ		90		bk mi		UN						
BHUA-11	48.91				hJ		55		gr mi		UN						
BHUA-11	48.91				hJ		5		gr mi		UN						
BHUA-11	48.92				hJ		80		gr mi		UN						
BHUA-11	48.92				hJ		80		gr mi		UN						
BHUA-11	48.94				hJ		75		gr mi		UN						
BHUA-11	48.95				hJ		75		gr mi		UN						
BHUA-11	48.97				hJ		30		gr mi		PR						
BHUA-11	48.98				hJ		90		gr mi		UN						
BHUA-11	48.99				hJ		85		gr and wh mi		UN						
BHUA-11	49.02				hJ		30		gr mi		PR						
BHUA-11	49.04				DB					CN	PR	RF					
BHUA-11	49.25				hJ		40		gr mi		PR						
BHUA-11	49.26				J		40			SN	PR	RF					
BHUA-11	49.30				hJ		35				PR						
BHUA-11	49.32				hJ		25		bk mi		PR						
BHUA-11	49.35				hJ		25		bk mi		PR						
BHUA-11	49.37				hJ		75		wh mi		PR						
BHUA-11	49.48				hJ		75				PR						
BHUA-11	49.56				hJ		75		wh mi		UN						
BHUA-11	49.57				hJ		55		gr mi		UN						
BHUA-11	49.62				hJ		50		gr mi		PR						
BHUA-11	49.62				hJ		75		gr mi		PR						
BHUA-11	49.65				hJ		55		wh mi		ST						
BHUA-11	49.66				hJ		35		gr mi		ST						
BHUA-11	49.68				hJ		60		gr mi		PR						
BHUA-11	49.71				hJ		40				PR						
BHUA-11	49.72				hJ		40		gr mi		PR						
BHUA-11	49.73				hJ		90		gr mi		UN						
BHUA-11	49.74				hJ		85		gr mi		PR						
BHUA-11	49.76				hJ		60		gr mi		UN						
BHUA-11	49.78				DB		20			CN	UN	RF					
BHUA-11	49.82				hJ		70		gr mi		PR						
BHUA-11	49.84				hJ		65		wh mi		PR						
BHUA-11	49.84				hJ		70		bk mi		PR						
BHUA-11	49.87				hJ		40		gr mi		PR						
BHUA-11	49.88				hJ		5		wh mi		PR						



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BHUA-11	49.88				hJ		60		pl gy mi		UN						
BHUA-11	49.90				hJ		60		wh mi		UN						
BHUA-11	49.91				hJ		60		gr mi		PR						
BHUA-11	49.95				hJ		70		wh mi		PR						
BHUA-11	50.05				hJ		30		wh mi		ST						
BHUA-11	50.09				hJ		60		wh mi		UN						
BHUA-11	50.11				hJ		50		gr mi		PR						
BHUA-11	50.13				hJ		45		gr mi		PR						
BHUA-11	50.16				J		15			CN	PR	RF					
BHUA-11	50.18				hJ		5		wh mi		PR						
BHUA-11	50.20				hJ		40		gr mi		UN						
BHUA-11	50.24				hJ		20		gr mi		UN						
BHUA-11	50.25				hJ		35		gr mi		UN						
BHUA-11	50.26				hJ		70		bk mi		PR						
BHUA-11	50.26				hJ		55		wh mi		PR						
BHUA-11	50.26				hJ		25		bk mi		PR						
BHUA-11	50.27				hJ		25		bk mi		PR						
BHUA-11	50.28				hJ		10		bk mi		UN						
BHUA-11	50.28				hJ		45		gr mi		UN						
BHUA-11	50.29				hJ		60		gr mi		UN						
BHUA-11	50.29				hJ		35		gr mi		UN						
BHUA-11	50.31				hJ		65		bk mi		UN						
BHUA-11	50.32				hJ		20		bk mi		PR						
BHUA-11	50.32				hJ		50		gr mi		UN						
BHUA-11	50.33				hJ		15		bk mi		PR						
BHUA-11	50.33				hJ		10		bk mi		PR						
BHUA-11	50.34				hJ		55		bk mi		PR						
BHUA-11	50.34				hJ		15		bk mi		PR						
BHUA-11	50.36				hJ		20		gr mi		PR						
BHUA-11	50.38				hJ		40		wh mi		PR						
BHUA-11	50.39				hJ		5		wh mi		UN						
BHUA-11	50.39				hJ		20		wh mi		UN						
BHUA-11	50.40				hJ				wh mi		PR						
BHUA-11	50.42				hJ		15		bk mi		UN						
BHUA-11	50.43				hJ		80		bk mi		PR						
BHUA-11	50.43				hJ		55		bk mi		UN						
BHUA-11	50.43				hJ		40		bk mi		PR						
BHUA-11	50.44				hJ		70		wh mi		PR						
BHUA-11	50.44				hJ		70		wh mi		PR						
BHUA-11	50.45				hJ		35		bk mi		PR						
BHUA-11	50.46				hJ		40		bk mi		PR						
BHUA-11	50.48				hJ		70		bk mi		PR						
BHUA-11	50.49				hJ		30		bk mi		PR						
BHUA-11	50.49				hJ		70		bk mi		UN						
BHUA-11	50.49				hJ		50		bk mi		UN						
BHUA-11	50.51				hJ		70		bk mi		UN						
BHUA-11	50.52				hJ				wh mi		PR						
BHUA-11	50.52				hJ				wh mi		PR						
BHUA-11	50.53				hJ		70		bk mi		PR						
BHUA-11	50.53				hJ		40		wh mi		PR						
BHUA-11	50.53				hJ		35		bk mi		ST						
BHUA-11	50.55				J		70		bk	SN	PR	RF					
BHUA-11	50.55				J		20			CN	UN	RF					
BHUA-11	50.56				J		30		bk	SN	PR	RF					
BHUA-11	50.60				hJ		80		wh mi		UN						
BHUA-11	50.60				hJ		70		wh mi		UN						
BHUA-11	50.67				J		60		bk	SN	PR	RF					
BHUA-11	50.72				hJ		70		bk mi		UN						
BHUA-11	50.73				V		70		gr mi		PR			2			
BHUA-11	50.74				hJ		75		wh and gr mi		UN						
BHUA-11	50.77				DB					CN	PR	RF					
BHUA-11	50.78				hJ		65		bk mi		PR						
BHUA-11	50.79				hJ		65		bk mi		PR						
BHUA-11	50.85				hJ		80		bk mi		PR						
BHUA-11	50.86				hJ		55		bk mi		PR						
BHUA-11	50.88				hJ		60		wh mi		PR						
BHUA-11	50.90				hJ		85		gr mi		PR						
BHUA-11	50.91				hJ		50		gr mi		UN						
BHUA-11	50.93				hJ		30		gr mi		PR						
BHUA-11	50.96				hJ		35		bk mi		UN						
BHUA-11	50.99				hJ		55		wh mi		PR						
BHUA-11	50.99				hJ		50		wh mi		PR						
BHUA-11	51.05				hJ		65		bk mi		PR						
BHUA-11	51.06				hJ		75		gr mi		PR						
BHUA-11	51.08				DB					CN	PR	RF					
BHUA-11	51.12				hJ		45		gr mi		UN						
BHUA-11	51.13				hJ		85		gr mi		UN						
BHUA-11	51.14				hJ		80		gr mi		UN						
BHUA-11	51.16				J		25			CN	PR	RF					



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BHUA-11	51.19				hJ		60		bk mi		PR						
BHUA-11	51.20				hJ		50		bk mi		UN						
BHUA-11	51.21				hJ		60		bk mi		UN						
BHUA-11	51.23				hJ		45		wh mi		UN						
BHUA-11	51.24				hJ		65		wh mi		PR						
BHUA-11	51.26				DB		65		bk	VN	ST	RF					
BHUA-11	51.28				hJ		60		wh mi		PR						
BHUA-11	51.28				hJ		80		gr mi		PR						
BHUA-11	51.32				DB		30			CN	PR	RF					
BHUA-11	51.37				hJ		45		wh mi		UN						
BHUA-11	51.39				hJ		45		wh mi		UN						
BHUA-11	51.39				hJ		30		wh mi		PR						
BHUA-11	51.39				hJ		80		wh mi		PR						
BHUA-11	51.39				hJ		25		wh mi		PR						
BHUA-11	51.40				hJ		5		bk mi		UN						
BHUA-11	51.41				hJ		15		bk mi		PR						
BHUA-11	51.41				J		15			CN	UN	RF					
BHUA-11	51.42				J		35		bk	SN	PR	RF					
BHUA-11	51.43				hJ		55		bk mi		UN						
BHUA-11	51.44				hJ		55		bk mi		PR						
BHUA-11	51.49				J		10			CN	PR	SM					
BHUA-11	51.50				hJ		90		bk mi		UN						
BHUA-11	51.50				hJ		75		bk mi		UN						
BHUA-11	51.50				hJ		60		bk mi		PR						
BHUA-11	51.52				hJ		75		bk mi		UN						
BHUA-11	51.52				hJ		80		gr mi		PR						
BHUA-11	51.53				DB					CN	IR	RF					
BHUA-11	51.54				J		75		bk	SN	UN	RF					
BHUA-11	51.55				hJ		80		bk mi		PR						
BHUA-11	51.55				DB		10			CN	IR	RF					
BHUA-11	51.57				hJ		65		bk mi		PR						
BHUA-11	51.57				hJ		75		bk mi		PR						
BHUA-11	51.57				hJ		70		bk mi		PR						
BHUA-11	51.58				hJ		70				PR						
BHUA-11	51.59				hJ		75		wh mi		PR						
BHUA-11	51.62				hJ		65		bk mi		PR						
BHUA-11	51.63				J		70		gr	SN	PR	SM					
BHUA-11	51.63				hJ		70		bk mi		UN						
BHUA-11	51.64				J		10		gr	SN	ST	RF					
BHUA-11	51.64				hJ		75		bk mi		PR						
BHUA-11	51.66				J		70			CN	PR	RF					
BHUA-11	51.67				hJ		70		gr mi		UN						
BHUA-11	51.68				hJ		65		wh mi		UN						
BHUA-11	51.68				hJ		65		wh mi		PR						
BHUA-11	51.69				hJ		70		gr mi		PR						
BHUA-11	51.69				hJ		80		wh mi		UN						
BHUA-11	51.73				hJ		90		bk mi		PR						
BHUA-11	51.74				hJ		65		gr mi		PR						
BHUA-11	51.74				hJ		65		wh mi		PR						
BHUA-11	51.74				hJ		90		bk mi		PR						
BHUA-11	51.75				hJ		5		wh mi		PR						
BHUA-11	51.76				hJ		40		bk mi		PR						
BHUA-11	51.90				hJ		25				UN						
BHUA-11	51.90				hJ		75		gr mi		PR						
BHUA-11	51.93				hJ		70		wh-gr mi		PR						
BHUA-11	52.00				J		40			CN	PR	RF					
BHUA-11	52.07				hJ		45		wh mi		UN						
BHUA-11	52.07				hJ		50		gr mi		PR						
BHUA-11	52.09				hJ		65		wh mi		UN						
BHUA-11	52.10				hJ		85		gr mi		UN						
BHUA-11	52.11				hJ		75		bk mi		UN						
BHUA-11	52.12				hJ		30		wh mi		PR						
BHUA-11	52.13				V		90		wh mi		UN			3			
BHUA-11	52.14				hJ		50		gr mi		UN						
BHUA-11	52.14				hJ		50		bk mi		PR						
BHUA-11	52.15				hJ		35		gr mi		UN						
BHUA-11	52.15				hJ		55		bk mi		UN						
BHUA-11	52.15				hJ		70		bk and wh mi		PR						
BHUA-11	52.16				hJ		70		bk mi		PR						
BHUA-11	52.17				hJ		35		gr mi		PR						
BHUA-11	52.17				hJ		60		bk and gr mi		UN						
BHUA-11	52.18				hJ		60		gr mi		UN						
BHUA-11	52.18				hJ		50		bk mi		UN						
BHUA-11	52.21				hJ		45		gr mi		PR						
BHUA-11	52.23				hJ		65		gr mi		PR						
BHUA-11	52.23				hJ		25		gr mi		PR						
BHUA-11	52.24				J		25			CN	PR	RF					
BHUA-11	52.24				hJ		80		gr mi		PR						
BHUA-11	52.26				hJ		70		gr mi		UN						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	52.27				J		70			CN	UN	RF					
BHUA-11	52.28				hJ		35		gr mi		CU						
BHUA-11	52.28				hJ		5		gr mi		PR						
BHUA-11	52.32				hJ		75		gr mi		PR						
BHUA-11	52.34				hJ		70		gr mi		UN						
BHUA-11	52.37				hJ		25		gr mi		PR						
BHUA-11	52.37				hJ		60		gr mi		PR						
BHUA-11	52.38				hJ		70		gr mi		UN						
BHUA-11	52.40				hJ		50		gr mi		UN						
BHUA-11	52.40				hJ		60		gr mi		UN						
BHUA-11	52.40				hJ		65		gr mi		UN						
BHUA-11	52.41				hJ		50		gr mi		PR						
BHUA-11	52.43				hJ		5		gr mi		PR						
BHUA-11	52.45				hJ		60		gr mi		PR						
BHUA-11	52.48				hJ		75		wh mi		UN						
BHUA-11	52.48				hJ		50		wh mi		PR						
BHUA-11	52.55				J		50			CN	UN	RF					
BHUA-11	52.56				J		20			CN	UN	RF					
BHUA-11	52.56				hJ		65		gr mi		UN						
BHUA-11	52.61				hJ		90		gr mi		UN						
BHUA-11	52.62				hJ		30		gr mi		UN						
BHUA-11	52.66				J		50		gr	SN	UN						
BHUA-11	52.67				hJ		65		wh mi		UN						
BHUA-11	52.69				hJ		75		bk mi		PR						
BHUA-11	52.73				hJ		35		gr mi		PR						
BHUA-11	52.74				hJ		35		gr mi		PR						
BHUA-11	52.75				hJ		50		wh mi		PR						
BHUA-11	52.78				hJ		70		bk mi		PR						
BHUA-11	52.79				hJ		55		gr mi		UN						
BHUA-11	52.82				hJ		45		gr mi		UN						
BHUA-11	52.83				hJ		60		wh mi		PR						
BHUA-11	52.83				hJ		60		bk mi		PR						
BHUA-11	52.83				hJ		50		gr mi		UN						
BHUA-11	52.86				DB		25			CN	UN	RF					
BHUA-11	52.87				hJ		35		gr mi		PR						
BHUA-11	52.90				hJ		55		gr mi		PR						
BHUA-11	52.92				hJ		55		gr mi		PR						
BHUA-11	52.92				hJ		70		gr mi		PR						
BHUA-11	52.92				hJ		60		wh mi		PR						
BHUA-11	52.93				hJ		60		wh mi		PR						
BHUA-11	52.96				J		50		wh	VN	UN	RF					
BHUA-11	53.02				hJ		50		wh mi		PR						
BHUA-11	53.03				hJ		85		wh mi		PR						
BHUA-11	53.03				hJ		65		wh mi		PR						
BHUA-11	53.06				hJ		40		wh mi		UN						
BHUA-11	53.08				hJ		5		wh mi		UN						
BHUA-11	53.09				hJ		75		gr mi		UN						
BHUA-11	53.12				hJ		90		gr mi		UN						
BHUA-11	53.13				hJ		65		gr mi		UN						
BHUA-11	53.13				hJ		25		gr mi		UN						
BHUA-11	53.17				hJ		80		gr mi		UN						
BHUA-11	53.21				hJ		80		wh mi		PR						
BHUA-11	53.28				hJ		50		gr mi		PR						
BHUA-11	53.29				hJ		65		wh mi		PR						
BHUA-11	53.32				hJ		80		wh mi		UN						
BHUA-11	53.34				hJ		60		bk mi		UN						
BHUA-11	53.34				hJ		80		bk mi		UN						
BHUA-11	53.41				hJ		75		wh mi		PR						
BHUA-11	53.43				hJ		75		bk mi								
BHUA-11	53.44				hJ		60		bk mi		UN						
BHUA-11	53.45				hJ		50		gr mi		PR						
BHUA-11	53.47				hJ		60				PR						
BHUA-11	53.48				hJ		65		gr mi		UN						
BHUA-11	53.52				hJ		90		wh mi		PR						
BHUA-11	53.53				hJ		55		bk mi		PR						
BHUA-11	53.54				V		70		wh mi		UN			2			
BHUA-11	53.54				V		70		wh mi		UN			2			
BHUA-11	53.59				hJ		85		gr mi		PR						
BHUA-11	53.60				J		25		gr	SN	UN	RF					
BHUA-11	53.61				hJ		90				PR						
BHUA-11	53.61				hJ		90				UN						
BHUA-11	53.63				hJ		75		wh mi		PR						
BHUA-11	53.66				hJ		90		bk mi		PR						
BHUA-11	53.67				hJ		65		wh mi		PR						
BHUA-11	53.70				hJ		90		wh mi		UN						
BHUA-11	53.72				hJ		80		wh mi		UN						
BHUA-11	53.75				hJ		90		wh mi		PR						
BHUA-11	53.76				hJ		45		wh mi		PR						
BHUA-11	53.76				hJ		75		wh mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	53.77				hJ		40		wh mi		PR						
BHUA-11	53.79				hJ		75		wh mi		PR						
BHUA-11	53.80				hJ		75		wh mi		UN						
BHUA-11	53.82				J		35		br	SN	PR	RF					
BHUA-11	53.83				J		20			CN	ST	RF					
BHUA-11	53.85				J		65		wh, gr, and gy	CT	UN						
BHUA-11	53.87				hJ		40		gr mi		UN						
BHUA-11	53.91				hJ		50		bk mi		UN						
BHUA-11	53.95				hJ		70		wh mi		UN						
BHUA-11	53.97				hJ		70				UN						
BHUA-11	53.97				hJ		50		bk mi		UN						
BHUA-11	53.98				hJ		20		bk mi		UN						
BHUA-11	53.99				hJ		65		gr mi		UN						
BHUA-11	54.01				hJ		75		wh mi		UN						
BHUA-11	54.02				hJ		60		gr mi		UN						
BHUA-11	54.02				hJ		50		gr mi		PR						
BHUA-11	54.05				hJ		50		gr mi		PR						
BHUA-11	54.06				J		60		gr and bk	VN	ST	RF					
BHUA-11	54.06				hJ		55		gr mi		PR						
BHUA-11	54.06				hJ		30		gr mi		PR						
BHUA-11	54.08				hJ		25		gr mi		PR						
BHUA-11	54.08				hJ		90		gr mi		UN						
BHUA-11	54.09				hJ		30		gr mi		PR						
BHUA-11	54.10				hJ		65		gr mi		PR						
BHUA-11	54.11				hJ		70		wh mi		PR						
BHUA-11	54.12				hJ		20		wh mi		PR						
BHUA-11	54.12				hJ		70		wh mi		UN						
BHUA-11	54.13				hJ		90		gr mi		UN						
BHUA-11	54.14				hJ		60		gr mi		UN						
BHUA-11	54.14				hJ		90		gr mi		UN						
BHUA-11	54.17				hJ		60		gr mi		UN						
BHUA-11	54.18				hJ		30		bk mi		PR						
BHUA-11	54.23				hJ		70		bk mi		UN						
BHUA-11	54.24				hJ		55		wh mi		PR						
BHUA-11	54.27				hJ		45		gr mi		PR						
BHUA-11	54.27				hJ		20		wh mi		UN						
BHUA-11	54.29				hJ		40		bk mi		PR						
BHUA-11	54.32				hJ		30		bk mi		UN						
BHUA-11	54.33				DB		50			CN	PR	RF					
BHUA-11	54.37				hJ		55		gr and bk mi	VN	PR						
BHUA-11	54.40				hJ		55		gr and bk mi		PR						
BHUA-11	54.41				hJ		55		gr and bk mi		PR						
BHUA-11	54.41				hJ		55		gr and bk mi		PR						
BHUA-11	54.44				hJ		35		bk mi		UN						
BHUA-11	54.46				hJ		70		wh mi		PR						
BHUA-11	54.48				hJ		60		bk mi		UN						
BHUA-11	54.51				J		55			CN	UN	RF					
BHUA-11	54.52				hJ		65		gr and bk mi		UN						
BHUA-11	54.57				J		55		bk	VN	UN	RF					
BHUA-11	54.57				hJ		25		wh mi		UN						
BHUA-11	54.62				hJ		60		bk mi		PR						
BHUA-11	54.64				hJ		75		bk mi		UN						
BHUA-11	54.65				hJ		60		bk mi		PR						
BHUA-11	54.66				hJ		25		gr mi		UN						
BHUA-11	54.66				hJ		60		bk mi		PR						
BHUA-11	54.68				hJ		45		wh and gr mi		PR						
BHUA-11	54.69	54.84			hJs		60	70	bk and wh mi		UN						
BHUA-11	54.81				hJ		60		wh mi		UN						
BHUA-11	54.89				hJ		70		bk mi		PR						
BHUA-11	54.92				hJ		70		bk mi		PR						
BHUA-11	54.95				hJ		65		wh mi		PR						
BHUA-11	55.00				J		30		gr	SN	PR	RF					
BHUA-11	55.06				hJ		25		bk mi		ST						
BHUA-11	55.15				hJ		65		bk mi		PR						
BHUA-11	55.21				hJ		30		wh mi		PR						
BHUA-11	55.23				hJ		70		bk mi		PR						
BHUA-11	55.30				hJ		70		bk mi		PR						
BHUA-11	55.30				hJ		60		bk mi		UN						
BHUA-11	55.37				hJ		60		wh mi		UN						
BHUA-11	55.39				hJ		60		bk mi		PR						
BHUA-11	55.42				hJ		70		bk mi		PR						
BHUA-11	55.42				hJ		60		gr mi		UN						
BHUA-11	55.47				hJ		25		gr mi		UN						
BHUA-11	55.48				J					CN	ST	RF					
BHUA-11	55.53				V		10		gr mi		PR			3			
BHUA-11	55.56				hJ		10		gr and bk mi		PR						
BHUA-11	55.56				V		25		gr mi		UN						
BHUA-11	55.60				hJ		60		wh mi		PR						
BHUA-11	55.60				hJ		60				UN						



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BHUA-11	55.61				hJ		65				PR						
BHUA-11	55.63				hJ		10				PR						
BHUA-11	55.63				DB		10			CN	PR	RF					
BHUA-11	55.68				hJ		60		bk mi		UN						
BHUA-11	55.69				hJ		60		bk mi		UN						
BHUA-11	55.69				hJ		60				UN						
BHUA-11	55.73				hJ		20		bk mi		UN						
BHUA-11	55.73				hJ		45				PR						
BHUA-11	55.78				DB		5			CN	UN	RF					
BHUA-11	55.85				hJ		70		bk mi		UN						
BHUA-11	55.85				hJ		75		bk mi		UN						
BHUA-11	55.87				hJ		50		bk mi		UN						
BHUA-11	55.89				DB					CN	PR	RF					
BHUA-11	55.91				hJ		60		wh mi		PR						
BHUA-11	55.93				hJ		55		wh mi		PR						
BHUA-11	55.94				hJ		45		wh mi		PR						
BHUA-11	55.98				hJ		85		wh mi		PR						
BHUA-11	55.98				hJ		45		gr mi		UN						
BHUA-11	56.00				hJ		50		gr mi		UN						
BHUA-11	56.00				hJ		5		bk mi		UN						
BHUA-11	56.01				hJ		15		bk mi		UN						
BHUA-11	56.05				hJ		55		gr mi		PR						
BHUA-11	56.06				hJ		60		gr mi		PR						
BHUA-11	56.06				hJ		60		bk mi		PR						
BHUA-11	56.06				hJ		60		wh mi		PR						
BHUA-11	56.06				J		75			CN	UN	RF					
BHUA-11	56.09				hJ		25		bk mi		UN						
BHUA-11	56.10				hJ		70		bk mi		UN						
BHUA-11	56.11				hJ		65		gr mi		UN						
BHUA-11	56.12				J		60		bk	SN	PR	RF					
BHUA-11	56.20				hJ		60		wh mi		PR						
BHUA-11	56.21				hJ		80				UN						
BHUA-11	56.26				hJ		40		gr mi		UN						
BHUA-11	56.28				hJ		65		wh mi		PR						
BHUA-11	56.32				J		60			CN	UN	RF					
BHUA-11	56.34				hJ		60		wh mi		UN						
BHUA-11	56.35				J		55			CN	UN	RF					
BHUA-11	56.36				hJ		65		wh mi		UN						
BHUA-11	56.38				hJ		55		wh mi		UN						
BHUA-11	56.38				hJ		10		wh mi		UN						
BHUA-11	56.40				hJ		70		bk mi		UN						
BHUA-11	56.41				hJ		70		bk mi		UN						
BHUA-11	56.41				hJ		70		bk mi		UN						
BHUA-11	56.42				hJ		50		wh mi		PR						
BHUA-11	56.42				hJ		55		gr mi		ST						
BHUA-11	56.44				hJ		65		bk mi		UN						
BHUA-11	56.46				hJ		65		bk mi		UN						
BHUA-11	56.48				hJ		60		bk mi		UN						
BHUA-11	56.50				hJ		15				ST						
BHUA-11	56.51				hJ		40		bk mi		PR						
BHUA-11	56.51				hJ		55		wh mi		PR						
BHUA-11	56.51				J		65			CN	UN	RF					
BHUA-11	56.52				hJ		40		wh mi		PR						
BHUA-11	56.53				hJ		90		bk mi		PR						
BHUA-11	56.54				hJ		70		bk mi		PR						
BHUA-11	56.54				hJ		60		bk mi		PR						
BHUA-11	56.56				hJ		35		wh mi		PR						
BHUA-11	56.58				hJ		35				UN						
BHUA-11	56.60				hJ		45		bk mi		UN						
BHUA-11	56.62				hJ		15		bk mi		UN						
BHUA-11	56.63				hJ		80		bk mi		UN						
BHUA-11	56.65				hJ		70		bk mi		UN						
BHUA-11	56.67				hJ		70		bk mi		UN						
BHUA-11	56.71				hJ		70		bk mi		UN						
BHUA-11	56.72				J		40			CN	PR	RF					
BHUA-11	56.73				hJ		65		bk mi		PR						
BHUA-11	56.77				hJ		60		bk mi		ST						
BHUA-11	56.78				hJ		65		bk and wh mi		UN						
BHUA-11	56.82				hJ		40		gr mi		PR						
BHUA-11	56.83				hJ		75		bk mi		UN						
BHUA-11	56.86				hJ		60		bk mi		UN						
BHUA-11	56.87				hJ		50		bk mi		PR						
BHUA-11	56.90				J		65		bk	VN	CU	RF					
BHUA-11	56.94				J		50		bk and or-br	SN	PR	RF					
BHUA-11	56.94				hJ		70		bk mi		PR						
BHUA-11	56.95				hJ		35		bk mi		CU						
BHUA-11	56.96				hJ		30		bk mi		PR						
BHUA-11	56.97				hJ		80		bk mi		UN						
BHUA-11	57.01				hJ		60				UN						



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BHUA-11	57.01				hJ		60		bk mi		UN						
BHUA-11	57.07				hJ		5		bk mi		PR						
BHUA-11	57.07				hJ		25		bk mi		PR						
BHUA-11	57.09				hJ		55		bk mi		UN						
BHUA-11	57.09				J		45		bk and or-br	SN	UN	RF					
BHUA-11	57.11				J		10			CN	CU	RF					
BHUA-11	57.12				hJ		65		bk mi		UN						
BHUA-11	57.12				hJ		60		bk mi		UN						
BHUA-11	57.12				hJ		60		rd-br and or-br mi		PR						
BHUA-11	57.13				hJ		50		bk and wh mi		UN						
BHUA-11	57.15				J		65		gr, or-br, and bk	SN	UN	RF					
BHUA-11	57.15				hJ		70		wh mi		PR						
BHUA-11	57.16				hJ		45		bk mi		UN						
BHUA-11	57.16				hJ				bk mi		UN						
BHUA-11	57.17				J		65		gr, or-br, and bk	VN	UN	RF					
BHUA-11	57.17				hJ		55				UN						
BHUA-11	57.18				hJ		70		bk mi		PR						
BHUA-11	57.19				hJ		35		bk mi		PR						
BHUA-11	57.20				hJ		50		bk mi		PR						
BHUA-11	57.20				hJ		30		bk mi		UN						
BHUA-11	57.20				hJ		70		bk mi		PR						
BHUA-11	57.22				J				bk and or-br	SN	ST	RF					
BHUA-11	57.23				J		55		or-br	SN	PR	RF					
BHUA-11	57.23				hJ		50		bk mi		PR						
BHUA-11	57.24				hJ		75		bk mi		UN						
BHUA-11	57.25				hJ		20		wh mi		UN						
BHUA-11	57.26				hJ		50		bk mi		PR						
BHUA-11	57.28				hJ		45		bk mi		UN						
BHUA-11	57.28				hJ		50		bk mi		UN						
BHUA-11	57.29				hJ		55		bk and rd-br mi		PR						
BHUA-11	57.31				hJ		60		bk mi		UN						
BHUA-11	57.31				hJ		20		bk mi		PR						
BHUA-11	57.31				hJ		60		gr mi		PR						
BHUA-11	57.31				hJ		15		wh mi		PR						
BHUA-11	57.31				hJ		80				UN						
BHUA-11	57.35				hJ		80		gr mi		PR						
BHUA-11	57.35				hJ		70				PR						
BHUA-11	57.36				hJ		60				PR						
BHUA-11	57.37				DB		5			CN	IR	RF					
BHUA-11	57.39				hJ		50		bk mi		PR						
BHUA-11	57.45				hJ		60		bk mi		PR						
BHUA-11	57.46				hJ		45		bk mi		PR						
BHUA-11	57.46				hJ		35		bk mi		PR						
BHUA-11	57.46				hJ		60		bk mi		PR						
BHUA-11	57.47				J		55		gr	SN	UN	RF					
BHUA-11	57.47				hJ		30		bk mi		PR						
BHUA-11	57.48				hJ		70		bk mi		PR						
BHUA-11	57.48				hJ		50		bk mi		PR						
BHUA-11	57.48				hJ		80		bk mi		UN						
BHUA-11	57.53				hJ		60		bk mi		UN						
BHUA-11	57.55				J		60		bk and or-br	SN	PR	RF					
BHUA-11	57.56				J		55		or-br	SN	ST	RF					
BHUA-11	57.56				J		5			CN	UN	RF					
BHUA-11	57.58				hJ		60		bk mi		PR						
BHUA-11	57.59				hJ		60		bk mi		PR						
BHUA-11	57.62				J		55		bk and or-br	VN	PR	SM					
BHUA-11	57.63				J		60		gr and or-br	SN	UN	RF					
BHUA-11	57.67				DB					CN	UN	RF					
BHUA-11	57.68				hJ		60		gr mi		PR						
BHUA-11	57.73				hJ		20		bk mi		PR						
BHUA-11	57.74				J		20		bk	VN	PR	RF					
BHUA-11	57.74				J					CN	CU	SM					
BHUA-11	57.76				J		45		bk, or-br, and gr	SN	PR	RF					
BHUA-11	57.77				J		55		bk and gr	VN	UN	RF					
BHUA-11	57.78				hJ		50				PR						
BHUA-11	57.79				hJ		65		bk mi		PR						
BHUA-11	57.81				hJ		10		bk mi		UN						
BHUA-11	57.83				hJ		65		bk mi		PR						
BHUA-11	57.84				hJ		65		bk mi		PR						
BHUA-11	57.85				hJ		90		wh mi		PR						
BHUA-11	57.92	58.04			hJs		45	60	bk mi		UN						
BHUA-11	58.05				hJ		65		wh mi		PR						
BHUA-11	58.09				hJ		60				UN						
BHUA-11	58.09				hJ		30		bk and wh mi		PR						
BHUA-11	58.11				J		60		bk and or-br	VN	ST	RF					
BHUA-11	58.11				hJ		50		wh mi		PR						
BHUA-11	58.12				hJ		45		wh mi		UN						
BHUA-11	58.12				hJ		45		wh mi		PR						
BHUA-11	58.12				hJ		65				UN						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	58.13				hJ		60				PR						
BHUA-11	58.15				hJ		75		bk mi		UN						
BHUA-11	58.16				hJ		75		bk mi		UN						
BHUA-11	58.18				hJ		75		bk mi		UN						
BHUA-11	58.20				hJ		55				UN						
BHUA-11	58.20				hJ		65				UN						
BHUA-11	58.21				hJ		60		wh mi		PR						
BHUA-11	58.21				hJ		70		wh mi		UN						
BHUA-11	58.23				hJ		75		wh mi		UN						
BHUA-11	58.25				hJ		55		wh mi		PR						
BHUA-11	58.26				hJ		45		wh mi		UN						
BHUA-11	58.27				hJ		75		wh mi		PR						
BHUA-11	58.27				hJ		75		wh mi		PR						
BHUA-11	58.28				hJ		75		wh mi		PR						
BHUA-11	58.28				hJ		60		wh mi		UN						
BHUA-11	58.28				hJ		55		wh mi		UN						
BHUA-11	58.31				J		45		or-br and gr	SN	PR	RF					
BHUA-11	58.32				hJ		80		wh mi		PR						
BHUA-11	58.33				J		15		or-br	SN	PR	RF					
BHUA-11	58.34				J		60		or-br and gr	SN	PR	RF					
BHUA-11	58.34				hJ		75		wh mi		PR						
BHUA-11	58.36				J		60			CN	PR	RF					
BHUA-11	58.40				hJ		80		wh mi		PR						
BHUA-11	58.41				hJ		70		wh mi		UN						
BHUA-11	58.41				hJ		75		wh mi		UN						
BHUA-11	58.41				hJ		50		wh mi		UN						
BHUA-11	58.43				hJ		55		bk mi		UN						
BHUA-11	58.45				hJ		75		bk and wh mi		UN						
BHUA-11	58.46				hJ		40		wh mi		UN						
BHUA-11	58.49				J		85		or-br	SN	UN	RF					
BHUA-11	58.50				J		65		or-br	SN	PR	RF					
BHUA-11	58.50				hJ		70		wh mi		UN						
BHUA-11	58.50				hJ		70				UN						
BHUA-11	58.51				J		10			CN	UN	RF					
BHUA-11	58.52				hJ		90		wh mi	IN	UN						
BHUA-11	58.53				J		40		gr and bk	SN	UN	RF					
BHUA-11	58.53				hJ		30		wh mi		PR						
BHUA-11	58.54				hJ		60		wh mi		UN						
BHUA-11	58.55				hJ		80		bk mi		UN						
BHUA-11	58.55				hJ		70		wh mi		PR						
BHUA-11	58.57				hJ		50		wh mi		UN						
BHUA-11	58.58				hJ		65		wh mi		UN						
BHUA-11	58.60				hJ		60		bk mi		PR						
BHUA-11	58.62				J		45		or-br	SN	UN	RF					
BHUA-11	58.64				hJ		60		wh mi		PR						
BHUA-11	58.64				hJ		70		bk mi		UN						
BHUA-11	58.64				hJ		30		bk mi		UN						
BHUA-11	58.65				hJ		90		or-br and bk mi		UN						
BHUA-11	58.73				J		70		or-br and bk	VN	UN	RF					
BHUA-11	58.78				hJ		70				PR						
BHUA-11	58.78				J		45		wh, bk, and gr	VN	PR	RF					
BHUA-11	58.80				hJ		70		bk mi		UN						
BHUA-11	58.80				hJ		70				UN						
BHUA-11	58.80				hJ		60		bk mi		PR						
BHUA-11	58.82				hJ		40		gr mi		UN						
BHUA-11	58.85				DB		5			CN	PR	RF					
BHUA-11	58.86				hJ		15		wh mi		UN						
BHUA-11	58.88				hJ		80		wh mi		PR						
BHUA-11	58.91				hJ		50		wh mi		PR						
BHUA-11	58.95				hJ		20		bk mi		PR						
BHUA-11	58.96				hJ		65				PR						
BHUA-11	58.97				hJ		50				PR						
BHUA-11	58.98				hJ		50				PR						
BHUA-11	59.00				hJ		40		bk mi		PR						
BHUA-11	59.01				hJ		50				PR						
BHUA-11	59.03				hJ		40		bk mi		PR						
BHUA-11	59.07				hJ		25		pl gr mi		PR						
BHUA-11	59.08				hJ		45		bk mi		PR						
BHUA-11	59.08				hJ		90		bk mi		UN						
BHUA-11	59.09				hJ		20		bk mi		PR						
BHUA-11	59.11				hJ		50				PR						
BHUA-11	59.11				hJ		65				PR						
BHUA-11	59.12				hJ		60				PR						
BHUA-11	59.14				hJ		35				PR						
BHUA-11	59.15				hJ		35		bk mi		PR						
BHUA-11	59.16				hJ		50		wh mi		PR						
BHUA-11	59.18				hJ		30		bk mi		PR						
BHUA-11	59.21				hJ		35				PR						
BHUA-11	59.25				J		45		gr and bk	VN	UN	RF					



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	59.32				hJ		60		wh mi		PR						
BHUA-11	59.33				hJ		45		wh mi		PR						
BHUA-11	59.35				hJ		50		wh mi		PR						
BHUA-11	59.37				hJ		70		bk mi		PR						
BHUA-11	59.38				hJ		55				UN						
BHUA-11	59.38				hJ		70				PR						
BHUA-11	59.46				hJ		75		bk mi		PR						
BHUA-11	59.47				hJ		50		bk mi		PR						
BHUA-11	59.49				hJ		55		bk mi		PR						
BHUA-11	59.50				hJ		40		bk mi		PR						
BHUA-11	59.52				hJ		50		bk mi		PR						
BHUA-11	59.54	59.60			AZ		30	65	bk and or-br	SN	PR						
BHUA-11	59.61				hJ		65		bk mi		PR						
BHUA-11	59.63				hJ		60				PR						
BHUA-11	59.63				J		50			CN	PR	RF					
BHUA-11	59.64				hJ		60		bk mi		PR						
BHUA-11	59.65				hJ		60		bk mi		PR						
BHUA-11	59.65				J		60			CN	PR	SM					
BHUA-11	59.68				J		60		or-br	SN	UN	RF					
BHUA-11	59.69	59.76			hJs		75		wh mi		UN						
BHUA-11	59.70				J		65		or-br	SN	PR	SM					
BHUA-11	59.74				hJ		70				UN						
BHUA-11	59.75				hJ		65		bk mi		PR						
BHUA-11	59.79				hJ		50				IR						
BHUA-11	59.84				hJ		65		gr mi		PR						
BHUA-11	59.84				hJ		75				UN						
BHUA-11	59.84				hJ		60		bk mi		PR						
BHUA-11	59.86				hJ		75		bk mi		PR						
BHUA-11	59.87				J		20			CN	ST						
BHUA-11	59.89				J		70			CN	PR	RF					
BHUA-11	59.90				hJ		65		bk mi		PR						
BHUA-11	59.95				DB					CN	ST	RF					
BHUA-11	59.95				J		15		or-br	SN	UN	RF					
BHUA-11	59.96				J		50			CN	PR	RF					
BHUA-11	60.20				hJ		90		bk mi		UN						
BHUA-11	60.21				hJ		55		bk mi		PR						
BHUA-11	60.21				hJ		85		bk mi		PR						
BHUA-11	60.63				hJ		85		bk mi		UN						
BHUA-11	60.64				hJ		55		wh mi		UN						
BHUA-11	60.65				J		65			CN	PR	SM					
BHUA-11	60.65				hJ		65		wh mi		UN						
BHUA-11	60.66				hJ		80		bk mi		UN						
BHUA-11	60.68				hJ		80		wh mi		PR						
BHUA-11	60.69				J		85			CN	PR	RF					
BHUA-11	60.69				hJ		70		bk mi		UN						
BHUA-11	60.71				J		85			CN	PR	RF					
BHUA-11	60.71				J		65			CN	PR	RF					
BHUA-11	60.75				J		65			CN	PR	RF					
BHUA-11	60.76				J		60			CN	PR	RF					
BHUA-11	60.81				hJ		65		gy-gr mi		PR						
BHUA-11	60.93				CO		60			CN	PR	SM					possible DB
BHUA-11	61.04				hJ		60		bk mi		PR						
BHUA-11	61.16				hJ		25		bk mi		PR						
BHUA-11	61.19				hJ		10		bk mi		PR						
BHUA-11	61.24				hJ		5		bk mi		PR						
BHUA-11	61.25				hJ		15				PR						
BHUA-11	61.30				J		45			CN	UN	SM					up to 2 mm bleached halo
BHUA-11	61.36				hJ		10				PR						
BHUA-11	61.38				hJ		10				PR						
BHUA-11	61.44				hJ				wh mi		PR						
BHUA-11	61.47				hJ		50				PR						
BHUA-11	61.50				hJ		50				PR						
BHUA-11	61.51				hJ				yl mi		PR						
BHUA-11	61.53				hJ				yl mi		PR						
BHUA-11	61.54				hJ		10		bk and wh mi		PR						
BHUA-11	61.58				hJ		20		yl mi		PR						
BHUA-11	61.59				hJ		55				PR						
BHUA-11	61.60				hJ		20		yl mi		PR						
BHUA-11	61.62				hJ		30		wh mi		PR						
BHUA-11	61.63				hJ		35		wh mi		PR						
BHUA-11	61.63				hJ		35		wh mi		PR						
BHUA-11	61.65				hJ		45				PR						
BHUA-11	61.66				hJ		45		wh mi		PR						
BHUA-11	61.67				hJ		35		wh mi		PR						
BHUA-11	61.69				hJ		20		wh mi		PR						
BHUA-11	61.71				hJ		40		wh mi		PR						
BHUA-11	61.72				hJ		40		wh mi		PR						
BHUA-11	61.73				hJ		40		wh mi		PR						
BHUA-11	61.76				hJ		20		bk mi		PR						



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BHUA-11	61.78				hJ		50				IR						
BHUA-11	61.78				J		55		bk and or	SN	PR	SM					
BHUA-11	61.79				hJ		25		bk mi		PR						
BHUA-11	61.84				hJ				bk mi		PR						
BHUA-11	61.86				hJ		65				PR						
BHUA-11	61.88				hJ		65				PR						
BHUA-11	61.90				hJ		65		wh mi		PR						
BHUA-11	61.92				J		65			CN	PR	RF					
BHUA-11	61.93				J		65			CN	PR	RF					
BHUA-11	62.03				hJ		35				PR						
BHUA-11	62.04				J		35		yl mi		PR						
BHUA-11	62.05				hJ		35		yl mi		PR						
BHUA-11	62.06				hJ		45				PR						
BHUA-11	62.08				J					CN	IR	RF					
BHUA-11	62.13				hJ		40				PR						
BHUA-11	62.13				hJ		50		yl mi		PR						
BHUA-11	62.16				hJ		50		yl mi		PR						
BHUA-11	62.16				hJ		15		yl mi		PR						
BHUA-11	62.17				hJ		65		yl mi		PR						
BHUA-11	62.17				hJ		70				PR						
BHUA-11	62.18				hJ		70				PR						
BHUA-11	62.21				hJ		15				PR						
BHUA-11	62.22				hJ		60		yl mi		PR						
BHUA-11	62.23				hJ		30				PR						
BHUA-11	62.24				hJ						IR						
BHUA-11	62.25				hJ		60				PR						
BHUA-11	62.26				hJ		40		yl mi		PR						
BHUA-11	62.27				hJ		60		yl mi		PR						
BHUA-11	62.28				hJ		40		yl mi		PR						
BHUA-11	62.31				J		45		ph bk	SN	PR	SM					
BHUA-11	62.37				hJ		80		bk mi		PR						
BHUA-11	62.41				hJ		80		bk mi		PR						
BHUA-11	62.49				hJ		55		bk mi		PR						
BHUA-11	62.50				hJ		75		wh mi		PR						
BHUA-11	62.52				hJ		55		bk mi		PR						
BHUA-11	62.55				hJ		60		bk mi		PR						
BHUA-11	62.57				hJ		35		wh mi		PR						
BHUA-11	62.61				hJ		55		yl mi		PR						
BHUA-11	62.65				hJ		20		yl mi		PR						
BHUA-11	62.65				hJ		75		wh mi		PR						
BHUA-11	62.67				hJ		20		yl mi		PR						
BHUA-11	62.70				hJ		60		bk mi		PR						
BHUA-11	62.73				hJ		60		bk mi		PR						
BHUA-11	62.75				hJ		60		bk mi		PR						
BHUA-11	62.78				J		45			CN	UN	RF					
BHUA-11	62.81				V		45		gr mi (qu?)		PR			1			
BHUA-11	62.85				hJ		5				PR						
BHUA-11	62.87				hJ		10		yl mi		PR						
BHUA-11	62.88				hJ		60		bk mi		PR						
BHUA-11	62.88				hJ		80		wh mi		PR						
BHUA-11	62.89				hJ		75		bk mi		PR						
BHUA-11	62.90				hJ		75		bk mi		PR						
BHUA-11	62.90				hJ		15		yl mi		PR						
BHUA-11	62.91				hJ		15		yl mi		PR						
BHUA-11	62.91				hJ		75				PR						
BHUA-11	62.92				hJ		75				PR						
BHUA-11	62.92				hJ		80		wh mi		PR						
BHUA-11	63.04				hJ		65				PR						
BHUA-11	63.14				hJ		45				PR						
BHUA-11	63.21				hJ		45				PR						
BHUA-11	63.33				hJ		65		bk mi		PR						
BHUA-11	63.38				J		30			CN	PR	SM					possible DB
BHUA-11	63.47				hJ		10		yl mi		PR						
BHUA-11	63.50				hJ		60		bk mi		PR						
BHUA-11	63.55				hJ		65				IR						
BHUA-11	63.60				hJ		25		yl mi		PR						
BHUA-11	63.60				hJ		55		yl mi		IR						
BHUA-11	63.80				V		80		yl-gr mi		PR		<2	2			
BHUA-11	63.88	63.90			V		50		gy mi		PR			15			
BHUA-11	64.04				J		50		bk	SN	PR	RF					
BHUA-11	64.05				V		35		gy mi (qu?)		PR		<5	5			
BHUA-11	64.09				hJ		85				PR						
BHUA-11	64.10				hJ		85				PR						
BHUA-11	64.13				hJ		40		wh mi		PR						
BHUA-11	64.18				hJ		80				PR						
BHUA-11	64.22				hJ		80				PR						
BHUA-11	64.30				hJ		25		yl mi		PR						
BHUA-11	64.34				hJ	x3	25		yl mi		PR						
BHUA-11	64.35				hJ		20				PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	64.36	64.38			hJs	x5	15		yl mi		PR						
BHUA-11	64.39				hJ		15		yl mi		PR						
BHUA-11	64.41				hJ		15		yl mi		PR						
BHUA-11	64.41	64.43			CO		30				PR						possibly 15-25 mm V, fine to medium grained black crystalline, one distinct and one gradual boundary
BHUA-11	64.50				hJ		65		bk mi		PR						
BHUA-11	64.54				hJ		85				PR						
BHUA-11	64.57				hJ		85				PR						
BHUA-11	64.64				hJ						IR						
BHUA-11	64.65				hJ		85		wh mi		PR						
BHUA-11	64.66				J		85			CN	PR	SM					possible DB
BHUA-11	64.69				hJ		70				PR						
BHUA-11	64.70				hJ		45		bk mi		PR						
BHUA-11	64.72				hJ		45		yl and bk mi		PR						
BHUA-11	64.74				hJ		20		yl mi		PR						
BHUA-11	64.75				hJ		20		yl mi		PR						
BHUA-11	64.78				hJ		25		yl mi		PR						
BHUA-11	64.82				hJ		85		wh mi		PR						
BHUA-11	64.82				hJ		20		yl mi		PR						
BHUA-11	64.82				hJ		20		yl mi		PR						
BHUA-11	64.83				hJ		60				PR						
BHUA-11	64.87				hJ		70				PR						
BHUA-11	64.89				J		65		bk	SN	PR	SM					
BHUA-11	64.96				J		55		ph bk	SN	PR	SM					wh mi VN
BHUA-11	64.97				hJ		20				PR						
BHUA-11	64.98				hJ		20				PR						
BHUA-11	65.00				hJ		15				CU						
BHUA-11	65.02				hJ		40		wh mi		PR						
BHUA-11	65.03				hJ		40		wh mi		PR						
BHUA-11	65.03				hJ		40		wh mi		PR						
BHUA-11	65.04				V		25		wh mi		PR		<	2			
BHUA-11	65.05				hJ		25		wh mi		PR						
BHUA-11	65.07				hJ		25		wh mi		PR						
BHUA-11	65.09				hJ		25		wh mi		PR						
BHUA-11	65.18				hJ		50		gy mi		PR						
BHUA-11	65.23				hJ		75				PR						
BHUA-11	65.26				hJ		15		gy-br mi		PR						
BHUA-11	65.27				hJ		15		gy-br mi		PR						
BHUA-11	65.33				hJ		15		gy-br mi		PR						
BHUA-11	65.34				hJ		15		gy-br mi		PR						
BHUA-11	65.36				hJ		65				PR						
BHUA-11	65.38				hJ		65		bk mi		PR						
BHUA-11	65.40				hJ		15		gy-br mi		PR						
BHUA-11	65.40				J					CN	PR	RF					possible DB
BHUA-11	65.41				hJ		15		gy-br mi		PR						
BHUA-11	65.43				hJ		60		wh mi		PR						
BHUA-11	65.44				V		65		wh mi		PR		<	3			
BHUA-11	65.63				hJ		20		gy-br mi		PR						
BHUA-11	65.85				hJ		55		pl br and wh mi		PR						
BHUA-11	65.88				hJ		70		pl br and wh mi		PR						
BHUA-11	67.07				hJ		50				IR						
BHUA-11	67.08				hJ		70				IR						
BHUA-11	67.40				hJ		65		wh mi		IR						
BHUA-11	67.41				hJ		70		wh mi		PR						
BHUA-11	67.42				hJ				wh mi		PR						
BHUA-11	67.45				hJ		65		wh mi		PR						
BHUA-11	67.52				hJ		75		wh mi		PR						
BHUA-11	67.53				hJ		60		wh mi		PR						
BHUA-11	67.55				V		60		wh mi		PR		<	2			
BHUA-11	67.63				hJ		35				PR						
BHUA-11	67.69				hJ		20		pl br mi		PR						
BHUA-11	67.73				hJ		70				PR						
BHUA-11	67.78				V		65				PR	wh mi		10			
BHUA-11	67.80				V		65				PR	wh mi (qu?)	<	2			
BHUA-11	67.83				V		70				PR	wh mi (qu?)	<	2			
BHUA-11	67.85				V		80				PR	wh mi	<	5			
BHUA-11	67.86				V		70				PR	wh mi (qu?)	<	2			
BHUA-11	67.96				hJ		80				PR						
BHUA-11	68.65				hJ		65		wh mi		PR						
BHUA-11	68.92				hJ		85		bk mi		PR						
BHUA-11	68.97				J		30		gy SILT (possibly drilling muds)	VN	IR	RF					possible DB
BHUA-11	69.01				hJ				pl gr mi		PR						
BHUA-11	69.07				hJ		5		pl yl-gr mi		PR						
BHUA-11	69.14				hJ		85				PR						
BHUA-11	69.21				hJ		10		pl yl-gr mi		PR						
BHUA-11	69.32				hJ		10		pl yl-gr mi		PR						
BHUA-11	69.41				hJ		20		pl yl-gr mi		PR						
BHUA-11	69.43				hJ		10		pl yl-gr mi		PR						
BHUA-11	69.44				hJ		10		pl yl-gr mi		PR						
BHUA-11	69.46				hJ		55		bk mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	69.52				hJ		35		pl yl-gr mi		PR						
BHUA-11	69.56				hJ		20		pl yl-gr mi		PR						
BHUA-11	69.58				V		25				IR	wh mi (qu?)					10 mm pl yl-gr halo
BHUA-11	69.60				hJ		10		pl yl-gr mi		PR						
BHUA-11	69.62				hJ		60		wh mi		PR						
BHUA-11	69.65				hJ		25		wh mi		PR						
BHUA-11	69.73				hJ		5		pl gr mi		PR						
BHUA-11	69.75				hJ		35		pl gr mi		PR						
BHUA-11	69.82				V		40				PR	wh mi (qu?)	<	5			
BHUA-11	69.83				V		40				PR	wh mi (qu?)	<	3			
BHUA-11	69.84				hJ		40		wh mi		PR						
BHUA-11	69.86				hJ				pl gr mi		UN						
BHUA-11	69.89				hJ		40		pl gr mi		PR						
BHUA-11	69.93				hJ		65		pl gr mi		PR						
BHUA-11	69.94				hJ		40		pl gr mi		PR						
BHUA-11	69.98				hJ		50		wh mi		PR						
BHUA-11	70.00				hJ		50				PR						
BHUA-11	70.01				hJ		85		wh mi		IR						
BHUA-11	70.03				hJ		65		wh mi		IR						
BHUA-11	70.23				hJ		60		wh mi		PR						
BHUA-11	70.48				hJ		60		wh mi		PR						
BHUA-11	70.66				V		15		pl gr mi		PR						<5 mm pl gr halo
BHUA-11	70.67				hJ		50		wh mi		PR						
BHUA-11	70.69				hJ		60		wh mi		PR						
BHUA-11	70.98				hJ		25		wh mi		IR						
BHUA-11	71.00				hJ		25		wh mi		PR						
BHUA-11	71.00				hJ		50		wh mi		PR						
BHUA-11	71.02				hJ		35		wh mi		PR						
BHUA-11	71.03				hJ		80		wh mi		IR						
BHUA-11	71.05				hJ		50		wh mi		PR						
BHUA-11	71.06				hJ		40		pl gr mi		PR						
BHUA-11	71.10				hJ		70		wh mi		PR						
BHUA-11	71.11				hJ		35		pl gr mi		PR						
BHUA-11	71.26				hJ		50		pl gr mi		PR						
BHUA-11	71.31				hJ		50		pl gr mi		PR						
BHUA-11	71.39				hJ		0		wh mi		IR						
BHUA-11	71.42				hJ				wh mi		IR						
BHUA-11	71.45				hJ		20		pl gr mi		PR						
BHUA-11	71.49				hJ		25		pl gr mi		IR						
BHUA-11	71.50				hJ		15		pl gr mi		UN						
BHUA-11	71.57				V		55		pl gr mi		PR		<	25			zone of many extremely closely spaced hJs
BHUA-11	71.64				V		55		wh mi (qu?)		PR		<	2			common gr mi, boundaries are br
BHUA-11	71.69				J		65		dk rd-br	SN	PR	SM					
BHUA-11	71.70				J		20			CN	PR	SM					possible DB
BHUA-11	71.71				J		65		dk rd-br	SN	PR	SM					incipient
BHUA-11	71.72				V		65		wh and bk mi								moderately weathered
BHUA-11	71.72				J		20			CN	IR	SM					possible DB
BHUA-11	71.74				J		0			CN	PR	RF					possible DB
BHUA-11	71.77				hJ		85		wh mi								
BHUA-11	71.77				hJ		85		wh mi		PR						
BHUA-11	71.78				hJ		35		pl gr mi		PR						
BHUA-11	71.80				hJ		85		pl gr mi		PR						
BHUA-11	71.84				J		35			CN	PR	RF					
BHUA-11	71.85				hJ		40		bk mi		PR						
BHUA-11	71.86				hJ		70		wh mi		PR						
BHUA-11	71.90				hJ		75		wh mi		PR						
BHUA-11	71.92				hJ		40		pl gr mi		PR						
BHUA-11	71.93				hJ		40		pl gr mi		PR						
BHUA-11	71.93				hJ				pl gr mi		IR						
BHUA-11	71.96				hJ		0		pl gr mi		IR						
BHUA-11	71.99				hJ		0		wh mi		PR						
BHUA-11	72.00				hJ		55		pl gr mi		PR						
BHUA-11	72.05				hJ		30		pl gr mi								
BHUA-11	72.06				hJ		50		wh mi		PR						
BHUA-11	72.07				hJ		40				UN						
BHUA-11	72.10				hJ		0				PR						
BHUA-11	72.11				hJ		50				PR						
BHUA-11	72.12				V		20		wh mi		PR						
BHUA-11	72.13				hJ				pl gr mi		UN						
BHUA-11	72.16				hJ		70		wh mi		PR						
BHUA-11	72.17				hJ		70		pl gr mi		PR						
BHUA-11	72.20				hJ		20				PR						
BHUA-11	72.26				hJ		70		pl gr mi		PR						
BHUA-11	72.28				hJ		60		pl gr mi		PR						
BHUA-11	72.30				hJ		30		pl gr to wh mi		PR						
BHUA-11	72.30				hJ		30		pl gr mi		PR						
BHUA-11	72.34				V		70		wh mi		PR						
BHUA-11	72.36				hJ		40		bk mi		UN						
BHUA-11	72.45				V		65		pl gr mi		PR		<	10			



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BHUA-11	72.46				V		65		wh mi		PR		<	2			possibly qu
BHUA-11	72.49				hJ		85		br mi		IR						
BHUA-11	72.51				hJ		40		wh mi		PR						
BHUA-11	72.53				hJ		50		pl gr mi		IR						
BHUA-11	72.55				hJ		35		pl gr mi		IR						
BHUA-11	72.57				hJ		35		pl gr mi		PI						
BHUA-11	72.59				hJ		35		pl gr mi		UN						
BHUA-11	72.61				J		35			CN	IR	RF					possible DB
BHUA-11	72.64				hJ		20		pl gr mi		PR						
BHUA-11	72.66				hJ		55		pl gr mi		PR						
BHUA-11	72.67				hJ		25		pl gr mi		IR						
BHUA-11	72.71				hJ		75		wh mi		PR						
BHUA-11	72.73				hJ		85		br mi		IR						
BHUA-11	72.81				hJ		40		pl gr mi		PR						
BHUA-11	72.87				hJ		0		pl gr mi		UN						
BHUA-11	72.89				V		90		pl gr to wh mi		UN						
BHUA-11	72.92				hJ		45		pl gr mi		PR						
BHUA-11	73.01				hJ		25		pl gr mi		PR						
BHUA-11	73.07				hJ		40		pl gr mi		PR						
BHUA-11	73.14				V		75		wh mi		PR						
BHUA-11	73.20				hJ		75		wh mi		PR						
BHUA-11	73.24				V		15		pl gr mi		UN						
BHUA-11	73.30				hJ		35		pl gr mi		PR						
BHUA-11	73.35				hJ		20		pl gr mi		PR						
BHUA-11	73.41				hJ		50		wh mi		PI						
BHUA-11	73.43				hJ		60		pl gr mi		PI						
BHUA-11	73.46				hJ				pl gr mi		IR						
BHUA-11	73.49				hJ				wh mi		IR						
BHUA-11	73.51				hJ		45		pl gr mi		PR						
BHUA-11	73.52				hJ		55		pl gr mi		PR						
BHUA-11	73.54				V		55		pl gr mi		PR		<	3			minor wh and rd mi
BHUA-11	73.57				V		80		wh mi		IR		<	2			possibly qu
BHUA-11	73.58				hJ		20		gr mi		PR						
BHUA-11	73.59				hJ		30		pl gr mi		PR						
BHUA-11	73.60				hJ		70		pl gr mi		IR						
BHUA-11	73.61				hJ		5		pl gr mi		PR						
BHUA-11	73.62				hJ		50		pl gr mi		PR						
BHUA-11	73.63				hJ		50		pl gr mi		PR						
BHUA-11	73.65				hJ		40		pl gr mi		PR						
BHUA-11	73.67				V		30		gr-bl		PR		<	25			zone of hJs and Vs
BHUA-11	73.67				J		0			CN	PR	VR					possible DB
BHUA-11	73.68				J		30		dk rd-br	SN	IR	VR					
BHUA-11	73.68				V		30		wh mi		PR		<	3			dk rd-br boundary
BHUA-11	73.69				V		0		pl gr mi		PR		<	5			
BHUA-11	73.72				V		0		pl gr mi		PR		<	4			
BHUA-11	73.74				hJ		30		pl gr mi		IR						
BHUA-11	73.76				V		60		wh to pl gr mi		PR		<	4			some br-rd mi
BHUA-11	73.77				hJ		0		pl gr mi		PR						
BHUA-11	73.77				hJ		20		wh to pl gr mi		PR						
BHUA-11	73.79				hJ		20		wh to pl gr mi		PR						
BHUA-11	73.81				hJ		50		wh to pl gr mi		PR						
BHUA-11	73.82				hJ		50				PR						
BHUA-11	73.82				hJ		90		wh mi		PR						
BHUA-11	73.83				V		45				PR		<	3			
BHUA-11	73.88				hJ		45		pl gr mi		PR						
BHUA-11	73.89				CO		55				UN						
BHUA-11	73.93				hJ		90		wh mi		PR						
BHUA-11	73.94				hJ		60		wh mi		PR						
BHUA-11	73.98				hJ		70		wh mi		PR						
BHUA-11	74.01				hJ		35		wh mi		PR						
BHUA-11	74.03				hJ		90		wh mi		PR						
BHUA-11	74.14				hJ		50		wh mi		IR						
BHUA-11	74.16				hJ		50		wh mi		IR						
BHUA-11	74.18				hJ		85		wh mi		IR						
BHUA-11	74.19				hJ		85				IR						
BHUA-11	74.20				hJ		30				PR						
BHUA-11	74.22				hJ		25		wh mi		PR						
BHUA-11	74.23				hJ		35		wh mi		PR						
BHUA-11	74.24				hJ		85		wh mi		PR						
BHUA-11	74.25				CO		30				PR						
BHUA-11	74.26				hJ		35				IR						
BHUA-11	74.28				hJ		55		wh mi								
BHUA-11	74.30				hJ		30		wh mi		IR						
BHUA-11	74.31				hJ		50		wh mi		PR						
BHUA-11	74.34				hJ		30		wh mi		PR						
BHUA-11	74.35				hJ		10		wh mi		IR						
BHUA-11	74.37				J		30			CN	IR	RF					
BHUA-11	74.38				hJ		45		wh mi		PR						
BHUA-11	74.45				CO		30				PR						



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BHUA-11	74.46				V		30		pl gr mi		PR		<	5			some angular fragments
BHUA-11	74.48				hJ		25		wh mi		IR						
BHUA-11	74.50				hJ		50		pl gr mi		PR						
BHUA-11	74.52				hJ		90		pl gr mi		PR						
BHUA-11	74.57				hJ		40		wh mi		PR						
BHUA-11	74.59				hJ		85		pl gr mi		PR						
BHUA-11	74.60				hJ		70		wh mi		PR						
BHUA-11	74.63				hJ		55		wh mi								
BHUA-11	74.64				hJ		20		br mi								
BHUA-11	74.69				hJ		50		br mi		PR						
BHUA-11	74.71				J		40			CN	PR	SL					
BHUA-11	74.74				hJ		60				PR						
BHUA-11	74.75				hJ		50		yl mi		PR						
BHUA-11	74.84				hJ		55		wh mi		PR						
BHUA-11	74.87				hJ		65		wh and bk mi		PR						
BHUA-11	74.89				hJ		70		wh mi		PR						
BHUA-11	74.93				J		20			CN	IR	RF					
BHUA-11	74.94				hJ		45		wh mi		PI						
BHUA-11	74.96				hJ		45		wh mi		IR						
BHUA-11	74.99				CO						IR						
BHUA-11	75.00				hJ		20		wh mi		PR						
BHUA-11	75.02				hJ		35		wh and bk mi		PR						
BHUA-11	75.04				hJ		20				PR						
BHUA-11	75.26				hJ		75		wh mi		PR						
BHUA-11	75.28				J		30		wh mi	CN	PR	SM					
BHUA-11	75.31				hJ		70		wh mi		PR						
BHUA-11	75.40				hJ		50		wh mi		PR						
BHUA-11	75.46				hJ		65		wh mi		PR						
BHUA-11	75.48				hJ				wh mi		IR						
BHUA-11	75.54				hJ		80		wh mi		PR						
BHUA-11	75.59				hJ		35		dk br-rd mi		PR						
BHUA-11	75.63				hJ		65		wh mi		PR						
BHUA-11	75.77				V		70		wh mi		PR		<	2			
BHUA-11	75.81				hJ		50		wh mi		PR						
BHUA-11	75.83				hJ		60		wh mi		PR						
BHUA-11	75.89				hJ		30		wh mi		PR						
BHUA-11	75.91				hJ		75		wh mi		PR						
BHUA-11	75.92				hJ		80		wh mi		PR						
BHUA-11	75.93				hJ		65		wh mi		PR						
BHUA-11	75.95				hJ		65		wh mi		PR						
BHUA-11	75.96				J		30		wh mi	CT	PR	SM	<	2			
BHUA-11	76.02				V		85		wh mi		PR		<	2			
BHUA-11	76.08				hJ		70		wh mi		PR						
BHUA-11	76.09				hJ				wh mi		IR						
BHUA-11	76.17				hJ				wh mi		IR						
BHUA-11	76.18				hJ				wh mi		IR						
BHUA-11	76.19				hJ				wh mi		IR						
BHUA-11	76.20				V		65		wh mi		PR		<	2			br SN
BHUA-11	76.21				hJ		75		wh mi		PR						
BHUA-11	76.23				J		45		pl gr clay ph	VN	PR	SM					
BHUA-11	76.25	77.60			SZ												consisting of numerous crushed seams and sheared seams, significant
BHUA-11	76.26				CS		30		Gravelly CLAY		PR	SM		20			
BHUA-11	76.29				J		40		clay	VN	PR	SM					
BHUA-11	76.29				J		40		clay	CT	PR	SM					
BHUA-11	76.30				J					CN	IR	SM					
BHUA-11	76.30				J				wh ph mi	CT	IR	SM					
BHUA-11	76.34				J					CN	IR	SM					
BHUA-11	76.36				J		40			CN	PR	PO					possibly SL
BHUA-11	76.36	76.65			SZ		40				PR						zone of many irregular wh mi Vs, <3 mm, some healed joints, possibly healed SZ
BHUA-11	76.38				J		40		clay	VN	PR	PO					possibly slickensided
BHUA-11	76.38	76.44			AZ				wh mi		IR						extremely to very closely spaced zone of closed to incipient joints, healed joints and veins
BHUA-11	76.41				J		30			CN	PR	SM					
BHUA-11	76.44				J		10		gy clay	VN	IR	SM					
BHUA-11	76.52				J		15			CN	IR	RF					
BHUA-11	76.52	76.64			AZ				wh mi		IR						extremely to very closely spaced zone of inceptint Vs, <2 mm,
BHUA-11	76.64				J				gy clay	CT	IR	RF					
BHUA-11	76.65				J		40		gy clay	CT	IR	RF					
BHUA-11	76.66	76.71			AZ				wh mi		IR						extremely to very closely spaced zone of closed incipient joints
BHUA-11	76.78	76.90			AZ				wh mi		IR						extremely to very closely spaced zone of closed incipient joints and veins
BHUA-11	76.91				J		15			CN	IR	SM					
BHUA-11	77.01				J		40			CN	PR	SM					
BHUA-11	77.04	77.27			SZ				gravel	VN	PR	RF					possible DBs, possibly comprising of Jx3
BHUA-11	77.27				J		30		clay	VN	PR	SM					drk br-rd SN
BHUA-11	77.28				J		40		clay	VN	IR	SM					
BHUA-11	77.31				hJ		35		wh mi		IR						
BHUA-11	77.34				hJ		15		wh mi		IR						
BHUA-11	77.34				V		35		wh mi		PR		<	2			possibly qu
BHUA-11	77.40				hJ		20		wh mi		PR						
BHUA-11	77.42				hJ		90				PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	77.43				hJ		0				PR						
BHUA-11	77.46				hJ		35				PR						
BHUA-11	77.47				hJ		25				PR						
BHUA-11	77.50				J		50				PR						
BHUA-11	77.50				CS		5		Clayey GRAVEL, f-mg, a-sa, drk br to bk, with f-cg sar		PR			5			
BHUA-11	77.51				J		25				PR						
BHUA-11	77.54				J		35				PR						
BHUA-11	77.55				CS		35		Gravelly CLAY, drk gy to drk br-rd, with f-cg sand, f-m		PR			20			
BHUA-11	77.56				J		35				PR	SM					
BHUA-11	77.57				hJ		10		bk mi		PR						
BHUA-11	77.58				hJ		0		bk mi		PR						
BHUA-11	77.60				hJ		10				PR						
BHUA-11	77.62				J		10		br-rd ph clay	VN	PR	SM					
BHUA-11	77.72				J		10		br-rd ph clay	VN	PR	SM					
BHUA-11	77.77				hJ				bk mi		IR						
BHUA-11	77.79				hJ				bk mi		IR						
BHUA-11	77.81				hJ				bk mi		IR						
BHUA-11	77.83				hJ				bk mi		IR						
BHUA-11	77.89				hJ		80		bk, wh, and br-rd mi		IR						
BHUA-11	77.91				hJ		45		bk mi		IR						
BHUA-11	77.93				hJ		90		bk and br mi		IR						
BHUA-11	77.94				hJ		90		bk and br mi		IR						
BHUA-11	77.96				hJ		15		bk mi		IR						
BHUA-11	77.98				hJ		90		bk and br mi		IR						
BHUA-11	77.99				hJ		25		bk mi		IR						
BHUA-11	78.00				hJ		50		bk mi		IR						
BHUA-11	78.05				hJ		0		bk and br mi								
BHUA-11	78.07				hJ		0		bk and br mi								
BHUA-11	78.12				hJ		85		bk mi		IR						
BHUA-11	78.13				hJ	/vug											
BHUA-11	78.13				hJ		5		br mi		IR						
BHUA-11	78.18				hJ		30		bk mi		IR						
BHUA-11	78.24				hJ				bk mi		IR						
BHUA-11	78.27				hJ				bk mi		IR						
BHUA-11	78.29				hJ				bk mi		IR						
BHUA-11	78.30				hJ				br mi		IR						
BHUA-11	78.31				hJ	/vug	85		bk		UN						
BHUA-11	78.32				hJ		85		bk		UN						
BHUA-11	78.38				J		55		pl br Sandy CLAY	VN	IR						
BHUA-11	78.43				J		85		sand	VN	UN						
BHUA-11	78.52					vugh							<	5			
BHUA-11	78.55				V		80		wh mi		UN			1			highly weathered
BHUA-11	78.59				V		80				UN						
BHUA-11	78.65				J		45		silt ph	VN	ST						
BHUA-11	78.70				hJ		10		bk mi		PR						
BHUA-11	78.71				hJ		10		bk mi		PR						
BHUA-11	78.72				hJ		20		bk mi		PR						
BHUA-11	78.73				hJ		20		bk mi		UN						
BHUA-11	78.75				hJ		55				PR						
BHUA-11	78.82				hJ		40				IR						
BHUA-11	78.85				hJ		50		wh mi		PR						
BHUA-11	78.86				hJ		50				PR						
BHUA-11	78.88				hJ		50				PR						
BHUA-11	78.89				hJ		75				IR						
BHUA-11	78.90				hJ		70				PR						
BHUA-11	78.93				hJ		5				PR						
BHUA-11	78.93				hJ		70		bk ph		PR						
BHUA-11	78.95				J		45			CN	IR	RF					possible DB
BHUA-11	78.97				J		75		bk	SN	PR	RF					partly open/incipient, mostly closed/healed
BHUA-11	79.01				J		75			SN	PR	SM					partly open/incipient, mostly closed/healed
BHUA-11	79.03				hJ		80				PR						
BHUA-11	79.04				hJ		80				PR						
BHUA-11	79.06				hJ		80				PR						
BHUA-11	79.12				hJ		75				UN						
BHUA-11	79.13				hJ		90				UN						
BHUA-11	79.26				hJ		55				PR						
BHUA-11	79.28				hJ		35		bk	SN	PR						
BHUA-11	79.29				hJ		45		bk	SN	PR						
BHUA-11	79.30				hJ		45		bk	SN	PR						
BHUA-11	79.31				J		20		bk	SN	PR	SM					
BHUA-11	79.34				hJ		55		bk	SN	PR						
BHUA-11	79.36				V		25		bk mi		PR		<	2			
BHUA-11	79.36				J		20		bk	SN	PR	VR					
BHUA-11	79.40				hJ		30		bk mi		PR						
BHUA-11	79.42				hJ		50		bk	SN	PR						
BHUA-11	79.45				hJ		50		bk	SN	PR						
BHUA-11	79.51				J		60		bk	SN	PR	RF					possibly slightly grooved
BHUA-11	79.53				hJ		30				PR						
BHUA-11	79.54				hJ		30				PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	79.55				hJ		75				PR						
BHUA-11	79.57				hJ		60				UN						
BHUA-11	79.60				hJ		55		bk mi		PR						
BHUA-11	79.61				hJ		35		bk mi		PR						
BHUA-11	79.64				hJ		60		bk mi		PR						
BHUA-11	79.67				hJ		55		bk mi		PR						
BHUA-11	79.71				hJ				bk mi		IR						
BHUA-11	79.73				hJ				bk mi		IR						
BHUA-11	79.74				hJ		45		bk mi		PR						
BHUA-11	79.76				hJ		65		bk mi		PR						
BHUA-11	79.82				J		55		bk mi	VN	ST	RF					bk SN
BHUA-11	79.88				hJ		60		bk mi		PR						
BHUA-11	79.89				hJ		70		bk mi		PR						
BHUA-11	79.90				hJ		80		bk mi		PR						
BHUA-11	79.91				hJ		70		bk mi		IR						
BHUA-11	79.92				hJ		50		bk mi		PR						
BHUA-11	80.03				hJ		40		bk mi		PR						
BHUA-11	80.04				hJ		75		bk mi		PR						
BHUA-11	80.05				hJ		65		bk mi		PR						
BHUA-11	80.08				hJ		70				PR						
BHUA-11	80.08	80.18															rounded core from drilling
BHUA-11	80.19				J		40				PR						
BHUA-11	80.21				J		55			CN	PR						
BHUA-11	80.40				J		60		rd ph	SN	PR	SM					
BHUA-11	80.41				hJ		85				PR						
BHUA-11	80.43				hJ		65		pl gr and bk mi		PR						
BHUA-11	80.44				hJ		45		pl gr and bk mi		PR						
BHUA-11	80.46				hJ		10		bk mi		PR						
BHUA-11	80.47				hJ		70		wh and bk mi		PR						
BHUA-11	80.49				hJ		75		bk mi		PR						
BHUA-11	80.54				hJ		75		br mi		PR						
BHUA-11	80.55				hJ		75		pl gr mi		PR						
BHUA-11	80.62				hJ		70		pl gr and bk mi		PR						
BHUA-11	80.64				hJ		70		pl gr and bk mi		PR						
BHUA-11	80.67				J		20			CN	UN	RF					
BHUA-11	80.74				hJ		60		pl gr and bk mi		PR						
BHUA-11	80.78				hJ		50		rd-br mi		PR						
BHUA-11	80.80				J		45		rd-br ph	SN	UN	SM					rd-br ph SN
BHUA-11	80.82				hJ		85		rd-br mi		PR						
BHUA-11	80.85				hJ		85				PR						
BHUA-11	80.86				J		75		wh ph mi	VN	PR	SM					
BHUA-11	80.88				J		65			CN	PR	SM					incipient
BHUA-11	80.92				hJ		65		pl gr mi		PR						
BHUA-11	80.95				J		70			CN	PR	SM					
BHUA-11	80.97				hJ		70		rd-br and bk mi		PR						
BHUA-11	81.01				hJ		65				PR						
BHUA-11	81.06				J		50		rd-br ph	SN	PR	SM					
BHUA-11	81.08				hJ		30										
BHUA-11	81.09				hJ		75				PR						
BHUA-11	81.13				hJ		90		bk and wh mi		UN						
BHUA-11	81.14				hJ		90		bk and rd-br mi		PR						
BHUA-11	81.17				hJ		35				IR						
BHUA-11	81.19				hJ		35				IR						
BHUA-11	81.20				hJ		65		bk mi		PR						
BHUA-11	81.24				hJ		35		wh mi		PR						
BHUA-11	81.26				hJ		80		wh mi		PR						
BHUA-11	81.27				hJ		80		or	SN	UN						
BHUA-11	81.32				hJ		75				PR						
BHUA-11	81.33				hJ		70				PR						
BHUA-11	81.41				hJ		80				PR						
BHUA-11	81.42				hJ		20		wh mi		PR						
BHUA-11	81.43				hJ		20		wh mi		PR						
BHUA-11	81.44				hJ		90		or	SN	PR						
BHUA-11	81.45				hJ		80		bk mi		PR						
BHUA-11	81.47				hJ		70		bk mi		PR						
BHUA-11	81.49				J		30			CN	PR	VR					
BHUA-11	81.51				hJ		75				PR						
BHUA-11	81.52				hJ		90				PR						
BHUA-11	81.57				J		10			CN	PR	VR					
BHUA-11	81.59				hJ		50		bk mi		PR						
BHUA-11	81.61				hJ		50		bk mi		PR						
BHUA-11	81.65				hJ		60		bk mi		PR						
BHUA-11	81.70				J		60		bk	SN	PR	SM					
BHUA-11	81.72				hJ		60				PR						
BHUA-11	81.73				hJ		60				PR						
BHUA-11	81.76				hJ		75		wh mi		PR						
BHUA-11	81.77				hJ		65				PR						
BHUA-11	81.78				hJ		90		wh mi		PR						
BHUA-11	81.80				hJ		40		wh mi		PR						



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BHUA-11	81.84				hJ		60		wh mi		PR						
BHUA-11	81.87				hJ		90		wh mi		PR						
BHUA-11	81.88				hJ		30		wh mi		PR						
BHUA-11	81.90				hJ		20		wh mi		PR						
BHUA-11	81.93				hJ		75		wh mi		PR						
BHUA-11	81.96				hJ		70		wh mi		PR						
BHUA-11	81.97				hJ		50		wh mi		PR						
BHUA-11	81.98				hJ		50		wh mi		PR						
BHUA-11	82.01				hJ		45		wh mi		PR						
BHUA-11	82.02				hJ		65		wh mi		PR						
BHUA-11	82.04				hJ		30		wh mi		PR						
BHUA-11	82.07				hJ		30		wh mi		PR						
BHUA-11	82.08				hJ		75		wh mi		IR						
BHUA-11	82.14				hJ		60		bk mi		PR						
BHUA-11	82.17				hJ		70		wh mi		IR						
BHUA-11	82.20				J		30			CN	IR	SM					
BHUA-11	82.23				hJ		45		pl gr mi		PR						
BHUA-11	82.25				hJ		45				IR						
BHUA-11	82.29				hJ		60		wh mi		PR						
BHUA-11	82.35				V		60		wh mi		PR		<	5			zone of many hJs
BHUA-11	82.42				V		80		wh mi		PR		<	3			
BHUA-11	82.43				hJ		70		wh mi		PR						
BHUA-11	82.45				CO		40				UN						
BHUA-11	82.46				J		50			CN	IR	SM					
BHUA-11	82.52				hJ		40		wh mi		PR						
BHUA-11	82.55				hJ		25		wh mi		PR						
BHUA-11	82.60				hJ		25		wh mi		PR						
BHUA-11	82.61				hJ		45		wh mi		PR						
BHUA-11	82.64				J		55		wh ph mi	VN	PR	SM					
BHUA-11	82.70				hJ		80		wh mi		PR						
BHUA-11	82.75				J		75		wh ph mi	VN	PR	SM					
BHUA-11	82.89				J		0			CN	PR	SM					possible DB
BHUA-11	83.13				J		40		gy clay	VN	PR	SM					dk rd-br SN, possible DB, incipient, clay possibly drill mud
BHUA-11	83.15				J		5		gy clay	VN	PR	RF					clay possibly drill mud
BHUA-11	83.16				V		50		drk br-rd mi		PR		<	1			adjacent <1 mm wh mi hJ
BHUA-11	83.40				hJ		55				PR						
BHUA-11	83.68				hJ		40		wh mi		PR						
BHUA-11	83.72				hJ		30				PR						
BHUA-11	83.84				hJ		75				PR						
BHUA-11	83.89				hJ		50		gy mi		PR						
BHUA-11	83.98				hJ		70				PR						
BHUA-11	84.05				hJ		50				PR						
BHUA-11	84.07				hJ		60		wh mi		PR						
BHUA-11	84.22				hJ		75		pl gr mi		PR						
BHUA-11	84.23				hJ						IR						
BHUA-11	84.29				hJ		25		gy mi		PR						
BHUA-11	84.32				hJ		55		pl gr mi		PR						
BHUA-11	84.34				hJ		60		pl gr mi		IR						
BHUA-11	84.46				J		10		wh mi	VN	PR	RF					
BHUA-11	84.55				hJ		80				PR						
BHUA-11	84.56				hJ		85				PR						
BHUA-11	84.77				hJ		10		wh mi		UN						
BHUA-11	84.78				hJ		55		wh mi		PR						
BHUA-11	84.82				hJ		45		wh mi		PR						
BHUA-11	84.83				hJ		45		wh mi		PR						
BHUA-11	84.85				hJ		65		wh mi		PR						
BHUA-11	84.88				V		50		wh mi		PR		<	2			
BHUA-11	84.89				V		60		wh mi		PR		<	2			
BHUA-11	84.99				hJ		45				PR						
BHUA-11	85.03				hJ		55		pl gr mi		IR						
BHUA-11	85.07				hJ		60		wh mi		PR						
BHUA-11	85.09				hJ		45		pl gr mi		PR						
BHUA-11	85.11				hJ		45		wh mi		PR						
BHUA-11	85.13				hJ		40				PR						
BHUA-11	85.18				hJ		55				IR						
BHUA-11	85.19				hJ		50		pl gr mi		PR						
BHUA-11	85.20				hJ		70		wh mi		IR						
BHUA-11	85.27				hJ		75				PR						
BHUA-11	85.29				hJ		35		wh mi		PR						
BHUA-11	85.32				V		50				PR		<	1			
BHUA-11	85.40				hJ		45		wh mi		PR						
BHUA-11	85.42				hJ				wh and rd mi		IR						
BHUA-11	85.44				V		55		wh and rd mi		PR						
BHUA-11	85.83				V		45		wh mi		IR			1			
BHUA-11	85.87				DB		45				PR						possible hJ
BHUA-11	85.92				V		40		pl br mi, minor <6 mm fragments		PR		<	20			
BHUA-11	85.93				hJ		30		wh mi		PR						
BHUA-11	85.94				CO		50				IR						
BHUA-11	85.96				hJ		60		wh mi		PR						



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BHUA-11	85.97				hJ		70		wh mi		PR						
BHUA-11	86.00				hJ		55		wh mi		PR						
BHUA-11	86.01				hJ		55		wh mi		PR						
BHUA-11	86.02				hJ		60		wh mi		PR						
BHUA-11	86.03				hJ		55		wh mi		PR						
BHUA-11	86.05				hJ		90		wh mi		PR						
BHUA-11	86.06				hJ		60		wh mi		PR						
BHUA-11	86.07				hJ		60		wh mi		PR						
BHUA-11	86.10				hJ		70		wh mi		PR						
BHUA-11	86.12				hJ		65		wh mi		PR						
BHUA-11	86.20				hJ		55		wh mi		PR						
BHUA-11	86.23				hJ		60		wh mi		PR						
BHUA-11	86.24				hJs	x10	60		wh mi		PR						
BHUA-11	86.26				hJ		85		wh mi		IR						
BHUA-11	86.29				hCS		50		wh mi		PR		<	15			minor <15 mm fragments
BHUA-11	86.39				hJ		55				PR						
BHUA-11	86.39				hJ		55				PR						
BHUA-11	86.40				hJ		55				PR						
BHUA-11	86.42				hJ		65				PR						
BHUA-11	86.47				hJ		25				PR						
BHUA-11	86.49				hJ		75				PR						
BHUA-11	86.53				hJ		70				PR						
BHUA-11	86.57				hJ		45		bk mi		PR						
BHUA-11	86.58				hJ		65		rd	SN	PR						
BHUA-11	86.59				hJ		35				IR						
BHUA-11	86.59				hJ		5		yl mi		IR						
BHUA-11	86.60				V		20		wh and gy mi		PR		<	10			possibly qu
BHUA-11	86.61				V		20		gy mi		PR			1			possibly qu
BHUA-11	86.63				V		55		gy, wh, and gr mi		PR		<	5			possibly qu
BHUA-11	86.71				V		50		bk mi		UN		<	2			minor pyrite
BHUA-11	86.73				hJ		60		bk mi		UN						
BHUA-11	86.74				hJs	x2	55		wh mi		IR						
BHUA-11	86.76				hJ		45		wh mi		PR						
BHUA-11	86.77				hJ		55		bk mi		PR						
BHUA-11	86.78				hJ		45		bk mi		PR						
BHUA-11	86.79				hJ		45		bk mi		PR						
BHUA-11	86.81				hJ		65		bk mi		PR						
BHUA-11	86.82				hJ		60		bk mi		PR						
BHUA-11	86.83				hJ		45		bk mi		PR						
BHUA-11	86.84				hJ		45		bk mi		PR						
BHUA-11	86.87				hJ		45		bk mi		PR						
BHUA-11	86.89				hJ		45		bk mi		PR						
BHUA-11	86.90				hJ		45		bk mi		PR						
BHUA-11	86.91				hJ		45		bk mi		PR						
BHUA-11	86.94				hJ		45		bk mi		PR						
BHUA-11	86.96				hJ		45		bk mi		PR						
BHUA-11	87.00				V		45		gy and bk qu		PR			5			
BHUA-11	87.02				V		45		gy and bk mi		PR			2			
BHUA-11	87.04				hJ		45		bk mi		PR						
BHUA-11	87.05				V		45		gy and bk qu		PR			3			
BHUA-11	87.06				hJ		30		bk mi		PR						
BHUA-11	87.10				V		45		gy and bk mi		PR			3			
BHUA-11	87.11				V		45		gy and bk mi		PR			2			
BHUA-11	87.11				hJ		45		bk mi		PR						
BHUA-11	87.12				hJ		40		bk mi		PR						
BHUA-11	87.14				hJ		40		bk mi		PR						
BHUA-11	87.15				hJ		45		bk mi		PR						
BHUA-11	87.16				hJ		45		bk mi		PR						
BHUA-11	87.16				hJ		45		bk mi		PR						
BHUA-11	87.18				hJ		45		bk mi		PR						
BHUA-11	87.19				hJ		45		bk mi		PR						
BHUA-11	87.19				hJ		25		bk mi		PR						
BHUA-11	87.20				hJ		45		bk mi		PR						
BHUA-11	87.20				hJ		45		bk mi		PR						
BHUA-11	87.22				J		45		bk mi		PR						
BHUA-11	87.23				hJ		0		bk mi		PR						
BHUA-11	87.24				hJ		45		bk mi		PR						
BHUA-11	87.25				hJ		45		bk mi		PR						
BHUA-11	87.26				hJ		70		bk mi		PR						
BHUA-11	87.29				hJ		60		bk mi		PR						
BHUA-11	87.31				J		55		bk	SN	PR	RF					
BHUA-11	87.33				hJ		35		bk mi		PR						
BHUA-11	87.34				V		35		bk mi		PR		<	5			rare pyrite
BHUA-11	87.35				hJ		35		bk mi		PR						
BHUA-11	87.38				V		35		gr, bk, and gy mi		IR		<	5			rare pyrite
BHUA-11	87.40				hCS		30		bk mi		IR			20			
BHUA-11	87.45				hJ		15		bk mi		PR						
BHUA-11	87.46				hJ		15		wh mi		PR						
BHUA-11	87.47				hJ		0				IR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	87.49				hJ				bk mi		IR						
BHUA-11	87.50				hJ				wh mi		IR						
BHUA-11	87.50				V		55		gy qu		PR		<	2			
BHUA-11	87.53				hJ		50		bk mi		PR						
BHUA-11	87.54				V		80		bk mi		PR			1			
BHUA-11	87.56				hJ		20				PR						
BHUA-11	87.57				hJ		70				PR						
BHUA-11	87.58				hJ		20				PR						
BHUA-11	87.60				hJ		55		bk mi		IR						
BHUA-11	87.69				hJ		90		bk and yl mi		UN						
BHUA-11	87.70				hJ		40		wh and bk mi		PR						
BHUA-11	87.72				hJ		55		bk mi		PR						
BHUA-11	87.74				hJ		45		yl mi		IR						
BHUA-11	87.81				hJ				yl mi		IR						
BHUA-11	87.83				hJ		10		yl mi		PR						
BHUA-11	87.84				hJ				yl mi		IR						
BHUA-11	87.87				hJ		90		wh mi		IR						
BHUA-11	87.88				hJ		90		bk mi		IR						
BHUA-11	87.89				hJ		75		bk mi		PR						
BHUA-11	87.89				hJ		20		bk mi		PR						
BHUA-11	87.94				hJ		40		pl gr mi		PR						
BHUA-11	87.96				hJ		75		wh to pl gr mi		IR						
BHUA-11	87.97				hJ		90				PR						
BHUA-11	87.98				hJ		55		pl gr mi		PR						
BHUA-11	88.00				hJ		40		pl gr mi		IR						
BHUA-11	88.01				hJ		60		pl gr mi		IR						
BHUA-11	88.03				hJ		5		pl gr mi		PR						
BHUA-11	88.04				hJ		65		pl gr mi		IR						
BHUA-11	88.05				hJ		5		pl gr mi		PR						
BHUA-11	88.06				hJ		20		pl gr mi		PR						
BHUA-11	88.07				hJ		45		pl gr mi		PR						
BHUA-11	88.09				hJ		15		bk to pl gr mi		PR						
BHUA-11	88.10				hJ		60				PR						
BHUA-11	88.13				hJ		10		pl gr mi		PR						
BHUA-11	88.14				hJ		10		pl gr mi		PR						
BHUA-11	88.15				hJ		25		wh mi		PR						
BHUA-11	88.17				hJ		15		pl gr mi		PR						
BHUA-11	88.19				hJ		60		wh mi		IR						
BHUA-11	88.21				hJ		80		wh mi		PR						
BHUA-11	88.25				V		10		bk mi		PR		<	12			
BHUA-11	88.27				hJ		30		pl gr mi		PR						
BHUA-11	88.28				hJ		50		pl gr mi		PR						
BHUA-11	88.29				V		25		pl gr mi		UN		<	3			<10 mm halo of hJs
BHUA-11	88.31				hJ		30		pl gr mi		PR						
BHUA-11	88.44				hJ		40		pl gr mi		PR						
BHUA-11	88.45				hJ		40		wh mi		PR						
BHUA-11	88.50				hJ		50				PR						
BHUA-11	88.55				hJ		70		bk mi		PR						
BHUA-11	88.60				hJ		30		wh mi		UN						
BHUA-11	88.60				hJ		30		wh mi		PR						
BHUA-11	88.62				hJ		70				PR						
BHUA-11	88.63				hJ		70				IR						
BHUA-11	88.75				hJ		40		wh mi		PR						
BHUA-11	88.77				V		40		wh mi and qu		PR		<	8			
BHUA-11	88.80				hJ		35		wh mi		PR						
BHUA-11	88.83				hJ		35		wh mi		PR						
BHUA-11	88.85				hJ		30		wh mi		PR						
BHUA-11	88.88				hJ		30		pl yl to pl gr mi		PR						
BHUA-11	88.93				J		25			CN	PR	RF					
BHUA-11	88.94				hJ		25		wh mi		IR						
BHUA-11	88.97				hJ		45		wh mi		PR						
BHUA-11	88.98				hJ		40		yl mi		PR						
BHUA-11	88.99				hJ		50				PR						
BHUA-11	88.99				hJ		55		yl mi		PR						
BHUA-11	89.05				hJ		55				IR						
BHUA-11	89.07				hJ		60		pl gr mi		IR						
BHUA-11	89.09				hJ		50				IR						
BHUA-11	89.18				hJ		60		wh to yl mi		IR						
BHUA-11	89.19				hJ		60		wh to yl mi		PR						
BHUA-11	89.27				hJ		0		yl mi		PR						
BHUA-11	89.38				hJ		50		wh mi		PR						
BHUA-11	89.39				J		0			CN	PR	RF					possible DB
BHUA-11	89.41				hJ		40		gy mi		PR						
BHUA-11	89.42				hJ		55		wh mi		PR						
BHUA-11	89.46				hJ		50		wh mi		PR						
BHUA-11	89.48				hJ		50				PR						
BHUA-11	89.56				hJ		15		wh mi		PR						
BHUA-11	89.57				hJ		0		wh mi		PR						
BHUA-11	89.61				hJ		60		wh mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	89.64				hJ		20		pl gr mi		PR						
BHUA-11	89.65				hJ		60				PR						
BHUA-11	89.68				hJ		15		pl gr mi		PR						
BHUA-11	89.69				hJ		30		pl gr mi		PR						
BHUA-11	89.70				hJ		50				PR						
BHUA-11	89.71				hJ		50				PR						
BHUA-11	89.72				hJ		50				PR						
BHUA-11	89.73				hJ		50				PR						
BHUA-11	89.75				hJ		25		pl gr mi		PR						
BHUA-11	89.79				hJ		20		pl gr mi		PR						
BHUA-11	89.86				hJ						IR						
BHUA-11	89.87				hJ						IR						
BHUA-11	89.94				J					CN	IR	SM					
BHUA-11	90.13				hJ		35		wh mi		PR						
BHUA-11	90.18				hJ		25		wh mi		PR						
BHUA-11	90.19				hJ		25		wh mi		PR						
BHUA-11	90.24				hJ		35		wh mi		PR						
BHUA-11	90.28				hJ		60				PR						
BHUA-11	90.35				hJ		0		wh mi		PR						
BHUA-11	90.39				J		30		gr	SN	PR	SM					possibly altered face
BHUA-11	90.45				hJ		25				PR						
BHUA-11	90.49				hJ		65		wh mi		PR						
BHUA-11	90.54				J		35			CN	PR	SM					
BHUA-11	90.59				hJ		45		bk mi		IR						
BHUA-11	90.62				hJ		55				PR						
BHUA-11	90.70	90.88			hJs		45	80	bk and gr mi		UN						
BHUA-11	90.90				hJ		88		bk mi		UN						
BHUA-11	90.91				hJ		90		bk mi		UN						
BHUA-11	90.92				V		80		gr mi		UN			7			
BHUA-11	90.96				hJ		80		gr mi		UN						
BHUA-11	90.97				hJ		68		bk mi		UN						
BHUA-11	91.00				hJ		90		bk mi		UN						
BHUA-11	91.00				hJ		50		wh mi		PR						
BHUA-11	91.01				hJ		40		bk and wh mi		PR						
BHUA-11	91.06				hJ		60		wh mi		PR						
BHUA-11	91.07				J		45			CN	PR	RF					
BHUA-11	91.10				hJ						PR						
BHUA-11	91.19				hJ		70		wh mi		PR						
BHUA-11	91.20				hJ		90		bk mi		UN						
BHUA-11	91.21				hJ		65		wh mi		PR						
BHUA-11	91.21				hJ		55		wh mi		PR						
BHUA-11	91.22				hJ		30		wh mi		UN						
BHUA-11	91.29	91.35			hJ		45		gr mi		PR						
BHUA-11	91.38				hJ		20		bk mi		PR						
BHUA-11	91.41				V		75		gr mi		UN			4			
BHUA-11	91.41				V		60		gr mi		UN			8			
BHUA-11	91.44				hJ		70		bk mi		UN						
BHUA-11	91.44				hJ		60		bk mi		UN						
BHUA-11	91.47				hJ		50		wh mi		PR						
BHUA-11	91.49				J		40			CN	ST	RF					
BHUA-11	91.52	91.65			hJ		50		gr and bk mi		UN						
BHUA-11	91.65				V		60		bk mi		PR			10			
BHUA-11	91.67	91.78			hJs		70	90	gr and bk mi		UN						
BHUA-11	91.82				hJ		70		bk mi		PR						
BHUA-11	91.85				hJ		75		bk mi		PR						
BHUA-11	91.86				V		90		gr mi		UN			3			
BHUA-11	91.88				hJ		70		bk mi		PR						
BHUA-11	91.89	92.19			hJs		25	75	bk and gr mi		UN						
BHUA-11	92.03				J		65			CN	UN	RF					
BHUA-11	92.12				hJ		70		wh mi		UN						
BHUA-11	92.12				hJ		35		wh mi		PR						
BHUA-11	92.12				V		40		gr and wh mi		UN			2			halo of IR hJs
BHUA-11	92.15				V		30		gr mi		UN			3			
BHUA-11	92.16				J		30		gr	SN	UN						
BHUA-11	92.17				V		65		gr mi		ST			2			
BHUA-11	92.18				J		40		wh	VN	UN						
BHUA-11	92.19				V		90		gr mi		UN			2			
BHUA-11	92.19				hJ		90		wh mi		UN						
BHUA-11	92.20				hJ		35		wh mi		UN						
BHUA-11	92.22				hJ		45		wh mi		UN						
BHUA-11	92.22				hJ		55		bk and wh mi		PR						
BHUA-11	92.23				J		35		gr	VN	UN						
BHUA-11	92.27				hJ		35		gr mi		UN						
BHUA-11	92.28				hJ		65		wh mi		ST						
BHUA-11	92.28				hJ		15		gr mi		UN						
BHUA-11	92.28				hJ		20		gr mi		UN						
BHUA-11	92.29				hJ		15		gr mi		UN						
BHUA-11	92.30				hJ				gr mi		UN						
BHUA-11	92.30				hJ		10		gr mi		UN						



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BHUA-11	92.31				hJ		15		gr mi		UN						
BHUA-11	92.31				hJ		50		gr mi		ST						
BHUA-11	92.31				hJ		15		gr mi		UN						
BHUA-11	92.32				hJ		5		gr mi		ST						
BHUA-11	92.32				hJ		60		gr mi		ST						
BHUA-11	92.34				V		40		gr mi		PR			5			
BHUA-11	92.34				hJ		90		gr mi		UN						
BHUA-11	92.35				hJ		35		gr mi		PR						
BHUA-11	92.40				hJ		50		gr mi		UN						
BHUA-11	92.41				hJ		65		gr mi		ST						
BHUA-11	92.42				hJ		40		wh mi		PR						
BHUA-11	92.42				hJ		98		wh mi		UN						
BHUA-11	92.44				hJ		80		wh mi		UN						
BHUA-11	92.46				V		25		gr mi		UN		<	2			
BHUA-11	92.47				hJ		35		gr mi		IR						
BHUA-11	92.50				J		80		gr	SN	UN						
BHUA-11	92.52				hJ		80		gr mi		UN						
BHUA-11	92.54				hJ		35			CN	PR	RF					
BHUA-11	92.56				hJ		70		bk mi		UN						
BHUA-11	92.59				hJ		90		gr mi		UN						
BHUA-11	92.59				hJ		30		bk mi		PR						
BHUA-11	92.61				hJ		75		gr mi		UN						
BHUA-11	92.62				hJ		40		wh mi		UN						
BHUA-11	92.64				hJ		40		gr mi		UN						
BHUA-11	92.65				hJ		85		gr mi		UN						
BHUA-11	92.66				hJ		65		gr mi		IR						
BHUA-11	92.66				hJ		85		gr mi		UN						
BHUA-11	92.67				hJ		45		wh mi		PR						
BHUA-11	92.67				hJ		40		bk mi		UN						
BHUA-11	92.69				hJ		35			CN	UN	RF					
BHUA-11	92.71				hJ		45		gr mi		PR						
BHUA-11	92.73				V		55		gr mi		PR			3			
BHUA-11	92.75				V		35		gr mi		UN		<	2			
BHUA-11	92.75				hJ		80		gr mi		UN						
BHUA-11	92.76				hJ		90		gr mi		UN						
BHUA-11	92.77				hJ		70		gr mi		UN						
BHUA-11	92.77				V		60		gr mi		UN			2			
BHUA-11	92.77				V		75		gr mi		UN			2			
BHUA-11	92.80				hJ		90		gr mi		UN						
BHUA-11	92.80				hJ		50		gr mi		UN						
BHUA-11	92.82				hJ		50		gr mi		UN						
BHUA-11	92.83				V		90		gr mi		UN			5			
BHUA-11	92.83				hJ		90		gr mi		ST						
BHUA-11	92.83				hJ		50		gr mi		UN						
BHUA-11	92.84				hJ		35		gr mi		UN						
BHUA-11	92.85				V		40		gr mi		UN			3			
BHUA-11	92.86				hJ		45		gr mi		PR						
BHUA-11	92.90				hJ		90		gr mi		ST						
BHUA-11	92.90				hJ		90		gr mi		UN						
BHUA-11	93.01				hJ		90		gr mi		UN						
BHUA-11	93.06				hJ		15		gr mi		UN						
BHUA-11	93.11				hJ		20		gr mi		UN						
BHUA-11	93.15				V		30		gr mi		UN			3			
BHUA-11	93.18				hJ		85		gr mi		UN						
BHUA-11	93.20				hJ		50		gr mi		UN						
BHUA-11	93.21				hJ		35		gr mi		UN						
BHUA-11	93.22				V		90		gr mi		UN			2			
BHUA-11	93.23				hJ		48		gr mi		UN						
BHUA-11	93.25				J		50		rd	SN	UN	RF					
BHUA-11	93.30				V		70		gr mi		UN			5			
BHUA-11	93.31				hJ		55		gr mi		UN						
BHUA-11	93.32				hJ		55		gr mi		UN						
BHUA-11	93.38				hJ		35		gr mi		UN						
BHUA-11	93.43				hJ		70		gy mi		PR						
BHUA-11	93.49				J		40		gr	SN	UN	RF					
BHUA-11	93.59				hJ		70		gr mi		IR						
BHUA-11	93.60				J		40			CN	UN	RF					possible DB
BHUA-11	93.64				hJ		40		gr mi		PR						
BHUA-11	93.66				V		15		bk mi		UN			3			
BHUA-11	93.68				V		50		gr mi		UN			2			
BHUA-11	93.70				hJ		70		gr mi		UN						
BHUA-11	93.71				hJ		70		gr mi		UN						
BHUA-11	93.73				hJ		20		gr mi		ST						
BHUA-11	93.73				hJ		20			CN	PR	RF					
BHUA-11	93.75				hJ		65		gr mi		UN						
BHUA-11	93.76				hJ		65		gr mi		UN						
BHUA-11	93.77				hJ		75		gr mi		ST						
BHUA-11	93.78				hJ		75		gr mi		PR						
BHUA-11	93.78				hJ		40		gr mi		PR						



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BHUA-11	93.80				hJ		75		gr mi		UN						
BHUA-11	93.82				hJ		60		gr mi		UN						
BHUA-11	93.89				hJ		40		gr mi		PR						
BHUA-11	93.94				hJ		75		gr mi		UN						
BHUA-11	93.96				hJ		80		gr mi		UN						
BHUA-11	93.97				J		50			SN	PR	RF					rd SN, alt halo
BHUA-11	94.01				hJ		75		gr mi		UN						
BHUA-11	94.01				hJ		90		gr mi		UN						
BHUA-11	94.02				hJ		80		gr mi		UN						
BHUA-11	94.03				hJ		60		gr mi		UN						
BHUA-11	94.04				hJ		75		gr mi		UN						
BHUA-11	94.04				hJ		75		gr mi		UN						
BHUA-11	94.05				hJ		70		gr mi		UN						
BHUA-11	94.06				hJ		70		gr mi		UN						
BHUA-11	94.07				hJ		55		wh mi		UN						
BHUA-11	94.13				hJ		50		gr mi		PR						
BHUA-11	94.14				hJ		55		gr mi		PR						
BHUA-11	94.17				hJ		45		bk and wh mi		UN						
BHUA-11	94.21				hJ		75		gr mi		UN						
BHUA-11	94.22				hJ		60		gr mi		UN						
BHUA-11	94.25				hJ		68		gr mi		UN						
BHUA-11	94.26				hJ		80		gr mi		PR						
BHUA-11	94.27				hJ		40		gr mi		PR						
BHUA-11	94.29				hJ		50		gr mi		UN						
BHUA-11	94.30				hJ		80		bk mi		UN						
BHUA-11	94.32				hJ		40		wh mi		UN						
BHUA-11	94.34				hJ		70		gr mi		UN						
BHUA-11	94.58				hJ		85		bk mi		UN						
BHUA-11	94.68				hJ		45		gr mi		PR						
BHUA-11	94.69				hJ		85		gr mi		PR						
BHUA-11	94.70				hJ		70		gr mi		UN						
BHUA-11	94.70				hJ		40		gr mi		UN						
BHUA-11	94.73				hJ		30		gr mi		PR						
BHUA-11	94.76				hJ		25		bk mi		PR						
BHUA-11	94.76	94.84			Vs	/hJs	30	40	gr mi		UN						
BHUA-11	94.84				hJ		35		bk mi		PR						
BHUA-11	94.84				hJ		40		wh mi		PR						
BHUA-11	94.85				hJ		45		gr mi		PR						
BHUA-11	94.85				hJ		30		bk and gr mi		UN						
BHUA-11	94.85				hJ		75		gr mi		UN						
BHUA-11	94.88				hJ		50		wh mi		PR						
BHUA-11	94.90				hJ		45		gr mi		UN						
BHUA-11	94.91				hJ		5		gr mi		UN						
BHUA-11	94.92				hJ		25		gr mi		UN						
BHUA-11	94.93				hJ		60		gr mi		UN						
BHUA-11	94.94				hJ		30		gr mi		PR						
BHUA-11	94.95				hJ		50		gr mi		PR						
BHUA-11	94.96				hJ		15		wh mi		PR						
BHUA-11	95.02				hJ		10		wh mi		UN						
BHUA-11	95.02				hJ		65		bk mi		PR						
BHUA-11	95.03				hJ		75		bk mi		PR						
BHUA-11	95.06				hJ		70		bk mi		PR						
BHUA-11	95.08				hJ		45		wh mi		UN						
BHUA-11	95.09				hJ		30		wh mi		UN						
BHUA-11	95.10				hJ		50		wh mi		PR						
BHUA-11	95.14				J		50		gy CLAY	VN	PR	RF					
BHUA-11	95.14				J		50		gy CLAY	VN	PR	RF					
BHUA-11	95.15				hJ		60		gr mi		PR						
BHUA-11	95.16				hJ		60		wh mi		UN						
BHUA-11	95.17				hJ		50		wh mi		UN						
BHUA-11	95.18				hJ		35		gr mi		UN						
BHUA-11	95.18				hJ		25		gr mi		UN						
BHUA-11	95.19				hJ		30		gr mi		PR						
BHUA-11	95.20				hJ		20		gr mi		PR						
BHUA-11	95.27				hJ		20		wh mi		PR						
BHUA-11	95.29				hJ		50		wh mi		UN						
BHUA-11	95.30				hJ		35		gr mi		PR						
BHUA-11	95.32				hJ		25		gr mi		PR						
BHUA-11	95.34				hJ		25		gr mi		UN						
BHUA-11	95.34				V		55		gr and bk mi		PR			4			
BHUA-11	95.35				hJ		25		gr mi		PR						
BHUA-11	95.40	95.62			Vs	/hJs	20	40	gr mi		UN		<	3			
BHUA-11	95.62	95.66			V		40		gr mi		PR			40			
BHUA-11	95.68				hJ		30		gr mi		UN						
BHUA-11	95.68				hJ		90		wh mi		PR						
BHUA-11	95.69				hJ		20		gr mi		PR						
BHUA-11	95.70				hJ		55		wh mi		PR						
BHUA-11	95.71				hJ		5		gr mi		UN						
BHUA-11	95.72				hJ		40		wh mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	95.72				hJ		10		gr mi		PR						
BHUA-11	95.73				hJ				gr mi		PR						
BHUA-11	95.74				hJ		35		gr mi		PR						
BHUA-11	95.78				hJ		40		wh mi		UN						
BHUA-11	95.79				hJ		75		bk mi		PR						
BHUA-11	95.83				hJ		15		gr mi		PR						
BHUA-11	95.83				hJ		30		gr mi		PR						
BHUA-11	95.89				hJ		30		gr mi		PR						
BHUA-11	95.91				hJ		30		gr mi		PR						
BHUA-11	95.93				hJ		20		gr mi		UN						
BHUA-11	95.94				hJ		30		gr mi		PR						
BHUA-11	95.97				hJ		30		gr mi		PR						
BHUA-11	95.98				hJ		42		gr mi		UN						
BHUA-11	96.00				hJ		40		gr mi		PR						
BHUA-11	96.04				hJ		40		gr mi		UN						
BHUA-11	96.04				hJ		30		gr mi		UN						
BHUA-11	96.08				V		40		gr mi		UN			2			
BHUA-11	96.13				hJ		35		wh mi		PR						
BHUA-11	96.16				hJ					CN	PR	RF					
BHUA-11	96.20	96.28			Vs	/hJs	30	90			UN		<	10			6 mm spacing
BHUA-11	96.29				J		40		gr	VN	UN	RF					
BHUA-11	96.36				hJ		40		wh mi		PR						
BHUA-11	96.39				hJ		40		wh mi		PR						
BHUA-11	96.40				hJ		75		wh mi		PR						
BHUA-11	96.40				hJ		25		wh mi		PR						
BHUA-11	96.40				hJ		45		wh mi		PR						
BHUA-11	96.41				hJ		50		wh mi		PR						
BHUA-11	96.42				hJ		30				UN						
BHUA-11	96.46				hJ		10		wh mi		PR						
BHUA-11	96.46				J		60		bk and gr	VN	PR	SM					
BHUA-11	96.47				hJ		75		wh mi		PR						
BHUA-11	96.48				J		20		or-br	VN	PR	RF					
BHUA-11	96.49				hJ		15		gr mi		UN						
BHUA-11	96.52				J		65		bk and gr	VN	PR	SM					
BHUA-11	96.52				hJ		15		gr mi		PR						
BHUA-11	96.54				hJ		80		wh mi		UN						
BHUA-11	96.58				hJ				gr mi		PR						
BHUA-11	96.59				J		20		or-br	SN	PR	RF					
BHUA-11	96.63				hJ		25		gr mi		UN						
BHUA-11	96.64				hJ		15		gr mi		UN						
BHUA-11	96.65				hJ		35		gr mi		PR						
BHUA-11	96.67				hJ		75		gr mi		UN						
BHUA-11	96.68				hJ		60		wh mi		PR						
BHUA-11	96.68				hJ		50		rd-br mi		UN						
BHUA-11	96.69				hJ		20		gr mi		ST						
BHUA-11	96.70				hJ		20		gr	SN	IR	RF					
BHUA-11	96.72				hJ		70		bk mi		UN						
BHUA-11	96.76				V		50		gr mi		UN		<	4			
BHUA-11	96.81				hJ		40		gr mi		PR						
BHUA-11	96.82				V		68		bk and wh mi		PR		<	2			
BHUA-11	96.82				hJ		40		gr mi		PR						
BHUA-11	96.83				hJ		60		gr mi		PR						
BHUA-11	96.84				hJ		50		gr mi		PR						
BHUA-11	96.90				hJ		60		gr mi		PR						
BHUA-11	96.91				hJ		50		gr and bk mi		UN						
BHUA-11	96.91				hJ		50		bk mi		PR						
BHUA-11	96.92				hJ		40		bk mi		PR						
BHUA-11	97.09				hJ		40		gr mi		UN						
BHUA-11	97.10				hJ		40		gr mi		UN						
BHUA-11	97.13				hJ		30		gr mi		UN						
BHUA-11	97.13				V		30		gr mi		UN			3			
BHUA-11	97.20				hJ		45		bk mi		PR						
BHUA-11	97.21				hJ		45		bk mi		PR						
BHUA-11	97.21				hJ		55		wh mi		UN						
BHUA-11	97.22				hJ		45		bk mi		PR						
BHUA-11	97.23				hJ		90		gr mi		UN						
BHUA-11	97.25				hJ		60		bk mi		PR						
BHUA-11	97.25				hJ		50		bk mi		PR						
BHUA-11	97.26				hJ		60		bk and wh mi		PR						
BHUA-11	97.28				hJ		65		gr mi		PR						
BHUA-11	97.30				hJ		55		gr mi		PR						
BHUA-11	97.30				hJ		35		bk mi		PR						
BHUA-11	97.31				hJ		90		gr mi		UN						
BHUA-11	97.32				hJ		60		wh mi		PR						
BHUA-11	97.35				hJ		80		wh mi		UN						
BHUA-11	97.37				hJ		65		wh mi		UN						
BHUA-11	97.37				hJ		70		wh mi		UN						
BHUA-11	97.42				hJ		60		wh mi		PR						
BHUA-11	97.42				hJ		60		wh mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	97.43				hJ		75		wh mi		PR						
BHUA-11	97.46				V		55		wh and bk mi		PR			3			
BHUA-11	97.47				hJ		75		wh mi		PR						
BHUA-11	97.47				hJ		75		wh mi		PR						
BHUA-11	97.47				hJ		70		wh mi		PR						
BHUA-11	97.48				hJ		75		wh mi		PR						
BHUA-11	97.48				hJ		30				PR						
BHUA-11	97.49				hJ		5		bk mi		UN						
BHUA-11	97.51				hJ		60		wh mi		PR						
BHUA-11	97.52				hJ		50		bk mi		PR						
BHUA-11	97.52				hJ		25		bk mi		PR						
BHUA-11	97.54				hJ		60		bk mi		PR						
BHUA-11	97.56				hJ		50		wh mi		PR						
BHUA-11	97.57				hJ		45		pl yl mi		PR						
BHUA-11	97.59				hJ		25		bk mi		PR						
BHUA-11	97.60				hJ		35		bk mi		PR						
BHUA-11	97.61				hJ		20		bk mi		PR						
BHUA-11	97.62				hJ		35		bk mi		PR						
BHUA-11	97.63				hJ		35				UN						
BHUA-11	97.63				hJ		75				PR						
BHUA-11	97.64				hJ		35		bk mi		PR						
BHUA-11	97.65				hJ		35		bk mi		PR						
BHUA-11	97.74				hJ		85		pl yl mi		PR						
BHUA-11	97.76				hJ		35		bk mi		PR						
BHUA-11	97.77				hJ		60		bk mi		PR						
BHUA-11	97.82				hJ		20				PR						
BHUA-11	97.82				hJ		35				PR						
BHUA-11	97.95				hJ		45		yl mi		PR						
BHUA-11	98.03				hJ		45		yl mi		PR						
BHUA-11	98.09				hJ		35		pl yl mi		PR						
BHUA-11	98.09				hJ		35		pl yl mi		PR						
BHUA-11	98.10				hJ		40		pl yl mi		PR						
BHUA-11	98.13				hJ		35		pl yl mi		PR						
BHUA-11	98.14				hJ		35		pl yl mi		PR						
BHUA-11	98.15				hJ		55		pl yl mi		PR						
BHUA-11	98.19				hJ				pl yl mi		PR						
BHUA-11	98.20				hJ		55		pl yl mi		PR						
BHUA-11	98.21				hJ		45		pl yl mi		PR						
BHUA-11	98.22	98.30			AZ		45				IR						extremely to very closely spaced zone of IR hJs
BHUA-11	98.23				hJ		85		wh mi		IR						
BHUA-11	98.24				hJ		35		pl yl mi		IR						
BHUA-11	98.25				hJ		30		pl yl mi		IR						
BHUA-11	98.27				hJ		65		wh mi		PR						
BHUA-11	98.28				hJ				pl yl mi		PR						
BHUA-11	98.29				hJ		10		pl yl mi		PR						
BHUA-11	98.30				V		45		pl yl mi		PR		<	4			
BHUA-11	98.30				hJ		0		pl yl mi		PR						
BHUA-11	98.30				hJ		0		pl yl mi		PR						
BHUA-11	98.41				hJ		80		pl yl mi		PR						
BHUA-11	98.42				CO		20				PR						
BHUA-11	98.43				hJ		90		pl yl mi		IR						
BHUA-11	98.45				hJ		90		pl yl mi		IR						
BHUA-11	98.46				hJ		45		pl yl mi		PR						
BHUA-11	98.47				hJ		20		pl yl mi		PR						
BHUA-11	98.49				hJ		20		pl yl mi		PR						
BHUA-11	98.50				hJ		20		pl yl mi		PR						
BHUA-11	98.54				hJ		30		wh mi		PR						
BHUA-11	98.55				hJ				wh mi		IR						
BHUA-11	98.56				J		45		wh ph mi	VN	IR	SM					
BHUA-11	98.59				CO				wh mi		IR						
BHUA-11	98.61				hJ		60		wh mi		IR						
BHUA-11	98.62				hJ				wh mi		IR						
BHUA-11	98.63				hJ				pl yl mi		IR						
BHUA-11	98.65				hJ				pl yl mi		IR						
BHUA-11	98.66				hJ				pl yl mi		IR						
BHUA-11	98.68				hJ				pl yl mi		IR						
BHUA-11	98.69				hJ				pl yl mi		IR						
BHUA-11	98.70				hJ		10				IR						
BHUA-11	98.71				hJ		60		yl mi		PR						
BHUA-11	98.72				hJ		60		wh mi		PR						
BHUA-11	98.72				hJ		45		wh mi		PR						
BHUA-11	98.72				hJ		20		wh and rd mi		PR						
BHUA-11	98.74				hJ		45		bk and wh mi		UN						
BHUA-11	98.74				hJ		65		wh mi		PR						
BHUA-11	98.76				V		40		wh and bk mi		PR		<	2			
BHUA-11	98.76				hJ		30		wh mi		PR						
BHUA-11	98.77				hJ		20		pl yl mi		IR						
BHUA-11	98.83				hJ		70		wh mi		PR						
BHUA-11	98.85				hJ		45		bk mi		PR						



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BHUA-11	98.92				hJ		35		yl mi		PR						
BHUA-11	98.93				hJ		25		pl yl mi		IR						
BHUA-11	98.94				hJ		25		pl yl mi		PR						
BHUA-11	98.96				hJ		45		yl mi		PR						
BHUA-11	98.97				hJ		25		bk mi		PR						
BHUA-11	99.01				hJ		35		wh mi		PR						
BHUA-11	99.03				J		65		bk	SN	PR	SM					5 mm bleached halo
BHUA-11	99.08				hJ		65		wh mi		PR						
BHUA-11	99.15				hJ		40		wh mi		PR						
BHUA-11	99.19				J		40			CN	PR	SM					
BHUA-11	99.21				hJ		65				PR						
BHUA-11	99.25				hJ		35		wh and pl yl mi		PR						
BHUA-11	99.27				hJ		40		wh mi		UN						
BHUA-11	99.52				hJ		35		pl yl mi		IR						
BHUA-11	99.58				hJ		55				PR						
BHUA-11	99.59				hJ		55				PR						
BHUA-11	99.65				hJ		60				PR						
BHUA-11	99.66				hJ		35		wh mi		PR						
BHUA-11	99.68				hJ		40				PR						
BHUA-11	99.69				hJ		50				PR						
BHUA-11	99.69				hJ		55				PR						
BHUA-11	99.71				hJ		60		pl yl mi		PR						
BHUA-11	99.78				hJ		70				PR						
BHUA-11	99.81				hJ		55		pl yl and bk mi		PR						
BHUA-11	99.83				hJ		55				PR						
BHUA-11	99.87				hJ		50				PR						
BHUA-11	99.89				hJ		60		wh mi		UN						
BHUA-11	99.96				J		30		wh mi		PR						
BHUA-11	100.01				J		30		pl yl mi		PR						
BHUA-11	100.03				hJ		70				PR						
BHUA-11	100.08				hJ		65		pl yl mi		UN						
BHUA-11	100.14				hJ		70		bk mi		PR						
BHUA-11	100.32				hJ		80				IR						
BHUA-11	100.33				hJ		75		pl yl mi		PR						
BHUA-11	100.48				J		15		pl gr mi		PR						
BHUA-11	100.57				hJ		55		bk mi		PR						
BHUA-11	100.58				hJ		35		yl mi		PR						
BHUA-11	100.59				hJ		25		yl mi		PR						
BHUA-11	100.60				hJ		20		yl mi		PR						
BHUA-11	100.61				hJ		20		yl mi		PR						
BHUA-11	100.74				hJ		55		bk mi		PR						
BHUA-11	100.76				hJ		30		yl mi		PR						
BHUA-11	100.77				hJ		30		pl yl mi		PR						
BHUA-11	100.80				J		30		pl yl mi		PR						
BHUA-11	100.82				hJ		30		pl yl mi		PR						
BHUA-11	100.83				hJ		35				IR						
BHUA-11	100.85				J		70		bk mi		PR						
BHUA-11	100.88				hJ		45		pl yl mi		PR						
BHUA-11	100.92				hJ		60		pl yl mi		PR						
BHUA-11	100.95				hJ		40		pl yl mi		PR						
BHUA-11	100.96				hJ		35		pl yl mi		PR						
BHUA-11	100.96				hJ		40		pl yl mi		PR						
BHUA-11	100.96				hJ		40		pl yl mi		PR						
BHUA-11	100.98				hJ		45		pl yl mi		PR						
BHUA-11	101.00				hJ		45		pl yl mi		PR						
BHUA-11	101.02				hJ		90		bk mi		PR						
BHUA-11	101.04				hJ		45		pl yl mi		UN						
BHUA-11	101.05				hJ		5		bk mi		IR						
BHUA-11	101.07				hJ		45				PR						
BHUA-11	101.08				hJ		90		bk mi		PR						
BHUA-11	101.10				hJ		50				PR						
BHUA-11	101.10				hJ		50				PR						
BHUA-11	101.11				hJ		55				PR						
BHUA-11	101.12				hJ		40				PR						
BHUA-11	101.12	101.15			hJ		50				PR						
BHUA-11	101.23				hJ		45		bk mi		PR						
BHUA-11	101.25				MB												
BHUA-11	101.27				hJ				bk and pl gr mi		IR						
BHUA-11	101.28				hJ		55		pl gr mi		PR						
BHUA-11	101.29				hJ				pl gr mi		IR						
BHUA-11	101.33				hJ		90		bk mi		UN						
BHUA-11	101.34				hJ				bk mi		IR						
BHUA-11	101.34				hJ		55		wh mi		PR						
BHUA-11	101.36				hJ		50		bk mi		PR						
BHUA-11	101.39				hJ		70		bk to pl yl mi		PR						
BHUA-11	101.41	101.60			J		70		bk mi		PR	RF					
BHUA-11	101.44				hJ		20		bk mi		PR						
BHUA-11	101.45				hJ		75				PR						
BHUA-11	101.48				hJ		60		wh mi		PR						



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BHUA-11	101.50				hJ		30		pl gr mi		PR						
BHUA-11	101.51				hJ		30		bk mi		PR						
BHUA-11	101.52				hJ		30		bk mi		PR						
BHUA-11	101.53				hJ		40		bk mi		PR						
BHUA-11	101.54				hJ		40		bk mi		PR						
BHUA-11	101.55				hJ		45		bk mi		PR						
BHUA-11	101.56				hJ		25		bk mi		PR						
BHUA-11	101.58				hJ		30		bk mi		IR						
BHUA-11	101.58				hJ		45		bk mi		IR						
BHUA-11	101.60				hJ		45		bk mi		PR						
BHUA-11	101.61				hJ		50		pl yl mi		PR						
BHUA-11	101.63				hJ		45		bk mi		PR						
BHUA-11	101.64				hJ		60		pl yl mi		IR						
BHUA-11	101.64				hJ		40		pl yl mi		IR						
BHUA-11	101.65				hJ						IR						
BHUA-11	101.66				hJ		65		pl yl and bk mi		PR						
BHUA-11	101.68				hJ		20		bk mi		PR						
BHUA-11	101.68				hJ		20		bk mi		PR						
BHUA-11	101.69				hJ		60		pl gr mi		PR						
BHUA-11	101.72				hJ		40		bk mi		PR						
BHUA-11	101.72				hJ		50		bk mi		PR						
BHUA-11	101.73				hJ		50		bk mi		PR						
BHUA-11	101.73				hJ		80		bk mi		PR						
BHUA-11	101.77				hJ		60		wh mi		PR						
BHUA-11	101.79				hJ		65		bk mi		PR						
BHUA-11	101.81				hJ		60		pl gr mi		IR						
BHUA-11	101.82				hJ		55		bk mi		PR						
BHUA-11	101.83				hJ		60		wh mi		PR						
BHUA-11	101.85				hJ		40				IR						
BHUA-11	101.87				hJ		45		wh mi		IR						
BHUA-11	101.88				hJ		10		wh mi		PR						
BHUA-11	101.89				hJ		25				PR						
BHUA-11	101.90				hJ		40		bk mi		IR						
BHUA-11	101.91				hJ		65		bk mi		PR						
BHUA-11	101.92				hJ		75		bk mi		PR						
BHUA-11	101.95				hJ		30		pl yl mi		PR						
BHUA-11	101.97				hJ		45		pl yl mi		IR						
BHUA-11	101.98				hCS		20		pl yl mi		PR						
BHUA-11	102.00				hJ		50		pl yl mi		PR						
BHUA-11	102.00				hJ		50		pl yl mi		PR						
BHUA-11	102.00				hJ		50		pl yl mi		PR						
BHUA-11	102.02				hJ		65		wh mi		PR						
BHUA-11	102.03				hJ		25		pl yl mi		IR						
BHUA-11	102.05				hJ		25		pl yl mi		IR						
BHUA-11	102.07				V		25		bk to gr mi		IR			20			
BHUA-11	102.09				V	/hCS	25		pl yl mi		IR			4			
BHUA-11	102.10				hJ		25		pl yl mi		PR						
BHUA-11	102.11				hJ		25		pl yl mi		PR						
BHUA-11	102.21				J		70		pl yl mi	VN	PR	RF		3			
BHUA-11	102.32				J		45		wh mi		PR						
BHUA-11	102.35				CO		70										possible inclusion
BHUA-11	102.39				J		85		wh mi		IR	RF					
BHUA-11	102.40				V		15		gy-bk mi				<	8			
BHUA-11	102.41				hJ		90		wh mi		PR						
BHUA-11	102.42				hJ				wh mi		IR						
BHUA-11	102.43				hJ		45		wh mi		PR						
BHUA-11	102.44				hJ		45		bk mi		IR						
BHUA-11	102.45	102.69			DB												
BHUA-11	102.47				hJ		30		yl mi		PR						
BHUA-11	102.48				hJ				yl mi		IR						
BHUA-11	102.72				hJ		30		wh mi		PR						
BHUA-11	102.74				hJ		20		wh mi		PR						
BHUA-11	102.79				hJ		45		wh mi		PR						
BHUA-11	102.84				hJ		55		wh mi		PR						
BHUA-11	102.91				hJ		35		wh mi		PR						
BHUA-11	102.97				hJ		40		yl mi		PR						
BHUA-11	102.98				hJ		10		yl mi		PR						
BHUA-11	103.00				hJ		25		yl mi		PR						
BHUA-11	103.04				hJ		30		yl mi		PR						
BHUA-11	103.09				hJ		15		yl mi		PR						
BHUA-11	103.11				hJ		70		yl mi		IR						
BHUA-11	103.17				hJ		40				PR						
BHUA-11	103.22				hJ		55		pl yl mi		PR						
BHUA-11	103.24				hJ		30		pl yl mi		PR						
BHUA-11	103.28				hJ		50		wh mi		PR						
BHUA-11	103.29				hJ		45		pl yl mi		PR						
BHUA-11	103.32				hJ		45		pl yl mi		PR						
BHUA-11	103.33				hJ		5		pl yl mi		PR						
BHUA-11	103.34				hJ						IR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	103.43				hJ		35		pl yl mi		PR						
BHUA-11	103.43				hJ		35		bk mi		PR						
BHUA-11	103.43				hJ		65		bk mi		PR						
BHUA-11	103.43				hJ		65		bk mi		PR						
BHUA-11	103.44				V		10		bk mi		PR		<	3			
BHUA-11	103.46				hJ		30		yl mi		PR						
BHUA-11	103.47				hJ		30		yl mi		PR						
BHUA-11	103.48				hJ				yl mi		IR						
BHUA-11	103.50				hJ		30		yl mi		PR						
BHUA-11	103.51				hJ		10		yl mi		PR						
BHUA-11	103.53				hJ		25		yl mi		IR						
BHUA-11	103.57				hJ		25		yl mi		PR						
BHUA-11	103.58				hJ		30		yl mi		PR						
BHUA-11	103.59				hJ		40		pl yl mi		PR						
BHUA-11	103.69				hJ		30		wh mi		PR						
BHUA-11	103.71				hJ		30		wh mi		PR						
BHUA-11	103.73				hJ		35		pl yl mi		PR						
BHUA-11	103.74				hJ		25		yl mi		PR						
BHUA-11	103.76				hJ		35		yl mi		PR						
BHUA-11	103.80				hJ		10		pl yl mi		IR						
BHUA-11	103.82				hJ		10		yl mi		IR						
BHUA-11	103.83				hJ		35		yl mi		IR						
BHUA-11	103.84				hJ		35		yl mi		IR						
BHUA-11	103.85				hJ		35		yl mi		IR						
BHUA-11	103.85				hJ		45		yl mi		IR						
BHUA-11	103.86				hJ		75		wh mi		PR						
BHUA-11	103.87				hJ		35		yl mi		IR						
BHUA-11	103.90				hJ		35		yl mi		PR						
BHUA-11	104.13				hJ		65		wh mi		PR						
BHUA-11	104.17				hJ		20		wh mi		PR						
BHUA-11	104.17				hJ		60		wh and pl gr mi		PR						
BHUA-11	104.17				hJ		5		wh mi		IR						
BHUA-11	104.17				hJ		75		wh mi		PR						
BHUA-11	104.18				hJ		25		pl gr mi		PR						
BHUA-11	104.19				hJ		25		pl gr mi		PR						
BHUA-11	104.19				hJ		20		pl gr mi		PR						
BHUA-11	104.20				hJ		15		pl gr mi		IR						
BHUA-11	104.21				hJ		40				PR						
BHUA-11	104.21				hJ		20				IR						
BHUA-11	104.22				hJ		25		pl gr mi		IR						
BHUA-11	104.23				hJ		20		pl gr mi		IR						
BHUA-11	104.23				hJ		40		pl gr mi		IR						
BHUA-11	104.24				hJ		40		pl gr mi		PR						
BHUA-11	104.25				hJ		55		pl gr mi		PR						
BHUA-11	104.26				hJ		5		pl gr mi		PR						
BHUA-11	104.27				V		60		wh mi		PR		<	3			cluster of many hJs
BHUA-11	104.28				hJ		55		pl gr mi		PR						
BHUA-11	104.31				hJs		45		wh mi		PR						
BHUA-11	104.33				hJ		45		pl gr mi		PR						
BHUA-11	104.34				hJ		45		pl gr mi		PR						
BHUA-11	104.39				hJ		20		wh mi		PR						
BHUA-11	104.41				hJs	x2	50		pl gr mi		PR						
BHUA-11	104.42				hJ		65		wh mi		PR						
BHUA-11	104.43				hJ		65		pl gr mi		UN						
BHUA-11	104.44				hJ		25		bk mi		PR						
BHUA-11	104.47				hJ		50		bk and wh mi		PR						
BHUA-11	104.48				hJ		40		bk and wh mi		UN						
BHUA-11	104.49				hJ		30		pl yl mi		PR						
BHUA-11	104.50				hJ		20		pl yl mi		PR						
BHUA-11	104.51				hJ		60		pl yl and bk mi		UN						
BHUA-11	104.52				hJ		20		pl yl mi		IR						
BHUA-11	104.52				hJ		65		wh mi		PR						
BHUA-11	104.55				hJ		30		wh mi		UN						
BHUA-11	104.56				hJ		10		bk mi		PR						
BHUA-11	104.58				hJ		0				IR						
BHUA-11	104.62				hJ		30		pl yl and bk mi		PR						
BHUA-11	104.63				hJ		30		wh mi		UN						
BHUA-11	104.65				hJs	x2			bk mi		IR						
BHUA-11	104.66				hJ		55		bk and wh mi		IR						
BHUA-11	104.67				hJ		40		bk and wh mi		PR						
BHUA-11	104.68				hJ		55		wh mi		PR						
BHUA-11	104.68				hJ		40		bk mi		PR						
BHUA-11	104.69				hJ		40		wh mi		PR						
BHUA-11	104.70				hJ		40		wh and bk mi		PR						
BHUA-11	104.71				hJ		70		pl gr mi		PR						
BHUA-11	104.86				hJ		25				UN						
BHUA-11	104.87				hJ		25		pl gr mi		PR						
BHUA-11	105.03				hJ		90		wh mi		UN						
BHUA-11	105.09				hJ		70		wh mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	105.15				hJ		30		bk mi		PR						
BHUA-11	105.16				hJ		30		bk mi		PR						
BHUA-11	105.16				hJ		30		pl yl mi		UN						
BHUA-11	105.19				hJ		25		yl mi		PR						
BHUA-11	105.20				hJ		20		yl mi		PR						
BHUA-11	105.20				hJ		10		yl mi		PR						
BHUA-11	105.21				hJ		30		wh mi		PR						
BHUA-11	105.22				hJ		70		wh mi		PR						
BHUA-11	105.23				hJ		30		wh mi		PR						
BHUA-11	105.24				hJ		30		wh mi		PR						
BHUA-11	105.29				hJ		30		wh mi		UN						
BHUA-11	105.47				hJ		70		wh mi		PR						
BHUA-11	105.55				hJ		30		bk mi		PR						
BHUA-11	105.58				hJ		85		pl yl mi		PR						
BHUA-11	105.60				hJ		15		yl mi		UN						
BHUA-11	105.61				hJ		15		yl mi		UN						
BHUA-11	105.63				hJ		60		pl yl mi		PR						
BHUA-11	105.65				hJ		30		yl mi		PR						
BHUA-11	105.67				hJ		55		wh mi		UN						
BHUA-11	105.69				hJ		70		bk mi		PR						
BHUA-11	105.70				hJ		40		yl mi		PR						
BHUA-11	105.72				hJ		50		bk and yl mi		PR						
BHUA-11	105.73				hJ		30		bk and yl mi		PR						
BHUA-11	105.73				hJ		30		yl mi		PR						
BHUA-11	105.75				hJ		5		yl mi		UN						
BHUA-11	105.76				hJ		20		yl mi		UN						
BHUA-11	105.84				hJ		65		wh mi		PR						
BHUA-11	105.85				hJ		15		wh mi		PR						
BHUA-11	105.85				hJ		15		pl yl mi		PR						
BHUA-11	105.86				hJ		15		pl yl mi		PR						
BHUA-11	105.91				hJ		40		pl yl mi		PR						
BHUA-11	105.92				hJ		60				IR						
BHUA-11	105.93				hJ		70		wh mi		PR						
BHUA-11	105.94				hJ		40		pl yl mi		UN						
BHUA-11	105.96				hJ		70		wh mi		PR						
BHUA-11	105.96				hJ		40		bk mi		PR						
BHUA-11	105.97				hJ		35		bk mi		PR						
BHUA-11	106.00				hJs	x2	35		bk mi		PR						
BHUA-11	106.03				hJ		30		bk mi		PR						
BHUA-11	106.04				hJ		30		bk mi		PR						
BHUA-11	106.04				hJ		30		bk mi		PR						
BHUA-11	106.04				hJ		30		bk mi		PR						
BHUA-11	106.05				hJ		30		bk mi		PR						
BHUA-11	106.06				hJ		0				UN						
BHUA-11	106.07				hJ		20				UN						
BHUA-11	106.08	106.12			hCS		30		bk mi		PR			40			abundant granodiorite fragments
BHUA-11	106.10				hJ		60		pl yl mi		IR						
BHUA-11	106.10				hJ				bk mi		IR						
BHUA-11	106.11				hJ		20		pl yl mi		IR						
BHUA-11	106.12				hJ		15		pl yl mi		IR						
BHUA-11	106.15				hJ		75		pl yl mi		IR						
BHUA-11	106.15				hJ		5		pl yl mi		IR						
BHUA-11	106.20				hJ				pl yl mi		IR						
BHUA-11	106.26				hJ						IR						
BHUA-11	106.29				hJ		20		pl yl mi		PR						
BHUA-11	106.32				hJ		35		pl yl mi		IR						
BHUA-11	106.32				hJ		35		pl yl and wh mi		IR						
BHUA-11	106.34				hJ						IR						
BHUA-11	106.35				hJ				pl yl mi		IR						
BHUA-11	106.36				hJ		10		pl yl mi		IR						
BHUA-11	106.39				hJ		0		pl yl mi		PR						
BHUA-11	106.41				CO						IR						
BHUA-11	106.43				hJ		75		wh mi		PR						
BHUA-11	106.45				hJ		75		wh mi		PR						
BHUA-11	106.46				hJ		75		wh mi		PR						
BHUA-11	106.53				hJ		75		wh mi		PR						
BHUA-11	106.65				hJ		60		wh mi		PR						
BHUA-11	106.69				hJ				pl yl mi		IR						
BHUA-11	106.73				J		55		wh mi		PR	RF					
BHUA-11	106.80				DB												
BHUA-11	107.14				hJ		70		wh mi		PR						
BHUA-11	107.18				hJ		25		wh mi		PR						
BHUA-11	107.24				hJ		20		wh mi		UN						
BHUA-11	107.29				hJ		50		pl gr mi		PR						
BHUA-11	107.51				hJ		35		pl gr mi		PR						
BHUA-11	107.93				hJ		75		wh mi		PR						
BHUA-11	108.00				hJ		45				PR						
BHUA-11	108.02				hJ		75		wh mi		PR						
BHUA-11	108.14				hJ		65				PR						



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BHUA-11	108.67				hJ		45				PR						
BHUA-11	109.42				hJ		20		wh mi		UN						
BHUA-11	109.46				hJ		0				UN						
BHUA-11	109.72				hJ						IR						
BHUA-11	109.84				hJ		15		wh mi		PR						
BHUA-11	109.85				hJ		20		wh mi		PR						
BHUA-11	109.90				hJ		60		wh mi		PR						
BHUA-11	109.91				hJ		30				PR						
BHUA-11	109.94				hJ		65		wh mi		PR						
BHUA-11	109.95				hJ		70		wh mi		PR						
BHUA-11	110.16				hJ		35		wh mi		PR						
BHUA-11	110.24				hJ		70		pl gr mi		PR						
BHUA-11	110.34				hJ		35		wh mi		PR						
BHUA-11	110.42				hJ		30		wh mi		PR						
BHUA-11	110.49				hJ		25		wh mi		PR						
BHUA-11	110.51				hJ		75		wh mi		UN						
BHUA-11	110.54				hJ		0		wh mi		IR						
BHUA-11	110.59				hJ		55		wh mi		PR						
BHUA-11	110.64				hJ		40		wh mi		PR						
BHUA-11	110.67				hJ		40				PR						
BHUA-11	110.72				J		65		wh mi		UN						
BHUA-11	110.91				hJ		25		wh mi		PR						
BHUA-11	110.92				hJ		25		wh mi		UN						
BHUA-11	111.04				hJ		65		wh mi		IR						
BHUA-11	111.06				hJ		30		wh mi		IR						
BHUA-11	111.13				hJ		25		wh mi		PR						
BHUA-11	111.19				hJ		45		wh mi		IR						
BHUA-11	111.22				hJ		5		wh mi		IR						
BHUA-11	111.25				hJ		60		wh mi		IR						
BHUA-11	111.29				hJ		65		wh mi		UN						
BHUA-11	111.30				hJ		60				UN						
BHUA-11	111.36				hJ		5				PR						
BHUA-11	111.41				V		60		wh mi		ST		<	2			
BHUA-11	111.41				hJ		60		wh mi		PR						
BHUA-11	111.54				hJ		60		wh mi		PR						
BHUA-11	111.68				hJ		30		wh mi		PR						
BHUA-11	111.75				hJ		35		wh mi		PR						
BHUA-11	111.77				hJ		35				PR						
BHUA-11	111.88				hJ		40		wh mi		PR						
BHUA-11	111.89				hJ		40		wh mi		PR						
BHUA-11	112.02				hJ		40		wh mi		PR						
BHUA-11	112.07				hJ		35		wh mi		UN						
BHUA-11	112.08				hJ		50		wh mi		PR						
BHUA-11	112.16				J		20			SN	PR	RF					
BHUA-11	112.17				hJ		20		wh mi		PR						
BHUA-11	112.40				hJ		30		wh mi		PR						
BHUA-11	112.44				hJ		5				IR						
BHUA-11	112.46				hJ		40		wh ph mi		PR						
BHUA-11	112.48				hJ		75		wh mi		PR						
BHUA-11	112.49				hJ		90		wh mi		PR						
BHUA-11	112.49				hJ		25		wh mi		PR						
BHUA-11	112.50				hJ		60		wh mi		PR						
BHUA-11	112.51				hJ		45				IR						
BHUA-11	112.67				CO		60				PR						incipient
BHUA-11	112.67				hJ		65				IR						
BHUA-11	112.68				hJ		20		yl mi		IR						
BHUA-11	112.69				hJ		20		yl mi		IR						
BHUA-11	112.70				hJ		30		yl mi		PR						
BHUA-11	112.70				hJ		35		yl mi		PR						
BHUA-11	112.71				hJ		20		yl mi		IR						
BHUA-11	112.72				hJ		20		yl mi		PR						
BHUA-11	112.72				hJ		20		yl mi		PR						
BHUA-11	112.74				hJ		20		yl mi		IR						
BHUA-11	112.75				hJ		45		pl yl mi		PR						
BHUA-11	112.77				hJ		20		yl mi		PR						
BHUA-11	112.78				hJ		35		yl mi		PR						
BHUA-11	112.80				hJ		20		pl yl mi		PR						
BHUA-11	112.80				hJ		25		yl mi		PR						
BHUA-11	112.81				hJ		40		yl mi		PR						
BHUA-11	112.82				hJ		0		yl mi		PR						
BHUA-11	112.83				hJ		30		yl mi		PR						
BHUA-11	112.84				hJ		15		yl mi		IR						
BHUA-11	112.85				hJ		10		yl mi		PR						
BHUA-11	112.86				hJ		10		yl mi		PR						
BHUA-11	112.86				hJ		10		yl mi		PR						
BHUA-11	112.88				hJ		20		pl yl mi		PR						
BHUA-11	112.89				hJ		40		pl yl mi		PR						
BHUA-11	112.90				hJ		35		wh mi		PR						
BHUA-11	112.91				hJ		35		pl yl mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	112.96				hJ		30		pl yl mi		PR						
BHUA-11	112.97				hJ		15				PR						
BHUA-11	112.98				J		15		pale yl	SN	PR	RF					
BHUA-11	113.02				hJ		20		pl gr mi		PR						
BHUA-11	113.04				hJ		30		pl yl mi		PR						
BHUA-11	113.05				hJ		45				PR						
BHUA-11	113.05				hJ		20		yl mi		IR						
BHUA-11	113.06				hJ		30		bk mi		PR						
BHUA-11	113.08				hJ		35		pl yl mi		PR						
BHUA-11	113.12				hJ		40		yl mi		PR						
BHUA-11	113.14				hJ		30				IR						
BHUA-11	113.16				hJ		45		pl yl mi		PR						
BHUA-11	113.17				hJs	x2	45		bk and yl mi		PR						
BHUA-11	113.18				hJ		60		bk and yl mi		PR						
BHUA-11	113.18				hJ		35		bk and yl mi		PR						
BHUA-11	113.19				hJ		15		pl yl mi		PR						
BHUA-11	113.20				hJ		35		pl yl mi		PR						
BHUA-11	113.21				hJ		60		bk and yl mi		PR						
BHUA-11	113.21				hJ		60		bk and yl mi		PR						
BHUA-11	113.21				hJ		60		bk and yl mi		PR						
BHUA-11	113.21				hJ		60		bk and yl mi		PR						
BHUA-11	113.24				hJ		50		bk and yl mi		PR						
BHUA-11	113.26				hJ		50		bk and yl mi		PR						
BHUA-11	113.27				hJ		40		bk and yl mi		PR						
BHUA-11	113.28				hJ		20				IR						
BHUA-11	113.31				hJ		45		bk mi		PR						
BHUA-11	113.34				hJ		30		bk mi		PR						
BHUA-11	113.35				hJ		30		bk mi		PR						
BHUA-11	113.36				hJ		30		bk mi		PR						
BHUA-11	113.37				hJ		30		bk mi		PR						
BHUA-11	113.37				hJ		20		pl yl mi		PR						
BHUA-11	113.38				hJ		60		pl yl mi		PR						
BHUA-11	113.38	117.28															numerous healed defects, forming a healed fractured mass, average spacing <10mm
BHUA-11	113.42				hJ		0		pl yl mi		PR						
BHUA-11	113.49				hJ		20		wh mi		PR						
BHUA-11	113.51				hJ		20		wh mi		PR						
BHUA-11	113.53				hJ		10		yl mi		PR						
BHUA-11	113.54				hJ		10				PR						
BHUA-11	113.55				hJ		10		yl mi		PR						
BHUA-11	113.55				hJ		45		bk mi		PR						
BHUA-11	113.56				hJ		15		yl mi		IR						
BHUA-11	113.57				hJ		20		yl mi		PR						
BHUA-11	113.58				J		60			SN	PR	RF					
BHUA-11	113.59				hJ		10		yl mi		PR						
BHUA-11	113.60				hJ		35		yl mi		PR						
BHUA-11	113.62				hJ		50		yl and bk mi		PR						
BHUA-11	113.64				hJ		15		yl and bk mi		PR						
BHUA-11	113.65				hJ		40				IR						
BHUA-11	113.66				hJ		40				IR						
BHUA-11	113.67				hJ		25		bk mi		PR						
BHUA-11	113.68				hJ				bk mi		IR						
BHUA-11	113.68	113.80			hJs	x15	25	40									
BHUA-11	113.80	114.09			hJs	29	0	45									
BHUA-11	114.27				V		15		gr mi		PR		<	6			
BHUA-11	114.28				V		35		bk mi		IR		<	7			
BHUA-11	114.32				V		20		gr mi		PR		<	5			
BHUA-11	114.59				hCS		50		pl yl mi		UN						
BHUA-11	115.18				V				gy mi		UN		<	3			
BHUA-11	115.19				V		20		gy mi		PR		<	5			
BHUA-11	115.25	115.28			hCS		20	25			PR						sa-sr fragments <6 mm, black matrix of Vs
BHUA-11	115.90				V		35		bk mi		IR		<	5			
BHUA-11	115.96				V		20		bk mi		IR		<	10			
BHUA-11	116.01				S		90				UN						~5 mm of displacement, <5 mm bh
BHUA-11	116.02				V		40		bk mi		PR		<	5			
BHUA-11	116.96				V		25		bk mi		IR		<	5			possible S
BHUA-11	117.25				V		45		bk mi		PR		<	6			
BHUA-11	117.45				hJ		60		pl yl mi		PR						
BHUA-11	117.77				hJ		40				PR						
BHUA-11	118.02				hJ		45		pl gr mi		PR						
BHUA-11	118.03				hJ		45		pl gr mi		PR						
BHUA-11	118.04				hJ		45		pl gr mi		PR						
BHUA-11	118.05				hJ		45		pl gr mi		PR						
BHUA-11	118.06				hJ		45		pl gr mi		PR						
BHUA-11	118.07				hJ		45		pl gr mi		PR						
BHUA-11	118.09				hJ				pl gr mi		IR						
BHUA-11	118.09				hJ		50		pl gr mi		PR						
BHUA-11	118.10				hJ		50		pl gr mi		PR						
BHUA-11	118.12				hJ		50		pl gr mi		PR						
BHUA-11	118.14				hJs	x2	10		pl gr mi		PR						



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BHUA-11	118.15				hJ		50		pl gr mi		PR						
BHUA-11	118.16				hJ		50		pl gr mi		PR						
BHUA-11	118.17				hJ				pl gr mi		IR						
BHUA-11	118.18				J		25			CN	UN	RF					
BHUA-11	118.20				J		45		pk mi	SN	CU	RF					
BHUA-11	118.21				J		10			CN	UN	RF					
BHUA-11	118.26				hJ		45		pl yl mi		PR						
BHUA-11	118.29				J		45		pale yl	CN	PR	RF					
BHUA-11	118.32				hJ		30		wh mi		PR						
BHUA-11	118.34				hJ		55		wh mi		IR						
BHUA-11	118.36				hJ		25		bk mi		UN						
BHUA-11	118.43				hJ		40		wh mi		PR						
BHUA-11	118.45				J		35		bk and gn mi		PR						
BHUA-11	118.48				hJ		55		cr mi		PR						
BHUA-11	118.56				hJ		30		bk and yl mi		PR						
BHUA-11	118.57				hJ		30		bk and yl mi		PR						
BHUA-11	118.59				hJ		30		bk mi		PR						
BHUA-11	118.72				hJ		20		bk and yl mi		PR						
BHUA-11	118.74				hJ		60		bk mi		PR						
BHUA-11	118.76				hJ		20		bk and yl mi		PR						
BHUA-11	118.77				hJ		20		bk mi		PR						
BHUA-11	118.78				hJ		20		bk mi		PR						
BHUA-11	118.85				hJ		25		pl yl mi		PR						
BHUA-11	118.87				hJ		25		bk mi		PR						
BHUA-11	118.88				hJ		30		bk and pl yl mi		PR						
BHUA-11	118.90				hJ		20		bk mi		PR						
BHUA-11	118.91				hJ		30		bk mi		UN						
BHUA-11	118.93				hJ		20		pl yl mi		PR						
BHUA-11	118.94				hJ		20		pl yl mi		PR						
BHUA-11	118.95				hJ		20		bk mi		PR						
BHUA-11	118.97				hJ		50				PR						
BHUA-11	118.99				hJ		50				UN						
BHUA-11	119.03				hJ		90		bk mi		UN						
BHUA-11	119.05				hJ		20		pl yl mi		PR						
BHUA-11	119.07				hJ		25		bk mi		PR						
BHUA-11	119.08				hJ		70		pl yl mi		PR						
BHUA-11	119.08				J		20		bk mi		PR						
BHUA-11	119.08				hJ		20		bk mi		PR						
BHUA-11	119.09				hJ		20		bk mi		PR						
BHUA-11	119.10				hJ		30		pl yl mi		PR						
BHUA-11	119.11				hJ		30		bk mi		PR						
BHUA-11	119.11				hJ		30		bk mi		PR						
BHUA-11	119.11				hJ		90		bk mi		PR						
BHUA-11	119.12				hJ		90		bk mi		PR						
BHUA-11	119.13				hJ		30		pl yl mi		PR						
BHUA-11	119.15				hJ		10		pl yl mi		UN						
BHUA-11	119.15				hJ		50		pl yl mi		IR						
BHUA-11	119.16				hJ		50		pl yl mi		IR						
BHUA-11	119.20				hJ		5		bk mi		PR						
BHUA-11	119.21				hJ		40		bk mi		PR						
BHUA-11	119.22				hJ		20		pl yl mi		IR						
BHUA-11	119.30				J		55		pk br mi	SN	PR	RF					
BHUA-11	119.36				J	/DB	5		br	SN	UN	RF					
BHUA-11	119.40				hJ		25				UN						
BHUA-11	119.41				hJ		20		wh mi		PR						
BHUA-11	119.42				hJ		55		wh and bk mi		PR						
BHUA-11	119.43				hJ		50		wh mi		PR						
BHUA-11	119.43				hJ		35		wh mi		UN						
BHUA-11	119.44				hJ		25		wh mi		PR						
BHUA-11	119.45				hJ		60		wh and bk mi		PR						
BHUA-11	119.53				hJ		25		bk mi		PR						
BHUA-11	119.55				hJ		25		bk mi		PR						
BHUA-11	119.56				hJ		25		bk mi		PR						
BHUA-11	119.57				hJ		25		bk mi		PR						
BHUA-11	119.59				hJ		70		bk mi		PR						
BHUA-11	119.60				hJ		20		bk mi		PR						
BHUA-11	119.60				hJ		20		bk mi		PR						
BHUA-11	119.61				hJ		35		bk mi		PR						
BHUA-11	119.64				hJ		20		bk mi		PR						
BHUA-11	119.68				hJ		25		bk mi		PR						
BHUA-11	119.74				hJ		30		bk mi		PR						
BHUA-11	119.75				hJ		30		bk mi		PR						
BHUA-11	119.81				hJ		65		bk mi		PR						
BHUA-11	119.83				hJ		65		bk mi		PR						
BHUA-11	119.93				hJ		50		bk mi		PR						
BHUA-11	119.95				hJ		50		bk and cr mi		PR						
BHUA-11	119.98				V		40		gr and cr mi		PR		<	3			
BHUA-11	119.99				hJ		45		bk mi		PR						
BHUA-11	119.99				hJ		35		bk mi		PR						



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PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	120.01				hJ		35		bk mi		PR						
BHUA-11	120.02				hJ		20				PR						
BHUA-11	120.02				hJ				bk mi		IR						
BHUA-11	120.03				hJ		20				IR						
BHUA-11	120.04				hJ		25		wh mi		PR						
BHUA-11	120.06				hJ		30		bk mi		IR						
BHUA-11	120.18				hJ		45		pl gr mi		PR						
BHUA-11	120.21				hJ		45		bk mi		PR						
BHUA-11	120.22				J		5	15		CN	UN	RF					
BHUA-11	120.27				hJ		45		pl gr mi		PR						
BHUA-11	120.28				hJ		25		pl gr mi		IR						
BHUA-11	120.30				hJ		35		pl gr mi		IR						
BHUA-11	120.31				hJ				pl gr mi		IR						
BHUA-11	120.32				hJ		35		pl gr mi		IR						
BHUA-11	120.33				hJ		55		pl gr mi		IR						
BHUA-11	120.36				hJ		35		pl gr mi		IR						
BHUA-11	120.36				V		70		pl gr mi		PR		<	3			
BHUA-11	120.37				hJ		65		pl gr mi		PR						
BHUA-11	120.37				hJ		75		pl gr mi		PR						
BHUA-11	120.38				V				pl gr mi		IR		<	10			possible hCS
BHUA-11	120.43				hJ		60		pl gr mi		PR						
BHUA-11	120.44				hJ		30		pl gr mi		PR						
BHUA-11	120.46				hJ		30		bk mi		PR						
BHUA-11	120.49				hJ		40		bk mi		PR						
BHUA-11	120.50				hJ		35		bk mi		PR						
BHUA-11	120.54				hJ		55		wh mi		UN						
BHUA-11	120.56				hJ				wh mi		UN						
BHUA-11	120.59				hJ		30		bk mi		PR						
BHUA-11	120.60				V		35		gr mi		PR		<	5			possibly qu
BHUA-11	120.62				hJ		60		pl yl mi		PR						
BHUA-11	120.63				hJ		60		pl yl mi		PR						
BHUA-11	120.64				V		30		gr mi		PR		<	5			possibly qu
BHUA-11	120.65				hJ		90		wh mi		PR						
BHUA-11	120.65				hJ		90		wh mi		PR						
BHUA-11	120.70				hJ		20		pl gr mi		PR						
BHUA-11	120.71				hJ		25		pl gr mi		PR						
BHUA-11	120.79				hJ		55		pl gr mi		PR						
BHUA-11	120.82				hJ		60		pl gr mi		IR						
BHUA-11	120.84				hJ		55		pl gr and bk mi		IR						
BHUA-11	120.85				hJ		55		bk mi		IR						
BHUA-11	120.86				hJ		85		bk mi		IR						
BHUA-11	120.86				hJ		20		bk mi		PR						
BHUA-11	120.87				hJ		40		bk mi		PR						
BHUA-11	120.89				hJ		45		bk mi		PR						
BHUA-11	120.90				hJ		20		bk mi		PR						
BHUA-11	120.91				hJ		15		bk mi		PR						
BHUA-11	120.93				hJ		30		pl gr mi		PR						
BHUA-11	120.94				hJ		25		pl gr to wh mi		PR						
BHUA-11	120.95				hJ		50		pl gr mi		IR						
BHUA-11	120.97				hJ		50		pl gr mi		IR						
BHUA-11	120.97				hJ		45		pl gr mi		IR						
BHUA-11	121.00				hJ		45		pl gr mi		PR						
BHUA-11	121.01				hJ		45		pl gr mi		PR						
BHUA-11	121.02				hJ		45		pl gr mi		PR						
BHUA-11	121.03				hJ		45		pl gr mi		PR						
BHUA-11	121.03				hJ		45		pl gr mi		PR						
BHUA-11	121.04				V		60		pl gr mi		PR		<	3			
BHUA-11	121.05				hJ		55		pl gr mi		PR						
BHUA-11	121.05				hJ		40		pl gr mi		PR						
BHUA-11	121.06				hJ				pl gr mi		IR						
BHUA-11	121.07				hJ		30		pl gr mi		IR						
BHUA-11	121.08				hJ		35		pl gr mi		IR						
BHUA-11	121.09				hJ		75		wh mi		PR						
BHUA-11	121.09				hJ				pl gr mi		IR						
BHUA-11	121.10				hJ				pl gr mi		IR						
BHUA-11	121.11				V		30		pl gr mi		PR		<	20			abundant fragments <2 mm, possible hCS
BHUA-11	121.13				J		25			CN	PR	RF					
BHUA-11	121.15				hJ		35		pl gr mi		PR						
BHUA-11	121.16				hJ		35		pl gr mi		PR						
BHUA-11	121.17				hJ		35		pl gr mi		PR						
BHUA-11	121.18				hJ		35		pl gr mi		PR						
BHUA-11	121.19				hJ		35		pl gr mi		PR						
BHUA-11	121.20				hJ		35		pl gr mi		PR						
BHUA-11	121.21				hJ		35		pl gr mi		PR						
BHUA-11	121.22				J		30	45		CN	CU	RF					
BHUA-11	121.29				hJ		60				IR						
BHUA-11	121.31				hJ		20		pl gr mi		IR						
BHUA-11	121.34				hJ		75		bk mi		PR						
BHUA-11	121.37				hJ		30		pl gr mi		PR						



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BHUA-11	121.45				J		55			CN	PR	SM					
BHUA-11	121.49				hJ		70		wh mi		PR						
BHUA-11	121.51				hJ		45		pl gr mi		PR						
BHUA-11	121.52				hJ		40		pl gr mi		PR						
BHUA-11	121.55				hJ		30		pl yl mi		PR						
BHUA-11	121.57				hJ		25		pl yl mi		PR						
BHUA-11	121.58				hJ		20		bk mi		UN						
BHUA-11	121.62				hJ		15		pl yl mi		UN						
BHUA-11	121.62				hJ		50		bk mi		PR						
BHUA-11	121.63				hJ		65		wh mi		PR						
BHUA-11	121.63				hJ		45		bk mi		PR						
BHUA-11	121.64				hJ		45		bk mi		PR						
BHUA-11	121.64				J		5			CN	PR	SM					
BHUA-11	121.66				hJ		65		pl yl mi		IR						
BHUA-11	121.69				hJ		65		wh mi		PR						
BHUA-11	121.70				hJ		20		pl yl mi		PR						
BHUA-11	121.70				hJ		20		pl yl mi		PR						
BHUA-11	121.70				hJ		50		bk mi		PR						
BHUA-11	121.71				hJ		50		bk mi		PR						
BHUA-11	121.72				hJ		50		bk mi		PR						
BHUA-11	121.73				hJ		50		bk and yl mi		PR						
BHUA-11	121.74				hJ		50		bk and yl mi		PR						
BHUA-11	121.74				hJ		50		bk and yl mi		PR						
BHUA-11	121.76				hJ				pl yl mi		IR						
BHUA-11	121.80				hJ		60		wh mi		PR						
BHUA-11	121.81				hJ		5		pl yl mi		PR						
BHUA-11	121.82				hJ		5		pl yl mi		PR						
BHUA-11	121.82				hJ		50		bk min		PR						
BHUA-11	121.83				hJ		55		wh mi		PR						
BHUA-11	121.84				hJ		5		pl yl mi		PR						
BHUA-11	121.84				hJ		5		pl yl mi		PR						
BHUA-11	121.84				hJ		40				PR						
BHUA-11	121.85				hJ		55				PR						
BHUA-11	121.86				hJ		25		or mi		UN						
BHUA-11	121.87				hJ		15				PR						
BHUA-11	121.91				hJ		25		bk mi		UN						
BHUA-11	121.94				hJ		0		pl yl mi		UN						
BHUA-11	121.95				hJ		60		wh mi		PR						
BHUA-11	121.96				hJ		0		pl yl mi		UN						
BHUA-11	121.97				hJ		20		pl yl mi		UN						
BHUA-11	121.98				hJ		60				PR						
BHUA-11	121.99				hJ		0		pl yl mi		IR						
BHUA-11	122.00				hJ		55		wh mi		PR						
BHUA-11	122.00				hJ		5		pl yl mi		PR						
BHUA-11	122.01				hJ		35		wh mi		PR						
BHUA-11	122.02				hJ		30		pl yl mi		IR						
BHUA-11	122.03				hJ		45		pl yl mi		PR						
BHUA-11	122.04				hJ		50		pl yl mi		PR						
BHUA-11	122.07				hJ				pl yl mi		IR						
BHUA-11	122.08				hJ		50		pl yl mi		IR						
BHUA-11	122.09				hJ		50		wh mi		PR						
BHUA-11	122.09				hJ		0		wh mi		PR						
BHUA-11	122.10				hJ		40		pl gr mi		PR						
BHUA-11	122.10				V		45		bk mi		PR		<	15			contact/chilled margin
BHUA-11	122.13				hJ		40		wh mi		PR						
BHUA-11	122.14				hJ		55		wh mi		PR						
BHUA-11	122.15				hJ		40		pl gr mi		PR						
BHUA-11	122.16				hJ		40		pl grand bk mi		PR						
BHUA-11	122.18				hJ		35		pl gr mi		PR						
BHUA-11	122.19				V		70		pl gr mi		PR		<	3			<15 mm bleached halo
BHUA-11	122.26				hJ		15		bk mi		PR						
BHUA-11	122.27				hJ		55				PR						
BHUA-11	122.27				hJ		50		wh mi		UN						
BHUA-11	122.28				hJ		55		wh mi		PR						
BHUA-11	122.30				CO						ST						
BHUA-11	122.33				hJ						IR						
BHUA-11	122.48				hJ		55		wh mi		PR						
BHUA-11	122.55				hJ		75		wh mi		PR						
BHUA-11	122.59				hJ		60		wh mi		PR						
BHUA-11	122.70				hJ		20		wh mi		PR						
BHUA-11	122.76				hJ		20		wh mi		PR						
BHUA-11	122.77				V		25		wh mi		UN		<	2			
BHUA-11	122.78				hJ		10		wh mi		PR						
BHUA-11	122.78				hJ		20		wh mi		IR						
BHUA-11	122.78				hJ		10		wh mi		PR						
BHUA-11	123.09				hJ		75		wh mi		PR						
BHUA-11	123.10				hJ		60		wh mi		UN						
BHUA-11	123.37				hJ		10		wh mi		UN						
BHUA-11	123.39				hJ		20		wh mi		PR						



Pioneer-Burdekin Pumped Hydro Energy Scheme: Tranche 1 – BHUA-11 Defects List

Refer to Explanatory Notes sheets for abbreviation definitions

PointID	Depth	Bottom	Fracture Set	Defect Number	Type	Type Suffix	Dip Minimum (degrees)	Dip Maximum (degrees)	Infilling Material	Aperture Observation	Planarity	Roughness	Aperture Measurement Sign	Aperture Measurement	Aperture	Spacing	Remark
BHUA-11	123.40				hJ		15		wh mi		UN						
BHUA-11	123.42				V		15		wh mi		UN						
BHUA-11	123.52				hJ		40		wh mi		PR						
BHUA-11	123.56				V		60		pl gr mi		PR						
BHUA-11	123.61				hJ		50		wh mi		PR						
BHUA-11	123.62				hJ		50		wh mi		PR						

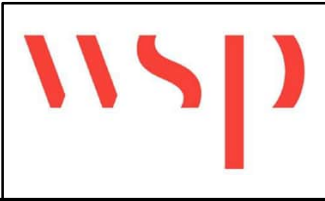
(c) Queensland Hydro Pty Ltd 2025, CC BY 4.0. Please note copyright and limitation of liability notices on attached cover page.



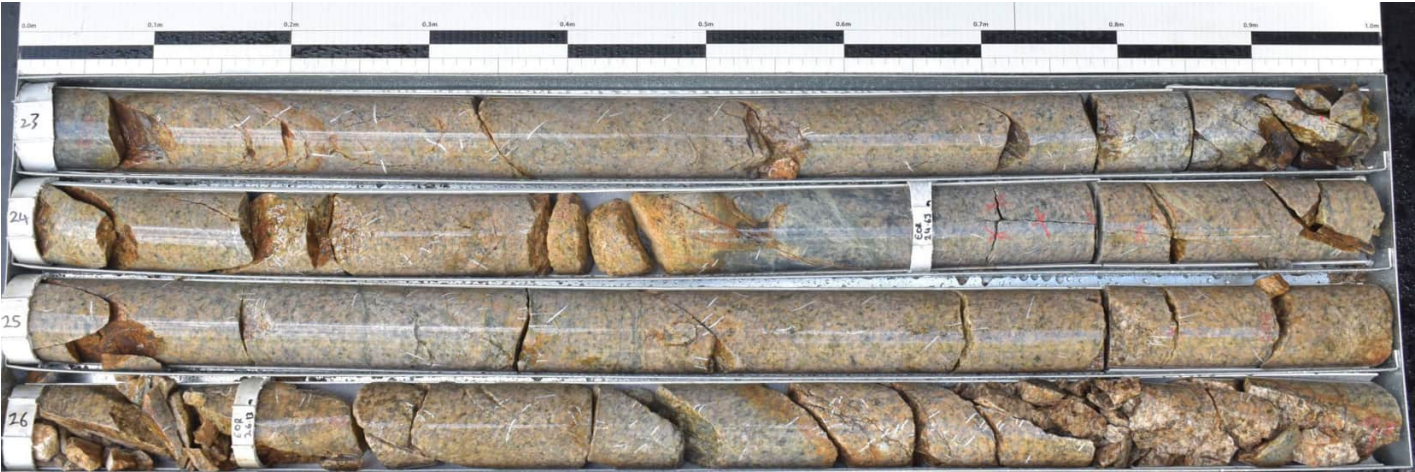
PointID : BHUA-11 Depth Range: 16.43 - 20.00 m



PointID : BHUA-11 Depth Range: 20.00 - 23.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024
		CHECKED	GEM	DATE	7/10/2024
		SCALE	Not To Scale		A4
		PROJECT No	PS138693		FIGURE No 1/14

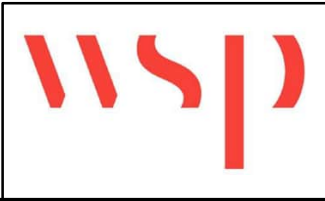
(c) Queensland Hydro Pty Ltd 2025, CC BY 4.0. Please note copyright and limitation of liability notices on attached cover page.



PointID : BHUA-11 Depth Range: 23.00 - 27.00 m



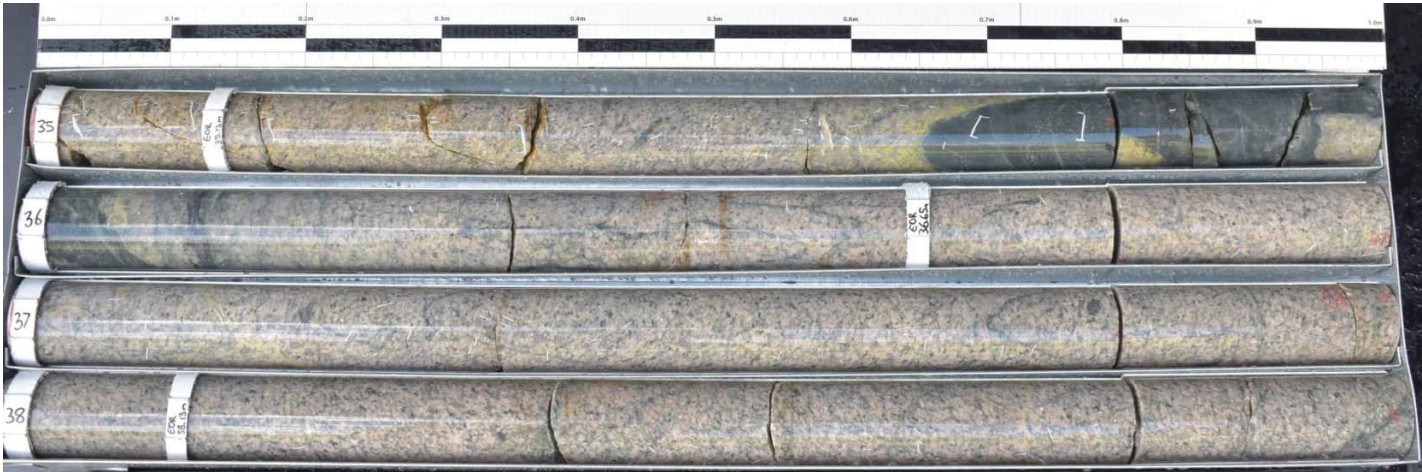
PointID : BHUA-11 Depth Range: 27.00 - 31.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11			DRAWN	RC/PL	DATE	23/08/2024
				CHECKED	GEM	DATE	7/10/2024
				SCALE	Not To Scale		A4
				PROJECT No	PS138693		FIGURE No 2/14

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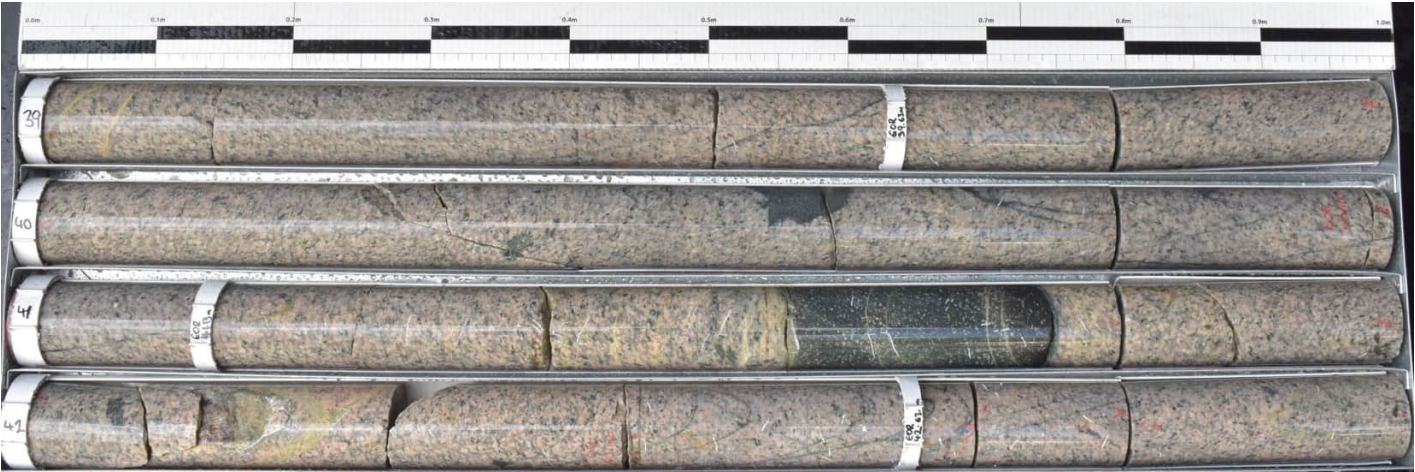
PointID : BHUA-11 Depth Range: 31.00 - 35.00 m



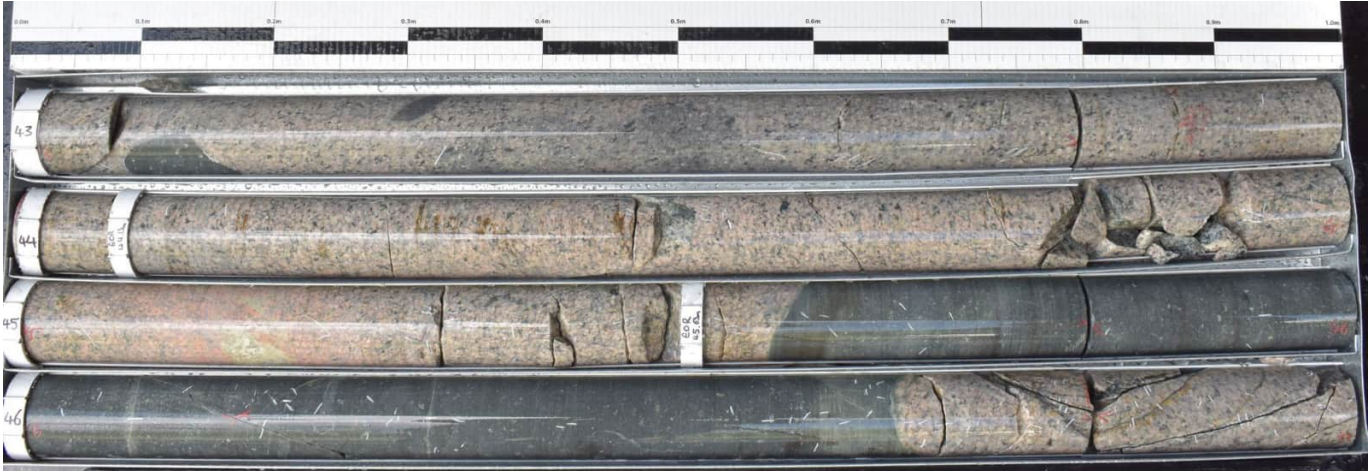
PointID : BHUA-11 Depth Range: 35.00 - 39.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		PS138693	FIGURE No	

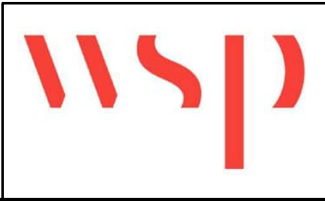
(c) Queensland Hydro Pty Ltd 2025, CC BY 4.0. Please note copyright and limitation of liability notices on attached cover page.



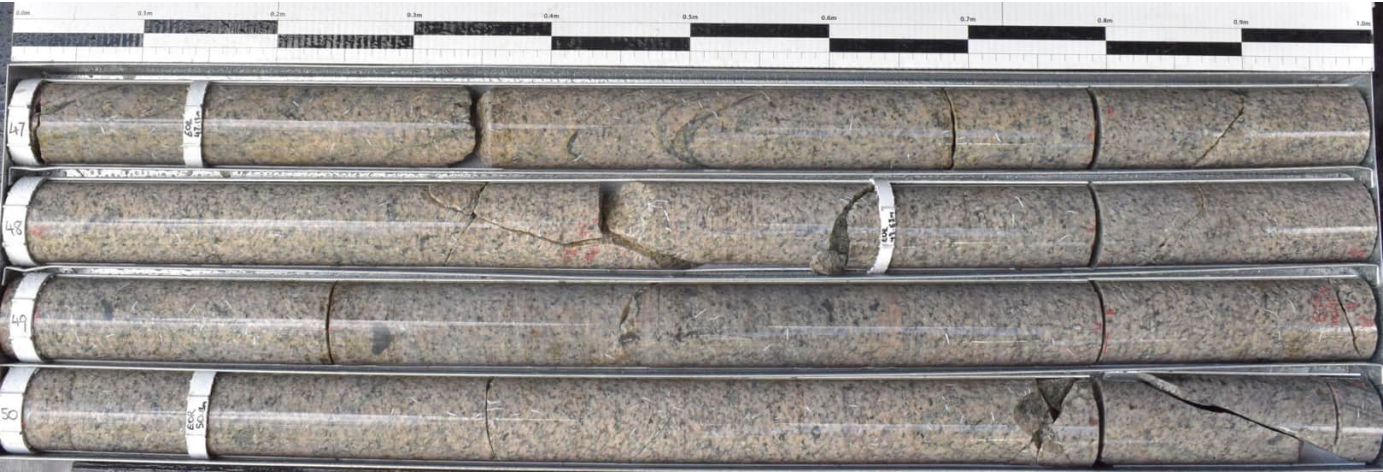
PointID : BHUA-11 Depth Range: 39.00 - 43.00 m



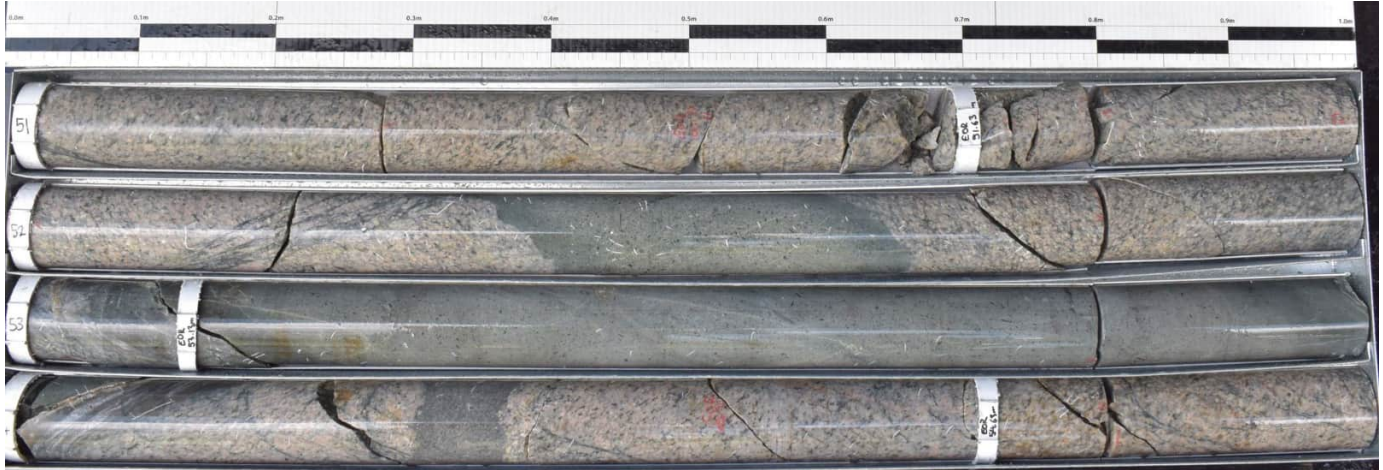
PointID : BHUA-11 Depth Range: 43.00 - 47.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11			DRAWN	RC/PL	DATE	23/08/2024
				CHECKED	GEM	DATE	23/08/2024
				SCALE	Not To Scale		A4
				PROJECT No	PS138693		FIGURE No 4/14

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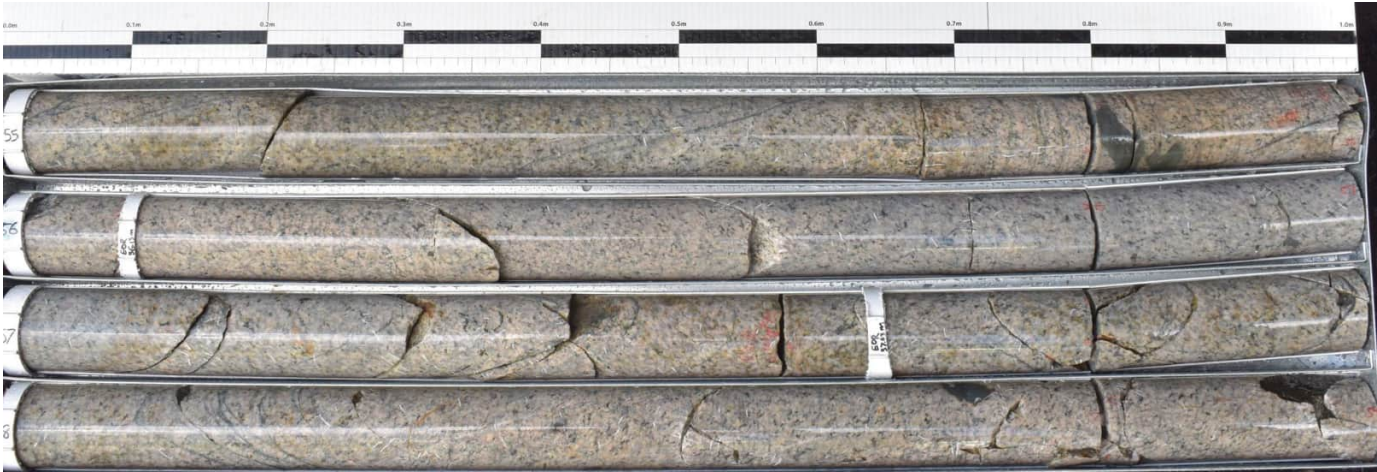
PointID : BHUA-11 Depth Range: 47.00 - 51.00 m



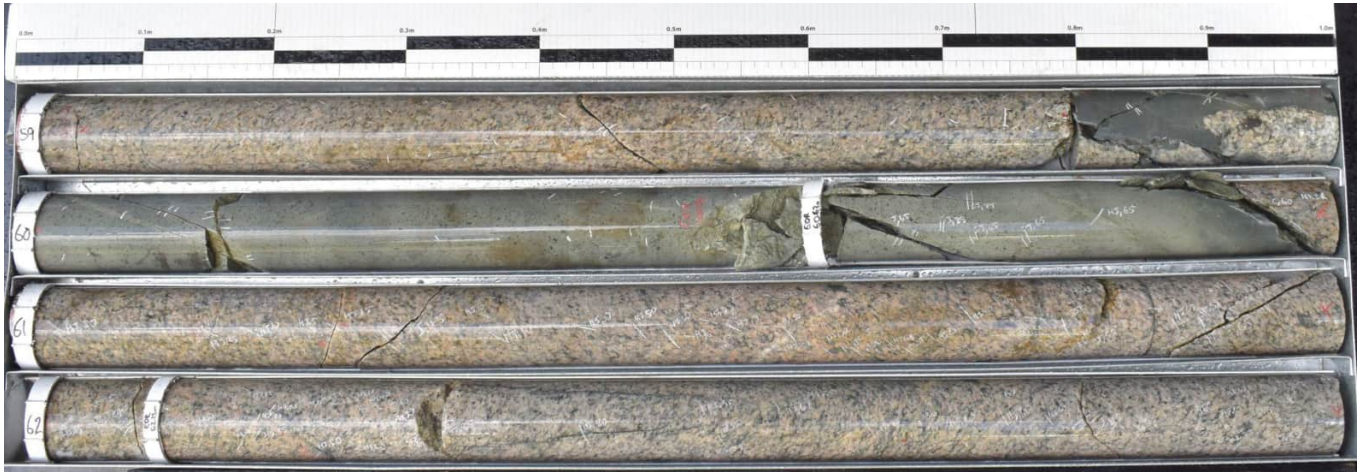
PointID : BHUA-11 Depth Range: 51.00 - 55.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		PS138693	FIGURE No	

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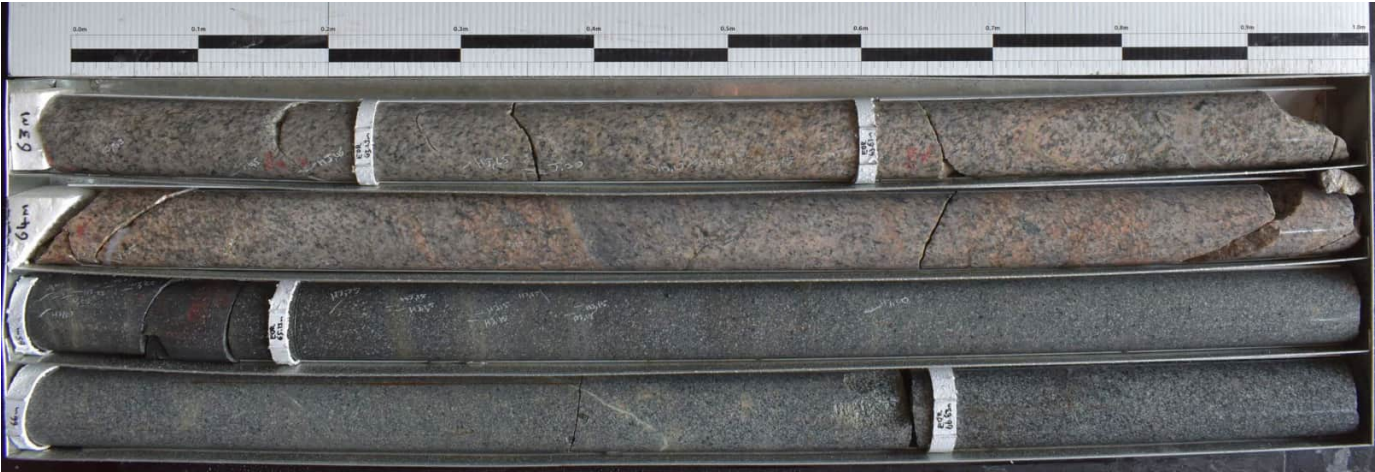
PointID : BHUA-11 Depth Range: 55.00 - 59.00 m



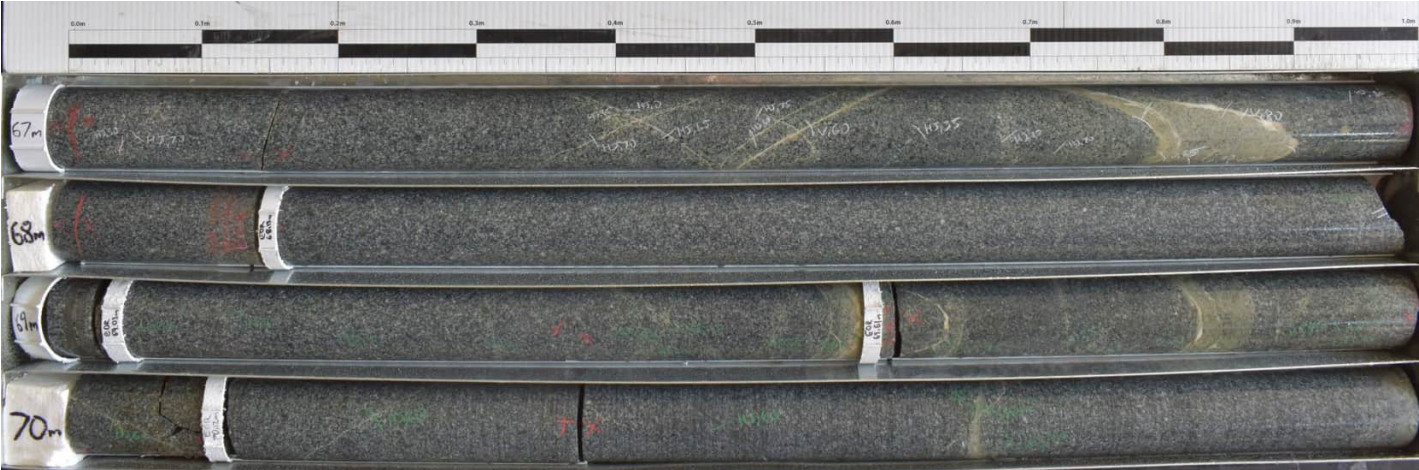
PointID : BHUA-11 Depth Range: 59.00 - 63.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		PS138693	FIGURE No	

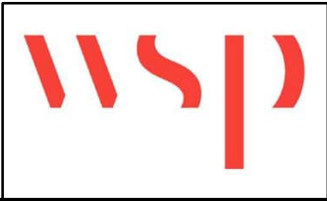
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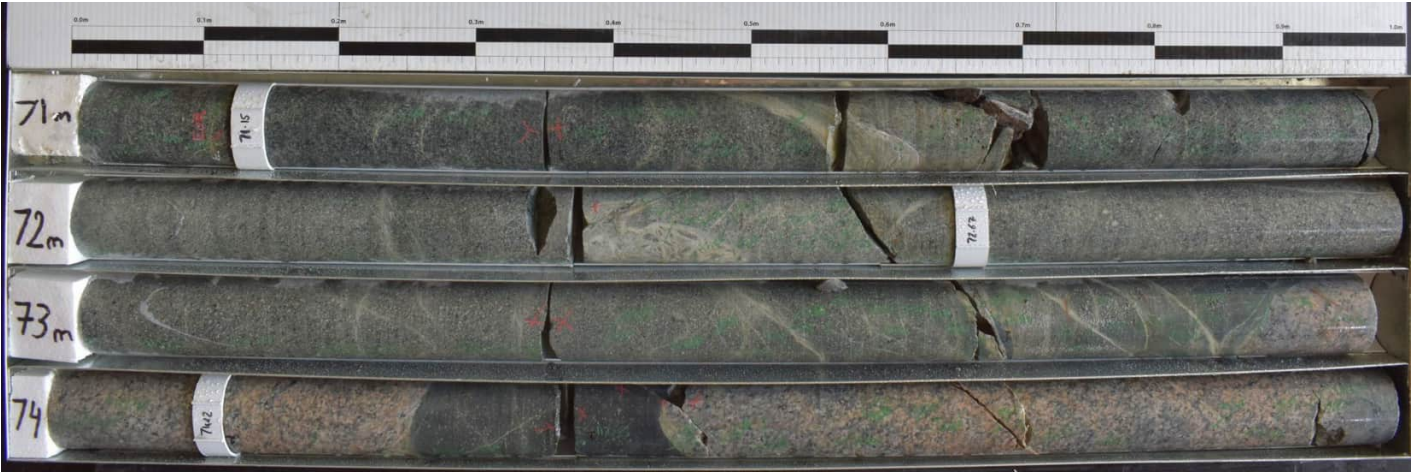
PointID : BHUA-11 Depth Range: 63.00 - 67.00 m



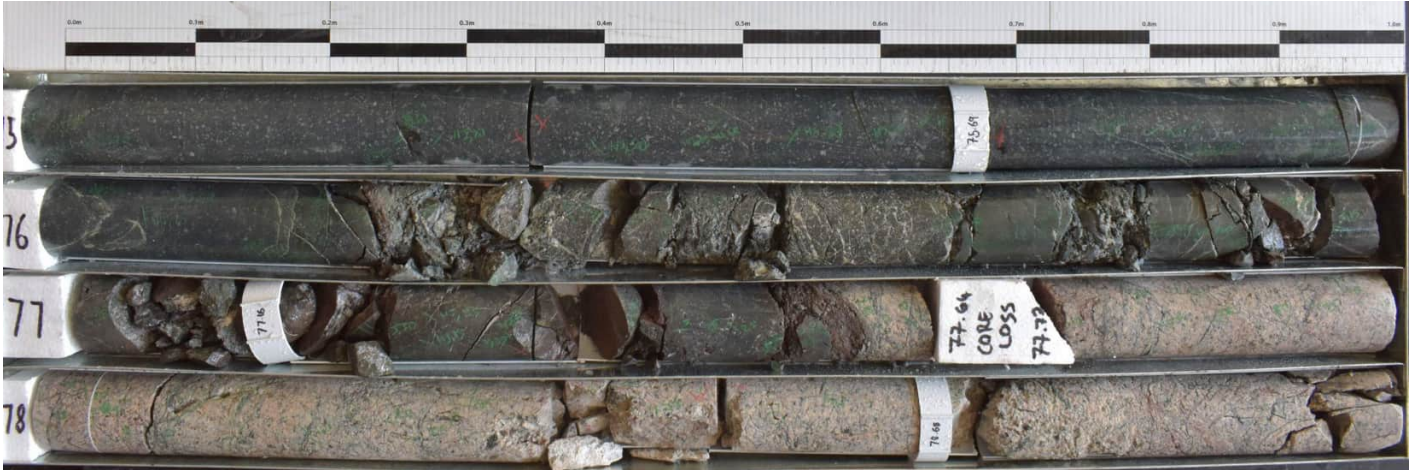
PointID : BHUA-11 Depth Range: 67.00 - 71.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024
		CHECKED	GEM	DATE	7/10/2024
		SCALE Not To Scale			A4
		PROJECT No PS138693		FIGURE No 7/14	

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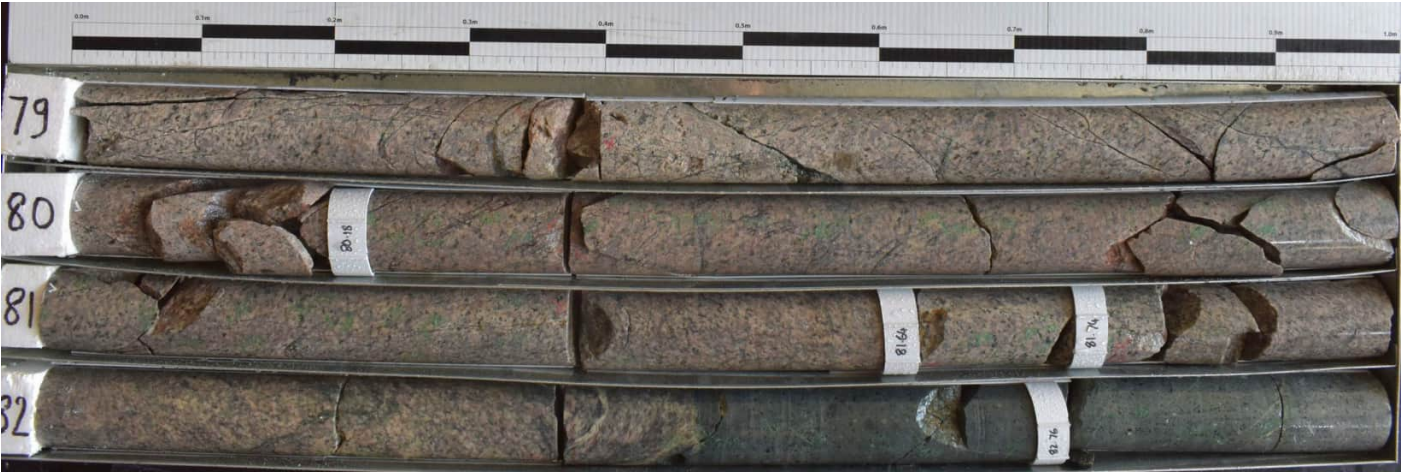
PointID : BHUA-11 Depth Range: 71.00 - 75.00 m



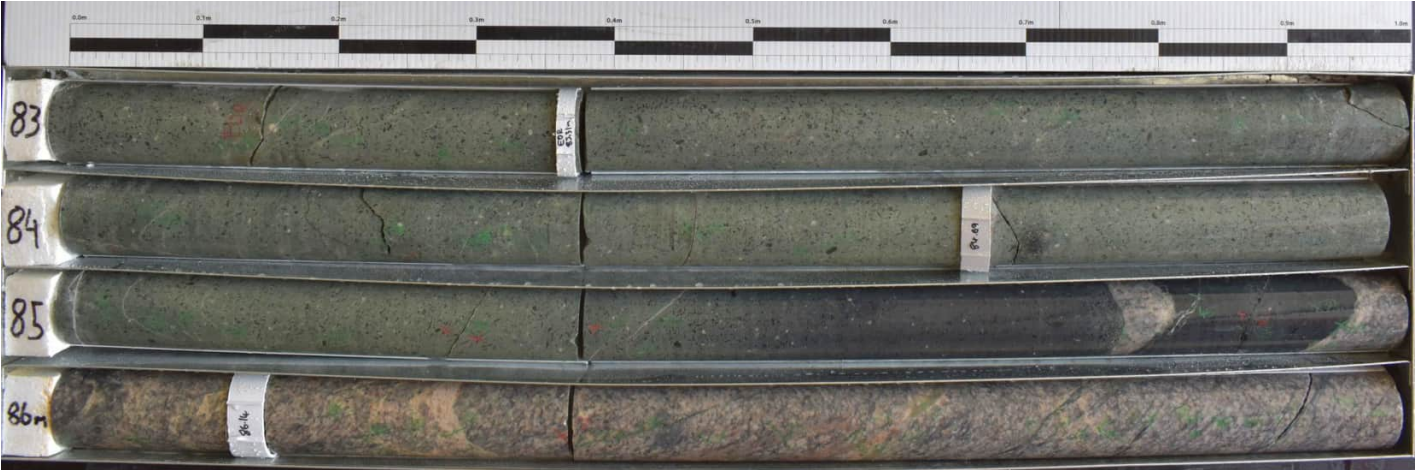
PointID : BHUA-11 Depth Range: 75.00 - 79.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		PS138693	FIGURE No	

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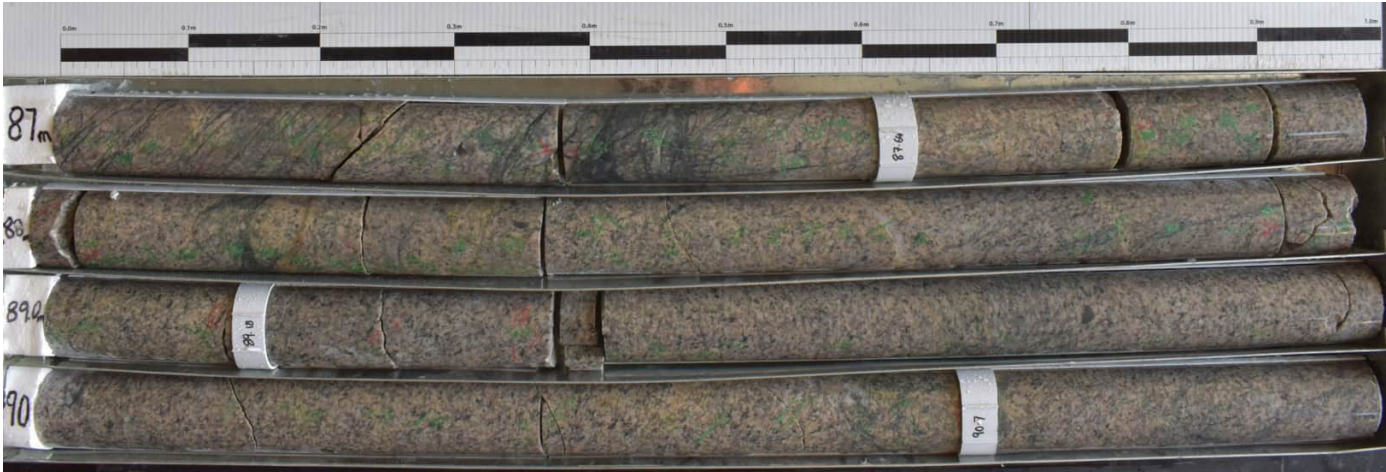
PointID : BHUA-11 Depth Range: 79.00 - 83.00 m



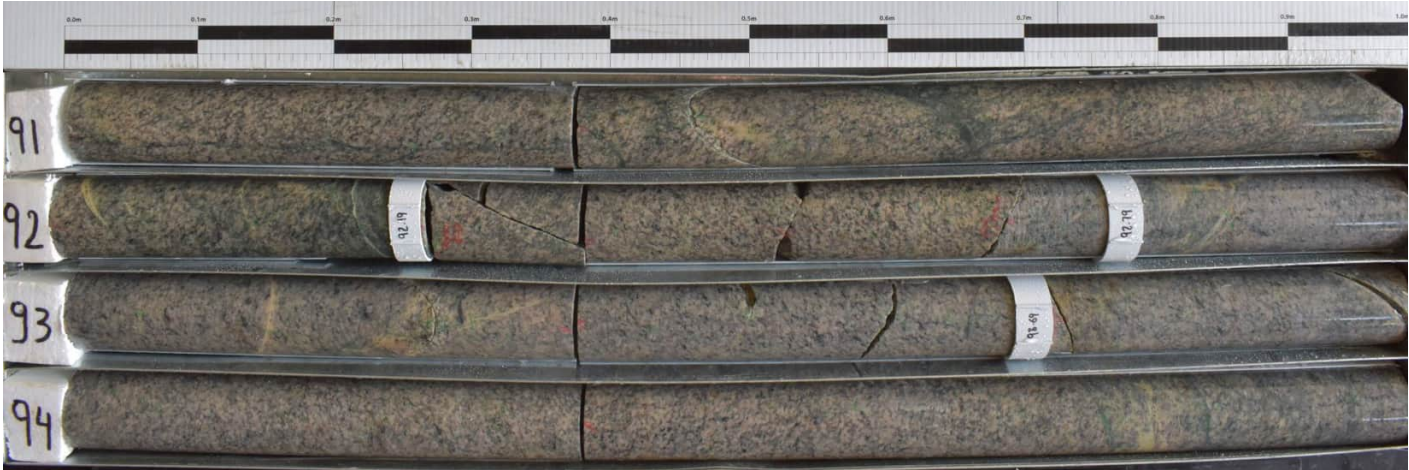
PointID : BHUA-11 Depth Range: 83.00 - 87.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		PS138693	FIGURE No	

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PointID : BHUA-11 Depth Range: 87.00 - 91.00 m



PointID : BHUA-11 Depth Range: 91.00 - 95.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN RC/PL	DATE 23/08/2024	
		CHECKED GEM	DATE 7/10/2024	
		SCALE Not To Scale		A4
		PROJECT No PS138693		FIGURE No 10/14

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PointID : BHUA-11 Depth Range: 95.00 - 99.00 m



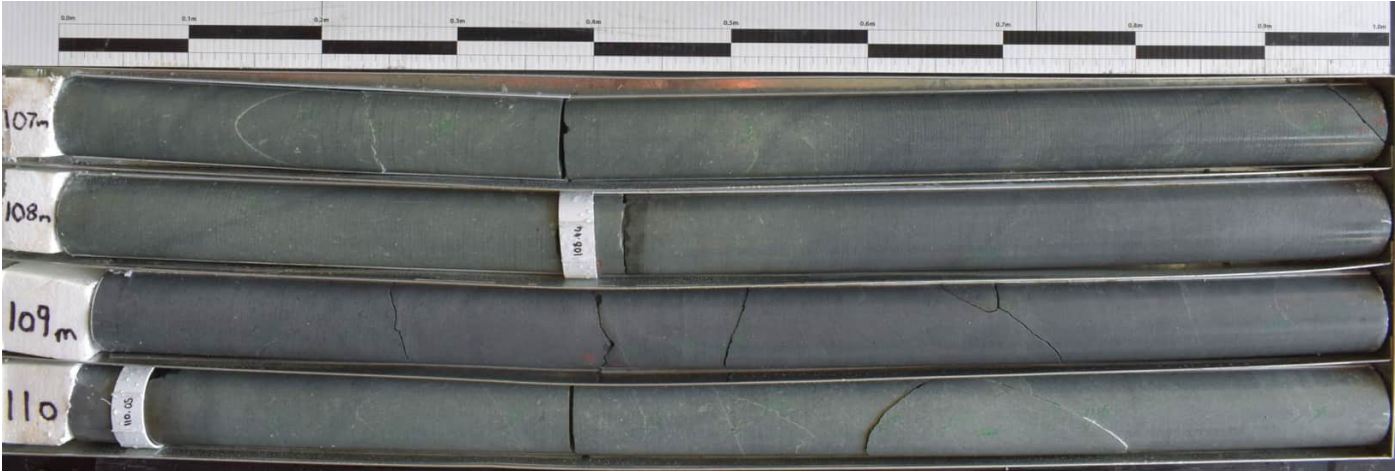
PointID : BHUA-11 Depth Range: 99.00 - 103.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		FIGURE No		
		PS138693		11/14		

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PointID : BHUA-11 Depth Range: 103.00 - 106.00 m



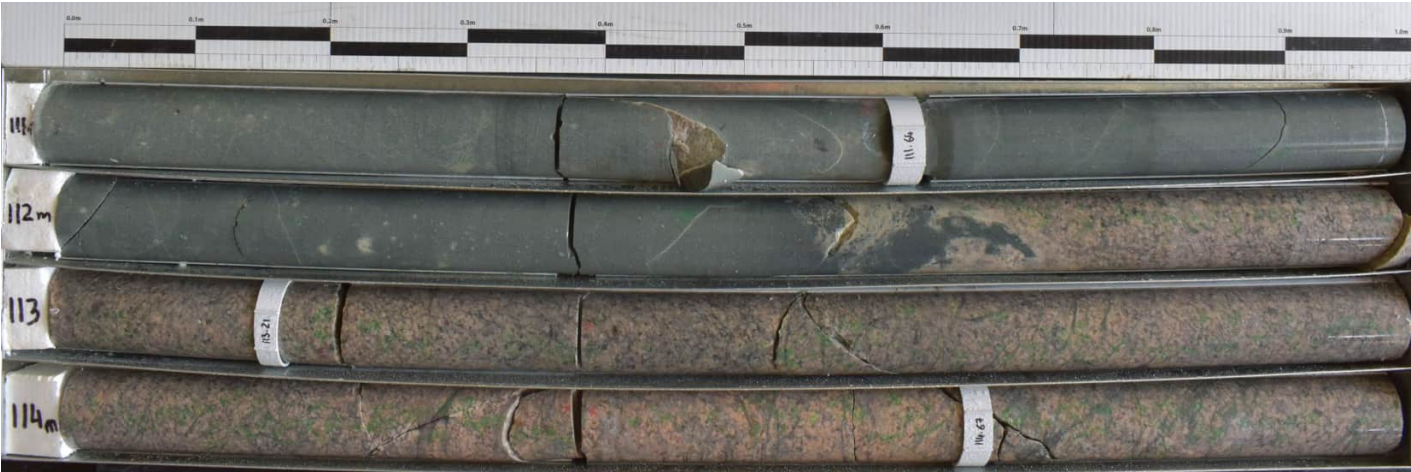
PointID : BHUA-11 Depth Range: 107.00 - 111.00 m



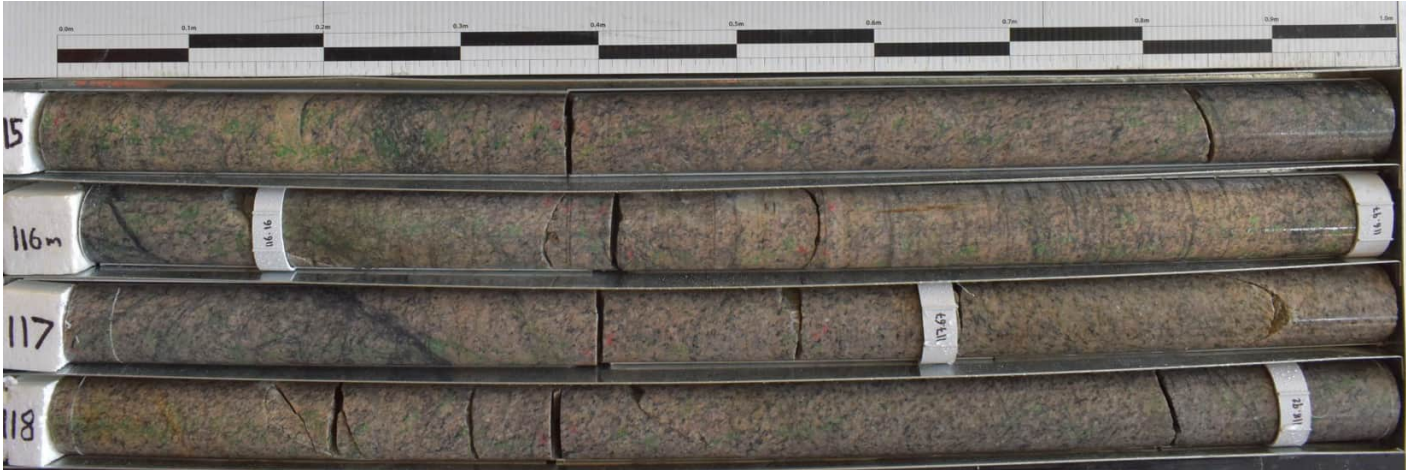
TITLE
Queensland Hydro
Netherdale/Dalrymple Heights
Pioneer-Burdekin PHES
Core Photo - BHUA-11

DRAWN	RC/PL	DATE	23/08/2024
CHECKED	GEM	DATE	7/10/2024
SCALE	Not To Scale		A4
PROJECT No	PS138693		FIGURE No 12/14

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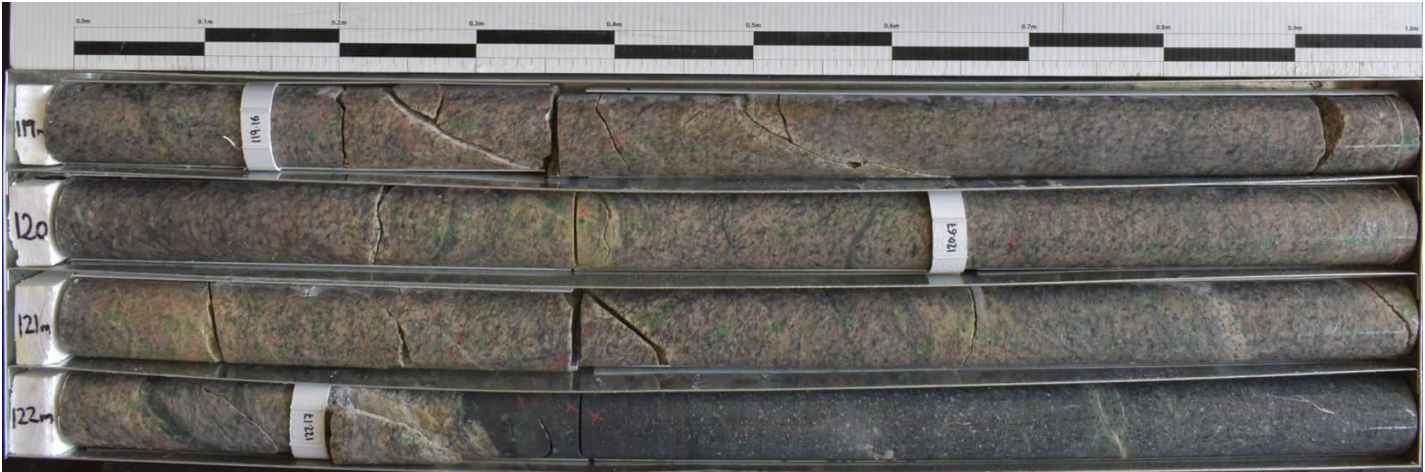
PointID : BHUA-11 Depth Range: 111.00 - 115.00 m



PointID : BHUA-11 Depth Range: 115.00 - 119.00 m

	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		PS138693	FIGURE No	

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PointID : BHUA-11 Depth Range: 119.00 - 123.00 m



PointID : BHUA-11 Depth Range: 123.00 - 123.67 m

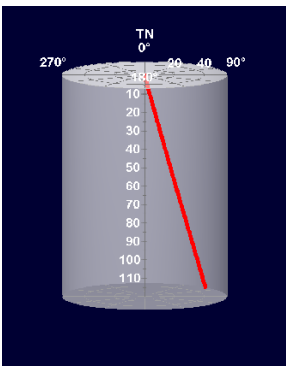
	TITLE Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core Photo - BHUA-11	DRAWN	RC/PL	DATE	23/08/2024	
		CHECKED	GEM	DATE	7/10/2024	
		SCALE			Not To Scale	A4
		PROJECT No		FIGURE No		
PS138693		14/14				



BHUA-11 Structural Log



PROJECT:	Pioneer-Burdekin PHES	JOB #	PS138693
CLIENT:	Queensland Hydro	DATE:	11-12-2023



LOCATION:	Lower Reservoir	BH DEPTH:	123.67 m
EASTING:	657821.596 m E	BH DIAMETER:	96 mm (HQ)
NORTHING:	7667799.073 m N	BH AZIMUTH:	131°
ELEVATION:	850.76 m	BH PLUNGE:	-64°
COORD SYSTEM:	MGA2020-55	CASING DEPTH:	20.15 m
LOGGING DATUM:	Ground Level	CASING TYPE:	HWT

LOGGED BY: G Hay
LOGGED DATE: 24/10/2023
DRAWN BY: SB
REVIEWED BY: GH
FILE: BHUA-11_Structure_F
LOGGED DEPTH: 122.76 m

Image logs are oriented relative to borehole highside. Final structures corrected to true north using magnetic declination of 8.2 deg East.

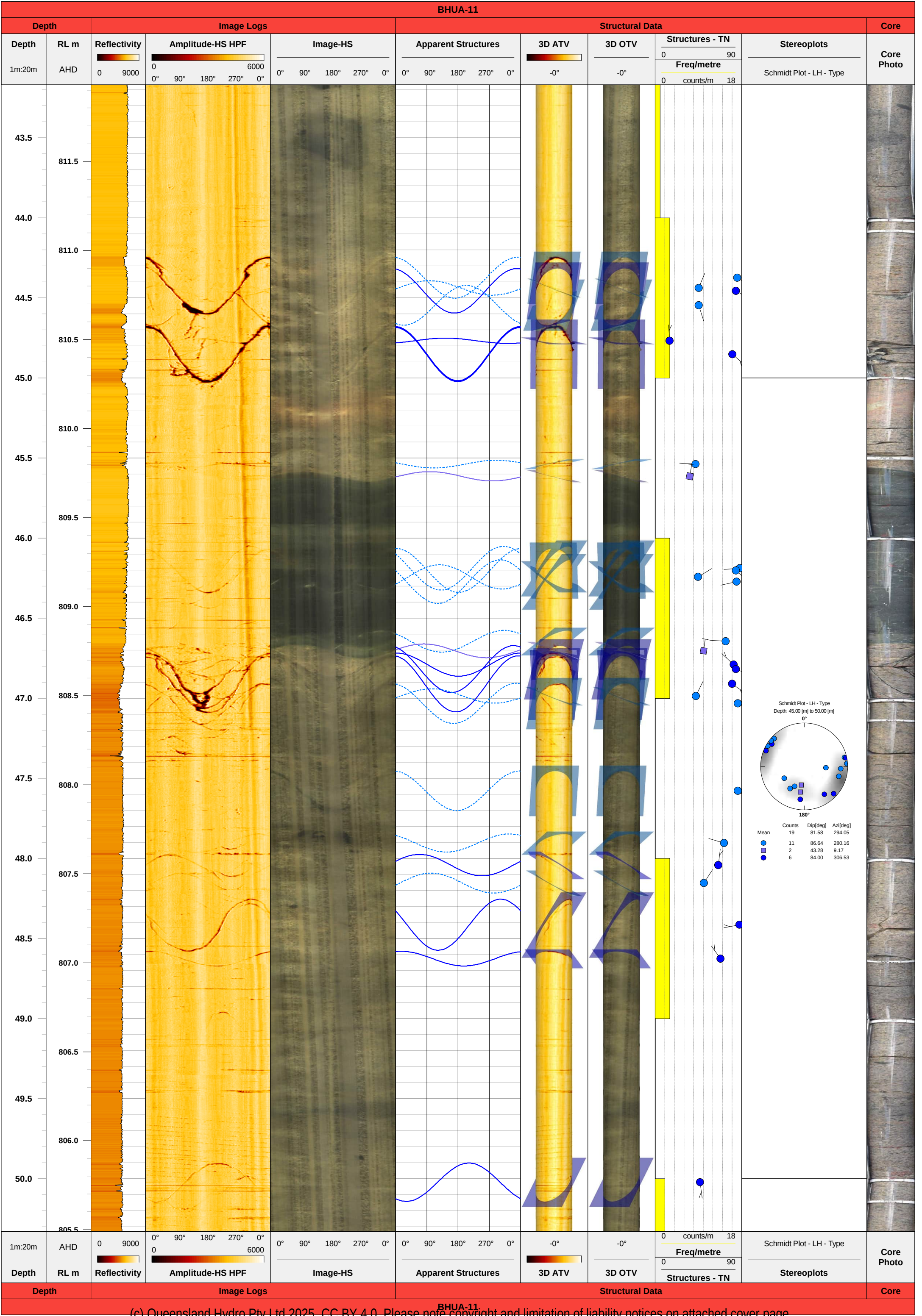
Mechanical calliper log used for structure dip corrections.

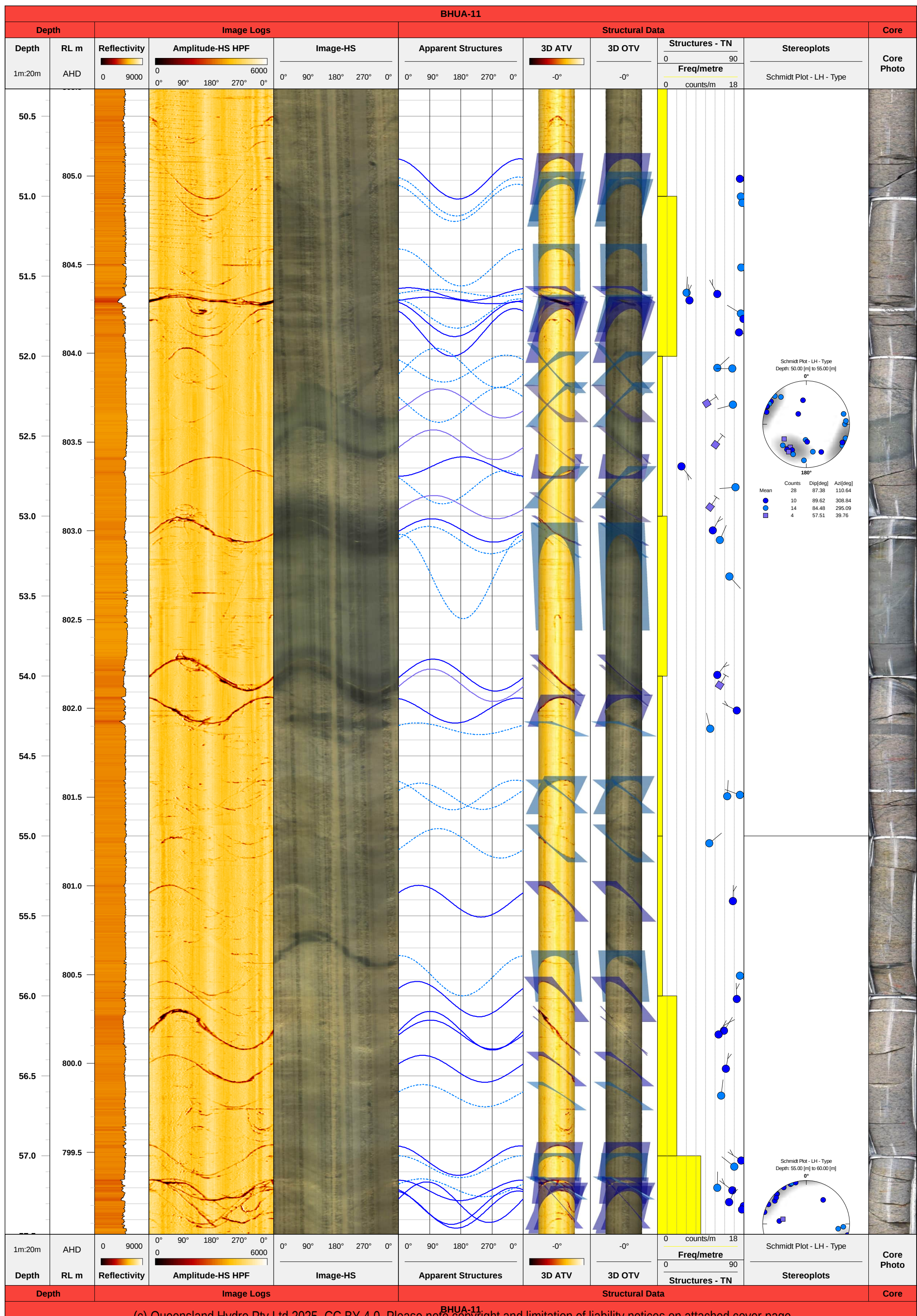
All logs zeroed to ground level. Cased section assumed straight for deviation calculations.

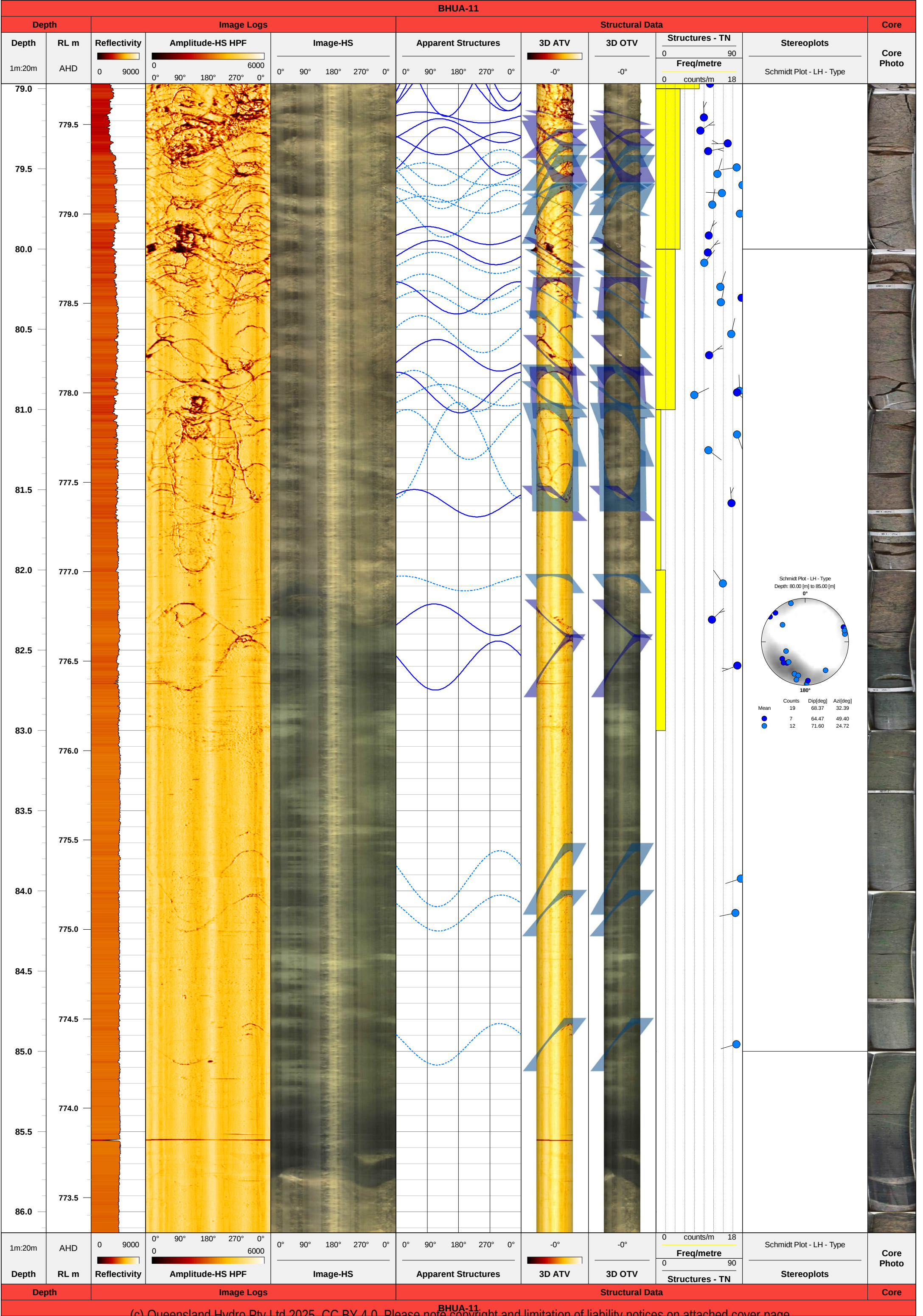
INTERPRETED STRUCTURES



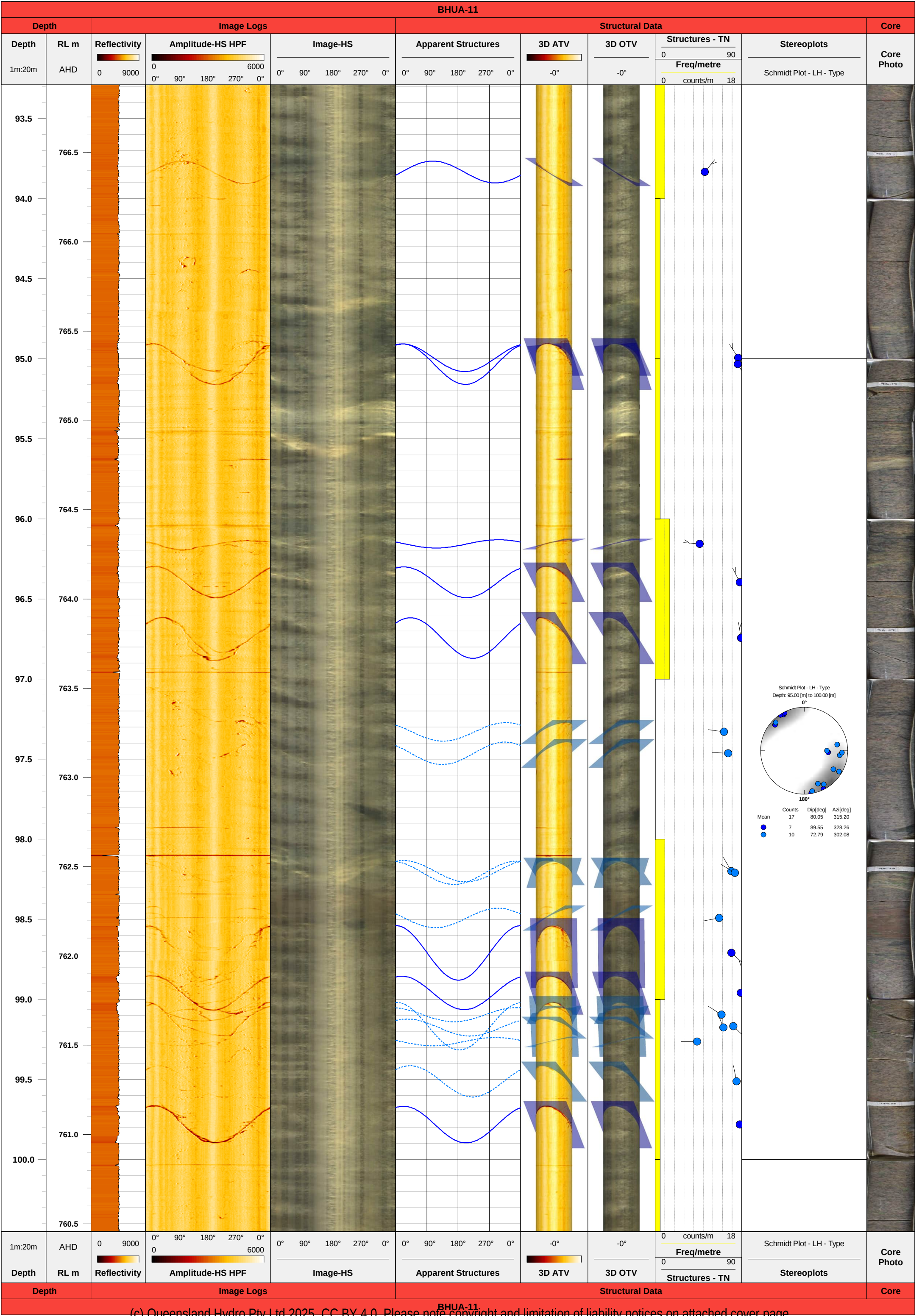
Depth		Image Logs			BHUA-11							Structural Data			Core
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures					3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo	
		09000	06000 0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	-0°	-0°	090 Freq/metre 0counts/m18	Schmidt Plot - LH - Type					
		09000	06000 0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	-0°	-0°	090 Freq/metre 0counts/m18	Schmidt Plot - LH - Type						
1m:20m	AHD	09000	06000 0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	-0°	-0°	090 Freq/metre 0counts/m18	Schmidt Plot - LH - Type	090 Freq/metre 0counts/m18	Schmidt Plot - LH - Type	090 Freq/metre 0counts/m18	Core Photo	
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures					3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo	
Depth		Image Logs			BHUA-11							Structural Data			Core

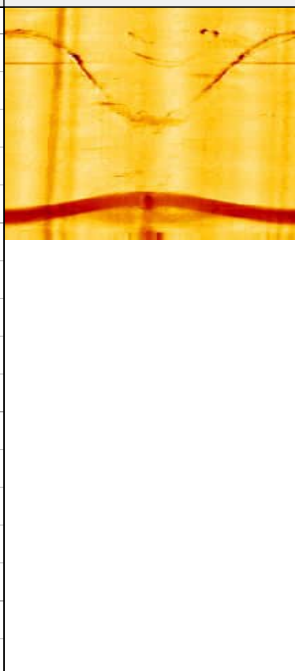
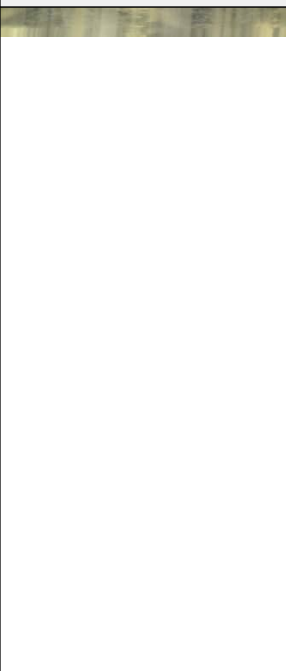
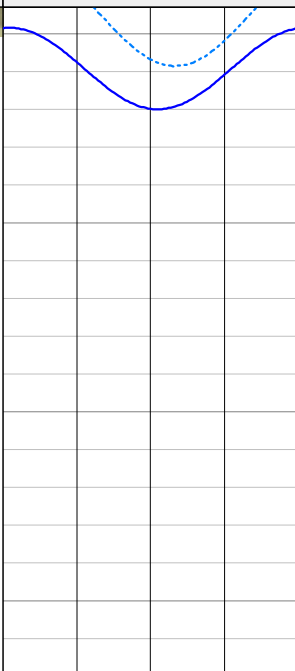
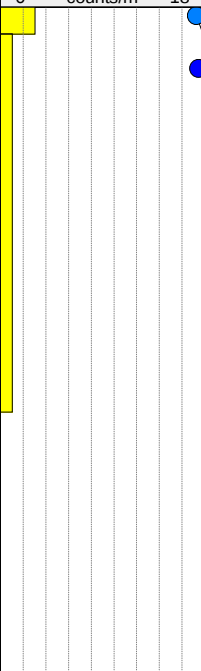
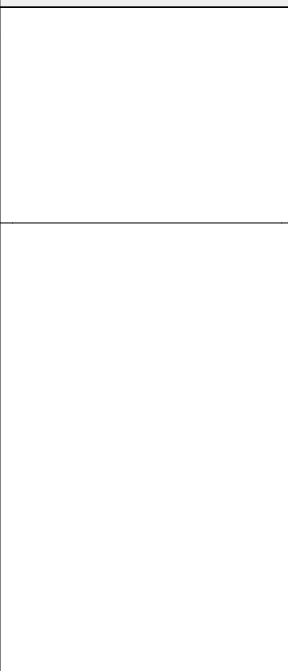






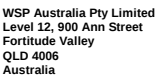
BHUA-11												
Depth		Image Logs				Structural Data						Core
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo		
								0 90 180 270 0				
								Freq/metre				
1m:20m	AHD	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 counts/m 18	Schmidt Plot - LH - Type			
86.5	773.0											
87.0	772.5											
87.5	772.0											
88.0	771.5											
88.5	771.0											
89.0	770.5											
89.5	770.0											
90.0	769.5											
90.5	769.0											
91.0	768.5											
91.5	768.0											
92.0	767.5											
92.5	767.0											
93.0	767.0											
1m:20m	AHD	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 counts/m 18	Schmidt Plot - LH - Type	Core Photo		
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo		
Depth		Image Logs				Structural Data						Core



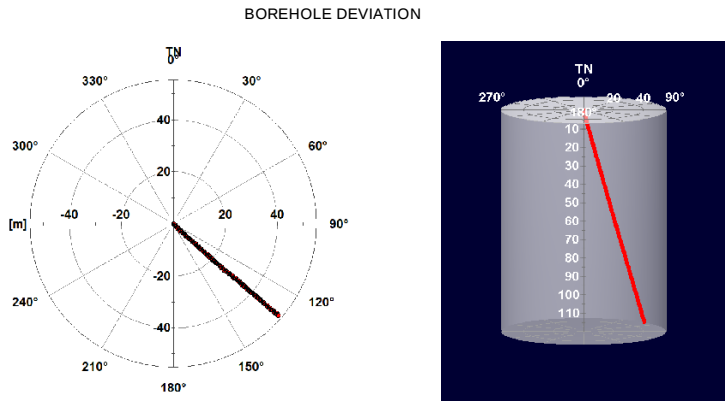
BHUA-11											
Depth		Image Logs				Structural Data					Core
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS		Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo
1m:20m	AHD	09000	06000 0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	-0°	-0°	090 Freq/metre 0counts/m18	Schmidt Plot - LH - Type	
122.0	741.0										
122.5	740.5										
123.0	740.0										
123.5	739.5										
1m:20m	AHD	09000	06000 0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	0°90°180°270°0°	-0°	-0°	090 Freq/metre 0counts/m18	Schmidt Plot - LH - Type	Core Photo
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS		Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo
BHUA-11											



BHUA-11 Composite Log



PROJECT:	Pioneer-Burdekin PHES	JOB #	PS138693
CLIENT:	Queensland Hydro	DATE:	07-02-2024



BOREHOLE DETAILS				DOCUMENT DETAILS		NOTES
LOCATION:	Lower Reservoir	BH DEPTH:	123.67 m	LOGGED BY:	G Hay	Image logs are oriented relative to borehole highside. Final structures corrected to true north using magnetic declination of 8.2 deg East.
EASTING:	657821.596 m E	BH DIAMETER:	96 mm (HQ)	LOGGED DATE:	24/10/2023	
NORTHING:	7667799.073 m N	BH AZIMUTH:	131°	DRAWN BY:	SB	Mechanical calliper log used for structure dip corrections.
ELEVATION:	850.76 m	BH PLUNGE:	-64°	REVIEWED BY:	GH	All logs zeroed to ground level. Cased section assumed straight for deviation calculations.
COORD SYSTEM:	MGA2020-55	CASING DEPTH:	20.15 m	FILE:	BHUA-11_Comp_RevC	
LOGGING DATUM:	Ground Level	CASING TYPE:	HWT	LOGGED DEPTH:	122.76 m	

INTERPRETED STRUCTURES



BHUA-11														
Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs			Electrical Logs		
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL	Structures - TN	3D ATV	Core	Vp	GR	K	N8	Ma16		
	500 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0 9000	80 mm 160	0 90 Freq/metre	-0°		1000 m/s 7000 Vs		0 API 250	0 % 10 U	30 Ohm.m 30000 N32	0 ms 30 Ma64	
1m:50m					0 counts/m 18			1000 m/s 7000		0 ppm 10 Th	30 Ohm.m 30000 N16	0 ms 30		
0														
1														
2														
3														
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1m:50m	0° 90° 180° 270° 0° 500 6000	0° 90° 180° 270° 0°	0 9000	80 mm 160	0 counts/m 18 Freq/metre	-0°		1000 m/s 7000 Vs	0 API 250	0 ppm 30 Th	30 Ohm.m 30000 N16	0 ms 30 Ma64		
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL	Structures - TN	3D ATV	Core	Vp	GR	K	N8	Ma16		
Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs			Electrical Logs		

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