BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	1 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION Continuation from non-cored borehole	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS VL .2 L .6 M 2 H 6 VH 20 EH 200	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm) 10 30 100 300 1000 3000
HQ3		0	0	0	854.51		NO CORE 0.50m (0.00-0.50)				
					0.50						
		100	0	1	854.04		CI CLAY: medium plasticity, dark red, with fine to coarse grained sand; with sub-angular to angular fine to medium grained gravel; pockets of increased gravel/sand proportions; hard (RESIDUAL SOIL).				
					1.00						
					853.58		Pale red to pale brown, trace fine to coarse grained sand.				
				2	2.30						
		87	0		852.36		CI Gravelly CLAY: medium plasticity, pale red to pale brown, gravel is fine to medium grained, sub-angular to angular; with fine to coarse grained sand; increasing gravel content with depth; hard to friable (RESIDUAL SOIL).				
				3	3.30						
					851.43		NO CORE 0.20m (3.30-3.50)				
					3.50						
		100	0		851.24		METAGRANITE: fine to medium grained, mottled pale grey, pale red, pink, crystalline, highly altered granodiorite, pink alteration, fabric shows metamorphic crystal reorientation.	XW			
				4							
					5.00						
		100	46	5	849.84		LAMPROPHYRE: fine to medium grained, dark grey, black, porphyritic, massive, numerous healed microfractures, phenocrysts to 2mm in diameter, Fe staining throughout.	HW MW - SW		5.00-5.10: J x4, 10 - 20°, iron oxide 5.25: J, 50°, iron oxide VN, UN, RF	
					5.80						
					849.10		METAGRANITE: medium to coarse grained, pale grey to dark grey, crystalline.	MW		5.65: J, 10°, iron oxide VN, UN, RF 5.70: J, 40°, clay / iron oxide VN, UN, RF 5.75: J, 55°, clay / iron oxide CT, UN, RF	
				6	6.05						
					848.86		LAMPROPHYRE: fine to medium grained, dark grey, brown, porphyritic, massive, frequent fractures recovered as gravel, phenocrysts to 2mm in diameter.			5.90: J, 80 - 85°, clay / iron oxide VN, UN, RF 5.93: J, 5°, iron oxide VN, PR, RF 6.00-6.30: FZ, iron oxide VN, IR, RF, recovered as medium to coarse grained gravel	
					6.30						
		100	100		848.63		NO CORE 0.80m (6.30-7.10)				
				7	7.10						
					847.88		BASALT: dark grey, black mottled dark brown, aphanitic, massive, frequent fractures, Fe staining throughout.	HW - MW		7.10-8.00: FZ, iron oxide, recovered as fine to coarse grained angular gravel and clay	
		73	35		8.00			XW			
				8	847.04		LAMPROPHYRE: fine to medium grained, dark grey, black and white, porphyritic, massive, some Fe staining on exposed defect surfaces, phenocrysts to 2mm in diameter, slight alteration around joints.	MW SW		8.05-8.10: IS, clay / iron oxide CT, PR 8.15: J, 30°, iron oxide CT, PR, RF	
					8.70			MW - SW		8.40: J, 10°, iron oxide 8.41-8.45: IS, 30 - 45°, clay / iron oxide CT, PR, RF	
					846.39		No staining in defects.			8.65: J, 40°, clay / iron oxide VN, PR, RF	
				9				SW - FR		9.10: J, 10°, CN, PR, SM 9.32: J, 10°, CN, PR, SM	
		100	100		10.00						
				10							

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	2 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS VL 2 L 6 M 20 H 60 VH 200 EH	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm) 10 30 100 300 1000 3000
HQ3	VWP1	100	100	10	845.17		LAMPROPHYRE: fine to medium grained, dark grey, black and white, porphyritic, massive, phenocrysts to 2mm in diameter, slight alteration around joints.	SW - FR		10.14: J, 10°, CN, PR, SM	
					10.26						
					844.93					10.35: J, 5°, CN, PR, RF	
					10.55		Moderately altered, pale-green to grey.				
				11							
				12							
					12.36					12.30: J, 0°, CN, PR, RF	
		100	100		842.90		Moderately altered, pale-green to grey.				
							Dark grey, black and white, slight alteration around joints.				
				13							
				14							
		100	100								
				15							
					15.26						
					840.26		Slightly to moderately altered, pale-green to grey.				
					15.70					15.66: J, 45°, VN, PR	
					839.85		Dark grey, black and white, slight alteration around joints.			15.68: J, 5°, UN	
				16	*16.10*						
					839.48		Slightly to moderately altered, pale-green to grey.				
	VWP3										
				17	*17.20*						
		100	100		838.45		Dark grey, black and white, slight alteration around joints.			17.54: J, 5°, CN, PR, RF	
				18							
				19							
		100	100								
				20	*20.00*					19.82: J, 50°, CN, PR, RF	

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	3 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS VL .2 L .6 M 2 H 6 VH 20 EH 200	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm) 10 30 100 300 1000 3000
HQ3	VWP2	100	100	20	835.84		LAMPROPHYRE: fine to medium grained, dark grey, black and white, porphyritic, massive, phenocrysts to 2mm in diameter, slight alteration around joints.	SW - FR		21.30: J, 70°, CN, UN, RF	
				21	*21.65* 834.30		Moderately altered, pale-green to grey.				
				22	*22.20* 833.78		Fine grained, dark grey, black, chilled margin, lower and upper contacts are at 55 - 65 degrees, dispersed pale green, grey stained healed joints and minor alteration.				
					22.45 833.55		METAGRANITE: medium to coarse grained, pale brown, black, pale orange, crystalline, massive, highly altered granite, pink alteration, fabric shows metamorphic crystal reorientation, numerous healed microfractures.	MW		22.58: J, 10°, gy mi SN, CU, RF 22.68: J, 20°, CN, UN, RF	
		100	93	23						23.04: J, 25°, br mi SN, UN, RF 23.20-23.41: J, 65°, gy mi SN, PR, RF	
				24						23.54: J, 5°, CN, UN, RF 23.62: J, 10°, CN, UN, RF 23.45-23.85: J, 70°, br-gy mi SN, UN, RF 23.65: J, 5°, bk mi SN, UN, RF 24.05: J, 15°, SN, PR, RF 24.18: J, 10°, SN, PR, RF 24.21: J, 40°, SN, PR, RF 24.26: J, 40°, SN, PR, RF 24.54: J, 45°, SN, PR, RF	
					25.00 831.17		BASALT: fine grained, black, massive, with numerous healed microfracctures, slight alteration around joints/healed joints throughout.	SW		24.75: J, 50°, SN, PR 24.80: J, 45°, SN, PR, RF 24.82-25.13: J, 80 - 85°, pl gn, bk SN, PR, RF	
		100	68	25						25.27: J, pl gn, UN, multiple defects, various angles, 0-30mm spacing, 1-5mm diameter 25.58: J, db	
				26						25.93: J, 15°, CN, PR, RF	
				27						26.90: J, 5°, CN, PR, RF	
				28						27.77: J, 10°, calcium carbonate coating, pl gr staining CT, PR, RF	
		100	97	29							
				30							

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	4 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)
HQ3		100	97	30			BASALT: fine grained, black, massive, with numerous healed microfracctures, slight alteration around joints/healed joints throughout.	SW	VL .2 L .6 M 2 H 60 VH 200 EH		10 30 100 300 1000 3000
				31	31.40						
					825.20		LAMPROPHYRE: fine to medium grained, grey dark grey, porphyritic, pale grey, white medium to coarse grained crystals throughout, phenocrysts to 2mm in diameter.			31.60: J, 60°, CN, PR, RF 31.71: J, 80°, Fe staining CN, CU, RF	
		100	95	32						32.09: J, 60°, CN, PR, RF	
				33						32.97: J, 45°, CN, PR, RF	
					33.95		33.71-34.90m: moderately altered, green to white			33.66: J, 0°, CN, PR, RF, db	
				34	822.81		METAGRANITE: medium to coarse grained, brown, pale brown, black, crystalline, massive, highly altered granite, pink, brown alteration, fabric shows metamorphic crystal reorientation, numerous generally high angle healed defects.	MW		33.90-34.00: SZ 34.09: J, 15°, CN, PR, RF 34.25: J, 20°, CN, PR, RF	
										34.66: J, 65°, CN, PR, RF 34.81: J, 15°, CN, PR, RF	
		100	100	35							
										35.56: J, 5°, CN, PR, RF 35.63: J, 25°, CN, PR, RF 35.78: J, 20°, CN, PR, RF 35.91: J, 70°, CN, PR, RF	
				36							
										36.58: J, 30°, CN, ST, RF 36.66: J, 30°, CN, PR, RF	
				37							
				38						37.96: J, 15°, CN, PR, RF 38.16: J, 5°, CN, PR, RF	
		100	87							38.45: J, 60°, fe staining, PR, RF	
				39						38.75: J, 45°, CN, PR, RF	
										39.25: J, 10°, CN, UN, RF 39.34: J, 0°, CN, ST, RF	
		100	88	40	40.00						

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	5 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)
HQ3		100	88	40	817.17		METAGRANITE: medium to coarse grained, brown, pink, grey, green, crystalline, massive, highly altered granite, pink, brown alteration, fabric shows metamorphic crystal reorientation, generally high angle healed defects.	MW	VL .2 L .6 M 2 H 60 VH 200 EH	40.16: J, 10°, CN, PR, RF 40.52: J, 10°, CN, PR, RF 40.78: J, 75°, CN, PR, RF	10 30 100 300 1000 3000
				41	41.50						
					815.77		Grey, dark grey, pink and brown.	SW		41.47: J, 10°, CN, PR, RF	
				42						42.16: J, 10°, CN, PR, RF 42.43: J, 10°, CN, PR, RF	
		100	100	43	43.80						
					813.62		Grey, dark grey, pink.			43.74: J, 5°, CN, PR, RF	
				44						44.32: J, 30°, CN, PR, RF	
				45						45.41: J, 20°, bk mn CT, PR, RF 45.63: J, 75°, CN, PR, RF 45.67: J, 20°, CN, PR, RF	
				46	46.10						
					811.47		Grey, dark grey.			46.45: J, 80°, CN, PR, RF	
					46.75					46.68: J, 15°, gn CT, PR, RF	
					810.87		Grey, dark grey, pink.			46.80-46.86: Js x2, 10°, CN, PR, RF	
		100	93	47						47.13: J, 10°, CN, PR	
				48						47.90: J, 75°, CN, PR, RF 48.12: J, 5°, CN, PR, RF 48.21: J, 10°, CN, PR, RF 48.35-48.37: Js x2, 10°, CN, PR, RF 48.51: J, 10°, CN, PR, RF 48.66: J, 5°, CN, PR, RF 48.74-48.81: Js, 10°, CN, PR, RF	
		100	100	49						49.44: J, 5°, CN, PR, RF 49.63: J, 40°, CN, PR, RF 49.72: J, 15°, CN, PR, RF	
				50	50.00					49.83: J, 40°, CN, PR, RF	

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	6 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS VL .2 L .6 M 2 H 6 VH 20 EH 200	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm) 10 30 100 300 1000 3000
HQ3		100	100	50	807.83		METAGRANITE: medium to coarse grained, grey, dark grey, crystalline, massive, highly altered granite, pink alteration, fabric shows metamorphic crystal reorientation.	SW		50.20: J, 15°, CN, PR, RF 50.36: J, 60°, CN, PR, RF	
				51						51.35: J, 30°, CN, PR, RF 51.49: J, 30°, CN, PR, RF 51.50: J, 60°, CN, PR, RF 51.63: J, 50°, CN, PR, sm 51.76: J, 25°, CN, PR, RF 51.84: J, 15°, CN, PR, RF 51.92: J, 20°, CN, PR, RF 51.96: J, 25°, CN, PR, RF 52.06: J, 30°, CN, PR, RF 52.22: J, 30°, CN, PR, RF 52.30: J, 10°, CN, PR, RF 52.57: J, 0°, CN, PR, RF 52.66: J, 5°, CN, PR, RF 52.71: J, 10°, CN, PR, RF 52.76: J, 15°, CN, PR, RF 52.80: J, 50°, CN, PR, RF 52.83: J, 0°, CN, PR, RF 52.86: J, 60°, CN, PR, RF 52.93: J, 10°, CN, PR, RF 53.11: J, 10°, CN, PR, RF 53.28: J, 10°, CO granodiorite porphry basalt CN, PR, RF	
				52	52.00 805.96		Pale brown, grey, black, brown.				
				53	53.30						
		100	93	54	804.75		LAMPROPHYRE: fine to medium grained, dark grey, porphyritic, massive, phenocrysts to 2mm in diameter.	FR		53.95: J, 30°, CN, PR, RF 54.24: J, 55°, CN, PR, RF 54.63: J, 60°, CN, PR	
				55						55.40: J, 40°, CN, PR, RF	
				56	56.11						
		100	100	57	802.13		METAGRANITE: medium to coarse grained, pale brown, grey, black, pale orange, numerous healed microgractures, highly altered granite, pink, brown alteration, fabric shows metamorphic crystal reorientation.	SW		56.25: J, 20°, CN, PR, RF 56.69: J, 40°, CN, PR, RF 56.91: J, 10°, CN, PR, RF 57.31: J, 50°, CN, PR, RF 57.62: J, 40°, CN, PR, RF 57.82: J, 5°, CN, PR, RF	
				58						58.32: J, 40°, CN, PR, RF	
		100	97	59	59.24					58.93: J, 30°, CN, PR, RF	
				60	799.20		LAMPROPHYRE: fine to medium grained, dark grey, porphyritic, massive, phenocrysts to 2mm in diameter , pale green alterations from defects.	SW - FR		59.44: J, 20°, CN, PR, RF	

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	7 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	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 2 H 6 VH 20 EH 200		10 30 100 300 1000 3000
HQ3				60							
					60.36						
		100	97		798.16		METAGRANITE: medium to coarse grained, pale brown, grey, pale orange, black, crystalline, massive, numerous healed microgractures, highly altered granite, pink alteration, fabric shows metamorphic crystal reorientation.	FR		60.07: J, 20°, CN, PR, RF 60.09: J, 70°, CN, PR, RF 60.24: J, 60°, wh, purple mn CT, PR, RF 60.32: J, 60°, CN, PR, RF 60.41: J, 5°, CN, PR, RF 60.64: J, 20°, CN, PR, RF	
				61						60.91: J, 45°, CN, PR, RF	
										61.54: J, 50°, CN, PR, RF 61.69: J, 30°, CN, PR, RF 61.78: J, 40°, CN, PR, RF 61.88: J, 10°, CN, PR, RF	
		100	97	62						62.27: J, 30°, CN, PR, RF 62.43: J, 20°, CN, PR, RF	
										62.65: J, 30°, CN, PR, RF 62.78: J, 0°, PR 62.92: J, 20°, CN, PR, RF 62.94: J, 10°, CN, PR, RF 62.99: J, 15°, CN, PR, RF 63.15: J, 20°, CN, PR, RF 63.20: J, 30°, CN, PR, RF	
				63	*63.85*						
					794.90		LAMPROPHYRE: fine to medium grained, dark grey, black, massive, phenocrysts to 2mm in diameter.			63.81: J, 10°, CN, PR, RF	
				64	*64.50*					64.39: J, 5°, CN, PR, RF	
					794.29		64.50-64.80m: with highly altered granite clasts to 300 mm diameter.				
					64.80						
		100	100	65						65.29: J, 30°, CN, PR, RF	
				66						65.84: J, 45°, CN, PR, RF	
										66.55: J, 15°, CN, PR, RF 66.82: J, 5°, CN, PR, RF	
				67	*67.80*						
					791.21		METAGRANITE: medium to coarse grained, brown, grey, black, pale brown, crystalline, massive, numerous healed microgractures, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.			67.75: J, 45°, CN, PR, RF 67.80: J, 10°, basalt to granodiorite CN, PR, RF	
		100	100	68						68.30: J, 15°, CN, PR, RF 68.50: J, 15°, CN, PR, RF 68.64: J, 65°, CN, PR, RF 68.82: J, 65°, CN, PR, RF	
				69						69.19-69.24: Js x2, 5 - 10°, CN, PR, RF	
										69.50: J, 30°, CN, PR, RF 69.57: J, 60°, CN, UN, RF 69.61: J, 60°, CN, PR, sm 69.73: J, 30°, CN, PR, RF	
		100	100	70							

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	8 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)
HQ3		100	100	70			METAGRANITE: medium to coarse grained, brown, grey, black, pale brown, crystalline, massive, numerous healed microgractures, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.	SW		69.77: J, 25°, CN, PR, RF 70.09: J, 25°, CN, PR, RF 70.25-70.31: Js x2, 30°, CN, PR, RF 70.47: J, 5°, CN, PR, RF 70.57: J, 20°, CN, PR, RF 70.65: J, 5°, CN, PR, RF 70.93: J, 35°, CN, PR, RF	
				71							
				72	72.00 787.29		Brown, grey, black, massive, brown staining throughout.			71.55: J, 5°, CN, PR, RF 72.06: J, 40°, CN, PR, RF 72.21: J, 5°, dbd CN, PR, RF 72.55: J, 10°, CN, PR, RF 72.65: J, 50°, CN, PR, RF 72.79: J, 20°, CN, PR, RF	
		100	100	73						73.24: J, 10°, CN, PR, RF 73.49: J, 20°, CN, PR, RF 73.70: J, 15°, dbd CN, PR, RF	
				74						74.11: J, 5°, CN, ST, RF 74.23: J, 25°, CN, PR, RF 74.33: J, 10°, CN, PR, RF 74.42: J, 40°, CN, PR, RF	
				75						75.44: J, 20°, fe staining ST, PR, RF 75.59: J, 10°, CN, PR, rf	
		100	100	76	76.80 782.81		Pale grey, grey, dark grey, black, massive.			76.07: J, 75°, CN, PR, RF 76.16: J, 10°, CN, PR, RF 76.52: J, 50°, CN, PR, RF 76.60: J, 5°, CN, PR, RF	
				77						77.09: J, 30°, CN, PR, RF 77.34: J, 20°, CN, PR, RF 77.68: J, 75°, fe staining CN, PR, RF	
				78						77.91: J, 5°, CN, PR, RF 78.07: J, 5°, CN, PR, RF 78.61: J, 35°, PR	
		100	90	79						78.87: J, 0°, PR 79.34: J, 30°, CN, PR, RF	
				80	80.00					79.82: J, 20°, CN, PR, SM	

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	9 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS VL .2 L .6 M .20 H .60 VH .200 EH	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm) 10 30 100 300 1000 3000
HQ3		100	90	80	779.82		METAGRANITE: medium to coarse grained, dark grey and red, brown, massive, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.	SW		80.09: J, 45°, CN, PR, RF 80.12: J, 10°, CN, PR, RF 80.00-80.50: Js, 30° 80.43: J, 30°, CN, PR, SM 80.47: J, 30°, CN, PR, SM 80.71: J, 10°, CN, PR, SM	
				81						81.32: J, CN, PR, RF	
					81.50 778.42		Pale grey, pale pink, strongly deformed and brecciated contact zone.				
		100	0	82							
					82.35 777.63		LAMPROPHYRE: fine to medium grained, dark grey, porphyritic, massive, phenocrysts to 2mm in diameter.			81.60-83.05: FZ, 30°, CN-SN, CU-UN, RO, multiple defects, various angles, generally high angle, minor Fe staining on surfaces	
					83.00 777.02		METAGRANITE: medium to coarse grained, pink grey and brown, crystalline, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.	FR		83.09: J, 70°, CN, CU-UN, RO 83.10: J, 30°, CN, CU-UN, RO	
		100	38	83						83.71: J, 70°, bk mi SN, PR-UN, SM-RO	
				84						83.89: J, 25°, CN, PR-UN, SM-RO 83.94: J, 70°, CN, PR-UN, PO	
				85						84.51-85.23: J /FZ x17, 0 - 90°, bk mi SN, PR-UN, possibly hJ opened by drilling	
										85.33: J, 40°, wh mi SN, UN	
				86						86.14: J, 15°, bk mi SN, PR-UN, RO	
		100	90							86.71: J, 10°, bk mi SN, PR-ST, SM-RO 86.76: J, 80°, PR-UN, SM-RO, 1 mm	
				87						87.10: J, 10°, bk mi SN, PR-UN, SM-RO 87.25: J, 20°, bk mi SN, UN, RO	
										87.51: J, 30°, bk mi SN, CU, SM-RO	
				88						87.75: J, 45°, bk mi SN, UN 87.76: J, 45°, bk mi SN, PR-UN 87.85: J, 20°, bk mi SN, UN 88.10-88.20: Js x4, 0 - 80°, bk mi SN, PR-UN, possibly closed to healed, DB 88.27: J, 10°, bk mi SN, PR-UN 88.32: J, 30°, bk mi SN, PR-UN 88.37: J, 5°, bk mi SN, CU 88.42: J, 5°, bk mi SN, CU, possibly closed	
		100	93	89						89.08: J, 5°, bk mi SN, UN, RF 89.21: J, 75°, UN, partially closed 89.30: J, 5°, bk mi SN, UN, RF	
				90							

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	10 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)
HQ3		100	93	90	90.40			FR		90.08: J, 10°, bk mi SN, UN, likely hJ (DB) 90.20: J, 80°, bk mi SN, PR-UN 90.26: Js x3, 5°, bk mi SN, PR-UN, possibly DB	
					90.55 769.97		LAMPROPHYRE: fine to medium grained, dark grey with green, porphyritic, massive, phenocrysts to 2mm in diameter.			90.46: J, 15°, Fe SN, PR-UN	
				91			METAGRANITE: medium to coarse grained, pale grey, pink, brown, crystalline, numerous healed microgractures, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.			90.77: J, 20°, bk mi SN, UN 90.87: J, 10°, bk mi SN, PR-UN	
										91.25: Js x2, 50°, bk mi SN, UN	
				92						91.42: J, 0 - 10°, CU, RF 91.50: J, 10°, IR, RF	
										91.68-91.72: Js x2, 10°, gravel, UN 91.61-91.97: J, 70°, bk mi SN, PR-ST	
		100	97							92.04: J, 15°, bk mi SN, UN 92.15: J, 15°, bk mi SN, UN	
				93						92.37: J, 5°, bk mi SN, PR-UN 92.39: J, 5 - 35°, bk mi SN, UN	
										92.70: J, 5°, bk mi SN, UN 92.84: J, 35°, CN, PR 92.86: J, 50°, bk mi SN, UN-CU 92.94: J, 60°, bk mi SN, UN-CU 93.10: J, 55°, CN, PR	
					94.00 766.75		Pale grey and white.			93.40: J, 60°, CN, PR, RF 93.49: J, 45°, CN, PR, RF-SM 93.51: J, 80°, CN, PR, SM 93.63: J, 30°, bk SN, PR, RF	
				94						93.90: J, 30°, CN, PR, RF	
										94.08-94.22: Js x3, 5 - 10°, CN, PR, Likely DB 94.02-94.60: Js x5, 45 - 50°, CN, PR, RF-SM 94.44-94.48: Js x2, 10°, CN, PR, SM, likely DB 94.54: J x5, CN, PR, RF 94.60: J, 5°, CN, PR, SM, likely DB 94.71: J, 60°, CN, PR, RF-SM 94.80: J, 60°, pl gy alt halo 1 mm CN, RR, RF 94.95: J, 25°, bk mi SN, PR, RF	
		100	24	95						95.06: J, 15°, CN, PR, RF-SM 95.08-95.20: Js x2, 5 - 10°, CN, PR, SM-RF 95.21: J, 60°, CN, PR, SM 95.40: J, 60°, CN, PR, SM 95.45: J, 30°, CN, PR, SM, disturbed by drilling 95.53: J, 30°, CN, PR, SM 95.57: J, 50°, rd staining SN, PR, SM 95.74: J, 60°, rd staining SN, PR, SM 95.83-95.85: J, 5 - 10°, CN, PR, SM, Likely DB 96.04: J, 85°, bk mi SN, Cu, SM-RF 96.04-96.35: Js x5, 0 - 10°, br staining SN, PR, SM-RF, possibly DB	
				96	96.50 764.42		Pale grey, pink and brown.			96.44: J, 60°, yl, pl br SN, PR, SM-RF	
		100	100							96.63: J, 5 - 10°, CN, PR, RF	
				97						97.05: J, 10 - 15°, CN, PR 97.17: J, 15°, CN, ST, RF-SM	
										97.49: J, 15°, CN, PR, RF	
										97.71: J, 5 - 10°, CN, PR, RF-SM	
				98						97.88: J, 10 - 15°, CN, PR	
										98.08: J, 25°, SN, UN, SM-RF 98.15-98.29: Js x3, 30°, CN, PR, SM-RF	
		100	100							98.40: J, 75°, Quartz infill, PR, SM-RF 98.50-98.53: J, 10°, CN, PR, SM-RF	
										98.71-98.73: Js x2, 10 - 15°, CN, PR, SM 98.86: J, 15 - 20°, CN, PR, SM	
				99						99.27: J, 0°, CN, PR, RF	
										99.55: J, 60°, CN, PR, SM-RF	
				100	100.00					99.88: J, 55°, CN, PR, RF	

Comments

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Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	11 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)
HQ3		100	93	100	761.15		METAGRANITE: medium to coarse grained, pale grey, pink, brown and dark grey, cryptocrystalline, massive, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation, veins filled by oxides.	FR	VL .2 L .6 M .20 H .60 VH .200 EH	100.06: J, 60 - 70°, CN, PR, SM 100.32-100.38: Js x2, 20°, PR, SM 100.52: J, 60 - 70°, CN, PR, SM 100.60: J, 10°, CN, PR, SM-RF 100.71: J, 70°, Calcite infill, PR 100.83: J, 30°, CN, PR, SM 100.83-100.89: FZ, likely db 100.95: J, 10 - 15°, CN, PR, RF 101.07: J, 30°, br staining SN, PR, SM-RF 101.13: J, 30°, CN, PR, RF 101.30: J, 35°, CN, PR, SM 101.33-101.38: Js x2, 30°, CN, PR, RF-SM 101.55: J, 20°, ST 101.90: J, 30°, CN, PR, SM-RF 102.25: J, 70°, wh coating CT, PR 102.44: J, 40°, CN, PR, SM-RF 102.56: J, 45°, CN, PR, RF-SM 102.70: J, 40°, CN, PR, SM 103.01: J, 70°, wh mi 10 mm, PR 103.08: J, 10°, CN, PR, RF-SM 103.29: J, 10°, Fe staining SN, PR, RF 103.53: J, 40 - 45°, alt wh halo 2 mm CN, PR, RF 103.80: J, 60°, alt wh halo 1 mm CN, PR, RF-SM 104.14: J, 65 - 70°, CN, PR, SM	
		100	100								
		100	100								
		100	100								
					105.30						
					105.47		BASALT: fine grained, pale grey to black, veins filled by oxides.			105.26: J, 65 - 70°, CN, PR, SM-RF 105.41: J, 70°, CN, PR, RF	
					756.05		METAGRANITE: medium to coarse grained, dark grey, brown and pink, crystalline, massive, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.			105.85: J, 70°, wh Alt halo 2 mm CN, PR, RF-SM 106.00: J, 60 - 70°, CN, PR, RF-SM 106.49: J, 70 - 80°, pl gy alt halo 5 mm SN, PR, SM-RF 106.53: J, 10°, CN, PR, RF-SM, likely DB 106.80: J, 70°, CN, PR, SM-RF 106.85: J, 60°, CN, PR, RF-SM, liekly DB 107.39: J, 0 - 5°, CN, ST, RF 107.57: J, 35 - 45°, CN, PR, RF-SM 107.66: J, 60°, wh mi, fe staining CT-SN, PR, RF 107.95: J, 5 - 10°, CN, UN, RF-SM 108.54: J, 60°, CN, PR, RF 108.90: J, 60 - 70°, CN, PR, SM 109.14: J, 30°, CN, PR, SM-RF 109.78: J, 80°, CN, CU, RF-SM	
					110.00						

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	12 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)
HQ3		100	100	110	751.82		METAGRANITE: medium to coarse grained, blue, dark grey, pink, crystalline, massive, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.	FR	VL -2 L -6 M -20 H -60 VH -200 EH	110.08: J, 30 - 35°, CN, PR, SM	10 30 100 300 1000 3000
					110.42						
					751.35		Pale grey, pink, brown.			110.45: J, 30°, fe staining SN, PR, SM	
							LAMPROPHYRE: fine grained, dark grey to black, rare phenocrysts.			110.66: J, 55°, CN, PR, SM	
										110.84: J, 30°, CN, ST, SM-RF, likely DB	
		100	100	111	111.10					111.12: J, 40°, CN, PR, RF	
					750.79		Fine to medium grained, pale grey to dark grey green, porphyritic, massive, phenocrysts to 2mm in diameter.			111.14: J, 55°, CN, UN, RF	
										111.56: J, 40 - 45°, CN, PR, SM-RF	
										111.78: J, 10°, CN, PR, RF	
				112						111.86: J, 65°	
										112.50: J, 45°, CN, PR, SM-RF	
										112.68: J, 40°, CN, PR, SM	
		100	100	113						113.33: J, 35°, CN, PR, SM-RF	
										113.50: J, 50°, CN, PR, RF-SM	
				114							
				115						114.83: J, 0°, CN, PR, SM, likely DB	
				116						115.77: J, 70°, CN, PR, RF	
		100	100	117							
				118						117.83: J, 45°, CN, PR, SM	
										118.58: J, 60°, CN, PR, SM	
		100	100	119						119.42: J, 20°, pl gy alt halo 1 mm CN, PR	
				120	120.00						

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	13 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS VL .2 L .6 M .20 H .60 VH .200 EH	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm) 10 30 100 300 1000 3000
HQ3		100	100	120	742.48		LAMPROPHYRE: fine grained, dark grey to black, rare phenocrysts. Fine grained, dark grey to black, rare phenocrysts.	FR		120.49: J, 20°, CN, PR, SM	
					120.90						
				121	741.64		METAGRANITE: medium to coarse grained, green, grey, pink, brown, crystalline, massive, numerous healed microgractures, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.			120.83: J, 30°, CN, PR 121.00: J, 60° 121.14: J, 15°, CN, PR, SM-RF	
										121.42: J, 50°, CN, PR, RF	
										121.67: J, 25°, CN, PR, SM 121.70: J, 70°, CN, PR, RF-SM 121.80: J, 30°, CN, PR, RF	
		100	97	122						122.15: J, 45°, CN, PR, RF 122.21: J, 60°, CN, PR, RF 122.28: J, 20°, CN, PR, RF 122.35: J, 80°, pl gn SN, PR, RF 122.45: J, 20°, CN, PR, RF 122.60: J, 60°, fe staining SN, PR, RF 122.70: J, 55°, CN, PR, RF 122.95: J, 30°, CN, PR, SM-RF	
				123						123.36: J, 30°, CN, PR, RF 123.43: J, 15°, CN, PR, RF	
										123.70: J, 40°, CN, PR, SM	
				124						124.08: J, 10°, CN, PR, RF	
										124.48: J, 20°, CN, PR 124.51: J, 30 - 35°, CN, PR, RF 124.54-124.56: Js, 0 - 5°, CN, PR, SM-RF 124.55: J, 60°, CN, PR, SM 124.67: J, 20°, CN, PR, SM-RF 124.85-124.95: Js x2, 45°, CN, PR, SM-RF	
		100	97	125						125.45: J, 75°, fe staining CN, PR, RF	
										125.83: J, 10°, PR	
				126						126.13: J, 45°, CN, PR, SM-RF 126.25: J, 55°, CN, PR, RF	
										126.45: J, 60°, pl gy alt halo 1 mm CN, PR, RF 126.54: J, 10°, CN, PR, RF	
										126.77: J, 40°, CN, PR, RF	
				127						127.29: J, 30°, CN, PR, RF	
										127.63: J, 30°, CN, PR, RF	
				128						128.12: J, 20°, CN, PR, RF	
		100	100							128.42: J, 45°, CN, PR, SM	
										128.84: J, 30°, CN, PR, RF	
				129						129.10: J, 45°, CN, PR, RF, disturbed by drilling 129.27: J, 5°, CN, ST, RF, likely DB	
				130						129.79: J, 30°, CN, PR, RF, likely DB	

Comments

Checked GEM

Date 2/12/2024

BOREHOLE: BHUA-01

Project:	Pioneer-Burdekin PHES	Position:	Upper Reservoir	Sheet	14 OF 14
Location:	Netherdale/Dalrymple Heights	Coords:	657829.3 m E 7667673.3 m N MGA2020-55		
Client:	Queensland Hydro	Surface RL:	854.51 m AHD	Date Started:	11/4/2024
Job No.:	PS138693	Contractor:	Twin Hills Engineering & Drilling Drill Rig: Elton 600	Date Completed:	2/5/2024
		Inclination:	-69° Direction: 104°	Logged:	DD/CD/GM

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH (MPa) ■ - UCS	DEFECT DESCRIPTION & Additional Observations (Core partings shown - refer to Detailed Defect Descriptions table for all logged features)	AVERAGE DEFECT SPACING (mm)
HQ3		100	100	130			METAGRANITE: medium to coarse grained, green, grey, pink, brown, crystalline, massive, numerous healed microgractures, highly altered granite, pink brown alteration, fabric shows metamorphic crystal reorientation.	FR	VL .2 L .6 M .20 H .60 VH .200 EH	130.32-130.35: J, 10 - 25°, fe staining SN, PR, RF, possibly DB 130.63: J, 10°, CN, PR, RF	10 30 100 300 1000 3000
				131						130.90: J, 35°, CN, PR 131.02: J, 5°, CN, PR, SM-RF 131.10: J, 15°, CN, PR, RF-SM 131.14: J, 0°, CN, PR, SM 131.27: J, 15°, CN, PR, SM 131.37: J, 0°, CN, PR, SM-RF	
		100	100	132	132.00 731.28		Pink brown grey.			131.70: J, 25°, Fe staining SN, PR, SM-RF 132.06: J, 30°, CN, PR, SM 132.08: J, 45°, CN, PR, SM 132.12: J, 10°, CN, PR, SM-RF 132.32-132.57: Js x4, 15°, CN, PR, SM-RF	
				133						132.74: J, 5 - 10°, CN, PR, RF, likely DB 132.94: J, 10°, CN, PR, SM-RF 133.50: J, 15°, CN, PR, SM	
		100	100	134						133.87: J, 25°, CN, PR, SM 134.00-134.07: Js x2, 30°, CN, PR, SM, likely DB 134.24-134.45: Js x3, 10 - 20°, CN, PR, SM-RF 134.62: J, 10°, CN, PR, SM	
				135	135.00 728.48		Pink, brown, dark grey.			135.05: J, 20°, CN, PR, SM-RF, likely DB 135.17: J, 25°, CN, PR, RF 135.46: J, 25°, CN, PR, SM-RF 135.71: J, 45°, CN, PR, SM-RF	
				136	136.00 727.54		Hole Terminated at 136.00 m Target depth. Vibrating Wire Piezometer Installed.			135.92: J, 25°, CN, PR, RF	
				137							
				138							
				139							
				140							

Comments

Checked GEM

Date 2/12/2024

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	5.00	5.10			J	x4	10	20	iron oxide								
BHUA-01	5.25				J		50		iron oxide	VN	UN	RF					
BHUA-01	5.65				J		10		iron oxide	VN	UN	RF					
BHUA-01	5.70				J		40		clay / iron oxide	VN	UN	RF					
BHUA-01	5.75				J		55		clay / iron oxide	CT	UN	RF					
BHUA-01	5.90				J		80	85	clay / iron oxide	VN	UN	RF					
BHUA-01	5.93				J		5		iron oxide	VN	PR	RF					
BHUA-01	6.00	6.30			FZ				iron oxide	VN	IR	RF					recovered as medium to coarse grained gravel
BHUA-01	7.10	8.00			FZ				iron oxide								recovered as fine to coarse grained angular gravel and clay
BHUA-01	8.05	8.10			IS				clay / iron oxide	CT	PR						
BHUA-01	8.15				J		30		iron oxide	CT	PR	RF					
BHUA-01	8.40				J		10		iron oxide								
BHUA-01	8.41	8.45			IS		30	45	clay / iron oxide	CT	PR	RF					
BHUA-01	8.65				J		40		clay / iron oxide	VN	PR	RF					
BHUA-01	8.82				V		60		wh		PR		<	4			
BHUA-01	8.88				hJ		60				PR						
BHUA-01	9.10				J		10			CN	PR	SM					
BHUA-01	9.30	12.30															
BHUA-01	9.32				J		10			CN	PR	SM					
BHUA-01	9.46				hJ		10		pl gn		PR						
BHUA-01	9.48	9.57			hJs	x3	60		pl gn		PR						
BHUA-01	9.62				V		20		yl		CU		<	2			
BHUA-01	9.71				hJ		80										
BHUA-01	9.77				hJ		70										
BHUA-01	10.14				J		10			CN	PR	SM					
BHUA-01	10.15	10.18			hJs	x3	10				PR						
BHUA-01	10.20				hJ		10				PR						
BHUA-01	10.26	10.40															
BHUA-01	10.32				V		5		wh mi		PR		<	2			
BHUA-01	10.35				J		5			CN	PR	RF					
BHUA-01	10.52				V		15		wh mi		PR		<	2			
BHUA-01	10.75				hJ		0				PR						
BHUA-01	10.94				hJ		45				PR						
BHUA-01	11.17	11.20			hJs	x4	10				PR						
BHUA-01	11.50				hJ		10				PR						
BHUA-01	11.53				hJ		80				PR						
BHUA-01	11.60				hJ		40				PR						
BHUA-01	11.70				hJ		30				PR						
BHUA-01	11.72	11.76			AZ		0	30	pl yl, pl gn		PR-UN						
BHUA-01	11.86				V		25		pl yl, pl gn		PR		<	2			
BHUA-01	12.02				V		90		pl yl, pl gn		IR						
BHUA-01	12.10				V		10		pl yl, pl gn		PR						
BHUA-01	12.30				J		0			CN	PR	RF					
BHUA-01	12.32				hJ		60		pl yl, pl gn		CU						
BHUA-01	12.33				hJ		60		pl yl, pl gn		PR						
BHUA-01	12.37	12.43			hJs	x3	5		pl yl, pl gn		PR						
BHUA-01	12.43				hJ		15				PR						
BHUA-01	12.44				hJ		30				PR						
BHUA-01	12.45				hJ		10				PR						
BHUA-01	12.48				hJ		70		wh mi		PR						
BHUA-01	12.59	12.63			hJs	x2	20				PR						
BHUA-01	12.64				V		25		wh mi		PR		<	3			
BHUA-01	12.66				hJ		15				CU						
BHUA-01	12.87				hJ		75				PR						
BHUA-01	13.12				hJ		40		wh mi	VN	PR						
BHUA-01	13.22				hJ		55		wh mi	CT	PR						
BHUA-01	13.43	13.44			hJ	x2	30		wh mi	VN	UN						
BHUA-01	13.54	13.60			hJ	x2	60		wh mi	CT	PR						
BHUA-01	13.75				DB												
BHUA-01	13.85				hJ		65		wh mi	VN	CU						
BHUA-01	13.97				hJ		30		wh mi	CT	PR						
BHUA-01	14.28	14.35			hJ	x3	30	40	wh mi	CT	PR						
BHUA-01	14.43				hJ		20		wh mi	VN	PR						
BHUA-01	14.55				hJ		15		wh mi	VN	PR						
BHUA-01	14.56	14.62			hJ	x2	10	15	wh mi	VN	PR						
BHUA-01	14.71				hJ	x2	50		wh mi	VN	PR						
BHUA-01	14.75				hJ		20		wh mi	VN	PR						
BHUA-01	14.85				hJ		45		wh mi	VN	PR						
BHUA-01	14.95				hJ		60		wh mi	VN	PR						
BHUA-01	15.06				hJ		25		wh mi	VN	PR						
BHUA-01	15.22				hJ		30		wh mi	VN	PR						
BHUA-01	15.28	15.30			hJ		30		wh mi	VN	PR						
BHUA-01	15.43				hJ		40		wh mi	VN	PR						
BHUA-01	15.46				hJ		35		wh mi	VN	PR						
BHUA-01	15.55				hJ		25		wh mi	VN	PR						
BHUA-01	15.58				DB												
BHUA-01	15.66				J		45			VN	PR						
BHUA-01	15.68				J		5				UN						
BHUA-01	15.75				hJ		15		wh mi	VN	PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	15.90				DB												
BHUA-01	15.95				hJ		15		wh mi	VN	PR						
BHUA-01	16.10	16.47			hJ	x11	5	15	wh mi	VN	PR						
BHUA-01	16.71	16.75			hJ	x2	20		wh mi	CT	PR						
BHUA-01	16.85				hJ		40		wh mi	CT	PR						
BHUA-01	17.01				hJ		10		gn mi		PR						
BHUA-01	17.03	17.06			hJs	x2	60		gn mi		PR						
BHUA-01	17.10				hJ		60		wh mi		PR						
BHUA-01	17.14				hJ		40		pl gn mi		PR						
BHUA-01	17.20				hJ		40		pl gn mi		CU						
BHUA-01	17.23				hJ		35				IR						
BHUA-01	17.24	17.26			hJs	x2	35		pl gn mi		PR						
BHUA-01	17.38				hJ		50				PR						
BHUA-01	17.40				hJ		5				PR						
BHUA-01	17.44	17.51			hJs	x2	15				PR						
BHUA-01	17.47				hJ		45				PR						
BHUA-01	17.53				hJ		5		gn mi		PR						
BHUA-01	17.54				J		5			CN	PR	RF					
BHUA-01	17.54				hJ		10		gn mi		PR						
BHUA-01	17.56				hJ		10		gn wh mi		IR						
BHUA-01	17.57	17.62			hJs	x2	15		gn mi		PR						
BHUA-01	17.58				hJ		5		gn mi		PR						
BHUA-01	17.66				hJ		5		gn mi		PR						
BHUA-01	17.68				hJ		10				PR						
BHUA-01	17.68	17.74			hJs	x2	5				PR						
BHUA-01	17.69				hJ		25				PR						
BHUA-01	17.71				V		10		pl gn gy mi		PR		<	2			
BHUA-01	17.77				hJs	x2	5				PR						
BHUA-01	17.78				hJ		50				PR						
BHUA-01	17.79				hJ		90				CU						
BHUA-01	17.80				hJ		0				PR						
BHUA-01	17.84				hJ				wh mi		PR						
BHUA-01	17.89	17.90			hJs		5		gn mi		PR						
BHUA-01	17.91				hJ		50		wh mi		CU						
BHUA-01	17.94				hJ		90				IR						
BHUA-01	17.95	17.98			hJs	x3	20	30	gn mi		PR						
BHUA-01	18.04				hJ		10				PR						
BHUA-01	18.05	18.08			hJs	x2	5		gn mi		PR						
BHUA-01	18.20				hJ		20		wh mi		PR						
BHUA-01	18.29	18.32			hJs	x2	5				PR						
BHUA-01	18.44				hJ		45				PR						
BHUA-01	18.47				hJ		80				PR						
BHUA-01	18.69				hJ		30				PR						
BHUA-01	18.74				hJ		35				PR						
BHUA-01	18.85				hJ		75				PR	RF					
BHUA-01	19.03				hJ		10				PR						
BHUA-01	19.22	19.39			hJs	x3	20				PR						
BHUA-01	19.66	19.68			hJs	x3	10		gn mi		PR						
BHUA-01	19.82				J		50			CN	PR	RF					
BHUA-01	19.87				hJ		80		gn mi		UN						
BHUA-01	20.03	20.04			Vs	x2	5	10	pl gn gy		PR		<	3			
BHUA-01	20.06				hJ		5				PR						
BHUA-01	20.10				hJ		20				PR						
BHUA-01	20.14				hJ		30				PR						
BHUA-01	20.25				hJ		10				PR						
BHUA-01	20.50				V		45		wh mi		PR						
BHUA-01	20.53				hJ		15				PR						
BHUA-01	20.67	20.68			hJs	x2	5		gn mi		PR						
BHUA-01	20.78				hJ		20		gn mi		IR						
BHUA-01	20.80				V		10		pl pk gn, gn CT		PR						
BHUA-01	20.86	20.89			hJs	x2	10		gn mi		PR						
BHUA-01	21.02				hJ		10				PR						
BHUA-01	21.13				hJ		45				PR						
BHUA-01	21.16	21.17			hJs	x2	25				PR						
BHUA-01	21.21				V		20		wh mi		PR		<	3			
BHUA-01	21.25	21.28			hJs	x3	15		wh gn mi		PR						
BHUA-01	21.30				J		70			CN	UN	RF					
BHUA-01	21.33				hJ		10		gn mi		PR						
BHUA-01	21.35				hJ		5		gn mi		PR						
BHUA-01	21.36				hJ		60		wh mi		PR						
BHUA-01	21.39				hJ		35		gy wh mi		PR						
BHUA-01	21.42	21.50			hJs	x3	10	15	wh gn mi		PR						
BHUA-01	21.47	21.48			hJs	x2	10				PR						
BHUA-01	21.51				hJ		25		gn mi		PR						
BHUA-01	21.59				hJ		80				IR						
BHUA-01	21.68				hJ		15		pl yl mi		PR						
BHUA-01	21.69				hJ		20		gn mi		PR						
BHUA-01	21.71				hJ		10		pl yl mi		PR						
BHUA-01	21.75	22.20			AZ		0	90	pl yl mi		PR-UN						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	21.83				DB												
BHUA-01	22.22	22.45			hJ	x5	45	55	pl yl mi		UN-CU						30-100mm spacing
BHUA-01	22.26	22.36			hJ	x3	5	15	pl yl mi		UN-CU						30-100mm spacing
BHUA-01	22.45				CO												
BHUA-01	22.51				hJ		30		pl gn mi		PR						
BHUA-01	22.53				hJ		80		pl gn mi		PR						
BHUA-01	22.55				hJ		20		pl gn mi		PR						
BHUA-01	22.57	22.59			hJs	x2			pl gn mi		IR						
BHUA-01	22.58				J		10		gy mi	SN	CU	RF					
BHUA-01	22.60				hJ		45		pl gn mi		PR						
BHUA-01	22.62				hJ		45		pl gn mi		PR						
BHUA-01	22.65				hJ		50		pl gn mi		PR						
BHUA-01	22.68				J		20			CN	UN	RF					
BHUA-01	22.71				hJ		20		pl gn mi		PR						
BHUA-01	22.72				hJ		25		pl gn mi		PR						
BHUA-01	22.74	22.75			hJs	x2	20		pl gn mi		PR						
BHUA-01	22.78	22.79			hJs	x2	15		pl gn mi		PR						
BHUA-01	22.81				hJ		25		pl gn mi		PR						
BHUA-01	22.83				hJ		25		pl gn mi		PR						
BHUA-01	22.85				hJ		15		pl gn mi		PR						
BHUA-01	22.87				hJ		70		pl gn mi		PR						
BHUA-01	22.90				hJ		20		pl gn mi		PR						
BHUA-01	22.91				hJ		70		pl gn mi		PR						
BHUA-01	22.95				V		85		bk mi		PR		<	4			
BHUA-01	23.04				J		25		br mi	SN	UN	RF					
BHUA-01	23.08				hJ		20		pl gn mi		PR						
BHUA-01	23.11				hJ				dk gy mi		IR						
BHUA-01	23.20	23.41			J		65		gy mi	SN	PR	RF					
BHUA-01	23.21	23.23			hJs	x2	50		pl gn, bk mi		PR						
BHUA-01	23.26				hJ		50		bk mi		PR						
BHUA-01	23.34				hJ		45		wh, bk mi		PR						
BHUA-01	23.38				V		35		wh and bk mi		PR		<	2			
BHUA-01	23.44				hJ		30		bk mi		PR						
BHUA-01	23.45	23.85			J		70		br-gy mi	SN	UN	RF					
BHUA-01	23.47	23.54			hJs	x6	30		bk, pl gn		PR						
BHUA-01	23.54				J		5			CN	UN	RF					
BHUA-01	23.59				hJ		90		bk mi		PR						
BHUA-01	23.62				J		10			CN	UN	RF					
BHUA-01	23.65				J		5		bk mi	SN	UN	RF					
BHUA-01	23.70	23.77			hJs	x3			bk mi		IR						
BHUA-01	23.78				hJ		60		wh, pl gn mi		PR						
BHUA-01	24.05				J		15			SN	PR	RF					
BHUA-01	24.15				hJ		50				PR						
BHUA-01	24.18				J		10			SN	PR	RF					
BHUA-01	24.21				J		40			SN	PR	RF					
BHUA-01	24.26				J		40			SN	PR	RF					
BHUA-01	24.54				J		45			SN	PR	RF					
BHUA-01	24.75				J		50			SN	PR						
BHUA-01	24.80				J		45			SN	PR	RF					
BHUA-01	24.81				hJ		30		bk mi		PR						
BHUA-01	24.82				hJ		20		bk, pl yl mi		PR						
BHUA-01	24.82	25.13			J		80	85	pl gn, bk	SN	PR	RF					
BHUA-01	24.88				hJ		70		wh mi		PR						
BHUA-01	24.91				hJ		85		wh		PR						
BHUA-01	24.98				hJ		90		wh		PR						
BHUA-01	25.00	25.45			AZ				wh		PR						
BHUA-01	25.00	25.55			AZ		0	90	pl yl, pl gn		PR-UN						multiple defects, generally sub-vertical, 0-10mm spacing
BHUA-01	25.03				hJ		50		pl br, bk		PR						
BHUA-01	25.04				hJ		50		pl gn, bk		PR						
BHUA-01	25.08	25.09			hJs	x2	15		pl gn		PR						
BHUA-01	25.10				hJ		80		pl gn		UN			10			
BHUA-01	25.11				hJ		15		pl gn		PR						
BHUA-01	25.12				hJ		60		pl gn		UN			10			
BHUA-01	25.15				hJ		80		pl gn, bk		PR						
BHUA-01	25.27				J				pl gn		UN						multiple defects, various angles, 0-30mm spacing, 1-5mm diameter
BHUA-01	25.28				hJ		70		pl yl		PR						
BHUA-01	25.30				hJ		70		bk		PR						
BHUA-01	25.31				hJ		85		bk		PR						
BHUA-01	25.34				hJ		60		pl gn		PR						
BHUA-01	25.41	25.43			hJ		60		wh		PR						
BHUA-01	25.45				hJ		50		pl gn		PR						
BHUA-01	25.47				hJ		60		pl gn		PR						
BHUA-01	25.48				hJ		60		wh		PR						
BHUA-01	25.52				hJ		35		pl gn		PR						
BHUA-01	25.58				J												db
BHUA-01	25.60				hJ		90		pl gn, bk		PR						
BHUA-01	25.61				hJ		45				PR						
BHUA-01	25.63				hJ		20		bk		IR						
BHUA-01	25.65				hJ		40				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	25.66				hJ		35		pl gn		PR						
BHUA-01	25.67				hJ		20				PR						
BHUA-01	25.70				hJ		15				PR						
BHUA-01	25.71				hJ		75		bk, pl gn		PR						
BHUA-01	25.72				hJ		70		bk, pl gn		PR						
BHUA-01	25.72	25.76			hJs	x3	45		gn		PR						
BHUA-01	25.73				hJ		70		bk, pl gn		PR						
BHUA-01	25.74				hJ		30		pl gn		PR						
BHUA-01	25.77				hJ		50		wh		PR						
BHUA-01	25.78				hJ		60		pl gn		PR						
BHUA-01	25.79				hJ		5				PR						
BHUA-01	25.80				hJ		10		pl gn		PR						
BHUA-01	25.81				hJ		80		gn		IR						
BHUA-01	25.83	25.86			hJs	x2	15				PR						
BHUA-01	25.86				DB												
BHUA-01	25.88				hJ		70		pl gn		PR						
BHUA-01	25.89				hJ		75				IR						
BHUA-01	25.90				hJ		70		wh		PR						
BHUA-01	25.92				hJ		90		pl gn		PR						
BHUA-01	25.93				J		15			CN	PR	RF					
BHUA-01	25.95				hJ		90		wh		PR						
BHUA-01	25.96				V		45		muscovite, chlorite		PR		<	5			
BHUA-01	25.98				V		50		muscovite, chlorite		PR		<	2			
BHUA-01	26.03				hJ		70		gn		PR						
BHUA-01	26.05	26.08			hJs	x2	30		gn		PR						
BHUA-01	26.09	26.10			hJs	x2	20				PR						
BHUA-01	26.13				V		40		gn		CU		<	3			
BHUA-01	26.15				hJ		5		gn		IR						
BHUA-01	26.22				hJ		25		gn		IR						
BHUA-01	26.25				hJ		45		gn		PR						
BHUA-01	26.26				hJ		50		gn		PR						
BHUA-01	26.29				hJ		35				CU						
BHUA-01	26.33				hJ		70				PR						
BHUA-01	26.37				hJ		70				PR						
BHUA-01	26.39	26.41			hJs	x2	45		gn		PR						
BHUA-01	26.40	26.94			AZ		45	80	pl yl, pl gn		PR-UN						0-10mm spacing
BHUA-01	26.42				hJ		0				PR						
BHUA-01	26.46				hJ		60		gy mi		PR						
BHUA-01	26.48	26.50			hJs	x2	45		gn		PR						
BHUA-01	26.51	26.76			hJs	x7	65	75	gn mi		PR						
BHUA-01	26.82				hJ		50		gn		IR						
BHUA-01	26.85				hJ		10		gn		PR						
BHUA-01	26.89				hJ		80		gn		IR						
BHUA-01	26.90				J		5			CN	PR	RF					
BHUA-01	26.92				V		60		gn		PR		<	2			
BHUA-01	26.94				hJ		60				PR						
BHUA-01	26.95				hJ		5				PR						
BHUA-01	26.97				hJ		30				IR						
BHUA-01	27.04				hJ		30		gn		UN						
BHUA-01	27.06	27.08			hJs	x2	40		gn		PR						
BHUA-01	27.09				hJ		30				PR						
BHUA-01	27.11	27.20			hJs	x3	50				PR						
BHUA-01	27.12				hJ		15				PR						
BHUA-01	27.14				hJ		20				IR						
BHUA-01	27.19				hJ		0				PR						
BHUA-01	27.23	27.30			hJs	x3	10				PR						
BHUA-01	27.24	27.32			hJs	x2	5		wh		PR						
BHUA-01	27.29				hJ		30				PR						
BHUA-01	27.30				hJ		80		gn		PR						
BHUA-01	27.33				hJ		5		wh		PR						
BHUA-01	27.42	27.50			hJs	x5	45		gn		PR						
BHUA-01	27.53				hJ		85				PR						
BHUA-01	27.54				hJ		30				PR						
BHUA-01	27.57	27.58			hJs	x3	20				PR						
BHUA-01	27.58	27.66			hJs	x4	5	10	wh		PR						
BHUA-01	27.69				hJ		75		wh		PR						
BHUA-01	27.70				V		15		pl yl		PR						
BHUA-01	27.72	27.74			hJs	x2	45		gn		PR						
BHUA-01	27.76				hJ		60				PR						
BHUA-01	27.77				J		10		calcium carbonate coating, pl gr staining	CT	PR	RF					
BHUA-01	27.78				hJ		10		gn		PR						
BHUA-01	27.81				hJ		10				UN						
BHUA-01	27.83	27.86			hJs	x2	80				PR						
BHUA-01	28.05				hJ		55		wh		PR						
BHUA-01	28.06				hJ		10		pl gn		PR						
BHUA-01	28.09				hJ		65		pl gn		PR						
BHUA-01	28.11				hJ		55		pl gn		PR						
BHUA-01	28.13				hJ		50		pl gn		PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	28.15				hJ		30		pl gn		PR						
BHUA-01	28.16				V		15		wh				<	2			
BHUA-01	28.21				hJ		15		pl gn		PR						
BHUA-01	28.24				hJ		15				PR						
BHUA-01	28.26				hJ		50				PR						
BHUA-01	28.31				V		65		pl gn				<	2			
BHUA-01	28.36				V				pl gn, wh mi		IR						
BHUA-01	28.37	28.40			hJs	x3	30		pl gn		PR						
BHUA-01	28.50				V		85		pl gn, wh				<	3			
BHUA-01	28.54				V				pl gn		IR		<	10			
BHUA-01	28.55				hJ		60				PR						
BHUA-01	28.58				V		60		wh		IR		<	2			
BHUA-01	28.60				V				wh		IR		<	2			
BHUA-01	28.61				hJ		15		wh		PR						
BHUA-01	28.62	28.69			hJs	x4	10				PR						
BHUA-01	28.72				hJ		50				PR						
BHUA-01	28.74				hJ		50				PR						
BHUA-01	28.75				hJ		20				PR						
BHUA-01	28.76				DB												
BHUA-01	28.77				hJ		45				PR						
BHUA-01	28.79				V		45		wh		PR		<	2			
BHUA-01	28.81				hJ		20				PR						
BHUA-01	28.92				hJ		20				PR						
BHUA-01	28.94				hJ		80				PR						
BHUA-01	28.95				hJ		20				PR						
BHUA-01	28.96				hJ		60				PR						
BHUA-01	29.01				hJ		15				PR						
BHUA-01	29.04				hJ		15				PR						
BHUA-01	29.06				V		10		wh		PR		<	2			
BHUA-01	29.09	29.18			hJs	x6	10				PR						
BHUA-01	29.19				V		15		wh		PR		<	2			
BHUA-01	29.20				hJ		60				PR						
BHUA-01	29.21	29.24			hJs	x3	10				PR						
BHUA-01	29.25				V		20		wh				<	2			
BHUA-01	29.28				hJ		20				PR						
BHUA-01	29.30	29.36			hJs		5		wh, pl gn		PR						
BHUA-01	29.37				hJ		80		pl gn		PR						
BHUA-01	29.40																pyrite
BHUA-01	29.40	29.43															Alt
BHUA-01	29.45				V		0		wh mi		PR						
BHUA-01	29.49				hJ		40				PR						
BHUA-01	29.50				hJ		0				PR						
BHUA-01	29.53				V		60				PR		<	2			
BHUA-01	29.55				V		5				PR		<	3			
BHUA-01	29.60				hJ		45		pl gn		PR						
BHUA-01	29.62	29.67			hJs	x5	10				PR						
BHUA-01	29.64	29.66			Vs	x2	85		wh mi		PR		<	2			
BHUA-01	29.70	29.76			hJs	x6	20		wh		PR						
BHUA-01	29.76				V		20		wh		PR		<	2			
BHUA-01	29.77	29.83			hJs	x3	20				PR						
BHUA-01	29.80				hJ		60				PR						
BHUA-01	29.87				hJ		30				PR						
BHUA-01	29.90				hJ		30		pl gn		PR						
BHUA-01	29.94				V		40		pl gn		PR		<	2			
BHUA-01	29.96				hJ		5				PR						
BHUA-01	29.98				hJ		30				PR						
BHUA-01	30.02				hJ		50				PR						
BHUA-01	30.08				V		45		pl gn		PR		<	2			
BHUA-01	30.10	30.17			hJs	x5	10				PR						
BHUA-01	30.20				hJ		60				PR						
BHUA-01	30.21				hJ		60				PR						
BHUA-01	30.23				hJ		50				PR						
BHUA-01	30.24				V		20		pl gn				<	2			
BHUA-01	30.27				V		70		wh				<	2			
BHUA-01	30.30				hJ		30				PR						
BHUA-01	30.33				hJ		5				PR						
BHUA-01	30.35				hJ		20				PR						
BHUA-01	30.35	30.60			AZ		0	45	pl yl, pl gn		PR-UN						0-10mm spacing
BHUA-01	30.36				hJ		50		pl gn		PR		<	5			
BHUA-01	30.39				hJ		30		pl gn				<	3			
BHUA-01	30.41				hJ		40		pl gn				<	2			
BHUA-01	30.43				hJ		50		pl gn				<	2			
BHUA-01	30.44				hJ		45		pl gn				<	3			
BHUA-01	30.45				hJ		60		pl gn				<	2			
BHUA-01	30.46				hJ		70		wh				<	2			
BHUA-01	30.47				hJ		5		pl gn				<	3			
BHUA-01	30.49				hJ		35		pl gn				<	4			
BHUA-01	30.54				hJ		60		pl gr, wh				<	10			
BHUA-01	30.56				hJ		10		pl gn				<	5			

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	30.57				hJ		5		pl gn				<	4			
BHUA-01	30.58				hJ		20		pl gn				<	2			
BHUA-01	30.62				hJ		45				PR						
BHUA-01	30.63				hJ		0		wh				<	5			
BHUA-01	30.65				hJ		60				PR						
BHUA-01	30.66				hJ		60				PR						
BHUA-01	30.67				hJ		15		pl gn				<	3			
BHUA-01	30.69	30.76			hJs	x7	10				PR						
BHUA-01	30.76				hJ		60		wh		PR						
BHUA-01	30.79				hJ		5				PR						
BHUA-01	30.81				hJ		20				PR						
BHUA-01	30.82				hJ		70		gr, wh		PR		<	5			
BHUA-01	30.83				hJ		5				PR						
BHUA-01	30.84				hJ		5				PR						
BHUA-01	30.85				hJ		70				PR						
BHUA-01	30.88				hJ		25				PR						
BHUA-01	30.97				hJ		35		pl yl		PR		<	5			
BHUA-01	31.01				hJ		5				PR						
BHUA-01	31.02				hJ		45				PR						
BHUA-01	31.03				hJ		15				PR						
BHUA-01	31.04	31.08			hJs	x2	20				PR						
BHUA-01	31.09				hJ		70				PR						
BHUA-01	31.10				hJ		10				CU						
BHUA-01	31.11				hJ		10				PR						
BHUA-01	31.12				hJ		0				IR						
BHUA-01	31.13				hJ		10				PR						
BHUA-01	31.16				hJ		60				PR						
BHUA-01	31.17				hJ		15				PR						
BHUA-01	31.20				hJ		10		pl gr, trace pyrite		PR		<	5			
BHUA-01	31.23	31.26			hJs	x2											
BHUA-01	31.27				hJ		60		pl gn		PR						
BHUA-01	31.29	31.31			hJs	x2	20				PR						
BHUA-01	31.36				hJ		5				PR						
BHUA-01	31.39				hJ		5				PR						
BHUA-01	31.41				hJ		75				PR						
BHUA-01	31.44				CO		65		Fe staining	CN	PR	RF					
BHUA-01	31.56				hJ		65				PR						disturbed by drilling
BHUA-01	31.60				J		60			CN	PR	RF					
BHUA-01	31.71				J		80		Fe staining	CN	CU	RF					
BHUA-01	31.98				hJ		60				PR						
BHUA-01	32.09				J		60			CN	PR	RF					
BHUA-01	32.21	32.35			hJs		45		wh mi		PR						
BHUA-01	32.48				hJ		70		gn mn		PR						
BHUA-01	32.53				hJ		70		gn mn		PR						
BHUA-01	32.59				hJ		20				PR						
BHUA-01	32.69				hJ		10				PR						
BHUA-01	32.78				hJ		55				PR						
BHUA-01	32.85	32.92			hJs	x2	30				PR						
BHUA-01	32.97				J		45			CN	PR	RF					
BHUA-01	33.03				hJ		40		wh		PR						
BHUA-01	33.06				hJ		15				PR						
BHUA-01	33.11	33.53			hJs	x3	70		wh mi		PR						
BHUA-01	33.66				J		0			CN	PR	RF					db
BHUA-01	33.70	33.76			hJs		20				PR						
BHUA-01	33.74				hJ		70				PR						
BHUA-01	33.85				hJ		75				PR						
BHUA-01	33.89				CO		30										
BHUA-01	33.90	34.00			SZ												
BHUA-01	34.08				hJ		55		bk		PR						
BHUA-01	34.09				J		15			CN	PR	RF					
BHUA-01	34.12	34.18			hJs	x3	60		bk		PR						
BHUA-01	34.25				J		20			CN	PR	RF					
BHUA-01	34.28				hJ		20				PR						
BHUA-01	34.31				hJ		90				IR						
BHUA-01	34.34				hJ		30				PR						
BHUA-01	34.37				hJ		5				PR						
BHUA-01	34.45				hJ		85		bk		CU						
BHUA-01	34.46	34.57			hJs	x2	20		bk		PR						
BHUA-01	34.63				hJ		80		bk		CU						
BHUA-01	34.66				J		65			CN	PR	RF					
BHUA-01	34.74				hJ		85		bk		UN						
BHUA-01	34.78				hJ		15				PR						
BHUA-01	34.81				J		15			CN	PR	RF					
BHUA-01	34.87	34.95			hJ	x3	30				PR						
BHUA-01	35.02				hJ		75				PR						
BHUA-01	35.05				hJ		60		bk		PR						
BHUA-01	35.08	35.13			hJs	x2	40		bk		PR						
BHUA-01	35.17				hJ		60		bk		PR						
BHUA-01	35.19	35.22			hJ	x2	60		pl yl		PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	35.20				hJ		25		pl yl		PR						
BHUA-01	35.28	35.34			hJs	x3	15		pl yl		PR						
BHUA-01	35.31				hJ		10		pl yl		PR						
BHUA-01	35.41				hJ		20		pl yl		PR						
BHUA-01	35.43				hJ		60		pl yl		PR						
BHUA-01	35.46				hJ		70		bk, pl yl		PR						
BHUA-01	35.50	35.52			hJ	x3	0		pl yl		PR						
BHUA-01	35.51				hJ		20		pl yl		PR						
BHUA-01	35.53				hJ		80		bk, pl yl		PR						
BHUA-01	35.56				J		5			CN	PR	RF					
BHUA-01	35.58				hJ		30				PR						
BHUA-01	35.60	35.61			hJs	x2	0				PR						
BHUA-01	35.62				hJ		25		pl yl		PR						
BHUA-01	35.63				J		25			CN	PR	RF					
BHUA-01	35.70				hJ		0		pl yl		PR						
BHUA-01	35.72				V		0		pl yl		PR		<	2			
BHUA-01	35.77				hJ		20				PR						
BHUA-01	35.78				J		20			CN	PR	RF					
BHUA-01	35.80	35.81			hJs	x2	20		pl yl		PR						
BHUA-01	35.85				hJ		90		bk		IR						
BHUA-01	35.85	35.87			hJs	x2	5		pl yl		PR						
BHUA-01	35.91				J		70			CN	PR	RF					
BHUA-01	35.98				hJ		70				PR						
BHUA-01	36.02				hJ		90		bk		PR						
BHUA-01	36.07				hJ		60		bk		PR						
BHUA-01	36.09				hJ		60		wh		PR						
BHUA-01	36.12				hJ		10		pl yl		PR						
BHUA-01	36.15				hJ		90		bk, pl yl		PR						
BHUA-01	36.17				hJ		75		bk		PR						
BHUA-01	36.20				hJ	x2	90		pl yl		PR						
BHUA-01	36.22				hJ		0		bk		PR						
BHUA-01	36.36				hJs	x2	80		bk		PR						
BHUA-01	36.39	36.40			hJs				wh		PR						
BHUA-01	36.43				hJ		50		pl yl, bk		PR						
BHUA-01	36.47				hJ		70				PR						
BHUA-01	36.50				hJ		10				PR						
BHUA-01	36.52				hJ		60		pl yl		PR						
BHUA-01	36.58				J		30			CN	ST	RF					
BHUA-01	36.63				hJ		60		bk		PR						
BHUA-01	36.66				J		30			CN	PR	RF					
BHUA-01	36.68				hJ		20		pl yl		PR						
BHUA-01	36.71				hJ		10		pl yl		PR						
BHUA-01	36.72				hJ		20				PR						
BHUA-01	36.80	36.88			hJ	x5	20		pl yl		PR						
BHUA-01	36.94				hJ		60		bk		PR						
BHUA-01	36.96				hJ		60		bk		PR						
BHUA-01	37.01	37.02			hJ		5		bk		PR						
BHUA-01	37.07				hJ		70		bk		PR						
BHUA-01	37.14				hJ		25		pl yl		PR						
BHUA-01	37.16	37.18			hJ	x2	50				PR						
BHUA-01	37.20	37.21			hJ		5				PR						
BHUA-01	37.22				hJ		50		bk		PR						
BHUA-01	37.25				hJ		35		bk		PR						
BHUA-01	37.26	37.27			hJ	x2	50				PR						
BHUA-01	37.29				hJ		60		bk		CU						
BHUA-01	37.31	37.35			hJ	x2	30		bk, pl yl		PR						
BHUA-01	37.38				hJ		50		bk		PR						
BHUA-01	37.39				hJ		60				PR						
BHUA-01	37.39	37.46			hJ	x7	10		pl yl		PR						
BHUA-01	37.47				hJ		60		pl yl		PR						
BHUA-01	37.50				hJ		60		bk		PR						
BHUA-01	37.55				hJ		30				PR						
BHUA-01	37.58				hJ		80		bk		PR						
BHUA-01	37.59				hJ		60				PR						
BHUA-01	37.66				hJ		30		bk		IR						
BHUA-01	37.67				hJ		70		bk		IR						
BHUA-01	37.75				hJ		30				PR						
BHUA-01	37.77				hJ		80				PR						
BHUA-01	37.82				hJ		60				PR						
BHUA-01	37.85				hJ		5				PR						
BHUA-01	37.87	37.93			hJ	x2	30				PR						
BHUA-01	37.96				J		15			CN	PR	RF					
BHUA-01	38.01	38.05			hJs	x2	30		pl yl		PR						
BHUA-01	38.05				hJ		80		pl yl		PR						
BHUA-01	38.11				hJ		60		bk		PR						
BHUA-01	38.16				J		5			CN	PR	RF					
BHUA-01	38.18				hJ		60		bk		PR						
BHUA-01	38.21				hJ		70		bk		PR						
BHUA-01	38.25				hJ		30				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	38.28	38.34			hJs		60		bk		PR						
BHUA-01	38.38				hJ		30		bk		PR						
BHUA-01	38.42	38.45			hJs	x2	60				PR						
BHUA-01	38.43				hJ		5				PR						
BHUA-01	38.45				J		60		fe staining		PR	RF					
BHUA-01	38.52				hJ		85		bk		IR						
BHUA-01	38.59				hJ		80		bk		CU						
BHUA-01	38.62				hJ		75		bk		PR						
BHUA-01	38.75				J		45			CN	PR	RF					
BHUA-01	38.78	38.95			hJs	x4	75	85	bk		PR						
BHUA-01	38.84				hJ		55				PR						
BHUA-01	38.90				hJ		60				PR						
BHUA-01	38.92	38.98			hJs	x3	30	35			PR						
BHUA-01	39.03				hJ		40		bk		PR						
BHUA-01	39.05				hJ		60		bk		PR						
BHUA-01	39.07	39.09			hJs		30		bk		PR						
BHUA-01	39.14	39.15			hJ		85				PR						
BHUA-01	39.18	39.30			hJs	x11	10	20			PR						
BHUA-01	39.25				J		10			CN	UN	RF					
BHUA-01	39.30				hJ		70		bk		PR						
BHUA-01	39.34				J		0			CN	ST	RF					
BHUA-01	39.40				hJ		80		bk		CU						
BHUA-01	39.46	39.47			hJ		30		pl yl		PR						
BHUA-01	39.52				hJ		30		pl yl		PR						
BHUA-01	39.52	39.88			hJs	x21	10	20			PR						
BHUA-01	39.59				hJ		85		bk		IR						
BHUA-01	39.76				hJs	x3	30				PR						
BHUA-01	39.85				hJ		60		bk		PR						
BHUA-01	40.03				hJ		80		pl yl		PR						
BHUA-01	40.04	40.10			hJs	x2	20		bk		PR						
BHUA-01	40.06				hJ		5				PR						
BHUA-01	40.13				hJ		15				PR						
BHUA-01	40.16				J		10			CN	PR	RF					
BHUA-01	40.20	40.23			hJs	x4	20				PR						
BHUA-01	40.26				,hJ		30				PR						
BHUA-01	40.28				hJ		50				PR						
BHUA-01	40.29				hJ		5				PR						
BHUA-01	40.29	40.37			hJs	x7	15				PR						
BHUA-01	40.37	40.40			hJs	x2	50	10			PR						
BHUA-01	40.44	40.50			hJs	x7	5				PR						
BHUA-01	40.52				J		10			CN	PR	RF					
BHUA-01	40.54	40.58			hJs	x6	20	25			PR						
BHUA-01	40.65				hJ		10				PR						
BHUA-01	40.68	40.70			hJs	x2	20				PR						
BHUA-01	40.72				hJ		10		bk		PR						
BHUA-01	40.74				hJ		85		bk		PR						
BHUA-01	40.75	40.78			hJs	x3	30		bk		PR						
BHUA-01	40.78				J		75			CN	PR	RF					
BHUA-01	40.79	40.95			hJs	x8	10				PR						
BHUA-01	41.00	41.20							fe staining								
BHUA-01	41.05				hJ		30				PR						
BHUA-01	41.07				hJ		20				PR						
BHUA-01	41.13				hJ		55		bk		PR						
BHUA-01	41.14				hJ		60		bk		PR						
BHUA-01	41.15	41.17			hJs	x2	65		bk		PR						
BHUA-01	41.18				hJ		55		wh		PR						
BHUA-01	41.20				hJ		15		pl yl		PR						
BHUA-01	41.26				hJ		35		pl yl		PR						
BHUA-01	41.28	41.46			hJs	x13	10	15			PR						
BHUA-01	41.43				hJ		40		bk		PR						
BHUA-01	41.47				J		10			CN	PR	RF					
BHUA-01	41.50	41.55			hJs	x3	20				PR						
BHUA-01	41.54	41.58			hJs	x2	10				PR						
BHUA-01	41.59				hJ		25				PR						
BHUA-01	41.70				hJ		30		pl yl		PR						
BHUA-01	41.71				hJ		30		bk		PR						
BHUA-01	41.77				hJ		25		pl yl		PR						
BHUA-01	41.82				hJ		60				PR						
BHUA-01	41.89	41.95			hJs	x2	25				PR						
BHUA-01	42.04	42.10			hJs	x4	15	20			PR						
BHUA-01	42.05				hJ		20				PR						
BHUA-01	42.16				J		10			CN	PR	RF					
BHUA-01	42.22				hJ		5				PR						
BHUA-01	42.28				hJ		35				PR						
BHUA-01	42.35	42.39			hJs	x3	30				PR						
BHUA-01	42.43				J		10			CN	PR	RF					
BHUA-01	42.46				hJ		90		bk		CU						
BHUA-01	42.46	42.50			hJs	x4	10				PR						
BHUA-01	42.50				hJ		15		pl yl		PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	42.58	42.68			hJs	x2	30				PR						
BHUA-01	42.60				hJ		10		pl yl		PR						
BHUA-01	42.65				hJ		75				PR						
BHUA-01	42.70				hJ		25		pl yl		PR						
BHUA-01	42.71				hJ		60				PR						
BHUA-01	42.76				hJ		25				PR						
BHUA-01	42.78				hJ		25				PR						
BHUA-01	42.83				hJ		60				PR						
BHUA-01	42.91	42.92			hJ		20		bk		PR						
BHUA-01	43.01				hJ		10		pl yl		PR						
BHUA-01	43.03				hJ		15				PR						
BHUA-01	43.08				hJ		15				PR						
BHUA-01	43.11				hJ		60				PR						
BHUA-01	43.12				hJ		45		bk		PR						
BHUA-01	43.17	43.21			hJs	x2	5	10	pl yl		PR						
BHUA-01	43.24	43.25			hJs	x2	40		pl yl		PR						
BHUA-01	43.27				hJ		20				PR						
BHUA-01	43.30				hJ		30		pl yl		PR						
BHUA-01	43.33	43.42			hJs		30		pl yl, bk		PR						
BHUA-01	43.51				hJ		40		pl yl		PR						
BHUA-01	43.52	43.64			hJs	x2	10				PR						
BHUA-01	43.56				hJ		20		pl yl, bk		PR						
BHUA-01	43.66	43.77			hJs	x2	30		pl yl		PR						
BHUA-01	43.74				J		5			CN	PR	RF					
BHUA-01	43.79				hJ		20				PR						
BHUA-01	43.85				hJ		70				PR						
BHUA-01	43.92				hJ		45				PR						
BHUA-01	44.01	44.09			hJs	x4	5				PR						
BHUA-01	44.15	44.18			hJs	x2	10				PR						
BHUA-01	44.28				hJ		60				PR						
BHUA-01	44.32				J		30			CN	PR	RF					
BHUA-01	44.39				hJ		60				PR						
BHUA-01	44.47				hJ		40				PR						
BHUA-01	44.53				hJ		20				PR						
BHUA-01	44.62	44.80			hJs	x3	65				PR	bk					
BHUA-01	44.89				hJ		20				PR						
BHUA-01	45.00				hJ		5				PR						
BHUA-01	45.03				hJ		60				PR						
BHUA-01	45.15				hJ		40				PR						
BHUA-01	45.33	45.65			hJs	x3	80				PR						
BHUA-01	45.37	45.38			hJs		15				PR						
BHUA-01	45.40				hJ		30				PR						
BHUA-01	45.41				J		20		bk mn	CT	PR	RF					
BHUA-01	45.63				J		75			CN	PR	RF					
BHUA-01	45.67				J		20			CN	PR	RF					
BHUA-01	45.78	45.79			hJs	x2	10		pl yl		PR						
BHUA-01	45.80				hJ		30				PR						
BHUA-01	45.83	45.90			hJs	x5	10	20	bk		PR						
BHUA-01	45.92	46.32			hJs	x21	5	15			PR						
BHUA-01	46.03				hJ		50		bk		PR						
BHUA-01	46.07				hJ		45		pl yl		PR						
BHUA-01	46.10	46.75			CO		45		gy ält								
BHUA-01	46.35				hJ		30		pl yl, bk		PR						
BHUA-01	46.36				hJ		5		pl yl		PR						
BHUA-01	46.45				J		80			CN	PR	RF					
BHUA-01	46.62	46.81			hJs	x4	10	15	bk		PR						
BHUA-01	46.64				hJ		75		wh		PR						
BHUA-01	46.68				J		15		gn	CT	PR	RF					
BHUA-01	46.80	46.86			Js	x2	10			CN	PR	RF					
BHUA-01	47.08				hJ		80				PR						
BHUA-01	47.10				hJ		10		bk		PR						
BHUA-01	47.13				J		10			CN	PR						
BHUA-01	47.15	47.22			hJs	x4	5		bk		PR						
BHUA-01	47.23				hJ		0		pl yl		PR						
BHUA-01	47.28				hJ		20				PR						
BHUA-01	47.32				hJ		5		pl yl		PR						
BHUA-01	47.33	47.35			hJs	x2	10		bk		PR						
BHUA-01	47.36				V		5		gn		PR		<	2			
BHUA-01	47.47	47.60			hJs	x2	0				PR						
BHUA-01	47.66	47.97			hJs	x11	0	10			PR						
BHUA-01	47.90				J		75			CN	PR	RF					
BHUA-01	48.02				hJ		80		yl		PR	pl					
BHUA-01	48.04	48.19			hJs	x4	5	10	bk		PR						
BHUA-01	48.12				J		5			CN	PR	RF					
BHUA-01	48.21				J		10			CN	PR	RF					
BHUA-01	48.27	48.30			hJs	x2	10				PR						
BHUA-01	48.30	48.31			hJs	x2	10		yl		PR	pl					
BHUA-01	48.35	48.37			Js	x2	10			CN	PR	RF					
BHUA-01	48.36				hJ		60		bk		PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	48.43				hJ		10		bk		PR						
BHUA-01	48.46	48.56			hJs	x7	10				PR						
BHUA-01	48.51				J		10			CN	PR	RF					
BHUA-01	48.61				hJ		0				PR						
BHUA-01	48.66				J		5			CN	PR	RF					
BHUA-01	48.70				hJ		65		bk		PR						
BHUA-01	48.74	48.81			Js		10			CN	PR	RF					
BHUA-01	48.75	48.77			hJ	x2	10				PR						
BHUA-01	48.85				hJ		5				PR						
BHUA-01	48.86				hJ		5				PR						
BHUA-01	48.94				hJ		0				PR						
BHUA-01	48.99				hJ		30				PR						
BHUA-01	49.09	49.11			hJs	x2	50				PR						
BHUA-01	49.14				hJ		5				PR						
BHUA-01	49.19				hJ		60				PR						
BHUA-01	49.22				hJ		90				it						
BHUA-01	49.28				hJ		45				PR						
BHUA-01	49.30				hJ		60		bk		PR						
BHUA-01	49.32	49.33			hJs		65				PR						
BHUA-01	49.41				hJ		65		bk		PR						
BHUA-01	49.42				hJ		60		bk, wh		PR						
BHUA-01	49.44				J		5			CN	PR	RF					
BHUA-01	49.50				hJ		65				PR						
BHUA-01	49.53				hJ		50				PR						
BHUA-01	49.57				hJ		70				PR						
BHUA-01	49.58				hJ		80		bk		PR						
BHUA-01	49.59				hJ		40				PR						
BHUA-01	49.63				J		40			CN	PR	RF					
BHUA-01	49.66				hJ		15				PR						
BHUA-01	49.72				J		15			CN	PR	RF					
BHUA-01	49.75				hJ		70		bk		PR						
BHUA-01	49.83				J		40			CN	PR	RF					
BHUA-01	49.86				hJ		0				PR						
BHUA-01	49.90				hJ		60				PR						
BHUA-01	49.92				hJ		0				PR						
BHUA-01	50.04				hJ		70		bk, wh		PR						
BHUA-01	50.07	50.08			hJs	x2	0		pl yl		PR						
BHUA-01	50.09				hJ		5		pl yl		PR						
BHUA-01	50.10				hJ		40		pl yl		PR						
BHUA-01	50.20				J		15			CN	PR	RF					
BHUA-01	50.26	50.29			hJs	x2	0		pl yl		PR						
BHUA-01	50.36				J		60			CN	PR	RF					
BHUA-01	50.50				hJ		70				IR						
BHUA-01	51.13	51.21			hJs	x2	70				PR						
BHUA-01	51.17				hJ		25				PR						
BHUA-01	51.19				hJ		60				PR						
BHUA-01	51.23				hJ		50		bk		PR						
BHUA-01	51.31	51.33			hJs	x2	30		bk		PR						
BHUA-01	51.35				J		30			CN	PR	RF					
BHUA-01	51.36				hJ		30		bk		PR						
BHUA-01	51.37				hJ		20		bk		PR						
BHUA-01	51.39				hJ		55		bk		PR						
BHUA-01	51.41				hJ		35				PR						
BHUA-01	51.47	51.51			hJs	x3	30				PR						
BHUA-01	51.49				J		30			CN	PR	RF					
BHUA-01	51.50				J		60			CN	PR	RF					
BHUA-01	51.55				hJ		60				PR						
BHUA-01	51.63				J		50			CN	PR	sm					
BHUA-01	51.69				hJ		30		bk		PR						
BHUA-01	51.70	51.72			hJs	x2	60		bk		PR						
BHUA-01	51.76				J		25			CN	PR	RF					
BHUA-01	51.81				hJ		15				PR						
BHUA-01	51.83				hJ		50		bk		PR						
BHUA-01	51.84				J		15			CN	PR	RF					
BHUA-01	51.87	51.91			hJs	x5	10	15			PR						
BHUA-01	51.92				J		20			CN	PR	RF					
BHUA-01	51.93				hJ		60				PR						
BHUA-01	51.96				J		25			CN	PR	RF					
BHUA-01	51.97				hJ		10		bk		PR						
BHUA-01	52.03				hJ		40				PR						
BHUA-01	52.06				J		30			CN	PR	RF					
BHUA-01	52.10	52.13			hJs	x3	10		bk		PR						
BHUA-01	52.16				hJ		5				PR						
BHUA-01	52.17				hJ		50				PR						
BHUA-01	52.19				hJ		30				PR						
BHUA-01	52.22				J		30			CN	PR	RF					
BHUA-01	52.24				hJ		5				PR						
BHUA-01	52.27				hJ		80		bk		PR						
BHUA-01	52.30				J		10			CN	PR	RF					

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	52.41				hJ		10				PR						
BHUA-01	52.45				hJ		20				PR						
BHUA-01	52.46				hJ		70				PR						
BHUA-01	52.52				hJ		60				PR						
BHUA-01	52.57				J		0			CN	PR	RF					
BHUA-01	52.63				hJ		60				PR						
BHUA-01	52.66				J		5			CN	PR	RF					
BHUA-01	52.71				J		10			CN	PR	RF					
BHUA-01	52.72				hJ		0				PR						
BHUA-01	52.76				J		15			CN	PR	RF					
BHUA-01	52.80				J		50			CN	PR	RF					
BHUA-01	52.83				J		0			CN	PR	RF					
BHUA-01	52.86				J		60			CN	PR	RF					
BHUA-01	52.87				hJ		60				PR						
BHUA-01	52.90				hJ		40				PR						
BHUA-01	52.93				J		10			CN	PR	RF					
BHUA-01	53.03				hJ		30				PR						
BHUA-01	53.06				hJ		5				PR						
BHUA-01	53.07				hJ		30				PR						
BHUA-01	53.09				hJ		5				PR						
BHUA-01	53.11				J		10			CN	PR	RF					
BHUA-01	53.15	53.19			hJs	x2	70				PR						
BHUA-01	53.28				J		10		CO granodiorite porphry basalt	CN	PR	RF					
BHUA-01	53.32	53.35			hJs	x2	70		wh		PR						
BHUA-01	53.33				hJ		60				PR						
BHUA-01	53.39				hJ		30				PR						
BHUA-01	53.41				hJ		70				PR						
BHUA-01	53.42				hJ		80										
BHUA-01	53.50	53.52			hJs	x2	70		wh		PR						
BHUA-01	53.62	53.67			hJs	x2	70		wh		PR						
BHUA-01	53.63				hJ		20				PR						
BHUA-01	53.78				hJ		5	10			PR						
BHUA-01	53.79				hJ		65				PR						
BHUA-01	53.80				hJ		70		wh		PR						
BHUA-01	53.83				V		60		wh		PR		<	2			
BHUA-01	53.84				hJ		50		wh		PR						
BHUA-01	53.91	53.93			hJs	x2	20		wh		PR						
BHUA-01	53.92				V		70		wh		PR		<	3			
BHUA-01	53.95				J		30			CN	PR	RF					
BHUA-01	54.02				hJ		60				PR						
BHUA-01	54.17				hJ		70				PR						
BHUA-01	54.23				hJ		45				PR						
BHUA-01	54.24				J		55			CN	PR	RF					
BHUA-01	54.27	54.43			hJs	x3	50	60			PR						
BHUA-01	54.46				hJ		55		wh		PR						
BHUA-01	54.49				V		50		pi		PR		<	2			
BHUA-01	54.51				DB												
BHUA-01	54.53				hJ		50		wh		PR						
BHUA-01	54.58				hJ		55		wh		PR						
BHUA-01	54.60				hJ		70		wh		PR						
BHUA-01	54.63				J		60			CN	PR						
BHUA-01	54.65	54.79			hJs	x3	60		wh		PR						
BHUA-01	54.80				hJ		60		wh		PR						
BHUA-01	54.83				V		70		wh		PR		<	2			
BHUA-01	54.94				hJ		50				PR						
BHUA-01	55.06	55.09			hJs	x3	50		pl yl		PR						
BHUA-01	55.12				hJ		60				PR						
BHUA-01	55.14				V		50		wh mi		PR		<	2			
BHUA-01	55.22				V		45		wh mi		PR		<	4			
BHUA-01	55.29				hJ		45		wh		PR						
BHUA-01	55.40				J		40			CN	PR	RF					
BHUA-01	55.42	55.43			hJs	x2	40				PR						
BHUA-01	55.48	55.53			hJs	x3	35				PR						
BHUA-01	55.53				V		35		wh mn, pl yl alt halo 2 mm		PR		<	7			
BHUA-01	55.56				hJ		65		wh		PR						
BHUA-01	55.57				hJ		35		wh		PR						
BHUA-01	55.72	55.92			Vs	x4	40		wh mi		PR		<	2			
BHUA-01	55.78				hJ		50				PR						
BHUA-01	55.96				hJ		30				PR						
BHUA-01	55.97				hJ		40				PR						
BHUA-01	56.04				hJ		30		wh		PR						
BHUA-01	56.09				V		70		wh mn, gr alt halo		PR		<	1			
BHUA-01	56.11				V		35		wh mi		PR						
BHUA-01	56.16	56.24			hJs	x3	65	75			PR						
BHUA-01	56.25				J		20			CN	PR	RF					
BHUA-01	56.27				hJ		40				PR						
BHUA-01	56.30				hJ		80				PR						
BHUA-01	56.35				hJ		55				PR						
BHUA-01	56.39				hJ		15				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	56.41	56.43			hJs	x2	5				PR						
BHUA-01	56.46				hJ		25				PR						
BHUA-01	56.50				hJ		60				PR						
BHUA-01	56.53				hJ		75		pl yl		PR						
BHUA-01	56.54				hJ		50				PR						
BHUA-01	56.63				hJ		5				PR						
BHUA-01	56.69				J		40			CN	PR	RF					
BHUA-01	56.70				hJ		45				PR						
BHUA-01	56.79				hJ		10				PR						
BHUA-01	56.91				J		10			CN	PR	RF					
BHUA-01	56.93				hJ		60				PR						
BHUA-01	56.96				hJ		60				PR						
BHUA-01	57.07	57.10			hJs		5		pl yl		PR						
BHUA-01	57.09				hJ		80				PR						
BHUA-01	57.14	57.17			hJs		30				PR	x2					
BHUA-01	57.19	57.22			hJs	x2	5		pl yl		PR						
BHUA-01	57.24				hJ		5				PR						
BHUA-01	57.27				hJ		5		pl yl		PR						
BHUA-01	57.31				J		50			CN	PR	RF					
BHUA-01	57.34				hJ		40		dbd		PR						
BHUA-01	57.38				hJ		55		pl yl		PR						
BHUA-01	57.39				hJ		55				PR						
BHUA-01	57.51				hJ		10		pl yl		PR						
BHUA-01	57.52	57.53			hJs	x2	5	10	yl		PR						
BHUA-01	57.58	57.60			hJs		5		pl yl		PR						
BHUA-01	57.62				J		40			CN	PR	RF					
BHUA-01	57.70				hJ		50		pl yl		PR						
BHUA-01	57.81				hJ		50				PR						
BHUA-01	57.82				J		5			CN	PR	RF					
BHUA-01	57.85	57.87			hJs		55				PR						
BHUA-01	57.94				hJ		40				PR						
BHUA-01	57.96	57.97			hJs	x2	30				PR						
BHUA-01	57.98				hJ		40				PR						
BHUA-01	58.02				hJ		60				PR						
BHUA-01	58.03				hJ		5				PR						
BHUA-01	58.10				hJ		5		pl yl		PR						
BHUA-01	58.11				hJ		50				PR						
BHUA-01	58.17				hJ		20				PR						
BHUA-01	58.21				hJ		45				PR						
BHUA-01	58.22				hJ		50				PR						
BHUA-01	58.24				hJ		10				PR						
BHUA-01	58.25				hJ		60				PR						
BHUA-01	58.26				hJ		10		pl yl		PR						
BHUA-01	58.30				hJ		30				PR						
BHUA-01	58.31				hJ		40				PR						
BHUA-01	58.32				J		40			CN	PR	RF					
BHUA-01	58.40	58.45			hJs	x2	55		bk		PR						
BHUA-01	58.49				hJ		15				PR						
BHUA-01	58.51				hJ		50				PR						
BHUA-01	58.54				hJ		30				PR						
BHUA-01	58.58				hJ		30		pl yl		PR						
BHUA-01	58.60				hJ		5		pl yl		PR						
BHUA-01	58.63				hJ		10		wh		PR						
BHUA-01	58.66				hJ		20		pl yl		PR						
BHUA-01	58.67	58.68			hJs	x2	5		pl yl		PR						
BHUA-01	58.72				hJ		10				PR						
BHUA-01	58.73				hJ		15				PR						
BHUA-01	58.74				hJ		10				PR						
BHUA-01	58.76				hJ		25		pl yl		PR						
BHUA-01	58.78				hJ		55		pl yl		PR						
BHUA-01	58.79				hJ		15		pl yl		PR						
BHUA-01	58.84				hJ		15				PR						
BHUA-01	58.86				hJ		20		pl yl		PR						
BHUA-01	58.87				hJ		5				PR						
BHUA-01	58.88				hJ		10				PR						
BHUA-01	58.89	58.90			hJs	x2	45		pl yl		PR						
BHUA-01	58.93				J		30			CN	PR	RF					
BHUA-01	58.98				hJ		5		pl yl		PR						
BHUA-01	59.03				hJ		30				PR						
BHUA-01	59.04	59.05			hJs	x2	40				PR	X2					
BHUA-01	59.08				V		60		pl yl, gr		PR		<	2			
BHUA-01	59.12	59.15			hJs	x2	30				PR	X2					
BHUA-01	59.14				hJ		30				PR						
BHUA-01	59.19				V		55		wh mn, pink halo 3mm		PR		<	7			
BHUA-01	59.24				CO		20			PR							
BHUA-01	59.31	59.37							granodiorite intrusion, pl yl flow banding								
BHUA-01	59.41				hJ		80		wh		PR						
BHUA-01	59.44				J		20			CN	PR	RF					
BHUA-01	59.47	59.93			AZ		0	30	pl yl		PR-UN						0-10mm spacing

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	59.56				hJ		60		wh		PR						
BHUA-01	59.71				V		60		wh		PR		<	2			
BHUA-01	59.76				hJ		10		pl yl, SA halo 2mmm		PR						
BHUA-01	59.78				hJ		30		pl yl		PR						
BHUA-01	59.80				hJ		10		pl yl SA halo 1mm		PR						
BHUA-01	59.88	59.93			hJs	x3	5		pl yl SA halo 2mm		PR						
BHUA-01	60.03				hJ		70		pl yl		IR						
BHUA-01	60.05				hJ		50		pl yl		PR						
BHUA-01	60.07				J		20			CN	PR	RF					
BHUA-01	60.09				J		70			CN	PR	RF					
BHUA-01	60.11				hJ		45				PR						
BHUA-01	60.13				hJ		20				PR						
BHUA-01	60.17				hJ		15		pl yl		PR						
BHUA-01	60.19				hJ		10				PR	dbd					
BHUA-01	60.24				J		60		wh, purple mn	CT	PR	RF					
BHUA-01	60.29				hJ		60				PR						
BHUA-01	60.32				J		60			CN	PR	RF					
BHUA-01	60.36				CO		60		basalt to granodiorite								
BHUA-01	60.39	60.40			hJs	x2	70		dbd		PR						
BHUA-01	60.41				J		5			CN	PR	RF					
BHUA-01	60.45				hJ		15				PR	RF					
BHUA-01	60.49				hJ		0		pl yl		PR						
BHUA-01	60.50				hJ		60		pl yl		PR						
BHUA-01	60.53				hJ		60				PR						
BHUA-01	60.54	60.58			hJs	x3	5				PR						
BHUA-01	60.59				hJ		60		bk		PR						
BHUA-01	60.61				hJ		80		bk		PR						
BHUA-01	60.64				J		20			CN	PR	RF					
BHUA-01	60.68				hJ		10				PR						
BHUA-01	60.69	60.70			hJs	x2	20		bk		PR						
BHUA-01	60.71	60.74			hJs	x2	5		bk		PR						
BHUA-01	60.75				hJ		70				PR						
BHUA-01	60.76				hJ		45		wh, bk		PR						
BHUA-01	60.77				hJ		30				PR						
BHUA-01	60.82				hJ		30				PR						
BHUA-01	60.91				J		45			CN	PR	RF					
BHUA-01	61.12				hJ		5				PR						
BHUA-01	61.17				hJ		5		bk		PR						
BHUA-01	61.18				hJ		40				PR						
BHUA-01	61.19				hJ		20				PR						
BHUA-01	61.25				hJ		20				PR						
BHUA-01	61.26				hJ		30				PR						
BHUA-01	61.27				hJ		40				PR						
BHUA-01	61.29				hJ		60				PR						
BHUA-01	61.31	61.33			hJs	x2	20				PR						
BHUA-01	61.35	61.39			hJs	x3	35		bk		PR						
BHUA-01	61.41				hJ		50		red		PR						
BHUA-01	61.46				hJ		5				PR						
BHUA-01	61.51				hJ		20										
BHUA-01	61.54				J		50			CN	PR	RF					
BHUA-01	61.57	61.63			hJs	x5	40		bk		PR						
BHUA-01	61.68				hJ		10				PR						
BHUA-01	61.69				J		30			CN	PR	RF					
BHUA-01	61.73				hJ		30		bk		PR						
BHUA-01	61.75				hJ		5				PR						
BHUA-01	61.78				J		40			CN	PR	RF					
BHUA-01	61.81				hJ		60		bk		PR						
BHUA-01	61.82				hJ		5		Rd		PR						
BHUA-01	61.87				hJ		30				PR						
BHUA-01	61.88				J		10			CN	PR	RF					
BHUA-01	61.89				hJ		35		bk		PR						
BHUA-01	61.90				hJ		5				PR						
BHUA-01	61.92				hJ		5				PR						
BHUA-01	61.94				hJ		60		bk		PR						
BHUA-01	62.07				hJ		30		bk		PR						
BHUA-01	62.11	62.14			hJs	x2	80				PR						
BHUA-01	62.15				hJ		30		bk		PR						
BHUA-01	62.16				hJ		30		bk		PR						
BHUA-01	62.21				hJ		55				PR						
BHUA-01	62.22				hJ		10		bk		PR						
BHUA-01	62.23				hJ		30										
BHUA-01	62.27				J		30			CN	PR	RF					
BHUA-01	62.29	62.31			hJs	x2	10				PR						
BHUA-01	62.31				hJ		80				PR						
BHUA-01	62.34	62.42			hJs	x2	60				PR						
BHUA-01	62.43				J		20			CN	PR	RF					
BHUA-01	62.50	62.58			hJs	x3	20		bk		PR						
BHUA-01	62.61				hJ		70				PR						
BHUA-01	62.65				J		30			CN	PR	RF					

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	62.72				hJ		20				PR						
BHUA-01	62.77				hJ		30		bk		PR						
BHUA-01	62.78				J		0				PR						
BHUA-01	62.79				hJ		35				PR						
BHUA-01	62.83	62.84			hJs	x2	30				PR						
BHUA-01	62.85				hJ		5				PR						
BHUA-01	62.92				J		20			CN	PR	RF					
BHUA-01	62.93				hJ		30		bk		PR						
BHUA-01	62.94				J		10			CN	PR	RF					
BHUA-01	62.99				J		15			CN	PR	RF					
BHUA-01	63.03				hJ		5				PR						
BHUA-01	63.06				hJ		10				PR						
BHUA-01	63.08				hJ		15				PR						
BHUA-01	63.09				hJ		80				PR						
BHUA-01	63.15				J		20			CN	PR	RF					
BHUA-01	63.17				hJ		35				PR						
BHUA-01	63.20				J		30			CN	PR	RF					
BHUA-01	63.23				hJ		10		bk		PR						
BHUA-01	63.25				hJ		50		bk		PR						
BHUA-01	63.27				hJ		40				PR						
BHUA-01	63.32				hJ		50				PR						
BHUA-01	63.33				hJ		40				PR						
BHUA-01	63.36				hJ		50				PR						
BHUA-01	63.39				hJ		20				PR						
BHUA-01	63.43				hJ		60		bk		PR						
BHUA-01	63.46				hJ		5				PR						
BHUA-01	63.50				hJ		70				PR						
BHUA-01	63.57				hJ		85				PR						
BHUA-01	63.63				hJ		10				PR						
BHUA-01	63.65				hJ		75				PR						
BHUA-01	63.69				hJ		20				PR						
BHUA-01	63.76				hJ		20				PR						
BHUA-01	63.81				J		10			CN	PR	RF					
BHUA-01	63.86				hJ		80				PR						
BHUA-01	63.93				V		30		wh mi		IR						
BHUA-01	63.95	63.96			hJs	x2	85				PR						
BHUA-01	63.98				hJ		50				PR						
BHUA-01	63.99				hJ		60				PR						
BHUA-01	64.01	64.07			hJs	x2	30		wh		PR						
BHUA-01	64.11				hJ		60		wh		PR						
BHUA-01	64.14	64.23			hJs	x4	20				PR						
BHUA-01	64.24				hJ		15				PR						
BHUA-01	64.26				hJ		15				PR						
BHUA-01	64.34	64.35			hJs	x2	35		wh		PR						
BHUA-01	64.36				hJ		20				PR						
BHUA-01	64.39				J		5			CN	PR	RF					
BHUA-01	64.40				hJ		10				PR						
BHUA-01	64.42				hJ		30				PR						
BHUA-01	64.45				hJ		50				PR						
BHUA-01	64.50	64.80							granidiorite intrusion								
BHUA-01	64.53				hJ		5				PR						
BHUA-01	64.56	64.58			hJs	x2	10				PR						
BHUA-01	64.58	64.74			hJs	x4	45		alt hato 1mm bl		PR						
BHUA-01	64.79				hJ		20				PR						
BHUA-01	64.83				hJ		30		wh		PR						
BHUA-01	64.85				hJ		60		wh mi		PR						
BHUA-01	64.93				hJ		20		wh		PR						
BHUA-01	64.94	64.95			hJs	x2	45				PR						
BHUA-01	65.04				hJ		10		wh		PR						
BHUA-01	65.06	65.21			hJs	x2	70		wh		PR						
BHUA-01	65.11				hJ		70				PR						
BHUA-01	65.12				hJ		40				PR						
BHUA-01	65.29				J		30			CN	PR	RF					
BHUA-01	65.31				hJ		80				PR						
BHUA-01	65.39				hJ		65				PR						
BHUA-01	65.40				hJ		60				PR						
BHUA-01	65.41	65.46			hJs	x2	30		wh		PR						
BHUA-01	65.57				hJ		70				PR						
BHUA-01	65.61				hJ		40		wh		PR						
BHUA-01	65.63				hJ		30				PR						
BHUA-01	65.67				hJ		35				PR						
BHUA-01	65.70				hJ		10		wh		PR						
BHUA-01	65.72				hJ		80				PR						
BHUA-01	65.74				hJ		10			wh	mn						
BHUA-01	65.84				J		45			CN	PR	RF					
BHUA-01	65.95				V		45		wh		PR		<	2			
BHUA-01	65.96				hJ		80				PR						
BHUA-01	66.07				hJ		30		wh		PR						
BHUA-01	66.13				hJs	x2	80				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	66.14				hJ		30				PR						
BHUA-01	66.19				hJ		20		wh		PR						
BHUA-01	66.21				hJ		60		wh		ST						
BHUA-01	66.22				hJ		0				PR						
BHUA-01	66.23				hJ		20		wh		PR						
BHUA-01	66.25				V		50		wh mi		PR		<	2			
BHUA-01	66.27				hJ		60		wh		PR						
BHUA-01	66.28				hJ		80				PR						
BHUA-01	66.31				hJ		60				PR						
BHUA-01	66.33				hJ		50				PR						
BHUA-01	66.36				hJ		70				PR						
BHUA-01	66.38				hJ		50				PR						
BHUA-01	66.39				hJ		40		wh		PR						
BHUA-01	66.48				hJ		15				PR						
BHUA-01	66.52				hJ		20		wh		PR						
BHUA-01	66.55				J		15			CN	PR	RF					
BHUA-01	66.60				hJ		40				PR						
BHUA-01	66.69				hJ		80				PR						
BHUA-01	66.72				hJ		30				PR						
BHUA-01	66.78				hJ		30				PR						
BHUA-01	66.79				hJ		30		pl yl		PR						
BHUA-01	66.82				J		5			CN	PR	RF					
BHUA-01	66.87				V		80		wh		PR		<	2			
BHUA-01	66.91				V		60				PR						
BHUA-01	66.94				V		55		wh		PR		<	2			
BHUA-01	66.96				V		45		wh		PR		<	2			
BHUA-01	67.01	67.04			Vs	x2	60		wh		PR		<	2			
BHUA-01	67.07	67.09			Vs	x3	50		wh		PR		<	2			
BHUA-01	67.11				Vs	x2	30	40	wh		PR		<	2			
BHUA-01	67.16				hJ		30		wh		PR						
BHUA-01	67.21				hJ		40		wh		PR						
BHUA-01	67.22				hJ		50		wh		PR						
BHUA-01	67.23				hJ		30		wh		PR						
BHUA-01	67.29				hJ		55		wh		PR						
BHUA-01	67.31				hJ		30		wh		PR						
BHUA-01	67.32				hJ		55		alt halo pl yl 2mm		PR						
BHUA-01	67.43				hJ		40				PR						
BHUA-01	67.57				V		65		wh		PR		<	1			
BHUA-01	67.64				V		30		wh		PR		<	1			
BHUA-01	67.67				hJ		80		pl yl		PR						
BHUA-01	67.70				hJ		80		pl yl		PR						
BHUA-01	67.75				J		45			CN	PR	RF					
BHUA-01	67.80				J		10		basalt to granodiorite	CN	PR	RF					
BHUA-01	67.87				hJ		80				PR						
BHUA-01	67.93				hJ		40		bk		PR						
BHUA-01	68.07	68.14			hJs	x3	60		bk		PR						
BHUA-01	68.10				DB		5										
BHUA-01	68.19				hJ		5				PR						
BHUA-01	68.21				hJ		55				PR						
BHUA-01	68.30				J		15			CN	PR	RF					
BHUA-01	68.31				hJ		20		bk		PR						
BHUA-01	68.32				hJ		75				PR						
BHUA-01	68.35				hJ		20				PR						
BHUA-01	68.47				hJ		15		bk halo 1mm		PR						
BHUA-01	68.50				J		15			CN	PR	RF					
BHUA-01	68.51				hJ		15		bk		PR						
BHUA-01	68.54				hJ		40				PR						
BHUA-01	68.63				hJ		5				PR						
BHUA-01	68.64				J		65			CN	PR	RF					
BHUA-01	68.68				hJ		10				PR						
BHUA-01	68.72				hJ		65				PR						
BHUA-01	68.75				hJ		70				PR						
BHUA-01	68.79				hJ		45				PR						
BHUA-01	68.82				J		65			CN	PR	RF					
BHUA-01	68.91				hJ		30				PR						
BHUA-01	69.07				hJ		50				PR						
BHUA-01	69.12	69.13			hJs	x2	45				PR						
BHUA-01	69.19	69.24			Js	x2	5	10		CN	PR	RF					
BHUA-01	69.24	69.26			hJs	x2	80		bk		PR						
BHUA-01	69.30				hJ		20				PR						
BHUA-01	69.34				hJ		50				PR						
BHUA-01	69.36				hJ		5				PR						
BHUA-01	69.41				hJ		10				PR						
BHUA-01	69.42				hJ		20				PR						
BHUA-01	69.46				hJ		75				PR						
BHUA-01	69.48				hJ		45				PR						
BHUA-01	69.50				J		30			CN	PR	RF					
BHUA-01	69.52				hJ		25				PR						
BHUA-01	69.57				J		60			CN	UN	RF					

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	69.61				J		60			CN	PR	sm					
BHUA-01	69.63	69.66			hJs	x2	5		bk		PR						
BHUA-01	69.73				J		30			CN	PR	RF					
BHUA-01	69.77				J		25			CN	PR	RF					
BHUA-01	69.84	69.88			hJs	x2	30				PR						
BHUA-01	70.07				hJ		40		bk		PR						
BHUA-01	70.09				J		25			CN	PR	RF					
BHUA-01	70.23				hJ		30		bk		PR						
BHUA-01	70.25	70.31			Js	x2	30			CN	PR	RF					
BHUA-01	70.42				hJ		35		alt halo gy 1mm		PR						
BHUA-01	70.47				J		5			CN	PR	RF					
BHUA-01	70.54				hJ		45				PR						
BHUA-01	70.57				J		20			CN	PR	RF					
BHUA-01	70.60				hJ		30				PR						
BHUA-01	70.65				J		5			CN	PR	RF					
BHUA-01	70.71				hJ		30		alt halo gy 1mm		PR						
BHUA-01	70.75				hJ		30				PR						
BHUA-01	70.82				hJ		45				PR						
BHUA-01	70.83				hJ		5				IR						
BHUA-01	70.85				hJ		30		pl yl		PR						
BHUA-01	70.88				hJ		60				PR						
BHUA-01	70.93				J		35			CN	PR	RF					
BHUA-01	70.96				hJ		20				PR						
BHUA-01	71.07				hJ		30		bk		PR						
BHUA-01	71.12				hJ		15				PR						
BHUA-01	71.15	71.26			hJs	x3	20				PR						
BHUA-01	71.21	71.24			hJs	x2	70				PR						
BHUA-01	71.31				hJ		25				PR						
BHUA-01	71.35				hJ		60				PR						
BHUA-01	71.39				hJ		65				PR						
BHUA-01	71.41				hJ		70				PR						
BHUA-01	71.46				hJ		5				IR						
BHUA-01	71.48	71.52			hJs	x3	20				PR						
BHUA-01	71.55				J		5			CN	PR	RF					
BHUA-01	71.57	71.59			hJs	x3	5				PR						
BHUA-01	71.61				hJ		50				PR						
BHUA-01	71.67				hJ		40				PR						
BHUA-01	71.81				hJ		10				PR						
BHUA-01	71.83				hJ		25				PR						
BHUA-01	71.86				hJ		60				PR						
BHUA-01	71.89	71.91			hJs	x2	10				PR						
BHUA-01	71.94	71.95			hJs	x2	60				PR						
BHUA-01	72.03				hJ		5				PR						
BHUA-01	72.06				J		40			CN	PR	RF					
BHUA-01	72.08	72.10			hJs	x2	10				PR	RF					
BHUA-01	72.11				hJ		10				PR						
BHUA-01	72.13	72.15			hJs	x2	25				PR						
BHUA-01	72.16				hJ		50										
BHUA-01	72.21				J		5		dbd	CN	PR	RF					
BHUA-01	72.24				hJ		30		bk		PR						
BHUA-01	72.28				hJ		70				PR						
BHUA-01	72.30				hJ		60				PR						
BHUA-01	72.34	72.39			hJs	x3	50				PR						
BHUA-01	72.41				hJ		45				PR						
BHUA-01	72.45				hJ		60				PR						
BHUA-01	72.47				hJ		15				PR						
BHUA-01	72.49				hJ		30				PR						
BHUA-01	72.51				hJ		60				PR						
BHUA-01	72.52				hJ		5				PR						
BHUA-01	72.55				J		10			CN	PR	RF					
BHUA-01	72.57				hJ		15		bk, halo pl gy		PR						
BHUA-01	72.60				hJ		0				PR						
BHUA-01	72.65				J		50			CN	PR	RF					
BHUA-01	72.72				hJ		60				PR						
BHUA-01	72.79				J		20			CN	PR	RF					
BHUA-01	72.81				hJ		20		bk		PR						
BHUA-01	72.82				hJ		10		bk		PR						
BHUA-01	72.83				hJ		35				PR						
BHUA-01	72.85				hJ		75				PR						
BHUA-01	72.87				hJ		20				PR						
BHUA-01	72.93				hJ		55		bk		PR						
BHUA-01	72.96				hJ		20				PR						
BHUA-01	73.04	73.06			hJs	x2	20		bk		PR						
BHUA-01	73.10				hJ		50				PR						
BHUA-01	73.12				hJ		15				PR						
BHUA-01	73.17				hJ		80				IR						
BHUA-01	73.22				hJ		25				PR						
BHUA-01	73.24				J		10			CN	PR	RF					
BHUA-01	73.31				hJ		45				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	73.32				hJ		70				PR						
BHUA-01	73.37				hJ		20				PR						
BHUA-01	73.38				hJ		15				PR						
BHUA-01	73.43				hJ		60				PR						
BHUA-01	73.49				J		20			CN	PR	RF					
BHUA-01	73.51				hJ		60				PR						
BHUA-01	73.52				hJ		5				PR						
BHUA-01	73.54				hJ		85				PR						
BHUA-01	73.56	73.91							fe staining								
BHUA-01	73.59	73.61			hJs	x4	15				PR						
BHUA-01	73.60	76.00							fe staining								
BHUA-01	73.66				hJ		5				PR						
BHUA-01	73.70				J		15		dbd	CN	PR	RF					
BHUA-01	73.74				hJ		10				PR						
BHUA-01	73.78				hJ		0				PR						
BHUA-01	73.79				hJ		75				PR						
BHUA-01	73.83				hJ		65				PR						
BHUA-01	73.88				hJ		5		halo bk 1mm		PR						
BHUA-01	73.89				hJ		20				PR						
BHUA-01	73.91				hJ		10				PR						
BHUA-01	73.94	73.95			hJs	x2	0	5			PR						
BHUA-01	73.95				hJ		45				PR						
BHUA-01	73.98				hJ		5				PR						
BHUA-01	74.03	74.06			hJs	x2	30				PR						
BHUA-01	74.07				hJ		40				PR						
BHUA-01	74.08				hJ		80				PR						
BHUA-01	74.11				J		5			CN	ST	RF					
BHUA-01	74.13				hJ		50				PR						
BHUA-01	74.15	74.19			hJs	x2	80				PR						
BHUA-01	74.16				hJ		40				PR						
BHUA-01	74.18				hJ		40				PR						
BHUA-01	74.19				hJ		30				PR						
BHUA-01	74.21				hJ		10		bk		PR						
BHUA-01	74.23				J		25			CN	PR	RF					
BHUA-01	74.25	74.26			hJs	x2	30		bk		PR						
BHUA-01	74.26				hJ		50				PR						
BHUA-01	74.29				hJ		80				PR						
BHUA-01	74.32				hJ		30				PR						
BHUA-01	74.33				J		10			CN	PR	RF					
BHUA-01	74.37				hJ		20				PR						
BHUA-01	74.39				hJ		70		bk, wh alt halo 2mm		PR						
BHUA-01	74.42				J		40			CN	PR	RF					
BHUA-01	74.46				hJ		70				PR						
BHUA-01	74.50	74.51			hJs	x2	15				PR						
BHUA-01	74.53	74.54			hJs	x2	25				PR						
BHUA-01	74.56				hJ		20		pl yl		PR						
BHUA-01	74.57				hJ		20				PR						
BHUA-01	74.59				hJ		25				PR						
BHUA-01	74.62				hJ		55				PR						
BHUA-01	74.67				hJ		30				PR						
BHUA-01	74.68				hJ		35				PR						
BHUA-01	74.74				hJ		15				PR						
BHUA-01	74.79	74.81			hJs	x2	20				PR						
BHUA-01	74.87	74.93			hJs	x2	55		bk		PR						
BHUA-01	75.09				hJ		45				PR						
BHUA-01	75.11				hJ		30				PR						
BHUA-01	75.15				hJ		30				PR						
BHUA-01	75.25	75.26			hJs	x2	70				PR						
BHUA-01	75.31				hJ		45				PR						
BHUA-01	75.37								dolerite intrusion								
BHUA-01	75.38				hJ		20		fe staining		PR						
BHUA-01	75.44				J		20		fe staining	ST	PR	RF					
BHUA-01	75.53				hJ		50		bk halo 2mm		PR						
BHUA-01	75.59				J		10			CN	PR	rf					
BHUA-01	75.63				hJ		35				PR						
BHUA-01	75.64				hJ		15		bk		PR						
BHUA-01	75.68	75.71			hJs	x3	80		bk		PR						
BHUA-01	75.74				hJ		80		bk		PR						
BHUA-01	75.75				hJ		40		bk		PR						
BHUA-01	75.76				hJ		30				PR						
BHUA-01	75.77				hJ		15				PR						
BHUA-01	75.78				hJ		10				PR						
BHUA-01	75.80				hJ		5				PR						
BHUA-01	75.82				DB												
BHUA-01	75.85				hJ		55		bk		PR						
BHUA-01	76.03				hJ		70				PR						
BHUA-01	76.07				J		75			CN	PR	RF					
BHUA-01	76.10				hJ		60				PR						
BHUA-01	76.16				J		10			CN	PR	RF					

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	76.20	76.21			hJs	x2	5				PR						
BHUA-01	76.22				hJ		30		halo pl yl		PR						
BHUA-01	76.23				hJ		60				PR						
BHUA-01	76.26				hJ		65				PR						
BHUA-01	76.35	76.37			hJs	x2	30				PR						
BHUA-01	76.43				hJ		45				PR						
BHUA-01	76.45				hJ		10				PR						
BHUA-01	76.47				hJ		50				PR						
BHUA-01	76.52				J		50			CN	PR	RF					
BHUA-01	76.54	76.55			hJs	x2	50				PR						
BHUA-01	76.59				hJ		40				PR						
BHUA-01	76.60				J		5			CN	PR	RF					
BHUA-01	76.62				hJ		24				PR						
BHUA-01	76.65				hJ		60				PR						
BHUA-01	76.66	76.69			hJs	x2	45				PR						
BHUA-01	76.72				hJ		40				PR						
BHUA-01	76.73				hJ		40				PR						
BHUA-01	76.74				hJ		45				PR						
BHUA-01	76.77				hJ		80				PR						
BHUA-01	76.80				hJ		10				PR						
BHUA-01	76.87				hJ		5				PR						
BHUA-01	76.89				hJ		10				PR						
BHUA-01	76.93				hJ		15				PR						
BHUA-01	77.06				hJ		45				PR						
BHUA-01	77.09				J		30			CN	PR	RF					
BHUA-01	77.19				hJ		30				PR						
BHUA-01	77.26				hJ		40		bk		PR						
BHUA-01	77.27				hJs	x2	10				PR						
BHUA-01	77.30				hJ		20				PR						
BHUA-01	77.34				J		20			CN	PR	RF					
BHUA-01	77.38				hJ		30		wh		PR						
BHUA-01	77.42				hJ		5				PR						
BHUA-01	77.45	77.48			hJs	x3	60				PR						
BHUA-01	77.54				hJ		60				PR						
BHUA-01	77.62				hJ		25				PR						
BHUA-01	77.66				hJ		75				PR						
BHUA-01	77.68				J		75		fe staining	CN	PR	RF					
BHUA-01	77.69				hJ		5				PR						
BHUA-01	77.77				hJ		60				PR						
BHUA-01	77.80				hJ		10				PR						
BHUA-01	77.82				hJ		5		bk		PR						
BHUA-01	77.85				hJ		65				PR						
BHUA-01	77.91				J		5			CN	PR	RF					
BHUA-01	77.92	77.95			hJs	x2	80				PR						
BHUA-01	77.93				hJ		90		bk		PR						
BHUA-01	78.03				hJ		80				PR						
BHUA-01	78.04	78.06			hJs	x2	60				PR						
BHUA-01	78.07				J		5			CN	PR	RF					
BHUA-01	78.08				hJ		30				PR						
BHUA-01	78.09				hJ		50				PR						
BHUA-01	78.11	78.14			hJs	x2	60				PR						
BHUA-01	78.18				hJ		80		wh		PR						
BHUA-01	78.19				hJ		25				PR						
BHUA-01	78.23				hJ		50				PR						
BHUA-01	78.26				hJ		50				PR						
BHUA-01	78.27				hJ		45				PR						
BHUA-01	78.29				hJ		30				PR						
BHUA-01	78.35				hJ		50				PR						
BHUA-01	78.38				hJ		45				PR						
BHUA-01	78.43				hJ		50				PR						
BHUA-01	78.50				hJ		50				PR						
BHUA-01	78.54				hJ		40				PR						
BHUA-01	78.61				J		35				PR						
BHUA-01	78.68				hJ		90				PR						
BHUA-01	78.70				hJ		60				PR						
BHUA-01	78.80				hJ		50				PR						
BHUA-01	78.87				J		0				PR						
BHUA-01	79.03				hJ		60				PR						
BHUA-01	79.05				hJ		70				PR						
BHUA-01	79.08				hJ		50				PR						
BHUA-01	79.12				hJ		5				PR						
BHUA-01	79.15				hJ		30				PR						
BHUA-01	79.18				hJ		20				PR						
BHUA-01	79.20				hJ		0				PR						
BHUA-01	79.22				hJ		50				PR						
BHUA-01	79.24				hJ		60				PR						
BHUA-01	79.27				hJ		60				PR						
BHUA-01	79.29				hJ		20				PR						
BHUA-01	79.30				hJs	x2	30				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	79.34				J		30			CN	PR	RF					
BHUA-01	79.37	79.40			hJs	x2	20				PR						
BHUA-01	79.42				hJ		60				PR						
BHUA-01	79.44	79.50			hJs	x3	30				PR						
BHUA-01	79.50				hJ		45				PR						
BHUA-01	79.55				V		50		gy		PR		<	4			
BHUA-01	79.56				hJ		30				PR						
BHUA-01	79.58				hJ		50				PR						
BHUA-01	79.61				hJ		60				PR						
BHUA-01	79.62				hJ		30				PR						
BHUA-01	79.65				hJ		20				PR						
BHUA-01	79.67				hJ		15				PR						
BHUA-01	79.70				hJ		20				PR						
BHUA-01	79.75	79.80			hJs	x5	60				PR						
BHUA-01	79.82				J		20			CN	PR	SM					
BHUA-01	79.93				hJ		15				PR						
BHUA-01	79.98				hJ		15				PR						
BHUA-01	80.00	80.50			Js		30										
BHUA-01	80.05				hJ		60				PR						
BHUA-01	80.07				hJ		45				PR						
BHUA-01	80.08				hJ		45				PR						
BHUA-01	80.09				J		45			CN	PR	RF					
BHUA-01	80.12				J		10			CN	PR	RF					
BHUA-01	80.15	80.18			hJs	x2					PR						
BHUA-01	80.26				hJ		70				PR						
BHUA-01	80.27				hJ		20				PR						
BHUA-01	80.28	80.32			hJs	x3	10				PR						
BHUA-01	80.33				hJ		30		bk		PR						
BHUA-01	80.35	80.35			hJs	x2	20				PR						
BHUA-01	80.38				hJ		50				PR						
BHUA-01	80.43				J		30			CN	PR	SM					
BHUA-01	80.47				J		30			CN	PR	SM					
BHUA-01	80.50				hJ		30				PR						
BHUA-01	80.55				hJ		30				PR						
BHUA-01	80.60				hJ		20				PR						
BHUA-01	80.61	80.63			hJs	x2	30				PR						
BHUA-01	80.65				hJ		50				PR						
BHUA-01	80.71				J		10			CN	PR	SM					
BHUA-01	80.77	80.78			hJs	x2	60				PR						
BHUA-01	80.80				hJ		30				PR						
BHUA-01	80.81				hJ		0				PR						
BHUA-01	80.83	80.91			hJs	x3	60				PR						
BHUA-01	80.86	80.87			hJs	x2	5				PR						
BHUA-01	80.93				hJ		5				PR						
BHUA-01	81.05				hJ		5				PR						
BHUA-01	81.10				hJ		10				PR						
BHUA-01	81.16	81.20			hJs	x2	70				PR						
BHUA-01	81.20	81.29			hJs	x2	10				PR						
BHUA-01	81.25				hJ		5				PR						
BHUA-01	81.28				hJ		30				PR						
BHUA-01	81.32				J					CN	PR	RF					
BHUA-01	81.35				hJ		30				PR						
BHUA-01	81.41	81.43			hJs	x2	20				PR						
BHUA-01	81.46				hJ		60				PR						
BHUA-01	81.47				hJ		80				IR						
BHUA-01	81.52				hJ		70				PR						
BHUA-01	81.55				hJ		60				PR						
BHUA-01	81.60	83.05			FZ		30			CN-SN	CU-UN	RO					multiple defects, various angles, generally high angle, minor Fe staining on surfaces
BHUA-01	83.09				J		70			CN	CU-UN	RO					
BHUA-01	83.10				J		30			CN	CU-UN	RO					
BHUA-01	83.22	83.72			hJs	x10	70	75	wh mottled bk mi		UN		<	2			
BHUA-01	83.46				hJ		0		wh mottled bk mi		UN		=	1			
BHUA-01	83.59				hJ		0		wh mottled bk mi		ST						
BHUA-01	83.71				J		70		bk mi	SN	PR-UN	SM-RO					
BHUA-01	83.76				DB												
BHUA-01	83.89				J		25			CN	PR-UN	SM-RO					
BHUA-01	83.93				hJ		80	90	bk mi		UN		<	2			
BHUA-01	83.94				J		70			CN	PR-UN	PO					
BHUA-01	84.10				hJ		30			CN	UN	RO					
BHUA-01	84.18	84.54			hJ		80		bk mi		PR		<	2			
BHUA-01	84.19				hJ		65		bk mi		UN		<	2			
BHUA-01	84.27				hJ		60		bk mi	SN	PR						
BHUA-01	84.33				hJ		10		bk mi		UN		<	2			
BHUA-01	84.44				hJ		60		bk mi		UN		<	1			multiple defects, various angles, generally high angle, rubbled by drilling
BHUA-01	84.50	85.20			DB												
BHUA-01	84.51	85.23			J	/FZ x17	0	90	bk mi	SN	PR-UN						possibly hJ opened by drilling
BHUA-01	85.27				hJ		60		bk mi		UN		<	1			
BHUA-01	85.32				hJ		45		bk mi		UN		<	1			
BHUA-01	85.33				J		40		wh mi	SN	UN						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	85.40				hJ		60		bk mi		PR-UN		<	2			
BHUA-01	85.45				hJs	x2	90		bk mi		PR-UN		<	2			
BHUA-01	85.50				hJ		60		bk mi		UN		<	2			
BHUA-01	85.61				DB												
BHUA-01	85.66				hJs	x2	80		bk mi		PR-UN			1			
BHUA-01	85.75				hJ		80		bk mi		ST			1			
BHUA-01	85.80				hJ		80		bk mi		CU						
BHUA-01	85.88				hJ		15		bk mi		UN						
BHUA-01	85.95				hJ		10		bk mi	SN	UN-ST	RO					
BHUA-01	86.04				hJs	x2	35		bk mi		PR-UN			1			
BHUA-01	86.09				hJ		40		bk mi		UN			1			
BHUA-01	86.11				hJ		80		bk mi		PR-UN		<	1			
BHUA-01	86.13				hJ		80		bk mi		PR-UN			1			
BHUA-01	86.14				J		15		bk mi	SN	PR-UN	RO					
BHUA-01	86.18				hJ		10		bk mi		UN			1			
BHUA-01	86.21				hJs	x2	85		bk mi		UN			1			
BHUA-01	86.24				hJ		10		bk mi		PR-UN		<	1			
BHUA-01	86.27				hJ		10		bk mi		UN-CU			1			
BHUA-01	86.29				hJ		80		bk mi		CU			1			
BHUA-01	86.35				hJ		40		wh mi		PR-UN		<	1			
BHUA-01	86.41				hJ		70		bk mi		UN			1			
BHUA-01	86.44				hJ		55		bk mi		UN		<	2			
BHUA-01	86.47				hJ		10		bk mi		PR-UN		<	1			
BHUA-01	86.50				hJ		15		bk mi		UN		<	1			
BHUA-01	86.55	86.60			AZ		10	80	bk mi		PR-UN		<	1			multiple defects
BHUA-01	86.67				hJ		70				PR-UN		<	1			
BHUA-01	86.71				J		10		bk mi	SN	PR-ST	SM-RO					
BHUA-01	86.76				J		80				PR-UN	SM-RO		1			
BHUA-01	86.77				hJ		65		bk mi		PR-UN		<	1			
BHUA-01	86.83				hJs	x2	10		bk mi		PR-UN			1			
BHUA-01	86.84				hJ		20		bk mi		UN			1			
BHUA-01	86.86				DB												
BHUA-01	86.93				hJ		40		bk mi		UN						
BHUA-01	86.98				DB												
BHUA-01	87.05				hJs	x2	50		bk mi		PR-UN						
BHUA-01	87.10				J		10		bk mi	SN	PR-UN	SM-RO					
BHUA-01	87.16				hJ		5		bk mi	SN	CU		<	2			
BHUA-01	87.20				hJ		80		bk wh mi		UN			1			
BHUA-01	87.24				hJ		70		bk mi		PR-UN		<	2			
BHUA-01	87.25				J		20		bk mi	SN	UN	RO					
BHUA-01	87.35				hJ		20		bk mi		UN			1			
BHUA-01	87.37				hJ		80		bk mi		UN						
BHUA-01	87.40				hJ		60		bk wh mi		UN			1			
BHUA-01	87.45				hJ		85		bk mi		UN						
BHUA-01	87.51				J		30		bk mi	SN	CU	SM-RO					
BHUA-01	87.54				hJ		85		bk mi		PR-UN			1			
BHUA-01	87.61				hJ		20		Fe, bk mi	SN	UN			1			
BHUA-01	87.65				hJ		35		Fe, bk mi	SN	UN		<	1			
BHUA-01	87.75				J		45		bk mi	SN	UN						
BHUA-01	87.76				J		45		bk mi	SN	PR-UN						
BHUA-01	87.83				hJ		30		bk mi		UN						
BHUA-01	87.85				J		20		bk mi	SN	UN						
BHUA-01	87.91				hJ		35		bk mi		UN						
BHUA-01	87.95				hJ		30		bk mi	SN	CU						
BHUA-01	88.03				hJ		45		gy mi		UN			1			
BHUA-01	88.06				hJ		45		gy mi		UN			1			
BHUA-01	88.10	88.20			Js	x4	0	80	bk mi	SN	PR-UN						possibly closed to healed, DB
BHUA-01	88.16	88.40			hJ		80		bk mi		UN			1			
BHUA-01	88.27				J		10		bk mi	SN	PR-UN						
BHUA-01	88.28	88.55			hJ		75		bk mi		UN			1			
BHUA-01	88.32				J		30		bk mi	SN	PR-UN						
BHUA-01	88.37				J		5		bk mi	SN	CU						
BHUA-01	88.42				J		5		bk mi	SN	CU						possibly closed
BHUA-01	88.50				hJs	x4	80		bk mi		UN			1			
BHUA-01	88.64	88.73			AZ		80		bk mi		PR-UN			1			multiple defects, possible FZ
BHUA-01	88.74	88.90			AZ		10	80	bk mi		PR-UN			1			multiple defects
BHUA-01	88.89				DB												
BHUA-01	88.92				hJ		85		bk mi		PR-UN			1			
BHUA-01	88.95				hJ		60		bk mi		PR-UN			1			
BHUA-01	88.96				DB												
BHUA-01	89.02				hJ		5		bk mi	SN	UN	RF					
BHUA-01	89.03	90.10			hJs	x43	0	20	bk mi		PR-UN		<	2			multiple defects, low angle, healed, spaced approx 10-30mm apart
BHUA-01	89.08				J		5		bk mi	SN	UN	RF					
BHUA-01	89.13				hJ		5		bk mi	SN	UN	RF					
BHUA-01	89.21				J		75				UN						partially closed
BHUA-01	89.28				hJ		40		bk mi		PR-UN		<	2			
BHUA-01	89.29				hJ		5		bk mi		UN			2			
BHUA-01	89.30				J		5		bk mi	SN	UN	RF					
BHUA-01	89.50				hJ		30		bk mi	SN	UN	RF					likely hJ (DB)

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	89.55				hJ		75		bk mi		UN			1			
BHUA-01	89.58				DB												
BHUA-01	89.60	89.90			hJ		80		bk mi		UN		<	2			
BHUA-01	89.85				hJ		60		wh mi		UN			2			
BHUA-01	90.03				hJ		45		bk wh mi		PR-UN			1			
BHUA-01	90.07				hJ		70		bk mi		UN			1			
BHUA-01	90.08				J		10		bk mi	SN	UN						likely hJ (DB)
BHUA-01	90.10				hJ		5		bk mi		UN			1			
BHUA-01	90.15				DB												
BHUA-01	90.20				J		80		bk mi	SN	PR-UN						
BHUA-01	90.26				Js	x3	5		bk mi	SN	PR-UN						possibly DB
BHUA-01	90.30				hJ		15		bk mi		UN			1			
BHUA-01	90.35				hJ		15		bk mi		UN			1			
BHUA-01	90.40				CO		35				UN						sharp contact
BHUA-01	90.46				J		15		Fe	SN	PR-UN						
BHUA-01	90.49				V		15		Fe	SN	UN		=	3			
BHUA-01	90.54				DB												
BHUA-01	90.56				CO		10										some intermixing below contact
BHUA-01	90.65				hJ		40		wh mi		CU-UN		=	1			
BHUA-01	90.71				hJ		60		bk mi		PR-UN		=	1			
BHUA-01	90.77				J		20		bk mi	SN	UN						
BHUA-01	90.80				hJ		60		bk mi		PR-UN		=	1			
BHUA-01	90.87				J		10		bk mi	SN	PR-UN						
BHUA-01	90.95	91.15			hJ		90		wh mi		UN		=	1			
BHUA-01	91.05				hJ		90		bk mi	SN	UN						(DB)
BHUA-01	91.18				hJ		60		bk mi		UN		=	1			
BHUA-01	91.20				hJ		65		bk mi		UN		=	1			
BHUA-01	91.22				hJ		15		bk mi		UN		=	1			
BHUA-01	91.25				Js	x2	50		bk mi	SN	UN						
BHUA-01	91.32				hJ				bk mi		PR-UN		=	1			
BHUA-01	91.35				DB												
BHUA-01	91.42				J		0	10			CU	RF					
BHUA-01	91.42	91.48			hJs	x3	5		bk mi		PR-UN		=	1			
BHUA-01	91.50				J		10				IR	RF					
BHUA-01	91.51				DB												
BHUA-01	91.53	91.55			hJs	x2	5		bk mi		PR-UN		=	1			
BHUA-01	91.56				DB												
BHUA-01	91.60				hJ		20		bk mi	SN	UN						
BHUA-01	91.61	91.97			J		70		bk mi	SN	PR-ST						
BHUA-01	91.63				hJ		50		bk mi		UN		=	1			
BHUA-01	91.68	91.72			Js	x2	10		gravel		UN						
BHUA-01	91.71				hJ		10		bk mi		UN		=	1			
BHUA-01	91.77				hJ		10		wh mi		UN		=	1			
BHUA-01	91.86				DB												
BHUA-01	91.90				DB												
BHUA-01	92.04				J		15		bk mi	SN	UN						
BHUA-01	92.13				hJ		10		bk mi		UN-CU		=	1			
BHUA-01	92.15				J		15		bk mi	SN	UN						
BHUA-01	92.18				hJ		60		bk mi		UN-CU		=	1			
BHUA-01	92.22				hJ		55		bk mi		UN-CU		=	1			
BHUA-01	92.27				hJ		50		bk mi		UN-CU		=	1			
BHUA-01	92.31				hJ		20		bk mi		UN-CU		<	5			
BHUA-01	92.33				hJs	x3	20	35	bk mi		UN-CU		=	1			
BHUA-01	92.35				hJ		20		bk mi	SN	PR-UN						
BHUA-01	92.37				J		5		bk mi	SN	PR-UN						
BHUA-01	92.39				J		5	35	bk mi	SN	UN						
BHUA-01	92.44				hJ		20		bk mi		UN		=	1			
BHUA-01	92.52				hJ		5		bk mi		PR-UN		<	2			
BHUA-01	92.61				hJ		10		bk mi		UN		=	1			
BHUA-01	92.65				hJ		85		bk mi		UN-CU		=	1			
BHUA-01	92.70				J		5		bk mi	SN	UN						
BHUA-01	92.73				hJ		35		bk mi		UN-CU		=	1			
BHUA-01	92.81				hJ		5		bk mi		UN-CU		=	1			
BHUA-01	92.83				DB												
BHUA-01	92.84				J		35			CN	PR						
BHUA-01	92.86				J		50		bk mi	SN	UN-CU						
BHUA-01	92.94				J		60		bk mi	SN	UN-CU						
BHUA-01	93.08				hJ		5	10	bk mi		PR						
BHUA-01	93.10				J		55			CN	PR						
BHUA-01	93.20	93.24			hJs	x2	10		bk		PR						
BHUA-01	93.26	93.28			hJs	x4	5	90			IR						
BHUA-01	93.31				hJ		30				PR						
BHUA-01	93.35				hJ		70				PR						
BHUA-01	93.38				hJ		10				PR						
BHUA-01	93.40				J		60			CN	PR	RF					
BHUA-01	93.45				hJ		60		wh		PR						
BHUA-01	93.46	93.47			hJs	x2	60	70	bk		PR						
BHUA-01	93.49				J		45			CN	PR	RF-SM					
BHUA-01	93.51				J		80			CN	PR	SM					

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	93.55				hJ		5				PR						
BHUA-01	93.63				J		30		bk	SN	PR	RF					
BHUA-01	93.68	93.74			hJs	x2	25	35	pl yl mi		PR						
BHUA-01	93.77				hJ		60				PR						
BHUA-01	93.78	93.86			hJs	x2	80		bk		IR						
BHUA-01	93.90				J		30			CN	PR	RF					
BHUA-01	94.01				hJ		80		bk		PR						
BHUA-01	94.02	94.60			Js	x5	45	50		CN	PR	RF-SM					
BHUA-01	94.08	94.22			Js	x3	5	10		CN	PR						Likely DB
BHUA-01	94.10				hJ		35		bk		PR						
BHUA-01	94.18				hJ		80				PR						
BHUA-01	94.31	94.34			hJs	x2	40	50			PR						
BHUA-01	94.33	94.35			hJs	x2	60	70			PR						
BHUA-01	94.41	94.42			hJs	x2	5	10			PR						
BHUA-01	94.44	94.48			Js	x2	10			CN	PR	SM					likely DB
BHUA-01	94.54				J	x5				CN	PR	RF					
BHUA-01	94.55				hJ		60		bk		PR						
BHUA-01	94.60				J		5			CN	PR	SM					likely DB
BHUA-01	94.64	94.66			hJs	x2	20	30	bk		PR						
BHUA-01	94.71				J		60			CN	PR	RF-SM					
BHUA-01	94.80				J		60		pl gy alt halo 1 mm	CN	RR	RF					
BHUA-01	94.82				hJ		20		bk		CU						
BHUA-01	94.85				hJ		45		bk		PR						
BHUA-01	94.87	94.90			hJs	x3	5	15	bk, wh alt halo 1 mm		PR						
BHUA-01	94.95				J		25		bk mi	SN	PR	RF					
BHUA-01	95.03				hJ		5		bk		PR						
BHUA-01	95.06				J		15			CN	PR	RF-SM					
BHUA-01	95.08	95.20			Js	x2	5	10		CN	PR	SM-RF					
BHUA-01	95.21				J		60			CN	PR	SM					
BHUA-01	95.29				hJ		70		bk		IR						
BHUA-01	95.32				hJ		60		bk		PR						
BHUA-01	95.40				J		60			CN	PR	SM					
BHUA-01	95.45				J		30			CN	PR	SM					disturbed by drilling
BHUA-01	95.53				J		30			CN	PR	SM					
BHUA-01	95.57				J		50		rd staining	SN	PR	SM					
BHUA-01	95.62	95.65			hJs	x2	30		bk		PR						
BHUA-01	95.69	95.73			hJs	x2	50	60	bk		PR						
BHUA-01	95.74				J		60		rd staining	SN	PR	SM					
BHUA-01	95.83	95.85			J		5	10		CN	PR	SM					Likely DB
BHUA-01	95.86				hJ		10		bk		PR						
BHUA-01	95.92				DB		0			CN	PR	RF					
BHUA-01	95.95				hJ		0	5	pl gy		PR						
BHUA-01	96.01				hJ		85		bk		IR						
BHUA-01	96.04				J		85		bk mi	SN	Cu	SM-RF					
BHUA-01	96.04	96.35			Js	x5	0	10	br staining	SN	PR	SM-RF					possibly DB
BHUA-01	96.21				hJ		5		bk		PR						
BHUA-01	96.37				hJ		60		wh		PR						
BHUA-01	96.38	96.43			hJs	x2	30		bk		PR						
BHUA-01	96.44				J		60		yl, pl br	SN	PR	SM-RF					
BHUA-01	96.50				DB		0	5									
BHUA-01	96.55	96.57			hJs	x2	50		bk		PR						
BHUA-01	96.63				J		5	10		CN	PR	RF					
BHUA-01	96.65				hJ		85				PR						
BHUA-01	96.71				hJ		90		wh alt halo 1 mm		IR						
BHUA-01	96.71	96.86			hJs		5		wh		PR						
BHUA-01	96.90				DB												
BHUA-01	97.01				V		85		bk mi		UN						
BHUA-01	97.03				hJ		80		wh		PR						
BHUA-01	97.05				J		10	15		CN	PR						
BHUA-01	97.07	97.15			hJs	x5	30	60	wh		IR						
BHUA-01	97.17				J		15			CN	ST	RF-SM					
BHUA-01	97.22				hJ		75		bk, wh alt halo 1 mm		PR						
BHUA-01	97.23				hJ		10		bk		PR						
BHUA-01	97.28				hJ		10		bk		PR						
BHUA-01	97.29				hJ		70		bk		PR						
BHUA-01	97.30				hJ		15		wh		PR						
BHUA-01	97.36				hJ		90		wh, bk		CU						
BHUA-01	97.37				hJ		5		bk		PR						
BHUA-01	97.49				J		15			CN	PR	RF					
BHUA-01	97.53				hJ		40				PR						
BHUA-01	97.55				hJ		90		wh, bk		IR						
BHUA-01	97.70	97.88			AZ												
BHUA-01	97.71				J		5	10		CN	PR	RF-SM					
BHUA-01	97.86				V		5		rd mi		PR		<	5			
BHUA-01	97.88				J		10	15		CN	PR						
BHUA-01	97.89				V		0	5	pl yl wh mi		PR		<	10			
BHUA-01	97.92				hJ		0	5	pl yl		PR						
BHUA-01	98.01	98.06			hJs	x2	50	60	bk		PR						
BHUA-01	98.08				J		25			SN	UN	SM-RF					

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	98.10				hJ		25		wh		PR						
BHUA-01	98.11				hJ		45		bk		PR						
BHUA-01	98.15	98.29			Js	x3	30			CN	PR	SM-RF					
BHUA-01	98.17	98.25			hJs	x2	30				PR						
BHUA-01	98.31	98.32			hJs	x2	60		bk		PR						
BHUA-01	98.33	98.35			hJs	x2	35				PR						
BHUA-01	98.40				J		75		Quartz infill		PR	SM-RF					
BHUA-01	98.42	98.43			hJs	x2	50				PR						
BHUA-01	98.50	98.53			J		10			CN	PR	SM-RF					
BHUA-01	98.71	98.73			Js	x2	10	15		CN	PR	SM					
BHUA-01	98.77				hJ		10	15	bk		PR						
BHUA-01	98.78				hJ		80		bk		PR						
BHUA-01	98.86				J		15	20		CN	PR	SM					
BHUA-01	98.87				hJ		10				PR						
BHUA-01	98.88				hJ		70		wh		PR						
BHUA-01	99.01	99.05			hJs	x2	60		bk		PR						
BHUA-01	99.08				hJ		45		bk, wh alt halo 1 mm		Cu						
BHUA-01	99.13				hJ		0		bk		PR						
BHUA-01	99.17				hJ		80		pl yl gr		PR						
BHUA-01	99.18				hJ		5	10	bk		PR						
BHUA-01	99.20				hJ		90		bk		IR						
BHUA-01	99.26				hJ		30		pl yl		PR						
BHUA-01	99.27				J		0			CN	PR	RF					
BHUA-01	99.31				hJ		70				PR						
BHUA-01	99.35				hJ		50		wh		PR						
BHUA-01	99.46				hJ		60		wh		PR						
BHUA-01	99.55				J		60			CN	PR	SM-RF					
BHUA-01	99.62				hJ		5		pl yl		PR						
BHUA-01	99.71				hJ		60		pl yl gy		PR						
BHUA-01	99.78				hJ		50	60	bk		PR						
BHUA-01	99.88				J		55			CN	PR	RF					
BHUA-01	99.91				hJ		30		bk		PR						
BHUA-01	99.92				hJ		15		bk		PR						
BHUA-01	99.94	99.97			hJs	x3	5	15	bk		PR						
BHUA-01	100.01	100.16			hJs	x9	5	15	bk		PR						
BHUA-01	100.06				J		60	70		CN	PR	SM					
BHUA-01	100.12				DB		30			CN	PR	RF					
BHUA-01	100.25				hJ		60		wh		PR						
BHUA-01	100.27				hJ		60		wh		PR						
BHUA-01	100.32	100.38			Js	x2	20				PR	SM					
BHUA-01	100.34				hJ		20		bk		CU						
BHUA-01	100.35	100.45			hJs	x3	60	75	wh		PR						
BHUA-01	100.40				DB		60	70		CN	PR	SM					
BHUA-01	100.52				J		60	70		CN	PR	SM					
BHUA-01	100.60				J		10			CN	PR	SM-RF					
BHUA-01	100.61				hJ		70				PR						
BHUA-01	100.71				J		70		Calcite infill		PR						
BHUA-01	100.83				J		30			CN	PR	SM					
BHUA-01	100.83	100.89			FZ												likely db
BHUA-01	100.91	100.93			hJs	x2	5		bk		PR						
BHUA-01	100.95				J		10	15		CN	PR	RF					
BHUA-01	101.06				hJ		30				PR						
BHUA-01	101.07				J		30		br staining	SN	PR	SM-RF					
BHUA-01	101.09	101.16			hJs	x2	50	55	wh		PR						
BHUA-01	101.13				J		30			CN	PR	RF					
BHUA-01	101.15				hJ		70		wh		CU						
BHUA-01	101.21				hJ		30		wh		PR						
BHUA-01	101.23				hJ		70	75	bk		PR						
BHUA-01	101.23	101.25			hJs	x2	40				PR						
BHUA-01	101.30				J		35			CN	PR	SM					
BHUA-01	101.33	101.38			Js	x2	30			CN	PR	RF-SM					
BHUA-01	101.36	101.40			hJs	x2	30				PR						
BHUA-01	101.42				hJ		40		bk		PR						
BHUA-01	101.48	101.55			hJs	x4	50		bk		PR						
BHUA-01	101.55				J		20				ST						
BHUA-01	101.62				hJ		60		bk		PR						
BHUA-01	101.78				hJ		65		bk		PR						
BHUA-01	101.82	101.95			AZ												
BHUA-01	101.90				J		30			CN	PR	SM-RF					
BHUA-01	102.25				J		70		wh coating	CT	PR						
BHUA-01	102.28	102.31			hJs	x2	5		bk		PR						
BHUA-01	102.33	102.40			hJs	x5	50	60	bk		PR						
BHUA-01	102.36				hJ		20		bk		PR						
BHUA-01	102.39				hJ		10		bk		PR						
BHUA-01	102.44				J		40			CN	PR	SM-RF					
BHUA-01	102.46				hJ		90		bk		UN						
BHUA-01	102.50				hJ		5		bk		PR						
BHUA-01	102.52	102.54			hJs	x2	5	15	bk		PR						
BHUA-01	102.55	102.58			hJs	x2	55	60			PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	102.56				J		45			CN	PR	RF-SM					
BHUA-01	102.65	102.66			hJs	x2	85		bk		PR						
BHUA-01	102.70				J		40			CN	PR	SM					
BHUA-01	102.71	102.73			hJs	x3	20	40	bk		PR						
BHUA-01	102.75				hJ		80				IR						
BHUA-01	103.01				J		70		wh mi 10 mm		PR						
BHUA-01	103.08				J		10			CN	PR	RF-SM					
BHUA-01	103.10				hJ		70		wh		PR						
BHUA-01	103.29				J		10		Fe staining	SN	PR	RF					
BHUA-01	103.35				hJ		80				CU						
BHUA-01	103.53				J		40	45	alt wh halo 2 mm	CN	PR	RF					
BHUA-01	103.55				hJ		60	70			PR						
BHUA-01	103.58				hJ		60		bk		PR						
BHUA-01	103.63				hJ		60				PR						
BHUA-01	103.70				hJ		50				PR						
BHUA-01	103.75				hJ		55	60	wh		PR						
BHUA-01	103.80				J		60		alt wh halo 1 mm	CN	PR	RF-SM					
BHUA-01	103.85				hJ		10		bk		PR						
BHUA-01	103.87				hJ		65		bk		PR						
BHUA-01	104.03				hJ		70				PR						
BHUA-01	104.14				J		65	70		CN	PR	SM					
BHUA-01	104.22	104.24			hJs	x2	15	20	bk		PR						
BHUA-01	104.34	104.36			hJs	x2	15	20	bk		PR						
BHUA-01	104.37				hJ		5	10	pl yl gy		PR						
BHUA-01	104.41				hJ		5		pl yl gy SA		PR						
BHUA-01	104.48	104.50			hJs	x2	5	10	pl yl gy SA		PR						
BHUA-01	104.54				hJ		20		bk		PR						
BHUA-01	104.65				hJ		10		pl yl gy		PR						
BHUA-01	104.71				V		30		pl yl gy		PR		<	2			
BHUA-01	105.10				hJ		60				PR						
BHUA-01	105.15				hJ		70		Fe staining		PR						
BHUA-01	105.20				hJ		60		Fe staining		PR						
BHUA-01	105.26				J		65	70		CN	PR	SM-RF					
BHUA-01	105.35				hJ		70		Fe staining		PR						
BHUA-01	105.37				CO		30										
BHUA-01	105.38				hJ		70				PR						
BHUA-01	105.41				J		70			CN	PR	RF					
BHUA-01	105.45				CO		25										
BHUA-01	105.48				hJ		5				PR						
BHUA-01	105.49				hJ		20				PR						
BHUA-01	105.52				hJ		30	40			PR						
BHUA-01	105.70				hJ		70		wh		PR						
BHUA-01	105.85				J		70		wh Alt halo 2 mm	CN	PR	RF-SM					
BHUA-01	106.00				J		60	70		CN	PR	RF-SM					
BHUA-01	106.25	106.28			hJs	x2	65	75	bk		PR						
BHUA-01	106.34				hJ		10				ST						DB
BHUA-01	106.45				V		20		wh mi		PR		<	1			
BHUA-01	106.49				J		70	80	pl gy alt halo 5 mm	SN	PR	SM-RF					
BHUA-01	106.53				J		10			CN	PR	RF-SM					likely DB
BHUA-01	106.66				hJ		60	70	wh, fe staining		PR						
BHUA-01	106.75				hJ		60		wh		PR						
BHUA-01	106.80				J		70			CN	PR	SM-RF					
BHUA-01	106.85				J		60			CN	PR	RF-SM					liekly DB
BHUA-01	106.86				hJ		35				PR						
BHUA-01	107.01	107.09			hJs	x3	10	15	bk		PR						
BHUA-01	107.39				J		0	5		CN	ST	RF					
BHUA-01	107.40				hJ		60				PR						
BHUA-01	107.43				hJ		50				PR						
BHUA-01	107.46	107.53			hJs	x4	60		wh mi		PR						
BHUA-01	107.57				J		35	45		CN	PR	RF-SM					
BHUA-01	107.66				J		60		wh mi, fe staining	CT-SN	PR	RF					
BHUA-01	107.83				hJ		70				PR						
BHUA-01	107.85	107.95			hJs	x2	60				PR						
BHUA-01	107.95				J		5	10		CN	UN	RF-SM					
BHUA-01	108.01	108.04			hJs	x2	5		bk		PR						
BHUA-01	108.07	108.08			hJs	x2	20		bk		PR						
BHUA-01	108.10				hJ		10	15	bk		PR						
BHUA-01	108.18				hJ		10		bk		PR						
BHUA-01	108.25	108.26			hJs	x2	15	20	bk, wh mi		PR						
BHUA-01	108.29				hJ		10		pl yl alt halo 1 mm		PR						
BHUA-01	108.35				hJ		80		wh		PR						
BHUA-01	108.37				hJ		10		pl yl		PR						
BHUA-01	108.41				hJ		60		pl yl		PR						
BHUA-01	108.42				hJ		70		pl yl		PR						
BHUA-01	108.44				hJ		70		bk		PR						
BHUA-01	108.50	108.60			Vs				pl yl		IR		<	2			
BHUA-01	108.54				J		60			CN	PR	RF					
BHUA-01	108.56				hJ		70		bk		PR						
BHUA-01	108.64				hJ		40		bk		PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	108.68	108.71			hJs	x3	30	40	bk		PR						
BHUA-01	108.77				hJ		30	40			PR						
BHUA-01	108.85				hJ		70		bk		ST						
BHUA-01	108.90				J		60	70		CN	PR	SM					
BHUA-01	108.94	108.96			hJ		60	70	bk		PR						
BHUA-01	109.11	109.12			hJs	x2	15		pl yl gy		PR						
BHUA-01	109.14				J		30			CN	PR	SM-RF					
BHUA-01	109.26				hJ		10		pl yl gy alt		PR						
BHUA-01	109.33				hJ		60		bk		IR						
BHUA-01	109.35				hJ		70		wh		PR						
BHUA-01	109.50				DB		5			CN	PR	RF					
BHUA-01	109.54				hJ		70				PR						
BHUA-01	109.55				hJ		60		bk		PR						
BHUA-01	109.66	109.75			hJs	x2	70		wh		PR						
BHUA-01	109.72				hJ		10				PR						
BHUA-01	109.78				J		80			CN	CU	RF-SM					
BHUA-01	109.88				hJ		30				PR						
BHUA-01	109.94				hJ		60	70			PR						
BHUA-01	110.02				hJ		90				IR						
BHUA-01	110.05				hJ		80				PR						
BHUA-01	110.08				J		30	35		CN	PR	SM					
BHUA-01	110.15				hJ		70				PR						
BHUA-01	110.17				hJ		65				PR						
BHUA-01	110.23				hJ		70				PR						
BHUA-01	110.27				hJ		50				CU						
BHUA-01	110.29				hJ		15				PR						
BHUA-01	110.35				hJ		75				PR						
BHUA-01	110.38				hJ		60				PR						
BHUA-01	110.41				hJ		80				PR						
BHUA-01	110.42				hJ		45		wh		PR						
BHUA-01	110.45				J		30		fe staining	SN	PR	SM					
BHUA-01	110.52	110.54			hJs	x2	60				PR						
BHUA-01	110.55	110.62			hJs	x3	20				PR						
BHUA-01	110.66				J		55			CN	PR	SM					
BHUA-01	110.84				J		30			CN	ST	SM-RF					likely DB
BHUA-01	110.91				hJ		30				PR						
BHUA-01	110.95				hJ		70				PR						
BHUA-01	111.12				J		40			CN	PR	RF					
BHUA-01	111.14				J		55			CN	UN	RF					
BHUA-01	111.39				hJ		45		gy		PR						
BHUA-01	111.47	111.48			hJs	x2	45		gy		PR						
BHUA-01	111.56				J		40	45		CN	PR	SM-RF					
BHUA-01	111.65				V		80		gy mi, pl yl gy alt halo 2 mm		PR		<	5			
BHUA-01	111.78				J		10			CN	PR	RF					
BHUA-01	111.86				J		65										
BHUA-01	112.50				J		45			CN	PR	SM-RF					
BHUA-01	112.68				J		40			CN	PR	SM					
BHUA-01	113.33				J		35			CN	PR	SM-RF					
BHUA-01	113.50				J		50			CN	PR	RF-SM					
BHUA-01	114.53				hJ		20				PR						
BHUA-01	114.54				hJ		70				PR						
BHUA-01	114.65				hJ		80		wh		UN						
BHUA-01	114.83				J		0			CN	PR	SM					likely DB
BHUA-01	115.19				hJ		20				PR						
BHUA-01	115.37				hJ		30				PR						
BHUA-01	115.42				V		60		wh mi		PR		<	2			
BHUA-01	115.47				hJ		30				PR						
BHUA-01	115.54				hJ		70				UN						
BHUA-01	115.59				V		70		pl yl wh mi		PR		<	5			
BHUA-01	115.76				hJ		60		pl gy		PR						
BHUA-01	115.77				J		70			CN	PR	RF					
BHUA-01	116.51				hJ		30		pl gy		PR						
BHUA-01	116.80				V		80		pl gy		PR		<	3			
BHUA-01	117.07				hJ		10				PR						
BHUA-01	117.51				hJ		75		pl gy		PR						
BHUA-01	117.80				hJ		40				PR						
BHUA-01	117.81				V		60		wh mi, pl yl halo 1 mm		PR		<	6			
BHUA-01	117.83				J		45			CN	PR	SM					
BHUA-01	118.07				hJ		50				PR						
BHUA-01	118.58				J		60			CN	PR	SM					
BHUA-01	118.83				hJ		60		wh mi		PR						
BHUA-01	119.42				J		20		pl gy alt halo 1 mm	CN	PR						
BHUA-01	119.64	119.69			hJs	x2	30	35			PR						
BHUA-01	119.98				hJ		45				PR						
BHUA-01	120.17				hJ		25				PR						
BHUA-01	120.20				hJ		45				PR						
BHUA-01	120.21				hJ		55				PR						
BHUA-01	120.22				hJ		85				IR						
BHUA-01	120.25				hJ		80				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	120.31				hJ		50				PR						
BHUA-01	120.34				hJ		40				PR						
BHUA-01	120.35				hJ		75				PR						
BHUA-01	120.38				hJ		60				PR						
BHUA-01	120.45				hJ		50				PR						
BHUA-01	120.49				J		20			CN	PR	SM					
BHUA-01	120.52	120.73			AZ												
BHUA-01	120.83				J		30			CN	PR						
BHUA-01	120.90				CO		70										
BHUA-01	121.00				J		60										
BHUA-01	121.14				J		15			CN	PR	SM-RF					
BHUA-01	121.17	121.20			hJs	x2	15				PR						
BHUA-01	121.36				hJ		20		pl yl		PR						
BHUA-01	121.42				J		50			CN	PR	RF					
BHUA-01	121.67				J		25			CN	PR	SM					
BHUA-01	121.70				J		70			CN	PR	RF-SM					
BHUA-01	121.76				hJ		5		pl yl		PR						
BHUA-01	121.80				J		30			CN	PR	RF					
BHUA-01	122.00				hJ		90				UN						
BHUA-01	122.03				hJ		40				PR						
BHUA-01	122.08				hJ		5		pl yl bk		PR						
BHUA-01	122.10				hJ		30		wh		PR						
BHUA-01	122.14				hJ		70		bk		PR						
BHUA-01	122.15				J		45			CN	PR	RF					
BHUA-01	122.21				J		60			CN	PR	RF					
BHUA-01	122.28				J		20			CN	PR	RF					
BHUA-01	122.35				J		80		pl gn	SN	PR	RF					
BHUA-01	122.42	122.50			hJs	x3	10	20	bk		PR						
BHUA-01	122.45				J		20			CN	PR	RF					
BHUA-01	122.60				J		60		fe staining	SN	PR	RF					
BHUA-01	122.70				J		55			CN	PR	RF					
BHUA-01	122.95				J		30			CN	PR	SM-RF					
BHUA-01	123.01	123.05			hJs	x2	60				PR						
BHUA-01	123.32				hJ		10		bk		PR						
BHUA-01	123.36				J		30			CN	PR	RF					
BHUA-01	123.43				J		15			CN	PR	RF					
BHUA-01	123.70				J		40			CN	PR	SM					
BHUA-01	123.81				hJ		80		bk		PR						
BHUA-01	124.05				hJ		30		bk		PR						
BHUA-01	124.06				hJ		10		bk		PR						
BHUA-01	124.08				J		10			CN	PR	RF					
BHUA-01	124.11				hJ		30		gy		PR						
BHUA-01	124.25				hJ		70				PR						
BHUA-01	124.35				hJ		20				PR						
BHUA-01	124.48				J		20			CN	PR						
BHUA-01	124.51				J		30	35		CN	PR	RF					
BHUA-01	124.54	124.56			Js		0	5		CN	PR	SM-RF					
BHUA-01	124.55				J		60			CN	PR	SM					
BHUA-01	124.60				hJ		60		bk		PR						
BHUA-01	124.67				J		20			CN	PR	SM-RF					
BHUA-01	124.85	124.95			Js	x2	45			CN	PR	SM-RF					
BHUA-01	125.08				hJ		5	10			PR						
BHUA-01	125.19				hJ		45				PR						
BHUA-01	125.22				hJ		30				PR						
BHUA-01	125.27				hJ		15				PR						
BHUA-01	125.28				hJ		30				PR						
BHUA-01	125.45				J		75		fe staining	CN	PR	RF					
BHUA-01	125.79				hJ		0		bk		PR						
BHUA-01	125.83				J		10				PR						
BHUA-01	125.86	125.89			hJs	x2	60				PR						
BHUA-01	126.02				hJ		10				PR						
BHUA-01	126.06				hJ		30				PR						
BHUA-01	126.13				J		45			CN	PR	SM-RF					
BHUA-01	126.19	126.23			hJs	x2	30				PR						
BHUA-01	126.25				J		55			CN	PR	RF					
BHUA-01	126.40				hJ		60				PR						
BHUA-01	126.45				J		60		pl gy alt halo 1 mm	CN	PR	RF					
BHUA-01	126.45	126.47			hJs	x2	5		bk		PR						
BHUA-01	126.54				J		10			CN	PR	RF					
BHUA-01	126.57				hJ		15				PR						
BHUA-01	126.63				hJ		20		bk		PR						
BHUA-01	126.72				hJ		45		bk		PR						
BHUA-01	126.77				J		40			CN	PR	RF					
BHUA-01	126.82	126.91			hJs	x4	30				PR						
BHUA-01	127.05				hJ		45		bk		PR						
BHUA-01	127.15	127.28			AZ												
BHUA-01	127.29				J		30			CN	PR	RF					
BHUA-01	127.37				hJ		30				PR						
BHUA-01	127.44	127.50			hJs		60				PR						

Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	127.53				hJ		20				PR						
BHUA-01	127.60				V		40		wh mi		PR		<	15			
BHUA-01	127.63				J		30			CN	PR	RF					
BHUA-01	127.71				hJ		15				PR						
BHUA-01	127.77				hJ		50		bk		PR						
BHUA-01	127.78				hJ		40		bk		PR						
BHUA-01	127.90				hJ		25				PR						
BHUA-01	128.12				J		20			CN	PR	RF					
BHUA-01	128.15				hJ		20		bk		PR						
BHUA-01	128.17				hJ		60		bk		PR						
BHUA-01	128.17	128.23			hJs	x3	0	15	bk		PR						
BHUA-01	128.27				hJ		0				UN						
BHUA-01	128.33				hJ		10				PR						
BHUA-01	128.42				J		45			CN	PR	SM					
BHUA-01	128.47	128.55			hJs	x2	30		bk		PR						
BHUA-01	128.69	128.75			hJs	x3	35		bk		PR						
BHUA-01	128.84				J		30			CN	PR	RF					
BHUA-01	128.91				hJ		50		bk		PR						
BHUA-01	129.10				J		45			CN	PR	RF					disturbed by drilling
BHUA-01	129.16				hJ		60		bk		PR						
BHUA-01	129.27				J		5			CN	ST	RF					likely DB
BHUA-01	129.43				hJ		60		wh		PR						
BHUA-01	129.49				hJ		45				PR						
BHUA-01	129.58				hJ		50		wh		PR						
BHUA-01	129.61	129.76			hJs	x4	30	40	bk		PR						
BHUA-01	129.79				J		30			CN	PR	RF					likely DB
BHUA-01	129.93	130.12			hJ		60		wh		PR						
BHUA-01	130.32	130.35			J		10	25	fe staining	SN	PR	RF					possibly DB
BHUA-01	130.47				hJ		80		wh		IR						
BHUA-01	130.63				J		10			CN	PR	RF					
BHUA-01	130.72	130.76			hJs	x3	0	5	bk		PR						
BHUA-01	130.90				J		35			CN	PR						
BHUA-01	131.02				J		5			CN	PR	SM-RF					
BHUA-01	131.10				J		15			CN	PR	RF-SM					
BHUA-01	131.14				J		0			CN	PR	SM					
BHUA-01	131.27				J		15			CN	PR	SM					
BHUA-01	131.37				J		0			CN	PR	SM-RF					
BHUA-01	131.55				hJ		15		bk		PR						
BHUA-01	131.63				hJ		10			CN	PR	SM-RF					
BHUA-01	131.68				hJ		40		bk		PR						
BHUA-01	131.70				J		25		Fe staining	SN	PR	SM-RF					
BHUA-01	131.76	131.89			hJs	x3	20	30			PR						
BHUA-01	132.04				hJ		45		wh		PR						
BHUA-01	132.06				J		30			CN	PR	SM					
BHUA-01	132.08				J		45			CN	PR	SM					
BHUA-01	132.12				J		10			CN	PR	SM-RF					
BHUA-01	132.32	132.57			Js	x4	15			CN	PR	SM-RF					
BHUA-01	132.62				hJ		15				PR						
BHUA-01	132.66				hJ		60	70	bk		PR						
BHUA-01	132.72				hJ		15	20	bk		PR						
BHUA-01	132.74				J		5	10		CN	PR	RF					likely DB
BHUA-01	132.81				hJ		60		bk		PR						
BHUA-01	132.87				hJ		5		bk		PR						
BHUA-01	132.94				J		10			CN	PR	SM-RF					
BHUA-01	133.10	133.15			hJs	x2	20		bk		PR						
BHUA-01	133.35				hJ		60		pl gy alt halo 2 mm		PR						
BHUA-01	133.49				hJ		15				PR						
BHUA-01	133.50				J		15			CN	PR	SM					
BHUA-01	133.57				Vs		60		wh mi		IR		<	3			
BHUA-01	133.67				hJ		50				PR						
BHUA-01	133.87				J		25			CN	PR	SM					
BHUA-01	134.00	134.07			Js	x2	30			CN	PR	SM					likely DB
BHUA-01	134.11	134.14			hJs	x2	20		bk		PR						
BHUA-01	134.17				hJ		60				PR						
BHUA-01	134.18				hJ		30		bk		PR						
BHUA-01	134.24	134.45			Js	x3	10	20		CN	PR	SM-RF					
BHUA-01	134.38	134.48			hJs	x5	10	25	bk		PR						
BHUA-01	134.59				hJ		10		bk		PR						
BHUA-01	134.62				J		10			CN	PR	SM					
BHUA-01	134.69	134.71			hJs	x3	30	55	bk		PR						
BHUA-01	135.05				J		20			CN	PR	SM-RF					likely DB
BHUA-01	135.17				J		25			CN	PR	RF					
BHUA-01	135.25				hJ		20		pl rd staining		PR						
BHUA-01	135.34	135.39			hJs	x2	20		bk		PR						
BHUA-01	135.46				J		25			CN	PR	SM-RF					
BHUA-01	135.55	135.61			hJs	x2	30				PR						
BHUA-01	135.64				hJ		40				PR						
BHUA-01	135.71				J		45			CN	PR	SM-RF					
BHUA-01	135.76				hJ		70				PR						

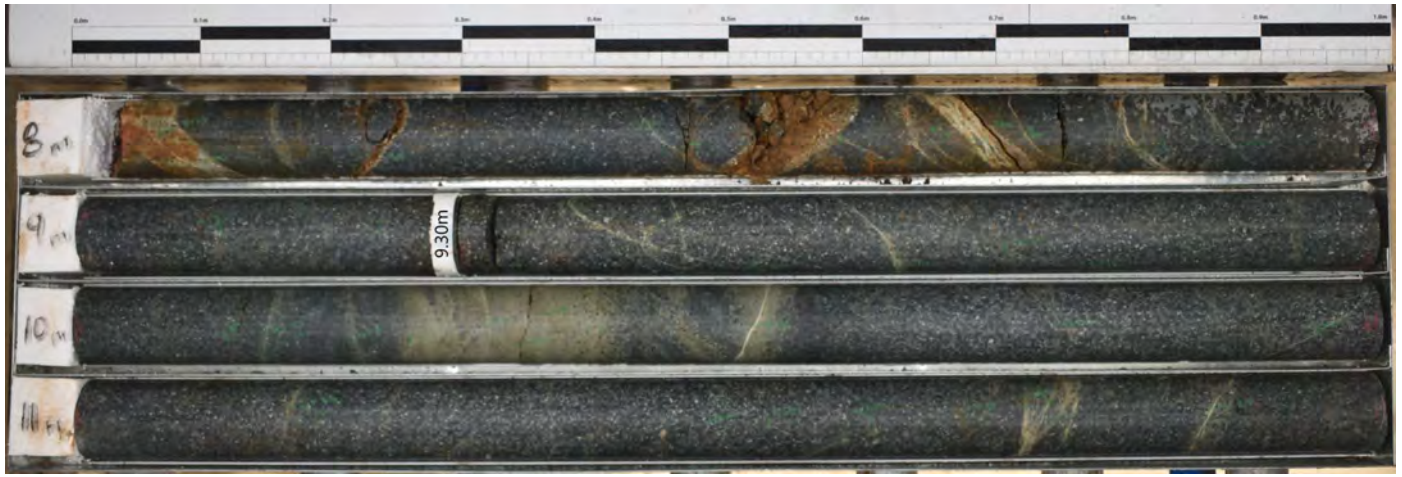
Pioneer Burdekin Pumped Hydro Energy Storage: Tranche 2 – BHUA-01 Defects List

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-01	135.92				J		25			CN	PR	RF					
BHUA-01	136.92				hJs	x2	80		bk mi	IN	PR-UN			1			

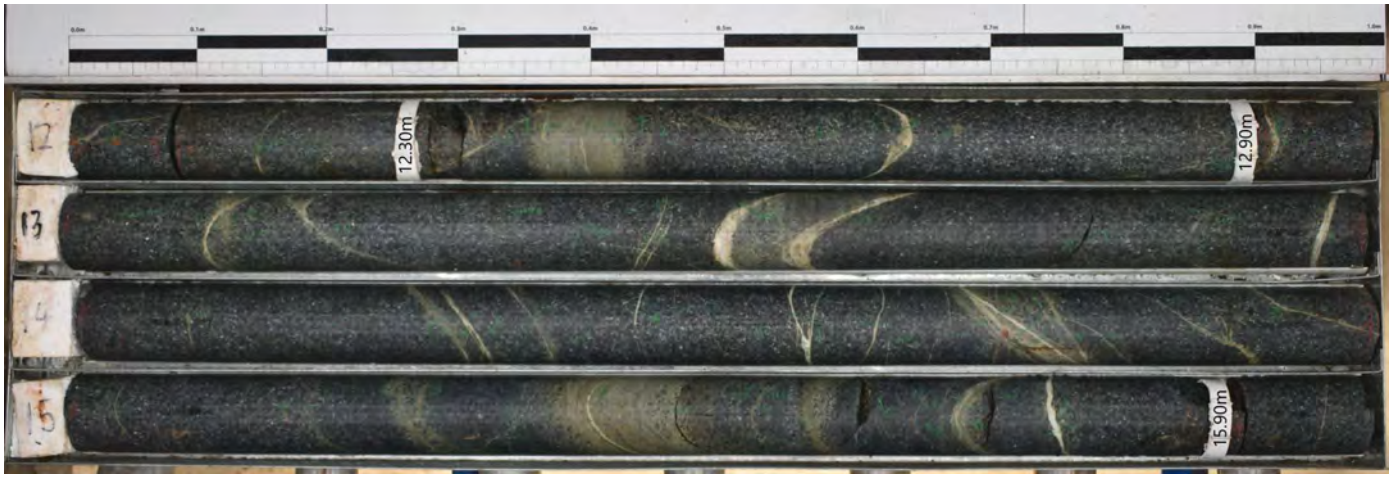
PointID : BHUA-01 Depth Range: 0.00 - 4.00 m

PointID : BHUA-01 Depth Range: 4.00 - 8.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 1/17

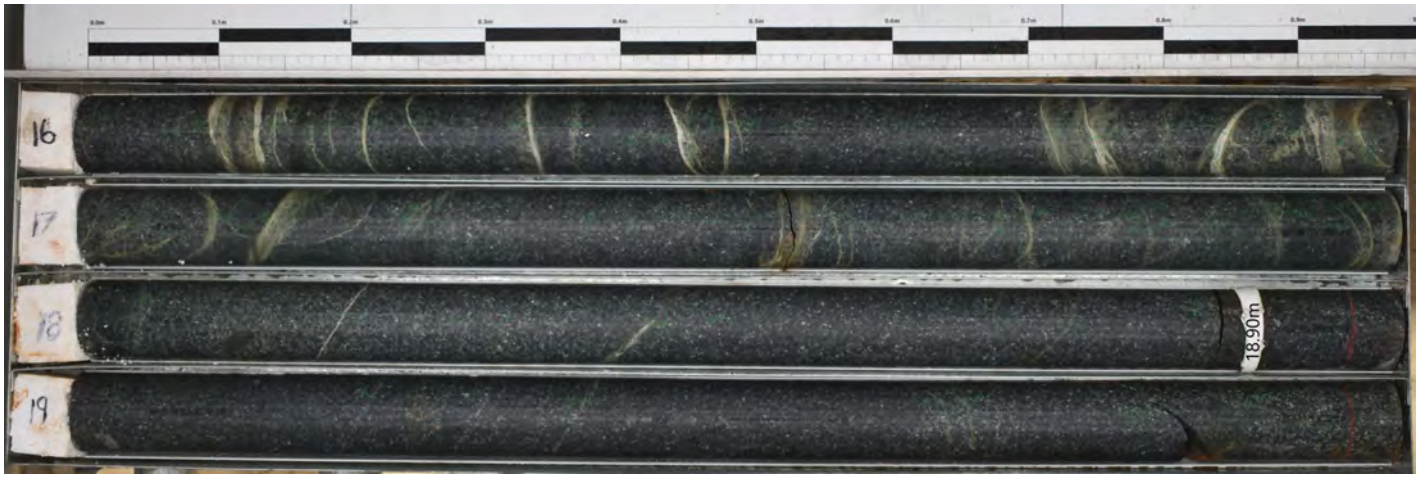


PointID : BHUA-01 Depth Range: 8.00 - 12.00 m

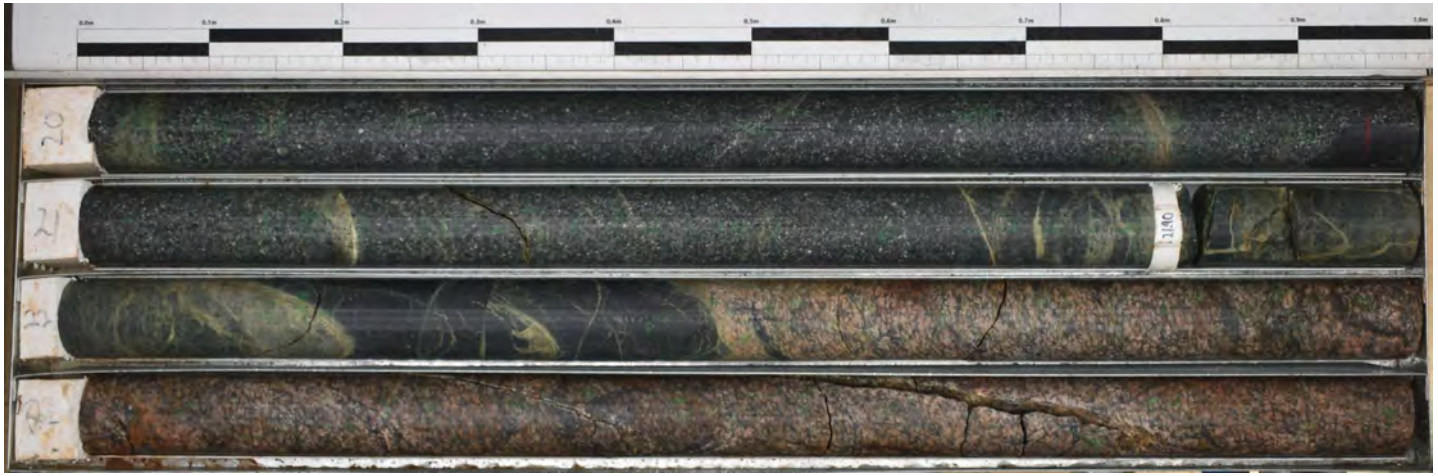


PointID : BHUA-01 Depth Range: 12.00 - 16.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 2/17

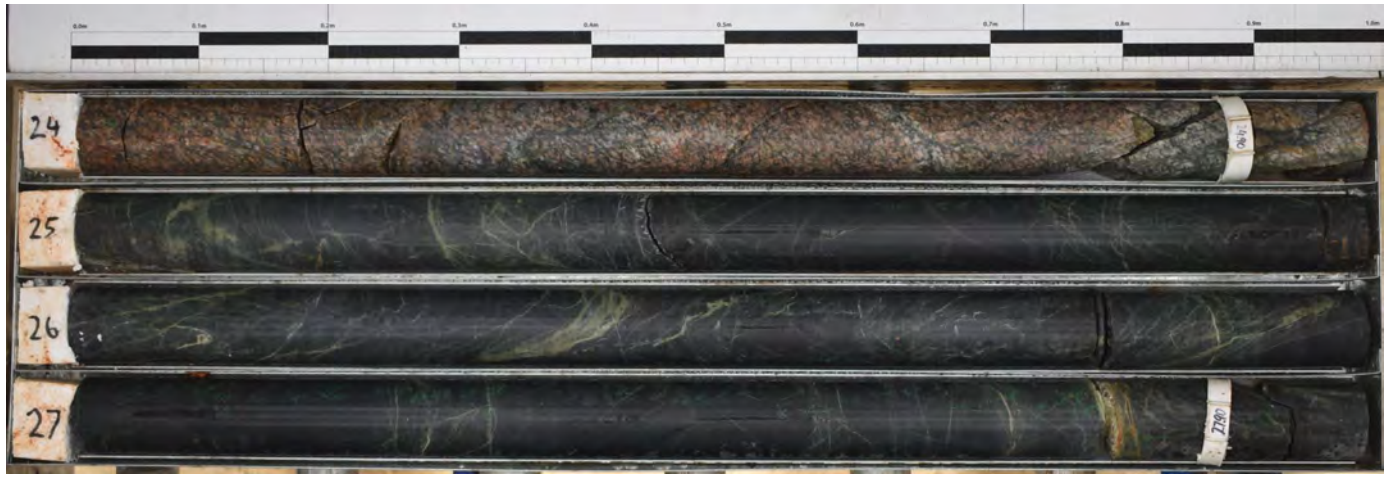


PointID : BHUA-01 Depth Range: 16.00 - 20.00 m



PointID : BHUA-01 Depth Range: 20.00 - 24.00 m

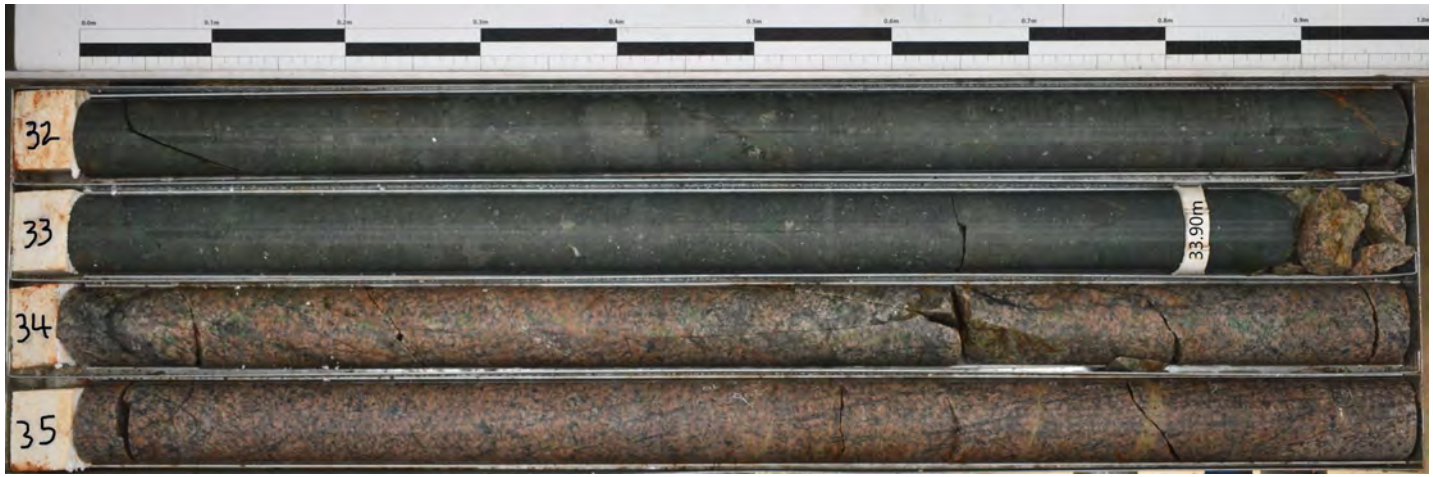
wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 3/17



PointID : BHUA-01 Depth Range: 24.00 - 28.00 m

PointID : BHUA-01 Depth Range: 28.00 - 32.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 4/17



PointID : BHUA-01 Depth Range: 32.00 - 36.00 m

PointID : BHUA-01 Depth Range: 36.00 - 40.00 m

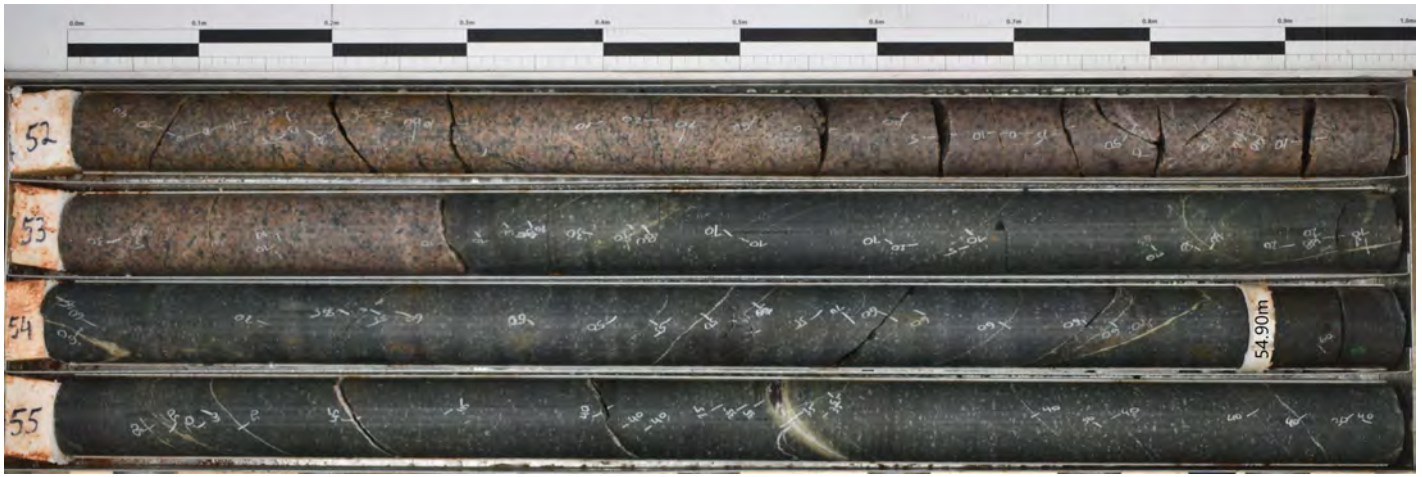
wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 5/17

PointID : BHUA-01 Depth Range: 40.00 - 44.00 m

PointID : BHUA-01 Depth Range: 44.00 - 48.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 6/17

PointID : BHUA-01 Depth Range: 48.00 - 52.00 m



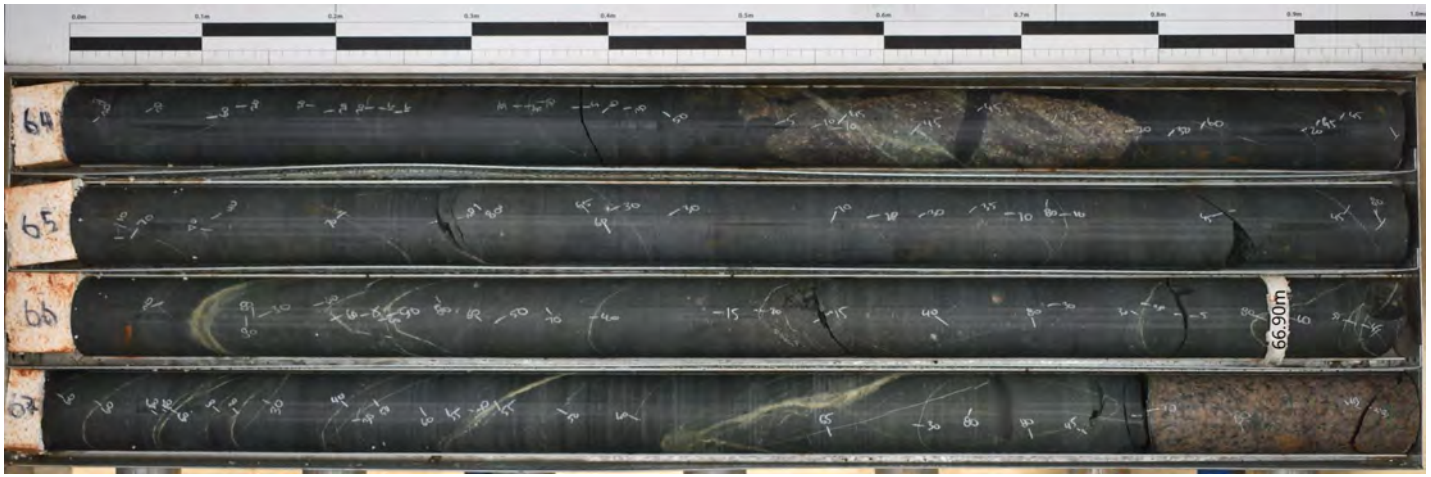
PointID : BHUA-01 Depth Range: 52.00 - 56.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 7/17

PointID : BHUA-01 Depth Range: 56.00 - 60.00 m

PointID : BHUA-01 Depth Range: 60.00 - 64.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 8/17



PointID : BHUA-01 Depth Range: 64.00 - 68.00 m

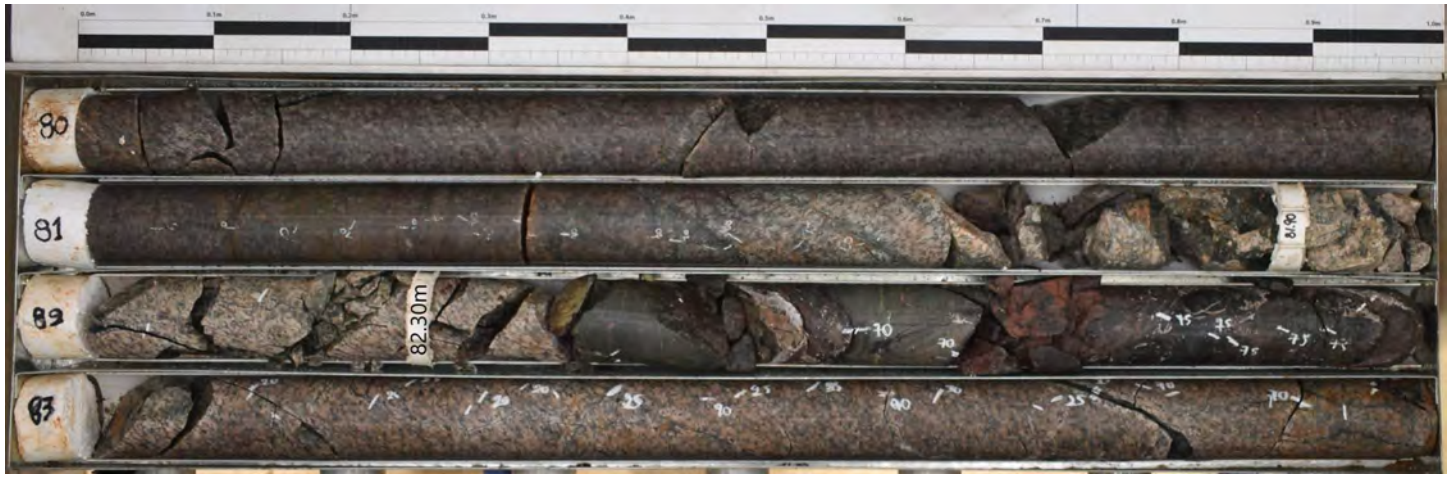
PointID : BHUA-01 Depth Range: 68.00 - 72.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 9/17

PointID : BHUA-01 Depth Range: 72.00 - 76.00 m

PointID : BHUA-01 Depth Range: 76.00 - 80.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 10/17

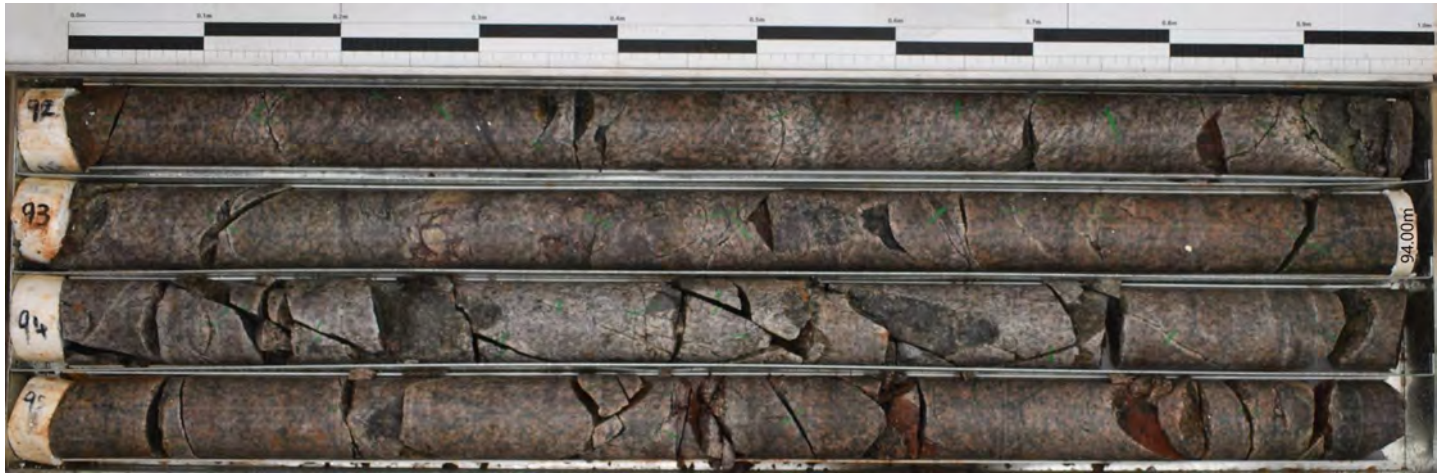


PointID : BHUA-01 Depth Range: 80.00 - 84.00 m

PointID : BHUA-01 Depth Range: 84.00 - 88.00 m

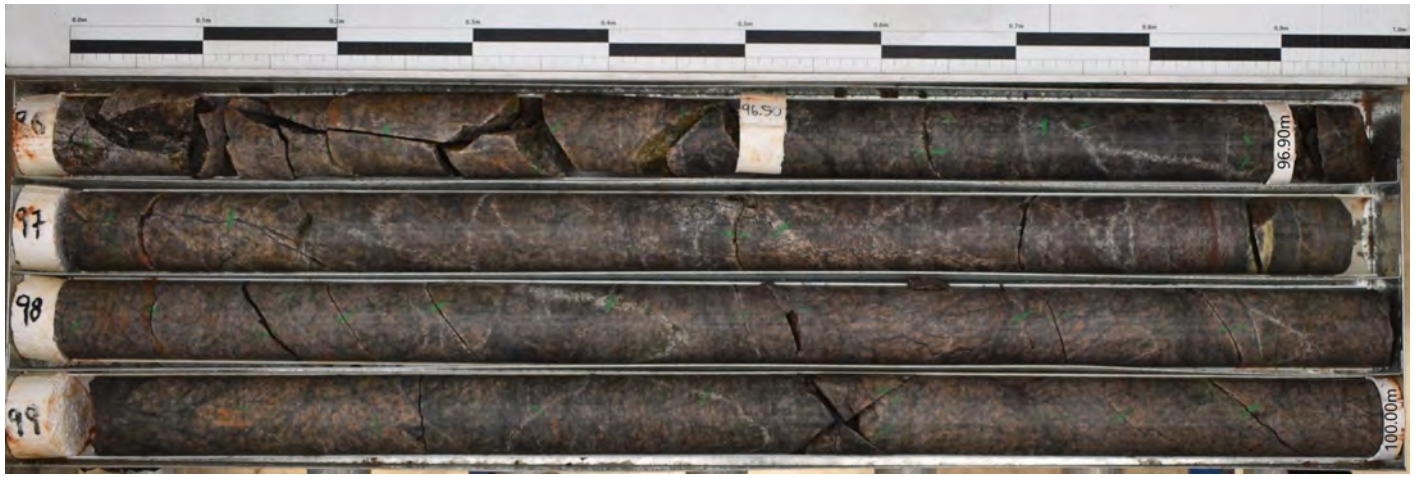
wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 11/17

PointID : BHUA-01 Depth Range: 88.00 - 92.00 m



PointID : BHUA-01 Depth Range: 92.00 - 96.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 12/17



PointID : BHUA-01 Depth Range: 96.00 - 100.00 m

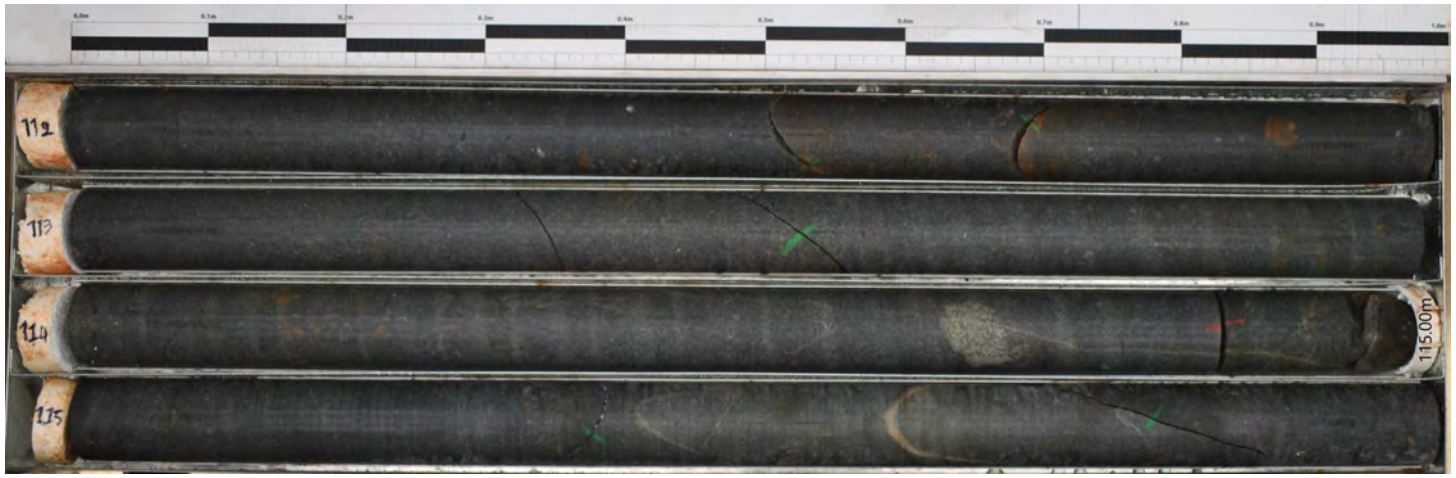
PointID : BHUA-01 Depth Range: 100.00 - 104.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 13/17

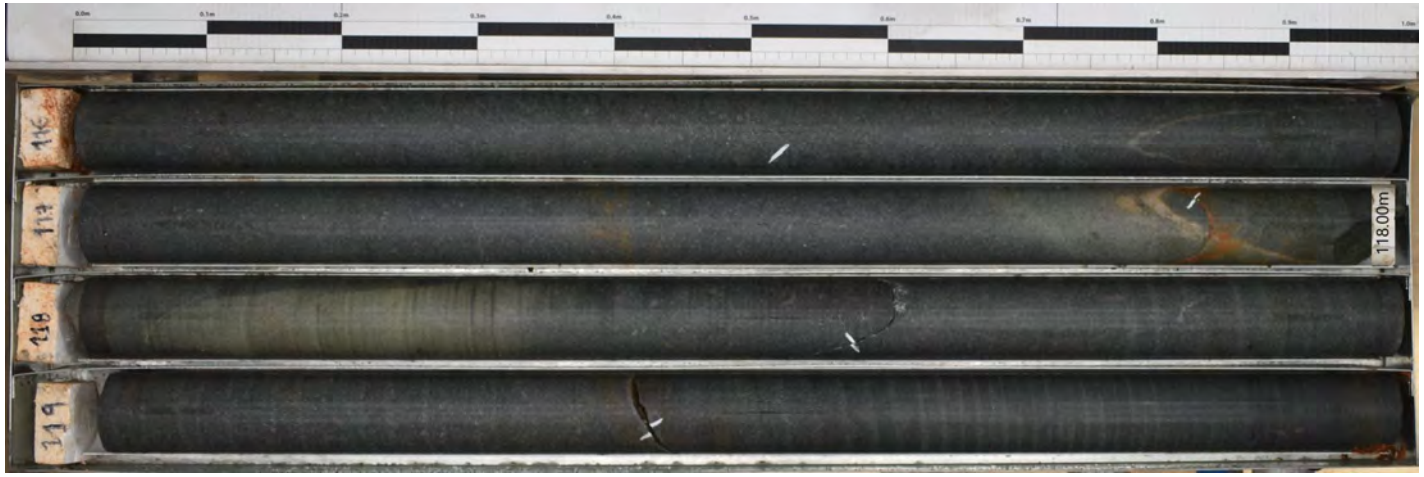
PointID : BHUA-01 Depth Range: 104.00 - 108.00 m

PointID : BHUA-01 Depth Range: 108.00 - 112.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 14/17

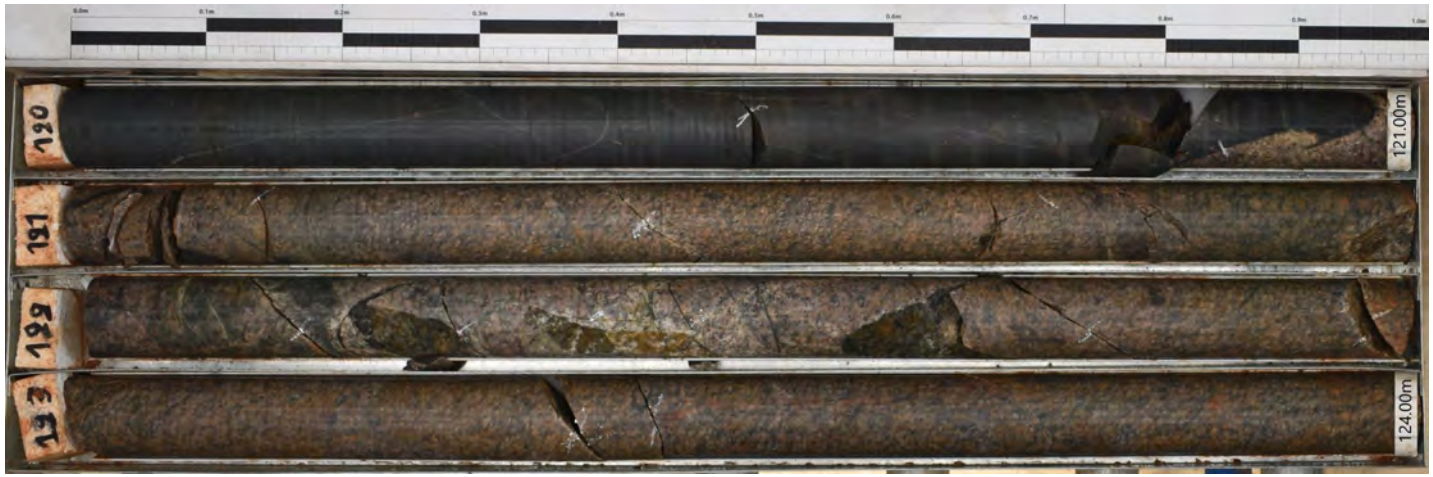


PointID : BHUA-01 Depth Range: 112.00 - 116.00 m



PointID : BHUA-01 Depth Range: 116.00 - 120.00 m

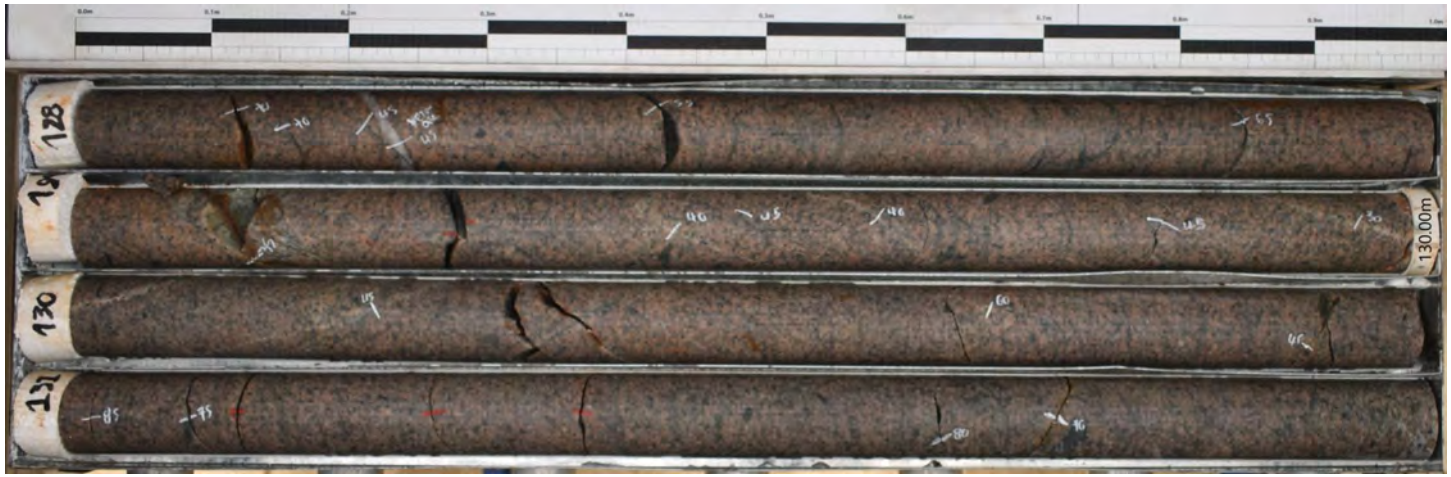
wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 15/17



PointID : BHUA-01 Depth Range: 120.00 - 124.00 m

PointID : BHUA-01 Depth Range: 124.00 - 128.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 16/17



PointID : BHUA-01 Depth Range: 128.00 - 132.00 m

PointID : BHUA-01 Depth Range: 132.00 - 136.00 m

wsp	TITLE: Queensland Hydro Netherdale/Dalrymple Heights Pioneer-Burdekin PHES Core photo - BHUA-01	DRAWN: RC	DATE: 26/11/2024
		CHECKED: GEM	DATE: 4/12/2024
		SCALE: Not To Scale	A4
		PROJECT No: PS138693	FIGURE No: 17/17

BHUA-01 Structural Logs

WSP Australia Pty Limited
Level 12, 900 Ann Street
Fortitude Valley
QLD 4006
Australia

GEOPHYSICAL RECORD OF BOREHOLE: BHUA-01

PROJECT: Pioneer-Burdekin PHES JOB # PS138693

CLIENT: Queensland Hydro DATE: 30/10/2024

BOREHOLE DETAILS

LOCATION:	Lower Reservoir	BH DEPTH:	139 m
EASTING:	657829.25 m	BH DIAMETER:	96 mm (HQ)
NORTHING:	7667673.27 m	BH AZIMUTH:	104° TN
ELEVATION:	854.506 m	BH PLUNGE:	-69°
COORD SYSTEM:	MGA2020-56	CASING DEPTH:	8.68 m
LOGGING DATUM:	Ground Level	CASING TYPE:	HWT

DOCUMENT DETAILS

LOGGED BY:	JH
LOGGED DATE:	04/04/2024
DRAWN BY:	SB
REVIEWED BY:	GH
FILE:	BHUA-01_Structure_RevB
LOGGED DEPTH:	138.37 m

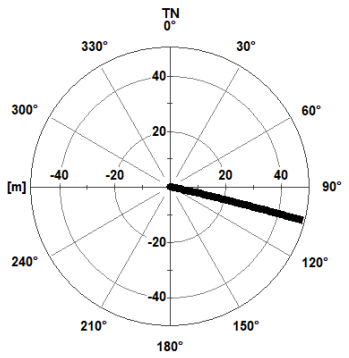
NOTES

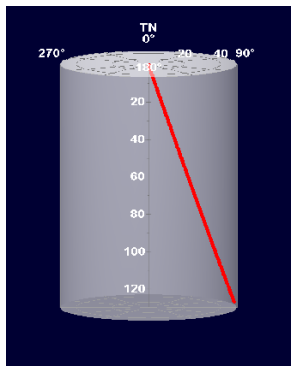
Image logs are oriented relative to borehole high side. Final structures corrected to true north using magnetic declination of 8.2 deg East.

Mechanical calliper log used for structure dip corrections.

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

BOREHOLE DEVIATION





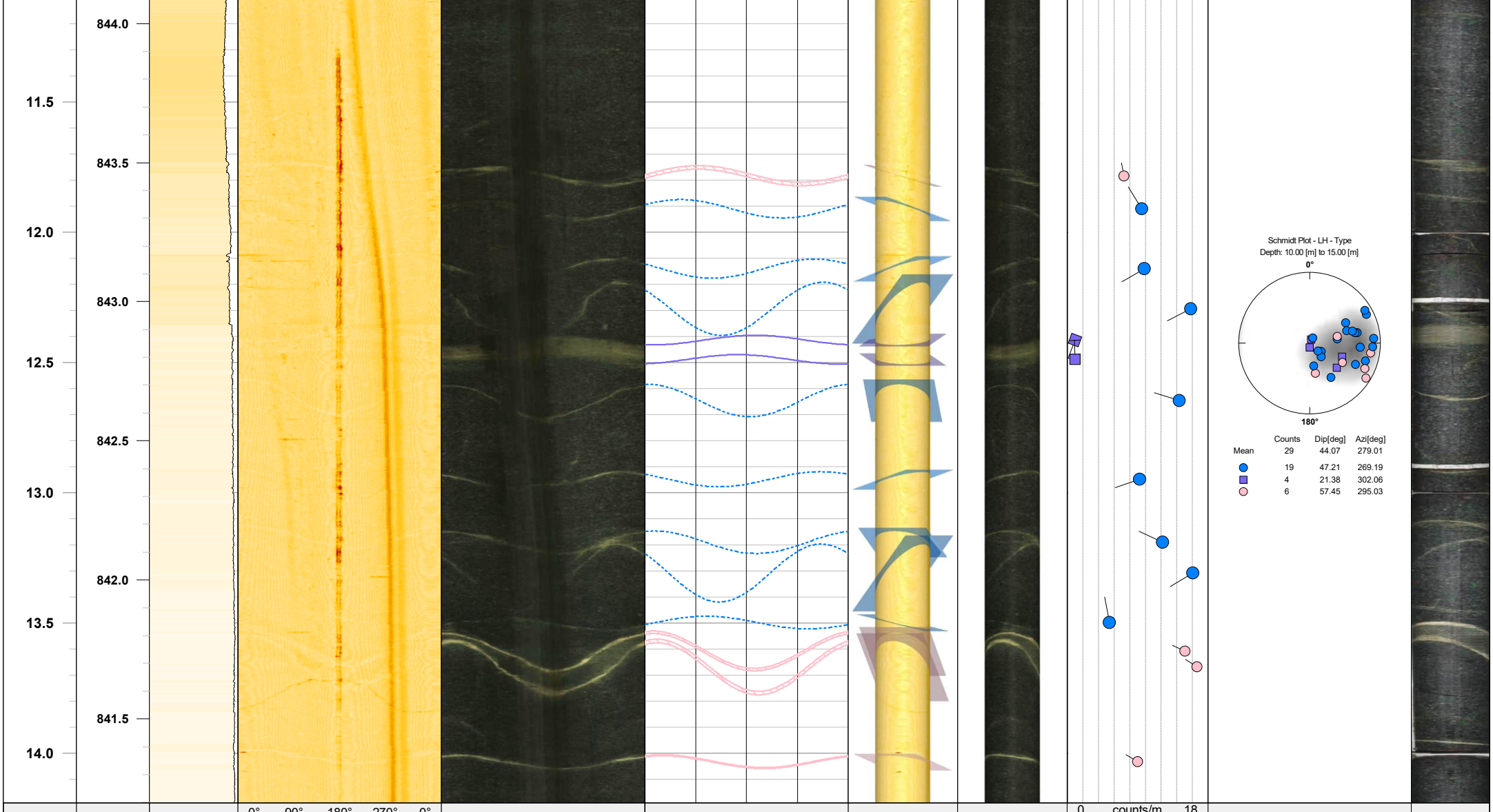
INTERPRETED STRUCTURES

Contact · Crushed Seam · Fracture Zone · Joint · Shear Seam · Shear Zone · Vein · Healed Joint

BHUA-01

Depth | Image Logs | Structural Data | Core

Depth (1m:20m) | RL m (AHD) | Reflectivity (0 – 9000) | Amplitude-HS HPF (0 – 6000, 0° 90° 180° 270° 0°) | Image-HS (0° 90° 180° 270° 0°) | Apparent Structures (0° 90° 180° 270° 0°) | 3D ATV (-0°) | 3D OTV (-0°) | Structures - TN (0 – 90, Freq/metre 0 – counts/m – 18) | Stereoplots (Schmidt Plot - LH - Type) | Core Photo



Schmidt Plot - LH - Type
Depth: 8.68 [m] to 10.00 [m]
0°
180°

	Counts	Dip[deg]	Azi[deg]
Mean	7	60.81	275.90
	3	59.92	261.21
	1	30.68	286.20
	3	80.83	289.75

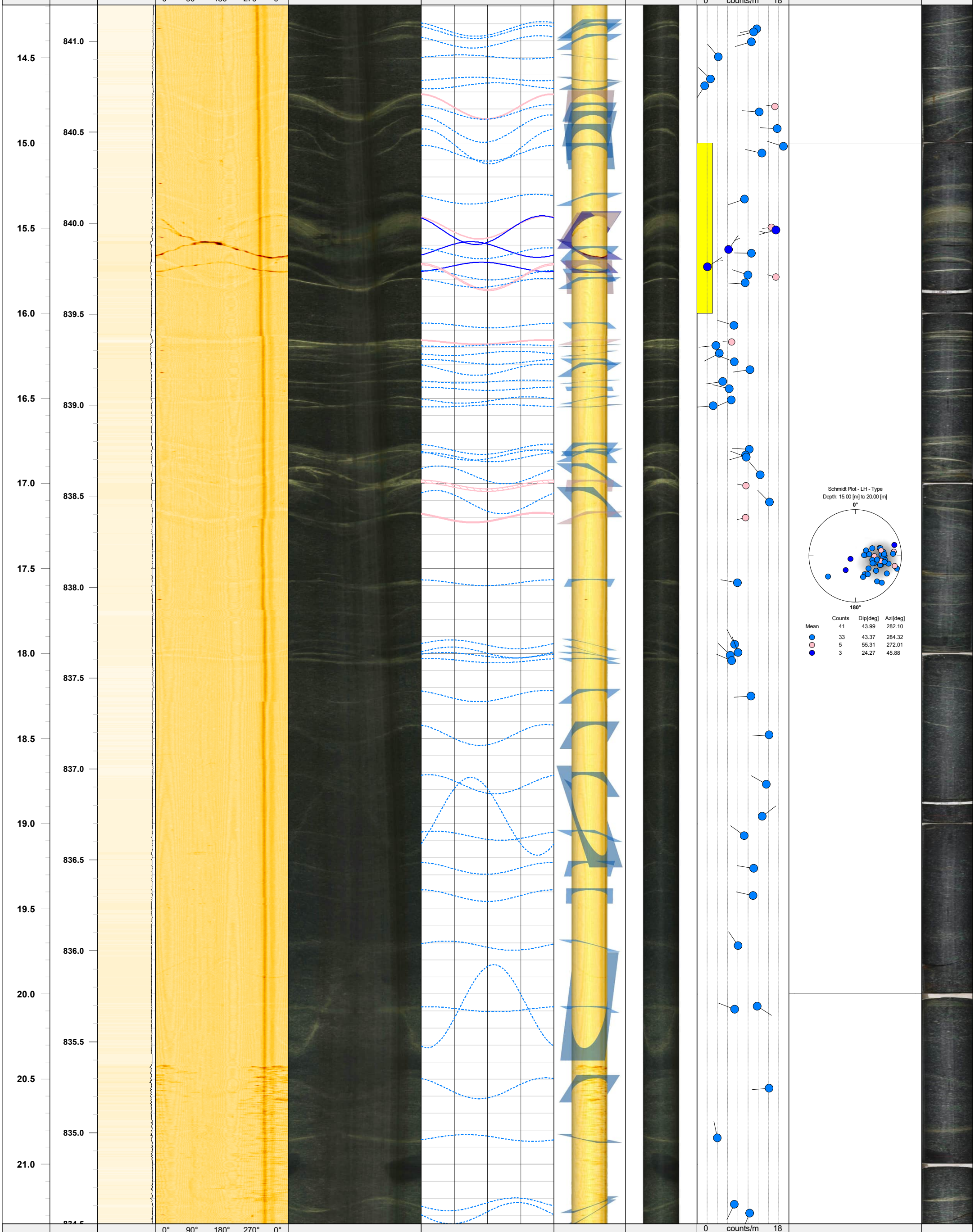
Schmidt Plot - LH - Type
Depth: 10.00 [m] to 15.00 [m]
0°
180°

	Counts	Dip[deg]	Azi[deg]
Mean	29	44.07	279.01
	19	47.21	269.19
	4	21.38	302.06
	6	57.45	295.03

1m:20m | AHD | 0 9000 | 0° 90° 180° 270° 0° / 0 6000 | 0° 90° 180° 270° 0° | 0° 90° 180° 270° 0° | -0° | -0° | 0 counts/m 18 / Freq/metre / 0 90 | 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-01

BHUA-01

Depth		Image Logs			Structural Data					Core
Depth 1m:20m	RL m AHD	Reflectivity 0 9000	Amplitude-HS HPF 0 6000 0° 90° 180° 270° 0°	Image-HS 0° 90° 180° 270° 0°	Apparent Structures 0° 90° 180° 270° 0°	3D ATV -0°	3D OTV -0°	Structures - TN 0 90 Freq/metre 0 counts/m 18	Stereoplots Schmidt Plot - LH - Type	Core Photo

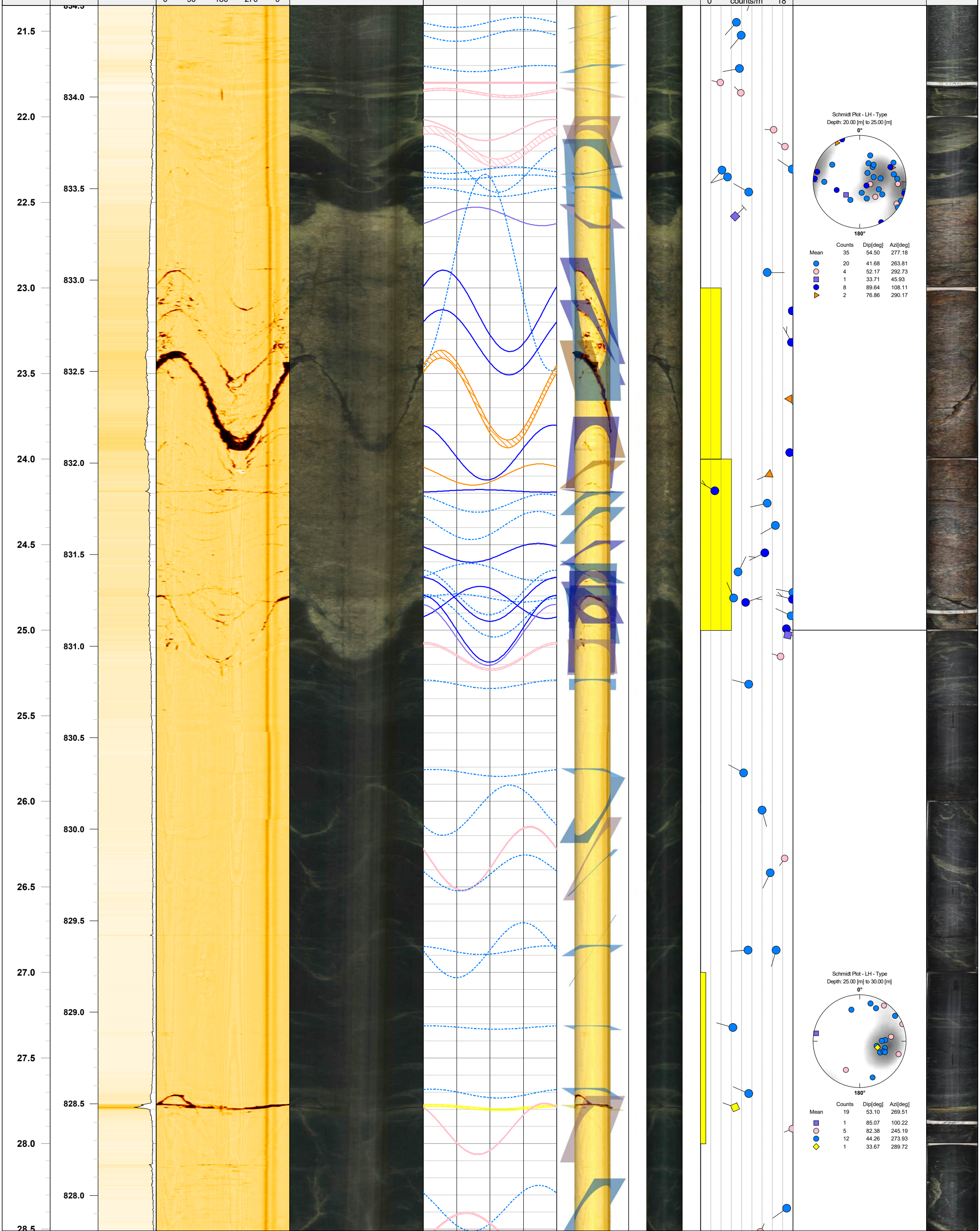


Depth		Image Logs			Structural Data					Core
1m:20m Depth	AHD RL m	0 9000 Reflectivity	0° 90° 180° 270° 0° 0 6000 Amplitude-HS HPF	0° 90° 180° 270° 0° Image-HS	0° 90° 180° 270° 0° Apparent Structures	-0° 3D ATV	-0° 3D OTV	0 counts/m 18 Freq/metre 0 90 Structures - TN	Schmidt Plot - LH - Type Stereoplots	Core Photo

BHUA-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	



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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

BHUA-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	
29.0	827.5									
29.5	827.0									
30.0	826.5									
30.5	826.0									
31.0	825.5									
31.5	825.0									
32.0	824.5									
32.5	824.0									
33.0	823.5									
33.5	823.0									
34.0	822.5									
34.5	822.0									
35.0	821.5									
35.5										

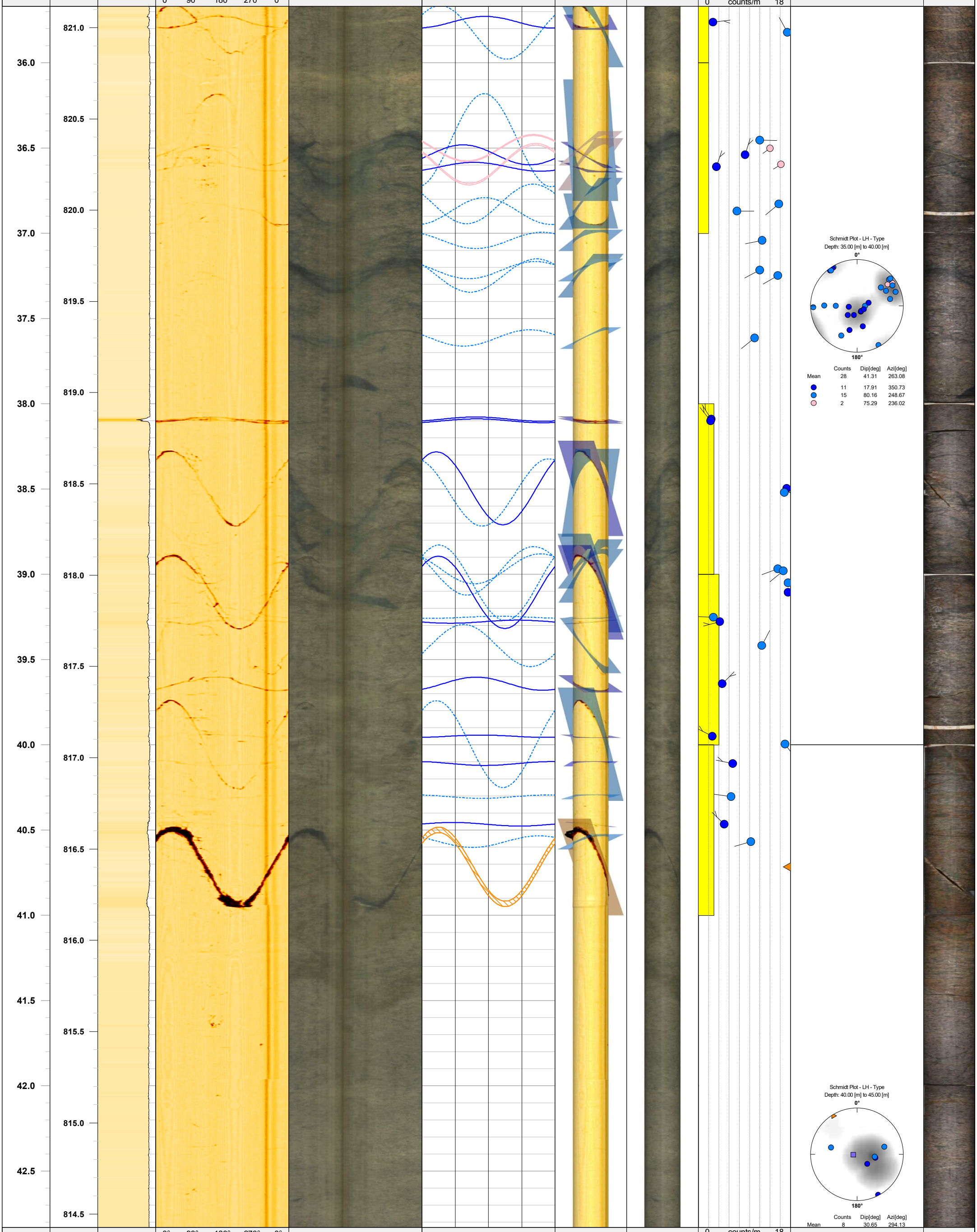
Schmidt Plot - LH - Type
Depth: 30.00 [m] to 35.00 [m]
0°
180°

	Counts	Dip[deg]	Azi[deg]
Mean	34	65.72	328.71
	5	43.95	345.28
	19	66.00	331.77
	1	79.74	348.65
	2	75.54	331.10
	7	72.16	309.42

1m:20m AHD 0 9000 0° 90° 180° 270° 0° 0 6000 0° 90° 180° 270° 0° 0° 90° 180° 270° 0° -0° -0° 0 counts/m 18 Freq/metre 0 90 Schmidt Plot - LH - Type
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-01

BHUA-01

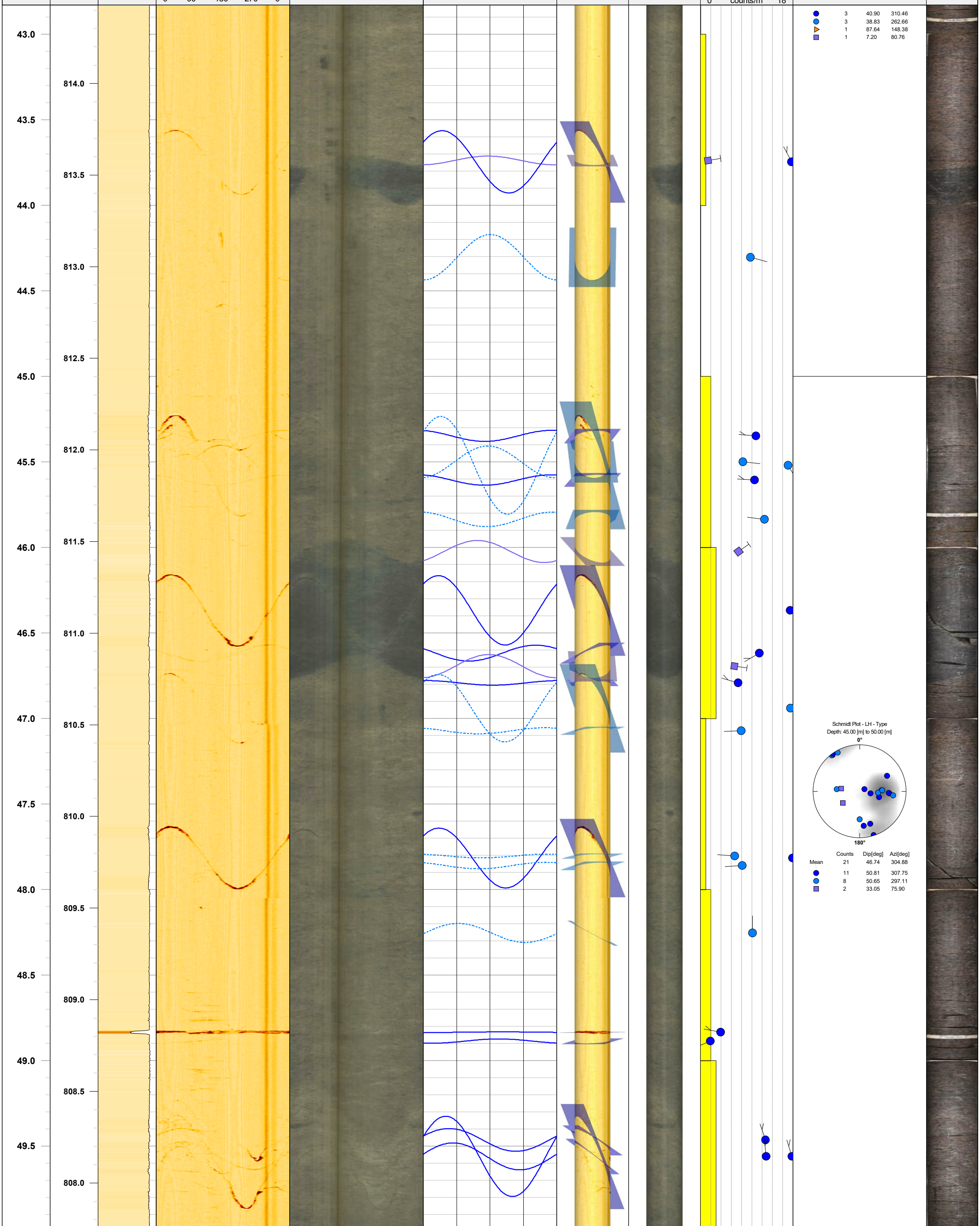
Depth		Image Logs			Structural Data					Core
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo
1m:20m	AHD	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	



Depth		Image Logs			Structural Data					Core
1m:20m	AHD	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo

BHUA-01

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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	



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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

BHUA-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

50.0 / 807.5 / 50.5 / 807.0 / 51.0 / 806.5 / 51.5 / 806.0 / 52.0 / 805.5 / 52.5 / 805.0 / 53.0 / 804.5 / 53.5 / 804.0 / 54.0 / 803.5 / 54.5 / 803.0 / 55.0 / 802.5 / 55.5 / 802.0 / 56.0 / 801.5 / 56.5 / 801.0 / 57.0

Schmidt Plot - LH - Type
Depth: 50.00 [m] to 55.00 [m]
0°
180°

	Counts	Dip[deg]	Azi[deg]
Mean	36	49.46	305.74
	19	63.68	290.16
	16	40.63	317.27
	1	16.81	220.25

Schmidt Plot - LH - Type
Depth: 55.00 [m] to 60.00 [m]
0°

Depth		Image Logs			Structural Data					Core
1m:20m	AHD	0 9000	0° 90° 180° 270° 0° 0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 counts/m 18 Freq/metre 0 90	Schmidt Plot - LH - Type	
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo

BHUA-01

BHUA-01

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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

Depth: 57.5 58.0 58.5 59.0 59.5 60.0 60.5 61.0 61.5 62.0 62.5 63.0 63.5 64.0

RL m: 801.0 800.5 800.0 799.5 799.0 798.5 798.0 797.5 797.0 796.5 796.0 795.5 795.0 794.5

Stereoplots

	Counts	Dip[deg]	Azi[deg]
Mean	39	52.14	262.02
	22	66.96	240.53
	6	46.61	291.71
	2	15.28	340.91
	9	48.97	317.62

Schmidt Plot - LH - Type
Depth: 60.00 [m] to 65.00 [m]

	Counts	Dip[deg]	Azi[deg]
Mean	42	51.23	284.49
	24	61.71	294.79
	14	49.07	273.97
	2	81.84	66.50
	1	11.01	16.60
	1	10.01	33.39

1m:20m AHD 0 9000 0° 90° 180° 270° 0° 0 6000 0° 90° 180° 270° 0° 0° 90° 180° 270° 0° -0° -0° 0 counts/m 18 Freq/metre 0 90 Schmidt Plot - LH - Type
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-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	
64.5										
	794.0									
65.0										
	793.5									
65.5										
	793.0									
66.0										
	792.5									
66.5										
	792.0									
67.0										
	791.5									
67.5										
	791.0									
68.0										
	790.5									
68.5										
	790.0									
69.0										
	789.5									
69.5										
	789.0									
70.0										
	788.5									
70.5										
	788.0									
71.0										

Schmidt Plot - LH - Type
Depth: 65.00 [m] to 70.00 [m]

0°

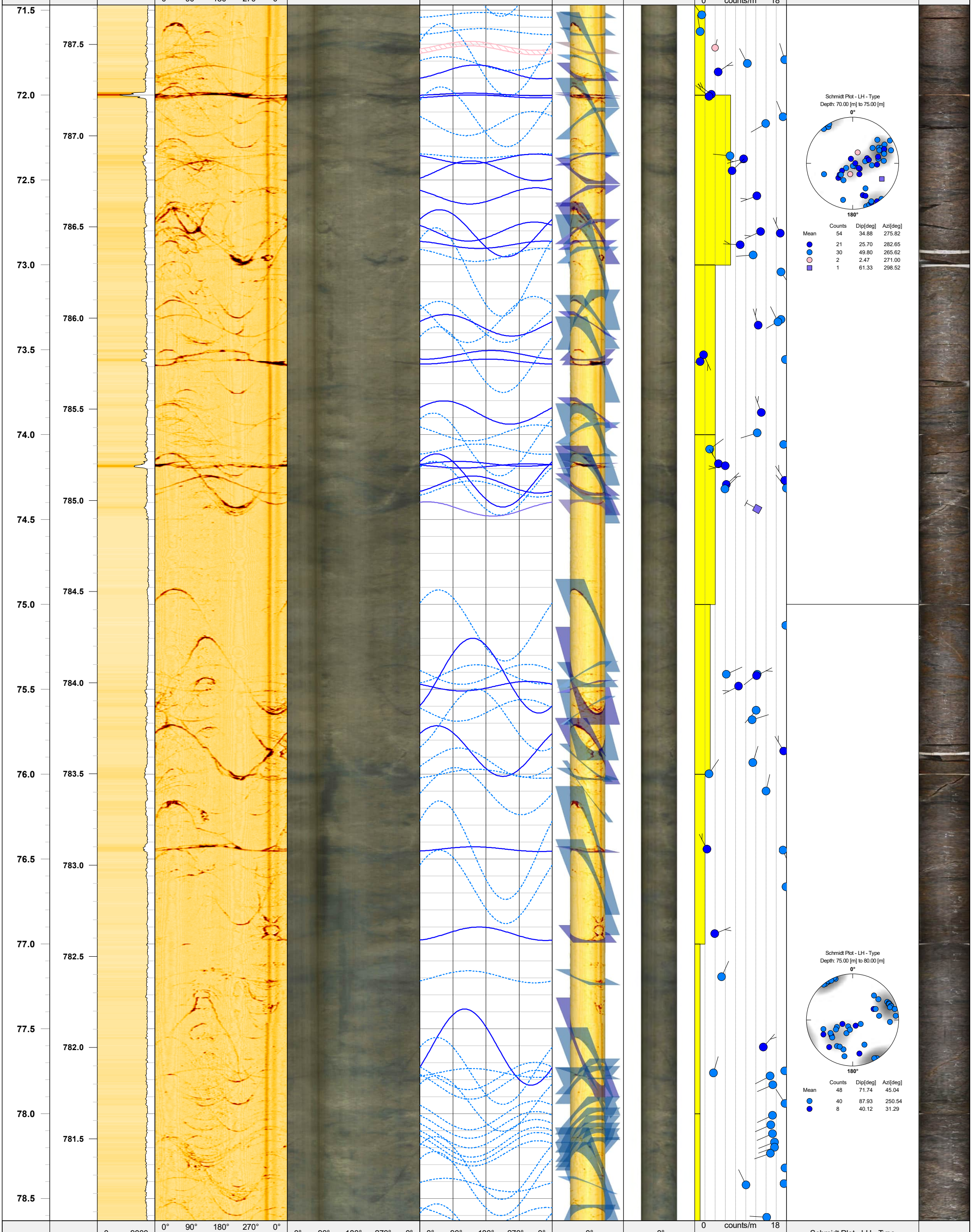
180°

	Counts	Dip[deg]	Azi[deg]
Mean	39	52.98	263.67
	16	38.89	257.05
	3	82.53	280.79
	17	59.00	260.50
	1	35.63	258.97
	2	18.99	25.97

1m:20m AHD 0 9000 0° 90° 180° 270° 0° 0 6000 0° 90° 180° 270° 0° 0° 90° 180° 270° 0° -0° -0° 0 counts/m 18 Freq/metre 0 90 Schmidt Plot - LH - Type
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-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	



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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

BHUA-01

BHUA-01

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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

Depth: 79.0, 79.5, 80.0, 80.5, 81.0, 81.5, 82.0, 82.5, 83.0, 83.5, 84.0, 84.5, 85.0, 85.5

RL m: 781.0, 780.5, 780.0, 779.5, 779.0, 778.5, 778.0, 777.5, 777.0, 776.5, 776.0, 775.5, 775.0, 774.5

Schmidt Plot - LH - Type
Depth: 80.00 [m] to 85.00 [m]

0°

180°

	Counts	Dip[deg]	Azi[deg]
Mean	48	61.43	313.71
	21	74.80	300.64
	21	53.28	324.33
	4	76.20	82.20
	2	75.35	283.25

1m:20m AHD 0 9000 0° 90° 180° 270° 0° 0 6000 0° 90° 180° 270° 0° 0° 90° 180° 270° 0° -0° -0° 0 counts/m 18 Freq/metre 0 90 Schmidt Plot - LH - Type
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-01

BHUA-01

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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

86.0 774.0 86.5 773.5 87.0 773.0 87.5 772.5 88.0 772.0 88.5 771.5 89.0 771.0 89.5 770.5 90.0 770.5 90.5 770.0 91.0 769.5 91.5 769.0 92.0 768.5 92.5 768.0

Schmidt Plot - LH - Type
Depth: 85.00 [m] to 90.00 [m]
0° 180°

	Counts	Dip[deg]	Azi[deg]
Mean	92	48.70	306.18
	49	51.52	301.09
	42	45.36	315.46
	1	45.06	282.04

Schmidt Plot - LH - Type
Depth: 90.00 [m] to 95.00 [m]
0° 180°

	Counts	Dip[deg]	Azi[deg]
Mean	75	57.11	286.68
	38	58.36	286.07
	33	54.80	287.17

1m:20m AHD 0 9000 0° 90° 180° 270° 0° 0 6000 0° 90° 180° 270° 0° 0° 90° 180° 270° 0° 0° 90° 180° 270° 0° -0° -0° 0 90 Freq/metre 0 counts/m 18 Schmidt Plot - LH - Type
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-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

93.0 767.5 93.5 767.0 94.0 766.5 94.5 766.0 95.0 765.5 95.5 765.0 96.0 764.5 96.5 764.0 97.0 763.5 97.5 763.0 98.0 762.5 98.5 762.0 99.0 761.5 99.5 761.0 100.0

Stereoplots: Schmidt Plot - LH - Type
2 49.66 336.09
2 81.82 259.50

Schmidt Plot - LH - Type
Depth: 95.00 [m] to 100.00 [m]
0°
180°

	Counts	Dip[deg]	Azi[deg]
Mean	67	62.56	296.14
	37	58.50	299.13
	30	66.16	293.79

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

BHUA-01

BHUA-01

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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

Depth: 100.00 [m] to 105.00 [m]

Schmidt Plot - LH - Type

	Counts	Dip[deg]	Azi[deg]
Mean	39	75.75	314.71
	20	77.27	313.08
	15	69.76	296.58
	1	77.34	336.04
	3	80.91	327.06

Depth: 105.00 [m] to 110.00 [m]

Schmidt Plot - LH - Type

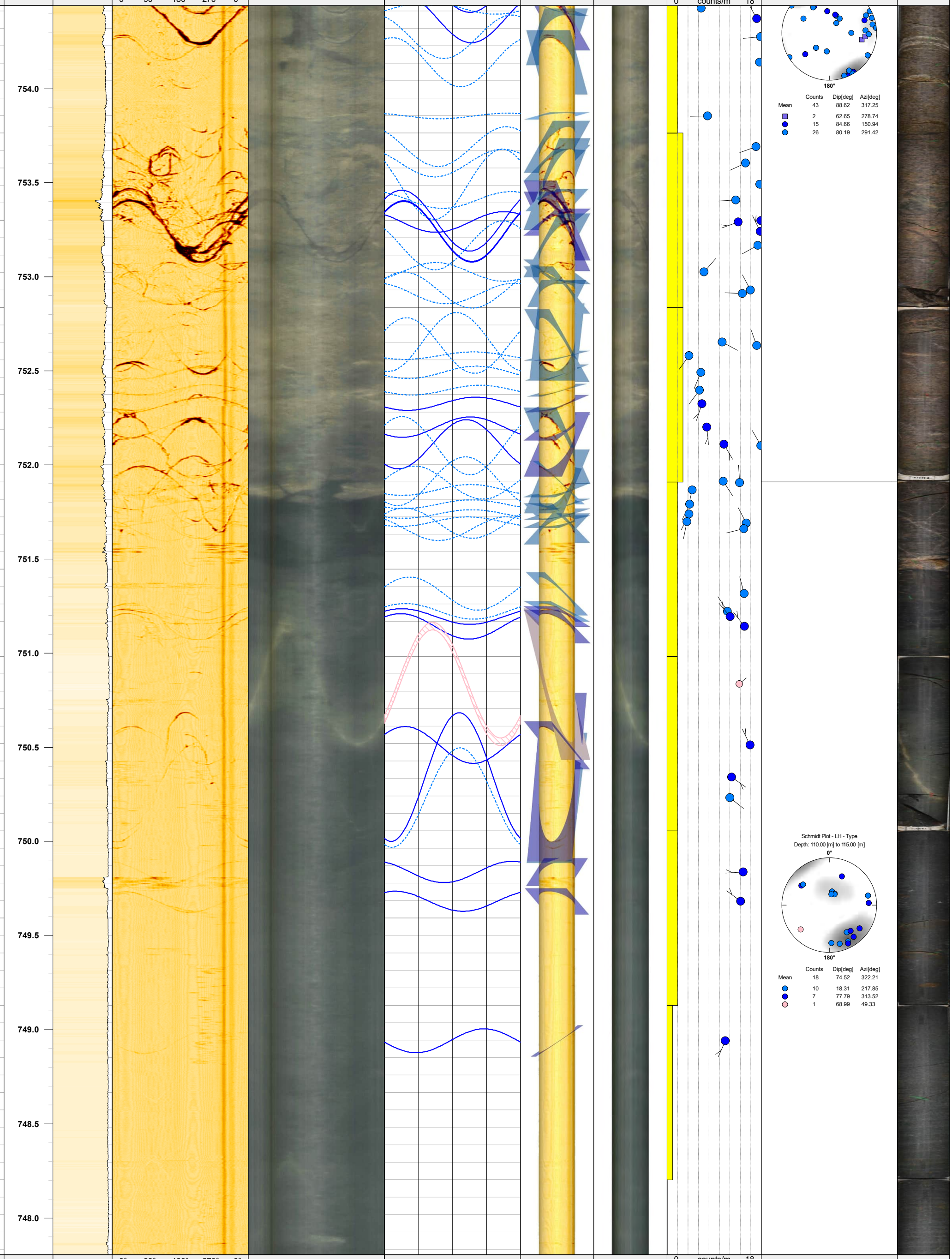
Depth		Image Logs			Structural Data					Core
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo
1m:20m	AHD	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

BHUA-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

107.5 754.0 108.0 753.5 108.5 753.0 109.0 752.5 109.5 752.0 110.0 751.5 110.5 751.0 111.0 750.5 111.5 750.0 112.0 749.5 112.5 749.0 113.0 748.5 113.5 748.0 114.0

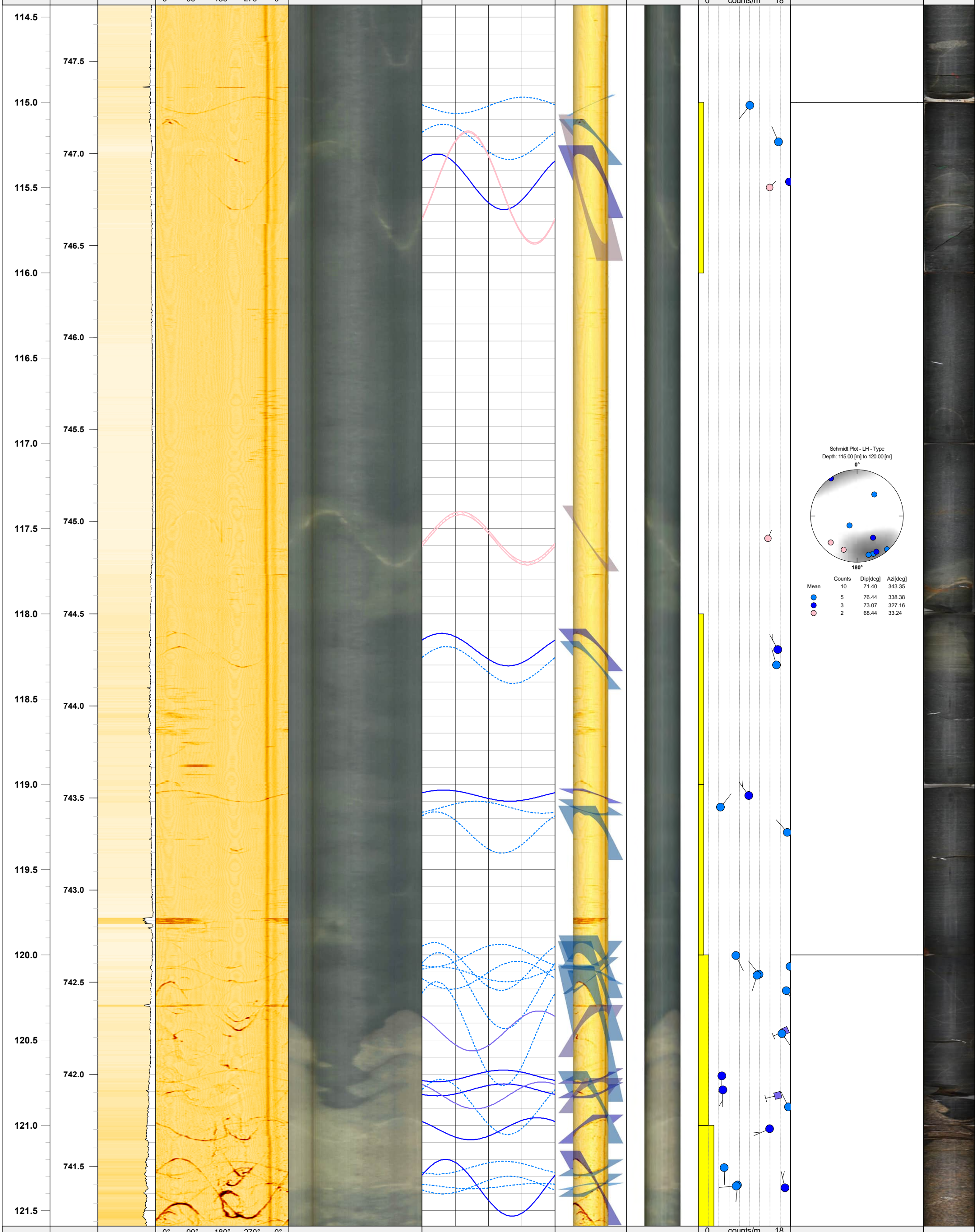


1m:20m	AHD	0 9000	0° 90° 180° 270° 0° 0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 counts/m 18 Freq/metre 0 90	Schmidt Plot - LH - Type	
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo
Depth		Image Logs			Structural Data					Core

BHUA-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	



	Counts	Dip[deg]	Azi[deg]
Mean	10	71.40	343.35
	5	76.44	338.38
	3	73.07	327.16
	2	68.44	33.24

1m:20m	AHD	0 9000	0° 90° 180° 270° 0° 0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 counts/m 18 Freq/metre 0 90	Schmidt Plot - LH - Type	
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-01

BHUA-01

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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

Depth: 122.0 – 128.5 m; RL m: 741.0 – 735.0 AHD

Schmidt Plot - LH - Type
Depth: 120.00 [m] to 125.00 [m]
0°
180°

	Counts	Dip[deg]	Azi[deg]
Mean	33	82.63	324.58
	19	35.09	239.70
	2	81.05	250.83
	12	88.68	325.24

Schmidt Plot - LH - Type
Depth: 125.00 [m] to 130.00 [m]
0°
180°

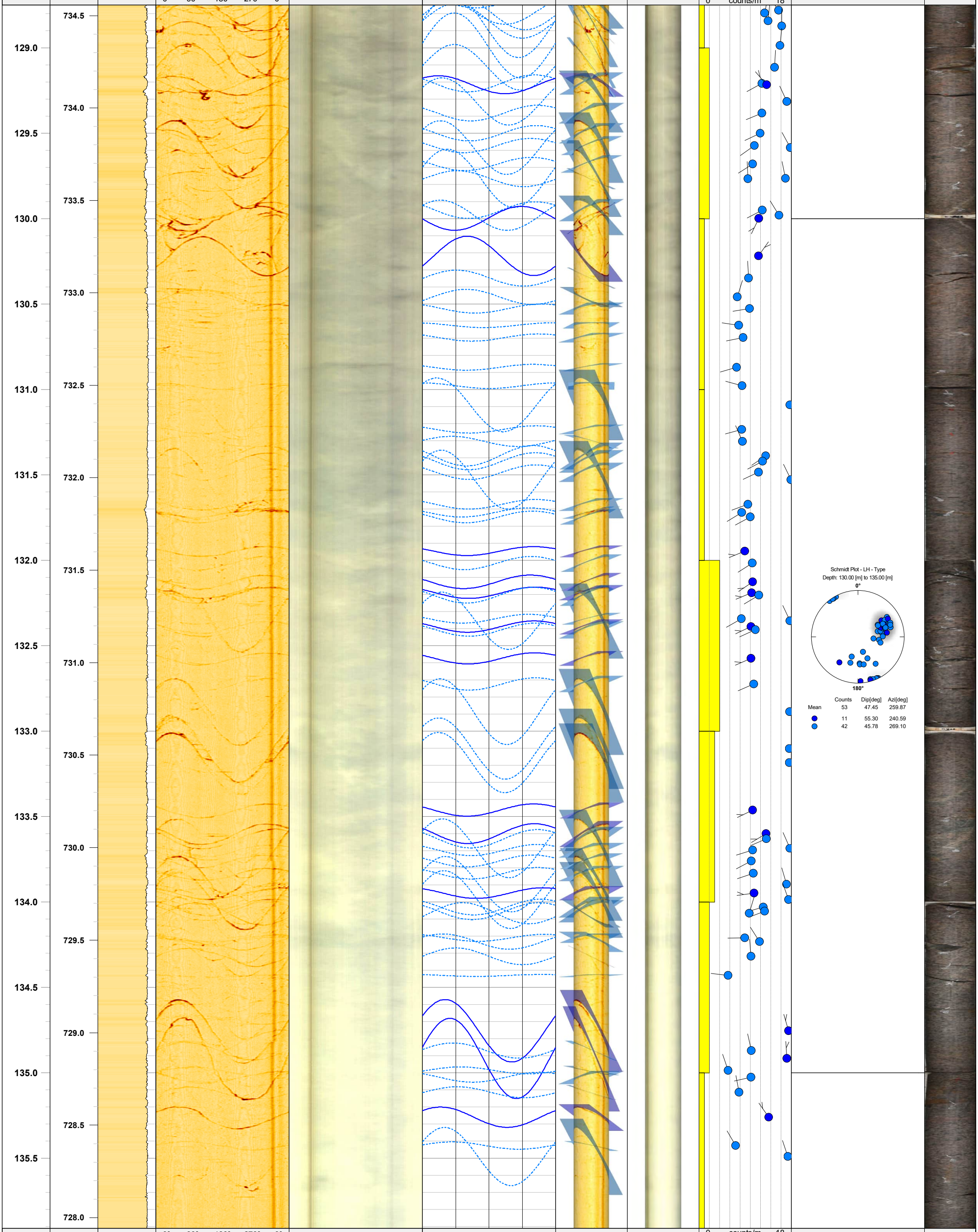
	Counts	Dip[deg]	Azi[deg]
Mean	59	58.87	300.20
	5	61.37	324.01
	11	64.63	324.62
	43	57.49	275.81

1m:20m	AHD	0 9000	0° 90° 180° 270° 0° 0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 counts/m 18 Freq/metre 0 90	Schmidt Plot - LH - Type	
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-01

BHUA-01

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	0 9000	0 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	



Schmidt Plot - LH - Type
Depth: 130.00 [m] to 135.00 [m]

0°

180°

	Counts	Dip[deg]	Azi[deg]
Mean	53	47.45	259.87
	11	55.30	240.59
	42	45.78	269.10

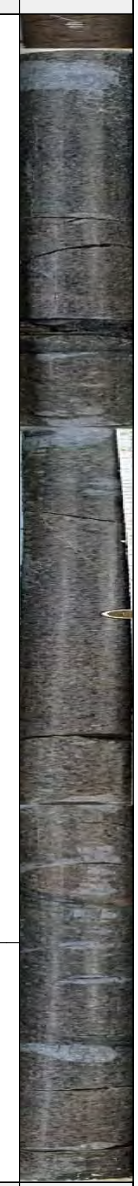
Depth		Image Logs			Structural Data					Core
Depth	RL m	Reflectivity	Amplitude-HS HPF	Image-HS	Apparent Structures	3D ATV	3D OTV	Structures - TN	Stereoplots	Core Photo

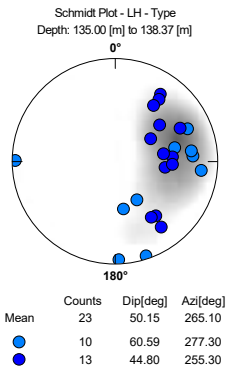
BHUA-01

BHUA-01

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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

136.0
727.5
136.5
727.0
137.0
726.5
137.5
726.0
138.0
725.5
138.5





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	0 9000	0 6000	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	-0°	-0°	0 90 Freq/metre 0 counts/m 18	Schmidt Plot - LH - Type	

BHUA-01

BHUA-01 Composite Logs

WSP Australia Pty Limited
Level 12, 900 Ann Street
Fortitude Valley
QLD 4006
Australia

GEOPHYSICAL RECORD OF BOREHOLE: BHUA-01

PROJECT: Pioneer-Burdekin PHES JOB # PS138693

CLIENT: Queensland Hydro DATE: 31/10/2024

BOREHOLE DETAILS

LOCATION:	Lower Reservoir	BH DEPTH:	139 m
EASTING:	657829.25 m	BH DIAMETER:	96 mm (HQ)
NORTHING:	7667673.27 m	BH AZIMUTH:	104° TN
ELEVATION:	854.506 m	BH PLUNGE:	-69°
COORD SYSTEM:	MGA2020-56	CASING DEPTH:	8.68 m
LOGGING DATUM:	Ground Level	CASING TYPE:	HWT

DOCUMENT DETAILS

LOGGED BY:	JH
LOGGED DATE:	04/04/2024
DRAWN BY:	SB
REVIEWED BY:	GH
FILE:	BHUA-01_Comp_RevB
LOGGED DEPTH:	138.37 m

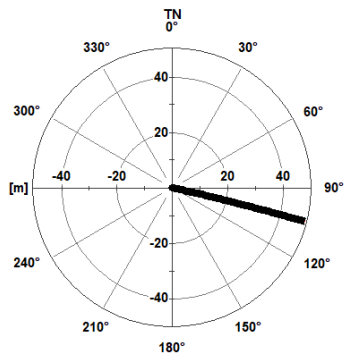
NOTES

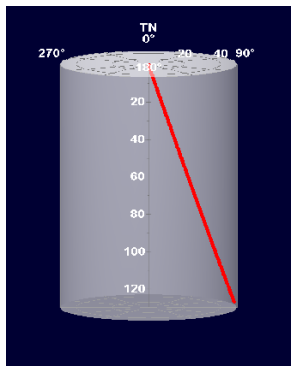
Image logs are oriented relative to borehole high side. Final structures corrected to true north using magnetic declination of 8.2 deg East.

Mechanical calliper log used for structure dip corrections.

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

BOREHOLE DEVIATION



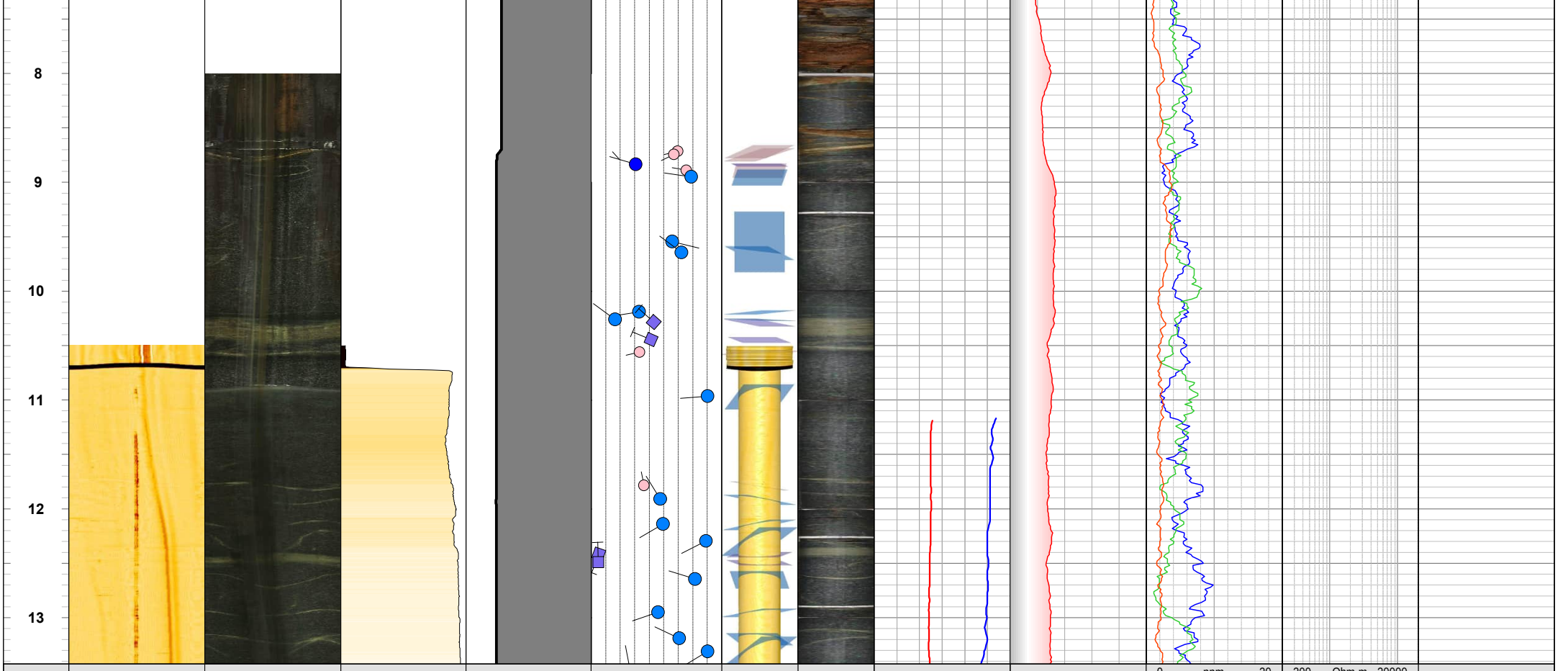


INTERPRETED STRUCTURES

Contact · Crushed Seam · Fracture Zone · Joint · Shear Seam · Shear Zone · Vein · Healed Joint

BHUA-01

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
	500 6000		0 9000	80 mm 160	0 90			1000 m/s 7000	0 API 250	0 ppm 10	200 Ohm.m 20000	0 ms 50
1m:50m	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°			Freq/metre	-0°		Vp		K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	



Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
	500 6000		0 9000	80 mm 160	0 90			1000 m/s 7000	0 API 250	0 ppm 10	200 Ohm.m 20000	0 ms 50
1m:50m	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°			Freq/metre	-0°		Vp		K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	

BHUA-01

BHUA-01

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs	Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U / K / Th	N16 / N32 / N8	Ma16 / Ma64
1m:50m	500 – 6000 0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0 – 9000	80 mm 160	0 – 90 Freq/metre 0 counts/m 18	-0°		1000 m/s 7000 Vp 1000 m/s 7000	0 API 250	U: 0 ppm 10 K: 0 % 10 Th: 0 ppm 20	200 Ohm.m 20000	0 ms 50

BHUA-01

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
1m:50m	500 6000	0° 90° 180° 270° 0°	0 9000	80 mm 160	0 90	-0°		1000 m/s 7000	0 API 250	0 ppm 10	200 Ohm.m 20000	0 ms 50
	0° 90° 180° 270° 0°				Freq/metre			Vp		K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	

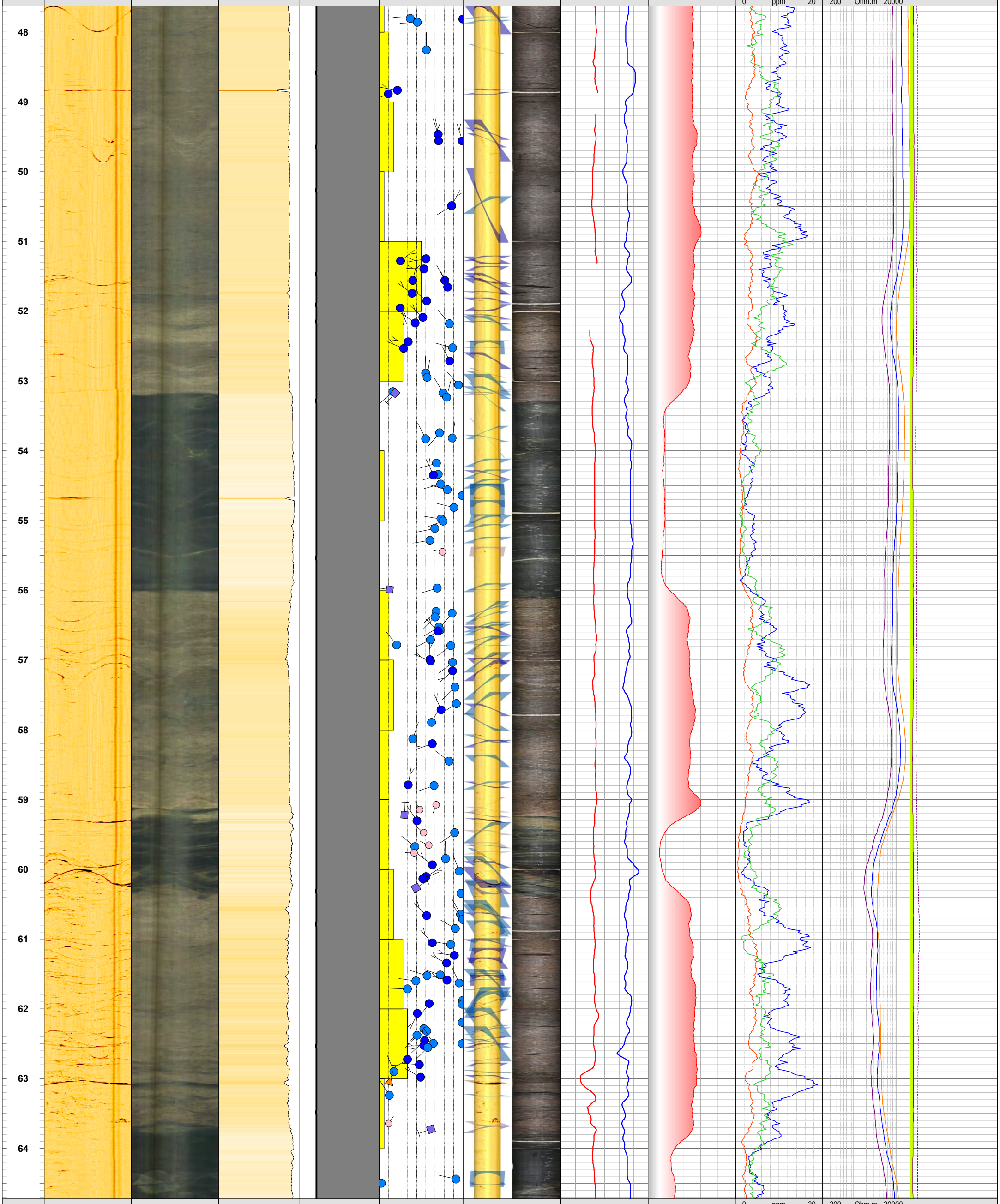
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
1m:50m	500 6000	0° 90° 180° 270° 0°	0 9000	80 mm 160	0 90	-0°		1000 m/s 7000	0 API 250	0 ppm 10	200 Ohm.m 20000	0 ms 50
	0° 90° 180° 270° 0°				Freq/metre			Vp		K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	

BHUA-01

BHUA-01

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
1m:50m	500 6000	0° 90° 180° 270° 0°	0 9000	80 mm 160	0 90	-0°		1000 m/s 7000	0 API 250	0 ppm 10	200 Ohm.m 20000	0 ms 50
	0° 90° 180° 270° 0°				Freq/metre			Vp		K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	



Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
1m:50m	500 6000	0° 90° 180° 270° 0°	0 9000	80 mm 160	0 90	-0°		1000 m/s 7000	0 API 250	0 ppm 10	200 Ohm.m 20000	0 ms 50
	0° 90° 180° 270° 0°				Freq/metre			Vp		K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	

BHUA-01

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
	500 6000		0 9000	80 mm 160	0 90			1000 m/s 7000		0 ppm 10	200 Ohm.m 20000	0 ms 50
1m:50m	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°			Freq/metre	-0°		Vp	0 API 250	K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	

65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
	500 6000		0 9000	80 mm 160	0 90			1000 m/s 7000		0 ppm 10	200 Ohm.m 20000	0 ms 50
1m:50m	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°			Freq/metre	-0°		Vp	0 API 250	K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	
Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	

BHUA-01

BHUA-01

Depth	Image Logs			Calliper	Structural Logs			Sonic Logs	Gamma Logs		Electrical Logs	
Depth	Amplitude-HS HPF	Image-HS	Reflectivity	CAL Ext	Structures - TN	3D ATV	Core	Vs	GR	U	N16	Ma16
1m:50m	500 6000		0 9000	80 mm 160	0 90	-0°		1000 m/s 7000	0 API 250	0 ppm 10	200 Ohm.m 20000	0 ms 50
	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°			Freq/metre			Vp		K	N32	Ma64
					0 counts/m 18			1000 m/s 7000		0 % 10	200 Ohm.m 20000	0 ms 50
										Th	N8	
										0 ppm 20	200 Ohm.m 20000	

82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98

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99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116

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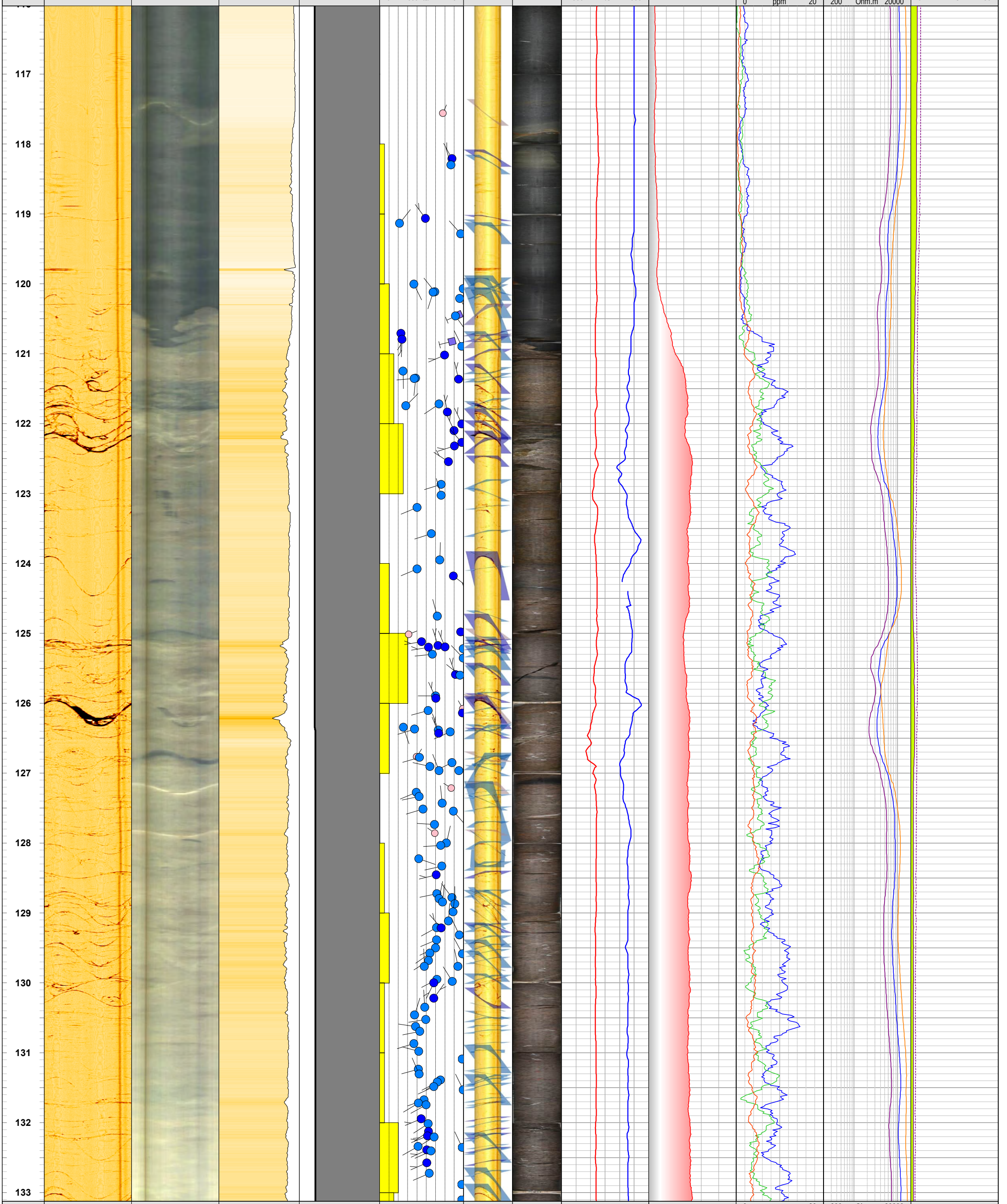

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