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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/5-2009

BOREHOLE No BH041
SHEET 1 of 4
REFERENCE No H10585

PROJECT BRUCE HIGHWAY (COOROY - CURRA) SECTION A GEOTECHNICAL INVESTIGATION
LOCATION Cut 14 COORDINATES 484398.2 E; 7081246.3 N
PROJECT No FG5825 SURFACE R.L. 161.79m PLUNGE _____ DATE STARTED 23/7/09 GRID DATUM MGA94
JOB No 128/10A/901 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 27/7/09 DRILLER R & D Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
0	161.79					Silty CLAY (RESIDUAL) Mottled red to orange and grey, moist, stiff.									
1					A	Traces of organics.			(CH)					2,4,5 N=9	SPT
2	160.49				B	PHYLLITE (HW): Generally exhibits the engineering properties of orange to light grey, moist, hard, silty clay. Rock fabric visible throughout.								5,12,18 N=30	SPT
3					C				HW					18,27,30/100 N>50	SPT
4	157.89		79 (50)			PHYLLITE (MW - SW): Pale grey with distinct dark grey mottling, fine grained, foliated. Foliations dip anywhere between 10 to 45°.									
5			100 (60)			Defects are generally medium to widely spaced. Prominent defect sets parallel to foliation with other sets dipping at 30° and 70°.							Gravelly clay seam Gravelly clay seam Is(50) = 0.58MPa Is(50) = 0.67MPa	o x	
6			100 (100) 100 (70)			Defect surfaces typically have prominent clay infilling.							Broken zone Clay seam (45°) Is(50) = 0.37MPa	x	
7									MW-SW						
8			100 (80)			Detailed defect descriptions are shown on Form GEOT533/8 attached.							Is(50) = 0.69MPa Is(50) = 0.86MPa	x o	
9															
10			100 (85)										Is(50) = 0.19MPa Is(50) = 1.47MPa	o x	

REMARKS Detailed defect descriptions are shown on Form GEOT533/8 attached. RAAX images taken of borehole.

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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/5-2009

BOREHOLE No BH041

SHEET 2 of 4

REFERENCE No H10585

PROJECT BRUCE HIGHWAY (COOROY - CURRA) SECTION A GEOTECHNICAL INVESTIGATION

LOCATION Cut 14 COORDINATES 484398.2 E; 7081246.3 N

PROJECT No FG5825 SURFACE R.L. 161.79m PLUNGE DATE STARTED 23/7/09 GRID DATUM MGA94

JOB No 128/10A/901 HEIGHT DATUM AHD BEARING DATE COMPLETED 27/7/09 DRILLER R & D Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	EH	VH	I	M	J	L	V	EL	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
10	151.79					PHYLLITE (MW - SW) (Cont'd)																	
11																							
12																							
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							

REMARKS Detailed defect descriptions are shown on Form GEOT533/8 attached. RAAX images taken of borehole.

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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/5-2009

BOREHOLE No BH041

SHEET 3 of 4

REFERENCE No H10585

PROJECT BRUCE HIGHWAY (COOROY - CURRA) SECTION A GEOTECHNICAL INVESTIGATION

LOCATION Cut 14

COORDINATES 484398.2 E; 7081246.3 N

PROJECT No FG5825 SURFACE R.L. 161.79m PLUNGE _____ DATE STARTED 23/7/09 GRID DATUM MGA94

JOB No 128/10A/901 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 27/7/09 DRILLER R & D Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
20	141.79											
21			100 (50)		PHYLLITE (MW - SW) (Cont'd)						Is(50) = 0.42MPa Is(50) = 0.69MPa	x o
22					Detailed defect descriptions are shown on Form GEOT533/8 attached.						Is(50) = 1.19MPa Is(50) = 0.57MPa	o x
23			100 (40)									
24												
25	136.99		100 (40)		24.72 - 25.0m: Broken zone.							
26					ANDESITE (MW): Yellow to orange-brown, fine to medium grained, heavily altered.							
27			100 (0)		Defects are generally close to medium spaced.							
28			100 (70)		Defect sets at 10-30° with occasional subvertical joints at 70-80°.							
29					Defect surfaces are typically iron stained or thinly clay infilled.							
30					Vesicles and relict joints present throughout.							

REMARKS Detailed defect descriptions are shown on Form GEOT533/8 attached. RAAX images taken of borehole.

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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/5-2009

BOREHOLE No BH041
SHEET 4 of 4
REFERENCE No H10585

PROJECT BRUCE HIGHWAY (COOROY - CURRA) SECTION A GEOTECHNICAL INVESTIGATION
LOCATION Cut 14 COORDINATES 484398.2 E; 7081246.3 N
PROJECT No FG5825 SURFACE R.L. 161.79m PLUNGE _____ DATE STARTED 23/7/09 GRID DATUM MGA94
JOB No 128/10A/901 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 27/7/09 DRILLER R & D Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
30	131.79												
					ANDESITE (MW) (Cont'd)							Is(50) = 2.07MPa	o
			100										
			(70)										
31					Detailed defect descriptions are shown on Form GEOT533/8 attached.			MW				Is(50) = 6.20MPa Is(50) = 3.27MPa	o x
32	129.69		100		Borehole terminated at 32.1m								
33													
34													
35													
36													
37													
38													
39													
40													

REMARKS Detailed defect descriptions are shown on Form GEOT533/8 attached. RAAX images taken of borehole.

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Project: **Bruce Highway Upgrade (Cooroy – Curra) Section A**
Borehole No: **BH41 Cut 14**
Start Depth: 3.00m
Finish Depth: 32.10m
Project No: FG5825
H No: 10585



SCALE 1:5

F:GEOT043/1

Project: **Bruce Highway Upgrade (Cooroy – Curra) Section A**
Borehole No: **BH41 Cut 14**
Start Depth: 3.00m
Finish Depth: 32.10m
Project No: FG5825
H No: 10585



SCALE 1:5

F:GEOT043/1

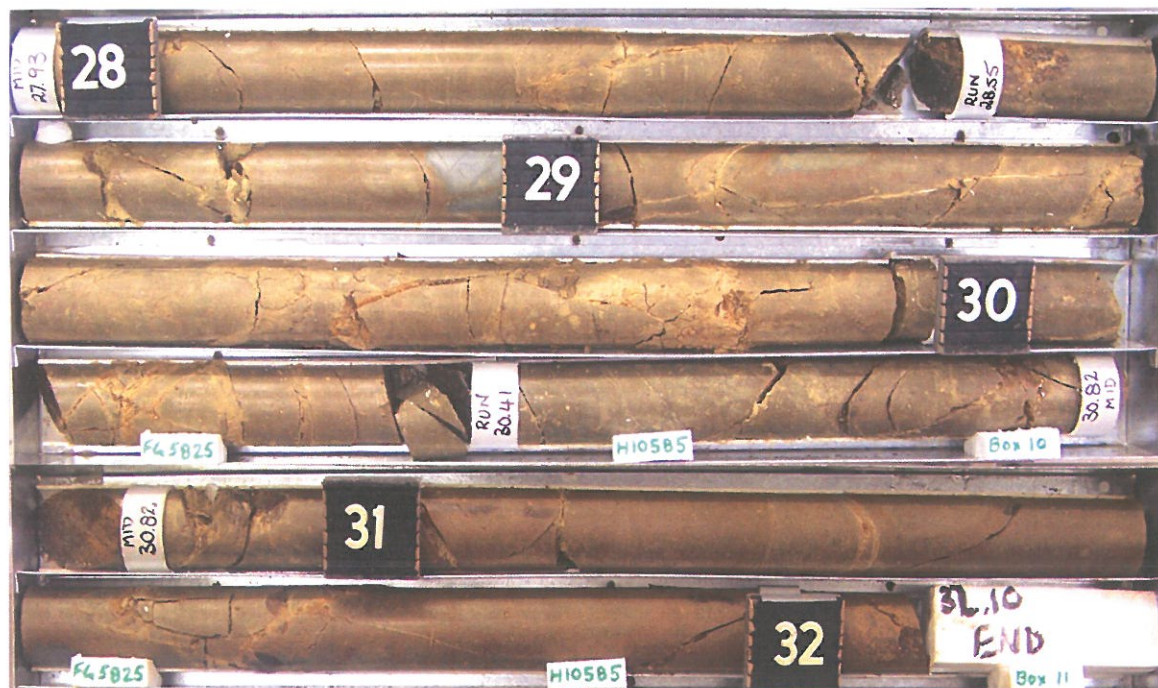
Project: **Bruce Highway Upgrade (Cooroy – Curra) Section A**
Borehole No: **BH41 Cut 14**
Start Depth: 3.00m
Finish Depth: 32.10m
Project No: FG5825
H No: 10585



SCALE 1:5

F:GEOT043/1

Project: **Bruce Highway Upgrade (Cooroy – Curra) Section A**
Borehole No: **BH41 Cut 14**
Start Depth: 3.00m
Finish Depth: 32.10m
Project No: FG5825
H No: 10585



SCALE 1:5

F:GEOT043/1

DEFECT DESCRIPTIONS OF ENGINEERING BORELOGS

[CHARACTERISATION OF DEFECTS ARE IN ACCORDANCE WITH
ISRM SUGGESTED METHODS (1981)]

BOREHOLE NO.:	BH41
SHEET:	1 of 8
REFERENCE NO.:	H10585

PROJECT:	Bruce Highway (Cooroy – Curra) Section A Geotechnical Investigation					
LOCATION:	Cut 14					
PROJECT NO.:	FG5825	SURFACE R.L.:	161.8	DRILLER:	R & D Drilling	
JOB NO.:	128/10A/901	DATUM:	MGA94	DATE DRILLED:	23/7/09	

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
3.87	J	20°	PI	R	O		CI
3.96	J	30°	St	SR	O	FeSt	
3.99	J	70°	PI	R	O	FeSt	
4.13	J	45°	PI		T		CI
4.26	J	40°	PI	S	O	FeSt	
4.30	J	40°	PI	S	O	FeSt	
4.31	J	40°	PI	S	O	FeSt	
4.36	J	40°	PI	S	O	FeSt	
4.40	J	40°	PI	S	O	FeSt	
4.43	J	10°	Ir	SR	O		Cn
4.50	J	60°	Ir	R	O	FeSt	
4.54	J	50°	PI	S	O		Cn
4.66	J	45°	PI	S	O	FeSt	
4.73	J	60°	PI	S	T		CI
4.77	J	60°	PI	S	T	FeSt	
4.83	J	60°	PI	S	O	FeSt	
4.91	J	50°	PI	SR	O	FeSt	
4.95	J	Subvertical	Ir		C		

Abbreviations (as per F: GEOT 017/5 – 2009)

ROUGHNESS		WALL ALTERATIONS		TYPE		OTHER	
R	Rough	FeSt	Iron Stained	J, Js	Joint, Joints	CI	Clay Infill
Sr	Slightly Rough	W	Weathered	B	Bedding	CLy	Clayey
S	Smooth	Smn	Secondary Mineralisation	BP	Bedding Parting	Co	Coal Seam
SL	Slickensided	Cn	Clean	FP	Foliation Parting	Carb	Carbonaceous
PO	Polished	MnSt	Manganese Stained	LP	Lamination Parting	SI	Sand Infill
PLANARITY		APERTURE		CLV	Cleavage	QZ	Quartz
PI	Planar	C	Closed	Fr	Fracture	CA	Calcite
St	Stepped	O	Open	SZ	Sheared Zone	Chl	Chlorite
Un	Undulating	F	Filled	CZ	Crushed Zone	In	Incipient
Cu	Curved	T	Tight	BZ	Broken Zone	Int	Intersecting
Ir	Irregular			HFZ	Highly Fractured Zone	Lam (s)	Lamination (s)
				WS	Weathered Seam	Di	Drilling Induced
				Vn	Vein	H	Horizontal
						V	Vertical

NOTE: This sheet should be read in conjunction with appropriate Engineering Borelog. Defect angles were measured with respect to horizontal plane.

BOREHOLE NO.:	BH41
SHEET:	2 of 8
REFERENCE NO.:	H10585

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
5.02	J	20°	Pl	R	T		
5.04	J	70°	Pl	S	T		
5.11	J	10°	Pl	R	T		
5.16	J	70°	Pl		C		
5.30	J	10°	Pl	SR	O	FeSt	
5.42	J	45°	Pl		C		CI
5.47	J	45°	Pl		C		
5.48	J	45°	Pl		C		
5.51	J	10°	lr	R	C		CI
5.52	J	70°	lr	R	T		CI
5.60	J	45°	Pl		T		
5.62	J	45°	Pl		T		
5.63	J	50°	Pl		C		CI
5.66	J	50°	Pl	S	T		CI
5.81	J	45°	Pl		C	FeSt	
5.97	J	20°	Pl	SR	O	FeSt	
6.08	J	30°	Pl		C		CI
6.10	J	30°	Pl	SR	O	FeSt	
6.20	J	45°	Cu	SR	O	FeSt	
6.24	J	30°	Pl		T	FeSt	
6.40	J	30°	Pl	SR	T		CI
6.44	J	60°	Pl		T	FeSt	
6.61	J	70°	Pl	S	O	FeSt	
6.66	J	30°	Pl	SR	T	FeSt	
6.68	J	20°	Pl	R	T		
6.82	J	20°	Un		T	FeSt	
6.88	J	70°	Pl	SR	O	FeSt	
7.12	J	20°	Pl	S	T	FeSt	
7.18	J	45°	Pl	R	T	FeSt	
7.26	J	60°	Pl	S	T	FeSt	
7.50	J	10°	Pl	SR	T	FeSt	
7.58	J	30°	Pl	S	O	FeSt	
7.58	J	70°	Pl	S	O	FeSt	
7.67	J	70°	Pl		C	FeSt	
7.84	J	10°	lr	R	O	FeSt	
7.98	J	40°	lr	SR	O	FeSt	
8.17	J	10°	Pl	R	O	FeSt	
8.26	J	20°	Pl	SR	O	FeSt	
8.38	J	60°	St	SR	T	FeSt	
8.44	J	10°	lr	R	O	FeSt	
8.53	J	Subvertical	lr	SR	T		CI
8.66	J	30°	Pl	SR	O		CI
8.75	J	30°	Pl	S	O	FeSt	
8.79	J	10°	St	S	O	FeSt	
8.82	J	20°	Pl		T		CI
8.88	J	20°	Pl	S	T	FeSt	
8.93	J	10°	Pl	S	O	FeSt	
8.96	J	70°	Pl	SR	O	FeSt	
9.08	J	20°	Pl	SR	T	FeSt	
9.10	J	70°	Pl	SR	T	FeSt	
9.32	J	30°	Pl	SR	O	FeSt	
9.51	J	60°	Pl	S	T	FeSt	
9.63	J	10°	Pl	R	O	FeSt	
9.74	J	20°	Pl	SR	T	FeSt	
11.67	J	70°	Pl	SR	T	FeSt	
11.68	J	70°	Pl	SR	T	FeSt	
11.70	J	70°	Pl	S	O	FeSt	

BOREHOLE NO.:	BH41
SHEET:	3 of 8
REFERENCE NO.:	H10585

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
11.93	J	30°	Pl	R	O	FeSt	
11.99	J	30°	Pl	R	O	FeSt	
12.16	J	80°	Pl	SR	C	FeSt	
12.21	J	30°	Pl	R	O	FeSt	
12.34	J	30°	Pl	SR	O	FeSt	
12.40	J	30°	Pl	SR	O	FeSt	
12.43	J	30°	Pl	S	O	FeSt	
12.55	J	45°	Pl	S	T	FeSt	
12.58	J	10°	Pl	R	O	FeSt	
12.76	J	30°	Pl	R	O	FeSt	
12.91	J	20°	Pl	R	O	FeSt	
13.00	J	10°	St	SR	O	FeSt	
13.06	J	40°	Pl	R	T	FeSt	
13.13	J	50°	Pl	S	T	FeSt	
13.28	J	10°	Ir	R	C		
13.32	J	45°	Pl		C		CI
13.38	J	45°	Pl		C		CI
13.39	J	60°	Pl	R	O	FeSt	
13.42	J	45°	Pl		C		CI
13.47	J	10°	Ir		T	FeSt	
13.83	J	30°	Pl	S	O	FeSt	
13.89	J	20°	Pl	S	O	FeSt	
13.96	J	30°	Pl		T	FeSt	
13.97	J	80°	Pl		C		CI
14.03	J	30°	Ir	R	O	FeSt	
14.08	J	30°	Pl	R	T	FeSt	
14.20	J	10°	Pl	R	O	FeSt	
14.26	J	50°	Ir	R	O	FeSt	
14.30	J	30°	Pl	S	T	FeSt	
14.37	J	20°	St	R	T	FeSt	
14.45	J	10°	Pl	R	O	FeSt	
14.60	J	30°	St	R	O	FeSt	
14.63	J	Subvertical	Ir	R	T	FeSt	
14.73	J	10°	Ir	R	O	FeSt	
14.86	J	45°	Pl	SR	O	FeSt	
14.95	J	45°	Pl	S	T	FeSt	
14.98	J	45°	Pl	S	T	FeSt	
15.10	J	40°	Pl	S	O	FeSt	
15.18	J	60°	Pl	R	O	FeSt	
15.37	J	60°	Ir		C	FeSt	
15.53	J	20°	Ir	R	T	FeSt	
15.61	J	45°	Pl	S	T	FeSt	
15.85	J	10°	Pl	R	O	FeSt	
15.85	J	Subvertical	Pl	SR	O	FeSt	
16.00	J	20°	Pl	SR	O	FeSt	
16.03	J	30°	Pl	SR	O	FeSt	
16.04	J	70°	Pl	SR	O	FeSt	
16.12	J	45°	Pl		C		CI
16.20	J	60°	Pl	SR	T		CI
16.33	J	10°	Pl	R	O	FeSt	
16.33	J	Subvertical	Ir	R	T		CI
16.35	J	45°	Pl	R	T		CI
16.41	J	30°	Pl	S	T	FeSt	
16.57	J	10°	Ir		T	FeSt	
16.63	J	20°	Pl		C		
16.68	J	20°	Pl	SR	O	FeSt	
16.92	J	40°	Pl	S	T	FeSt	

BOREHOLE NO.:	BH41
SHEET:	4 of 8
REFERENCE NO.:	H10585

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
16.76	J	10°	Ir		C	FeSt	
16.80	J	20°	Ir		C	FeSt	
17.08	J	30°	Pl	SR	T		Cl
17.17	J	30°	Pl	S	T	FeSt	
17.17	J	Subvertical	Pl	R	O	FeSt	
17.36	J	20°	Pl	SR	O	FeSt	
17.36	J	45°	Pl	SR	O	FeSt	
17.53	J	30°	Pl	SR	T	FeSt	
17.60	J	20°	Pl	S	T	FeSt	
17.65	J	30°	Pl		C	FeSt	
17.73	J	30°	Ir		T		
17.75	J	60°	Pl		T		
17.78	J	10°	Pl	R	O	FeSt	
17.78	J	70°	Pl	R	T	FeSt	
17.83	J	10°	Pl	SR	O	FeSt	
17.84	J	45°	Pl	SR	T	FeSt	
17.95	J	30°	Pl	S	O	FeSt	
18.03	J	Subvertical	Ir	SR	O	FeSt	
18.12	J	Subvertical	Pl	R	T	FeSt	
18.17	J	30°	Pl	S	T		Cl
18.26	J	45°	Pl	SR	T	FeSt	
18.33	J	30°	Pl		T	FeSt	
18.33	J	Subvertical	Ir	R	O	FeSt	
18.36	J	30°	Pl	S	T	FeSt	
18.70	J	10°	Pl	SR	O		Cl
18.79	J	45°	Pl	S	O		Cl
19.25	J	10°	St	S	O	FeSt	
19.28	J	30°	Pl	S	T	FeSt	
19.40	J	10°	Pl	SR	T	FeSt	
19.48	J	10°	Un	SR	T	FeSt	
19.66	J	20°	Pl	SR	T	FeSt	
19.76	J	45°	Pl	SR	O	FeSt	
19.81	J	20°	Pl	S	T	FeSt	
19.95	J	30°	Pl	SR	O	FeSt	
20.22	J	30°	Pl	S	O	FeSt	
20.22	J	45°	Pl	S	O	FeSt	
20.25	J	30°	Pl	S	T		
20.27	J	80°	Ir	R	T	FeSt	
20.29	J	10°	Pl	SR	T		
20.47	J	10°	Ir	R	T	FeSt	
20.73	J	30°	Pl	S	O		Cl
20.76	J	30°	Pl	SR	O		Cl
20.77	J	30°	Pl	S	O	FeSt	
20.83	J	20°	Pl	S	O	FeSt	
20.83	J	Subvertical	Pl	S	O	FeSt	
20.85	J	20°	Pl	S	O	FeSt	
20.88	J	20°	Pl	S	O	FeSt	
20.96	J	40°	Pl	S	O	FeSt	
20.97	J	20°	Pl	SR	O	FeSt	
21.02	J	60°	Pl	S	O	FeSt	
21.12	J	30°	Pl	S	O	FeSt	
21.15	J	30°	Pl	S	T	FeSt	
21.29	J	10°	Pl	S	O	FeSt	
21.31	J	10°	Pl	S	O	FeSt	
21.34	J	10°	Pl	SR	O	FeSt	
21.38	J	45°	Pl	S	O	FeSt	
21.48	J	45°	Ir	SR	O	FeSt	

BOREHOLE NO.:	BH41
SHEET:	5 of 8
REFERENCE NO.:	H10585

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
21.52	J	20°	Pl	S	O	FeSt	
21.76	J	30°	Ir	SR	O	FeSt	
21.84	J	30°	Pl	S	O		Cl
21.89	J	10°	Pl	S	O	FeSt	
21.91	J	45°	St	R	O	FeSt	
22.14	J	50°	Pl	SR	C	FeSt	
22.21	J	10°	Un	SR	T	FeSt	
22.23	J	30°	Pl	S	O	FeSt	
22.38	J	20°	St	R	T	FeSt	
22.45	J	10°	Pl	SR	T		
22.45	J	80°	Pl		C		Cl
22.48	J	10°	Pl	R	T		
22.50	J	20°	Ir	SR	T		
22.60	J	10°	Pl	S	T		
22.62	J	10°	Pl	S	T		
22.65	J	10°	Pl	S	O	FeSt	
22.68	J	10°	Pl	R	O	FeSt	
22.73	J	45°	Pl	S	O	FeSt	
22.78	J	10°	Pl	S	T	FeSt	
22.81	J	20°	Pl	S	T	FeSt	
22.84	J	20°	Pl	S	T	FeSt	
22.88	J	20°	Pl	S	T	FeSt	
22.92	J	50°	Pl	R	O	FeSt	
22.98	J	20°	Pl	S	T	FeSt	
23.00	J	20°	Pl	S	T	FeSt	
23.02	J	20°	Pl	S	T	FeSt	
23.04	J	10°	Pl	R	O	FeSt	
23.14	J	10°	Pl	SR	T		
23.21	J	30°	Pl	R	T	FeSt	
23.24	J	30°	Pl		T	FeSt	
23.26	J	45°	Pl	R	O	FeSt	
23.28	J	45°	Pl		T		
23.33	J	30°	Pl	S	O	FeSt	
23.38	J	30°	Pl	S	O	FeSt	
23.46	J	30°	Pl	S	O	FeSt	
23.54	J	30°	Pl	S	O	FeSt	
23.59	J	20°	Pl	R	O	FeSt	
23.60	J	20°	Pl	R	O	FeSt	
23.66	J	30°	Pl	S	T	FeSt	
23.70	J	20°	Un	SR	T	FeSt	
23.76	J	30°	Pl	SR	O	FeSt	
23.78	J	10°	Pl	SR	O	FeSt	
23.86	J	20°	Pl	S	T	FeSt	
23.98	J	10°	Ir	R	T	FeSt	
23.96	J	20°	Ir	S	O	FeSt	
24.01	J	20°	Pl	S	T	FeSt	
24.04	J	20°	Pl	S	O	FeSt	
24.15	J	30°	Ir	SR	T		
24.17	J	10°	Pl	S	T	FeSt	
24.20	J	10°	Pl	S	T		Cl
24.26	J	30°	Ir	SR	O	FeSt	
24.35	J	60°	Pl	R	O		Cl
24.43	J	10°	Pl	S	O	FeSt	
24.47	J	30°	Ir	R	T	FeSt	
24.54	J	10°	Pl	S	O	FeSt	
24.57	J	10°	Pl	S	O	FeSt	
24.59	J	10°	Pl	S	O	FeSt	

BOREHOLE NO.:	BH41
SHEET:	6 of 8
REFERENCE NO.:	H10585

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
24.64	J	30°	lr	R	T		
24.71	J	30°	Pl	S	O	FeSt	
24.77	J	30°	St	SR	O	FeSt	
25.09	J	30°	Pl	S	O	FeSt	
25.16	J	45°	Pl	S	O	FeSt	
25.18	J	30°	Pl	S	O	FeSt	
25.20	J	Subvertical	Pl	S	O	FeSt	
25.25	J	45°	Pl	S	O	FeSt	
25.32	J	30°	Pl	S	O	FeSt	
25.35	J	10°	lr	R	O	FeSt	
25.44	J	45°	Pl	S	O	FeSt	
25.51	J	45°	Pl	S	O	FeSt	
25.54	J	45°	Pl	S	O	FeSt	
25.57	J	60°	Pl	S	O	FeSt	
25.57	J	Subvertical	Pl	S	O	FeSt	
25.78	J	60°	Pl	R	O	FeSt	
25.86	J	45°	Pl	S	O	FeSt	
25.93	J	30°	Pl	S	O	FeSt	
25.93	J	70°	Pl		C	FeSt	
26.06	J	60°	Pl	S	O	FeSt	
26.08	J	10°	Pl	S	O		Cl
26.18	J	60°	Pl		C	FeSt	
26.13	J	20°	Pl		C	FeSt	
26.22	J	10°	Pl		C	FeSt	
26.25	J	20°	lr		T	FeSt	
26.32	J	10°	Pl	S	O	FeSt	
26.36	J	10°	Pl	S	O	FeSt	
26.39	J	10°	Pl		C	FeSt	
26.40	J	10°	Pl		C	FeSt	
26.47	J	10°	Pl	S	O	FeSt	
26.50	J	30°	Pl	S	T	FeSt	
26.57	J	30°	Pl	S	O	FeSt	
26.63	J	10°	Pl	S	O	FeSt	
26.71	J	30°	Pl		C		Cl
26.66	J	80°	lr		C	FeSt	
26.75	J	30°	Pl		C	FeSt	
26.79	J	20°	Pl	S	T	FeSt	
26.82	J	10°	lr	R	C		Cl
26.88	J	45°	Pl	S	O	FeSt	
26.93	J	10°	lr	R	T	FeSt	
27.11	J	20°	Pl	R	O	FeSt	
27.17	J	20°	Pl	S	O		Cl
27.32	J	20°	Pl		C	FeSt	
27.36	J	20°	lr	SR	O	FeSt	
27.45	J	20°	Pl	S	O	FeSt	
27.50	J	30°	Pl	S	T	FeSt	
27.53	J	10°	Pl	S	T	FeSt	
27.58	J	30°	Pl	S	T	FeSt	
27.60	J	Subvertical	Cu	SR	T	FeSt	
27.71	J	30°	Pl	SR	T	FeSt	
27.75	J	30°	Pl		C	FeSt	
27.85	J	30°	Pl	SR	T	FeSt	
27.91	J	30°	Pl	Sr	T	FeSt	
27.93	J	70°	Pl	S	T	FeSt	
27.99	J	40°	Pl	S	O	FeSt	
27.99	J	Subvertical	Pl	S	O	FeSt	
28.08	J	45°	Pl	S	O	FeSt	

BOREHOLE NO.:	BH41
SHEET:	7 of 8
REFERENCE NO.:	H10585

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
28.17	J	30°	PI	S	O	FeSt	
28.27	J	70°	PI	S	O	FeSt	
28.33	J	10°	PI	S	O	FeSt	
28.40	J	30°	PI	S	O	FeSt	
28.43	J	30°	PI	S	O	FeSt	
28.49	J	45°	PI	S	O	FeSt	
28.56	J	30°	PI	S	O	FeSt	
28.74	J	20°	PI	SR	O	FeSt	
28.74	J	60°	PI	SR	O	FeSt	
28.82	J	20°	PI	S	O	FeSt	
28.95	J	30°	PI	S	O	FeSt	
29.08	J	20°	PI	S	O	FeSt	
29.08	J	80°	PI	SR	T	FeSt	
29.14	J	45°	PI	S	T		CI
29.33	J	45°	St	S	T	FeSt	
29.41	J	45°	PI	SR	T	FeSt	
29.52	J	60°	PI	SR	T	FeSt	
29.59	J	30°	PI		T	FeSt	
29.65	J	40°	PI	R	O	FeSt	
29.65	J	Subvertical	Cu	R	T	FeSt	
29.75	J	10°	PI	S	T	FeSt	
29.97	J	Subvertical	Ir		T	FeSt	
30.13	J	45°	PI	S	O	FeSt	
30.13	J	45°	PI		T	FeSt	
30.15	J	60°	PI		T	FeSt	
30.19	J	45°	PI		T	FeSt	
30.24	J	20°	PI	SR	O	FeSt	
30.28	J	10°	PI	S	T	FeSt	
30.32	J	30°	PI	S	O	FeSt	
30.34	J	20°	PI	S	O	FeSt	
30.36	J	45°	PI	S	O	FeSt	
30.40	J	30°	PI	SR	O	FeSt	
30.42	J	30°	PI	SR	O	FeSt	
30.58	J	50°	PI	SR	T	FeSt	
30.63	J	70°	PI	S	T	FeSt	
30.64	J	45°	PI	SR	O	FeSt	
30.67	J	45°	PI	S	T	FeSt	
30.74	J	60°	PI	R	T	FeSt	
30.76	J	20°	PI	R	O	FeSt	
30.76	J	45°	PI	S	O	FeSt	
30.78	J	70°	PI	R	O	FeSt	
30.83	J	60°	PI	S	O	FeSt	
30.83	J	70°	PI	S	T	FeSt	
30.86	J	20°	PI	S	T		CI
30.88	J	30°	Ir	S	O		CI
30.91	J	30°	Ir	S	O	FeSt	
31.03	J	30°	PI	SR	O		CI
31.03	J	50°	PI	S	T	FeSt	
31.11	J	20°	PI	SR	O		CI
31.25	J	20°	PI		C	FeSt	
31.31	J	30°	PI	SR	T	FeSt	
31.40	J	70°	PI	SR	T	FeSt	
31.55	J	70°	Ir		T	FeSt	
31.63	J	30°	PI	S	T	FeSt	
31.66	J	50°	PI		T		CI
31.70	J	80°	PI		C	FeSt	
31.77	J	30°	PI		C	FeSt	

BOREHOLE NO.:	BH41
SHEET:	8 of 8
REFERENCE NO.:	H10585

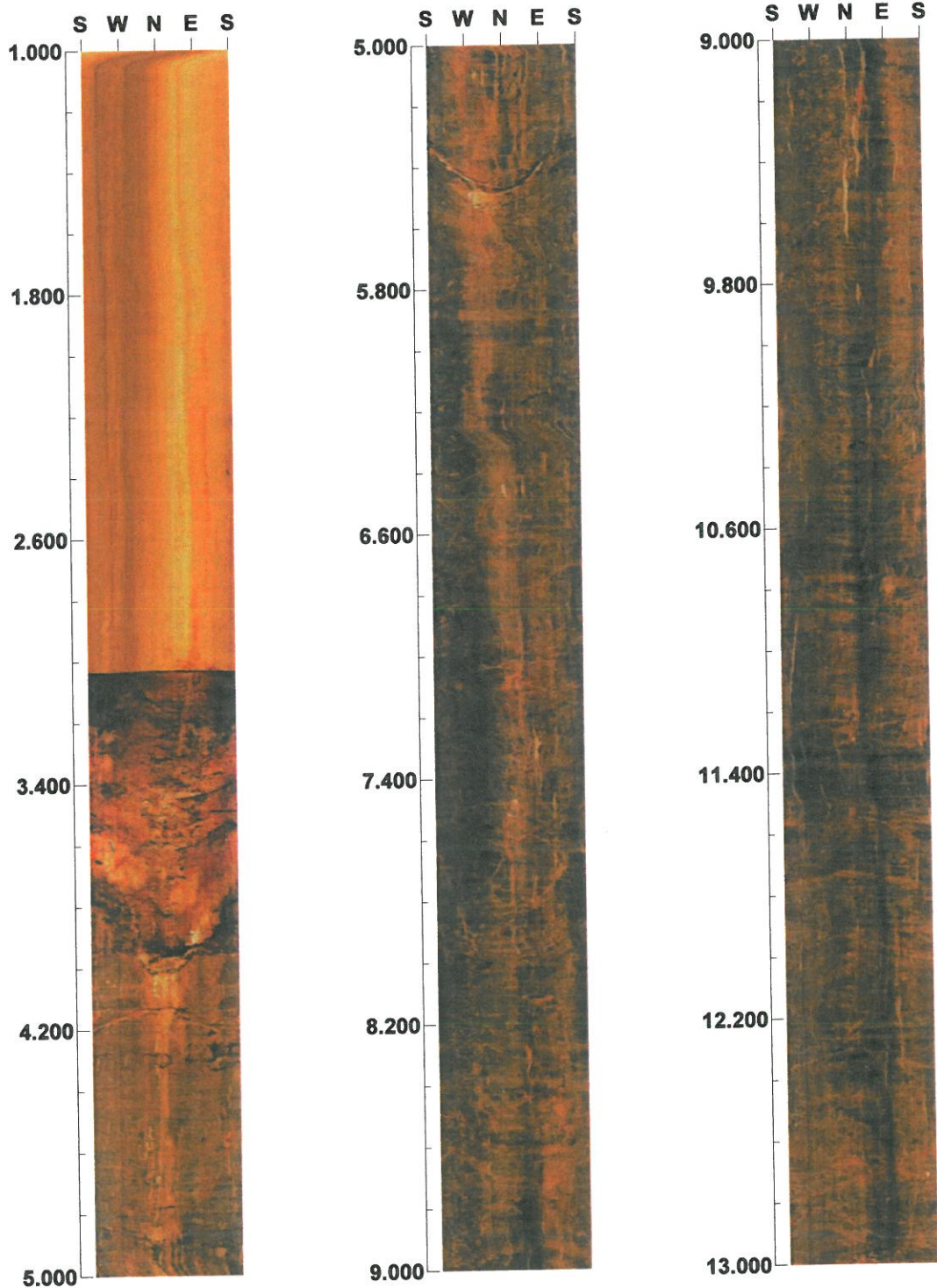
DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
31.87	J	10°	Ir	R	T	FeSt	
31.90	J	60°	Pl	S	O	FeSt	
32.04	J	45°	Pl	S	T	FeSt	
32.08	J	45°	Pl	S	T	FeSt	
32.10	J	20°	Pl	S	O	FeSt	

Project name: BRUCE HIGHWAY UPGRADE
Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 1.000 - 13.000 m



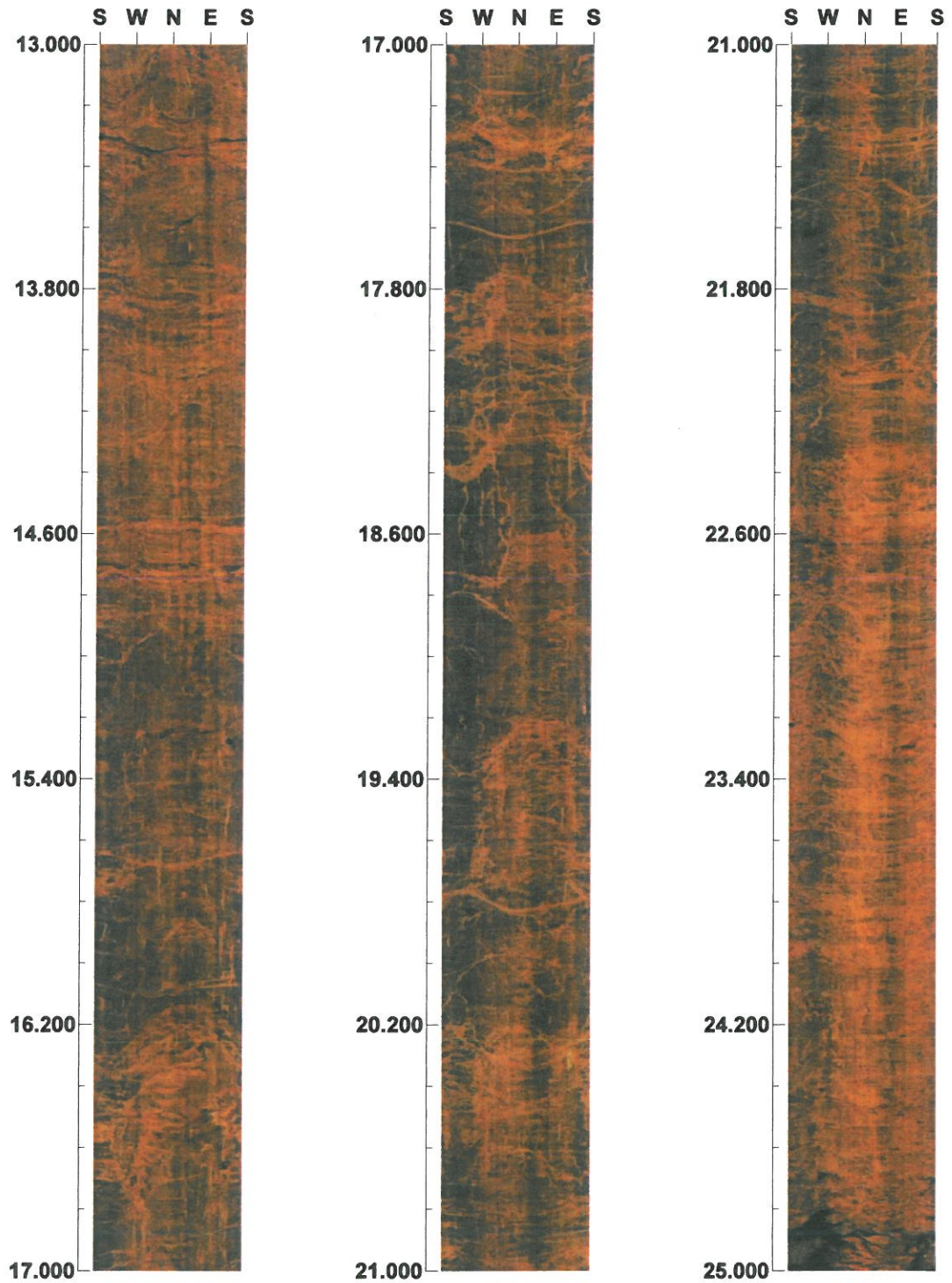
Scale: 1/20 Aspect ratio: 200 %

Project name: BRUCE HIGHWAY UPGRADE
Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 13.000 - 25.000 m



Scale: 1/20

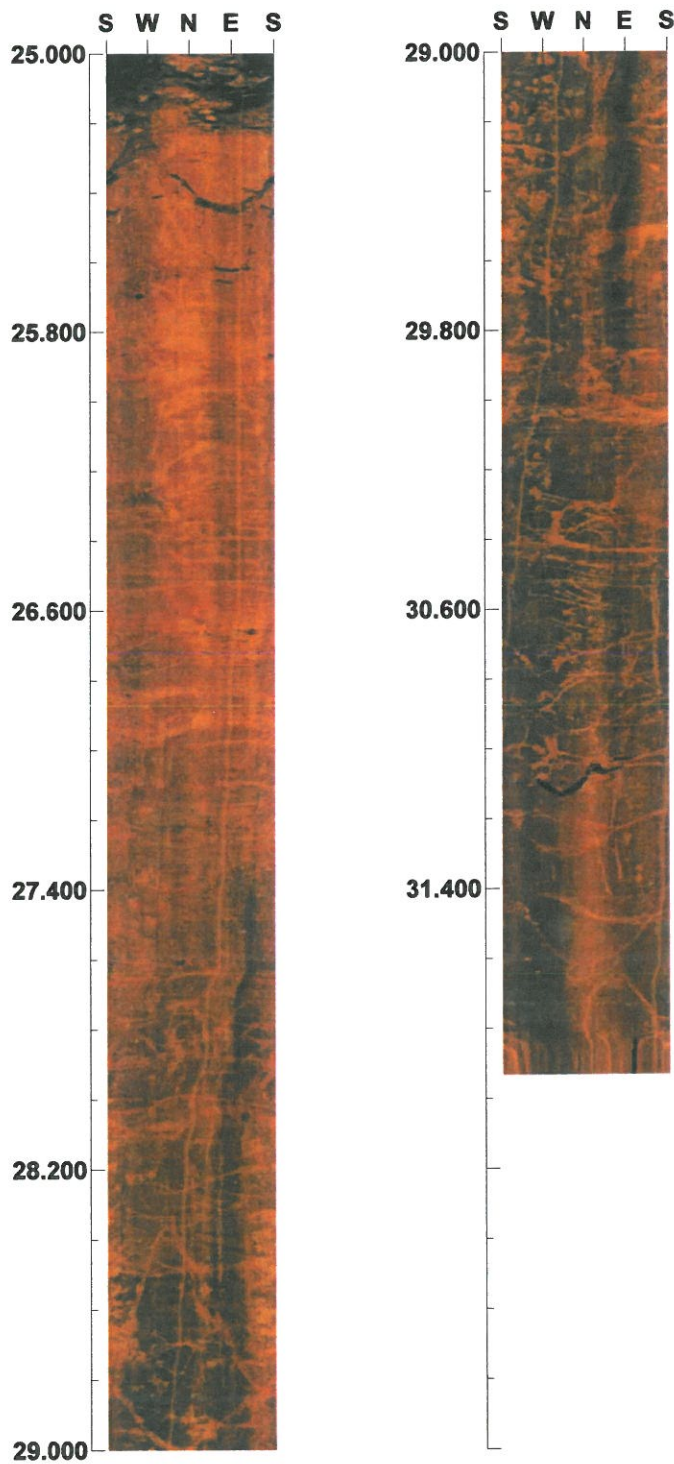
Aspect ratio: 200 %

Project name: BRUCE HIGHWAY UPGRADE
Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 25.000 - 31.931 m



Scale: 1/20 Aspect ratio: 200 %

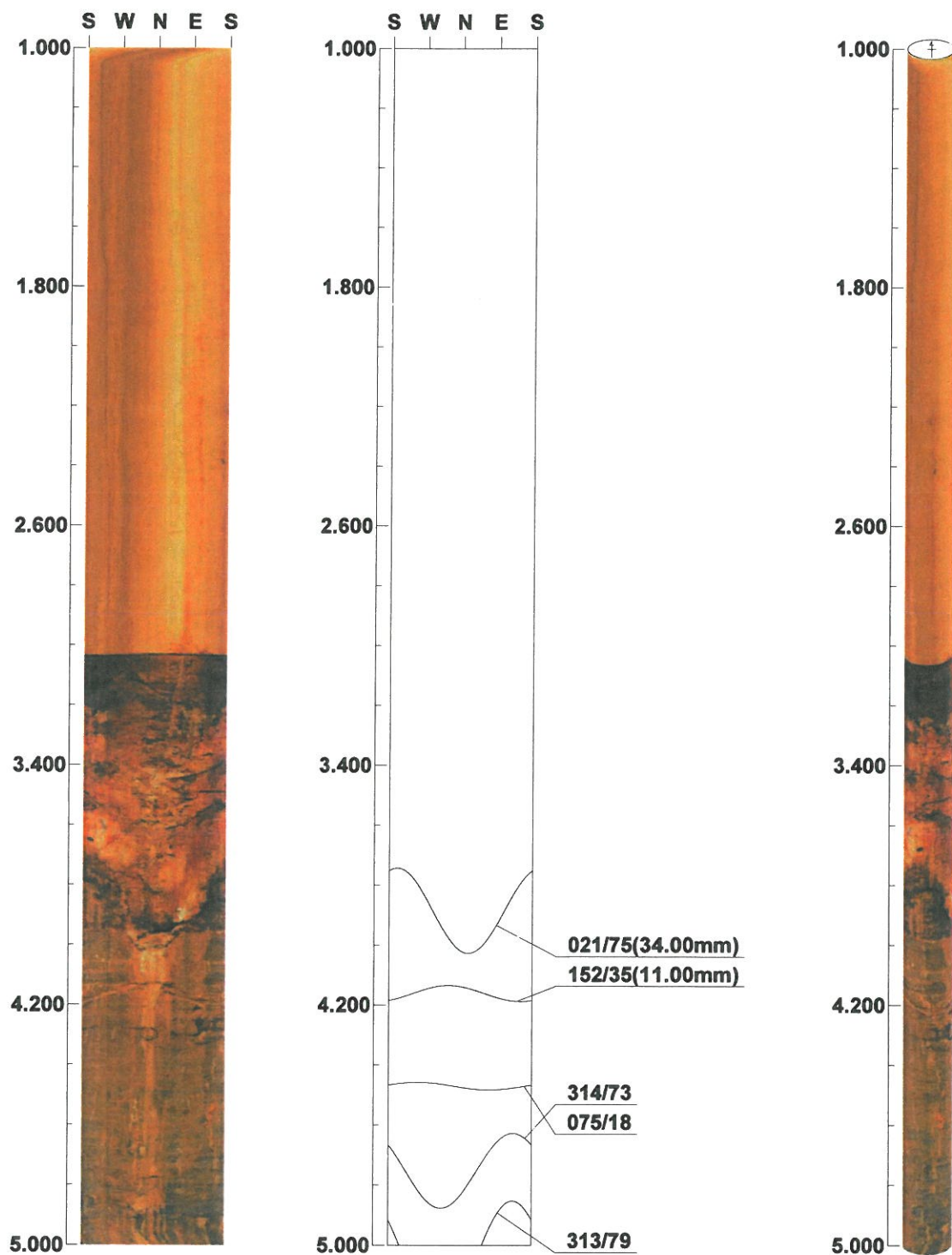
Project name: BRUCE HIGHWAY UPGRADE

Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 1.000 - 5.000 m



Scale: 1/20

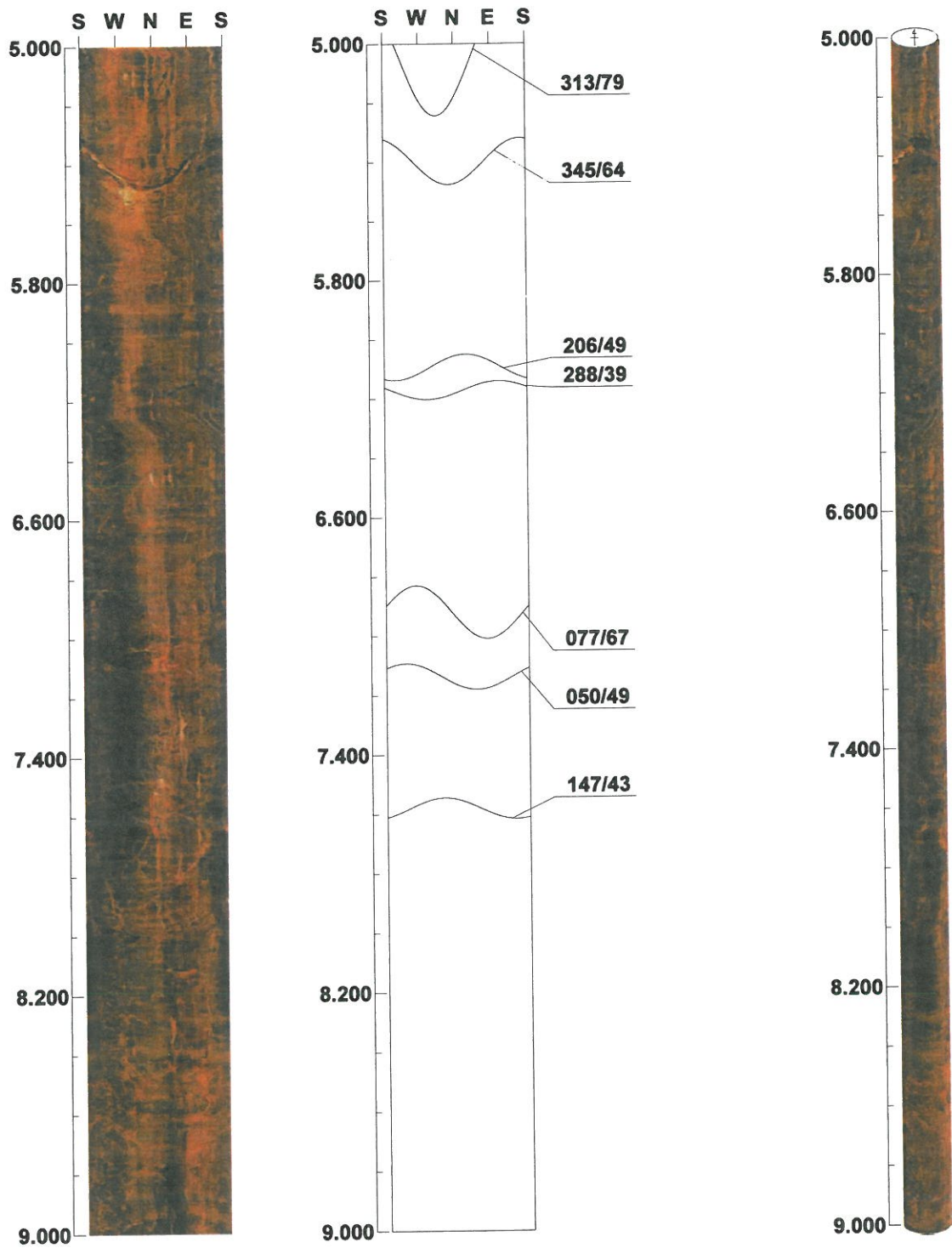
Aspect ratio: 200 %

Project name: BRUCE HIGHWAY UPGRADE
Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 5.000 - 9.000 m



Scale: 1/20 Aspect ratio: 200 %

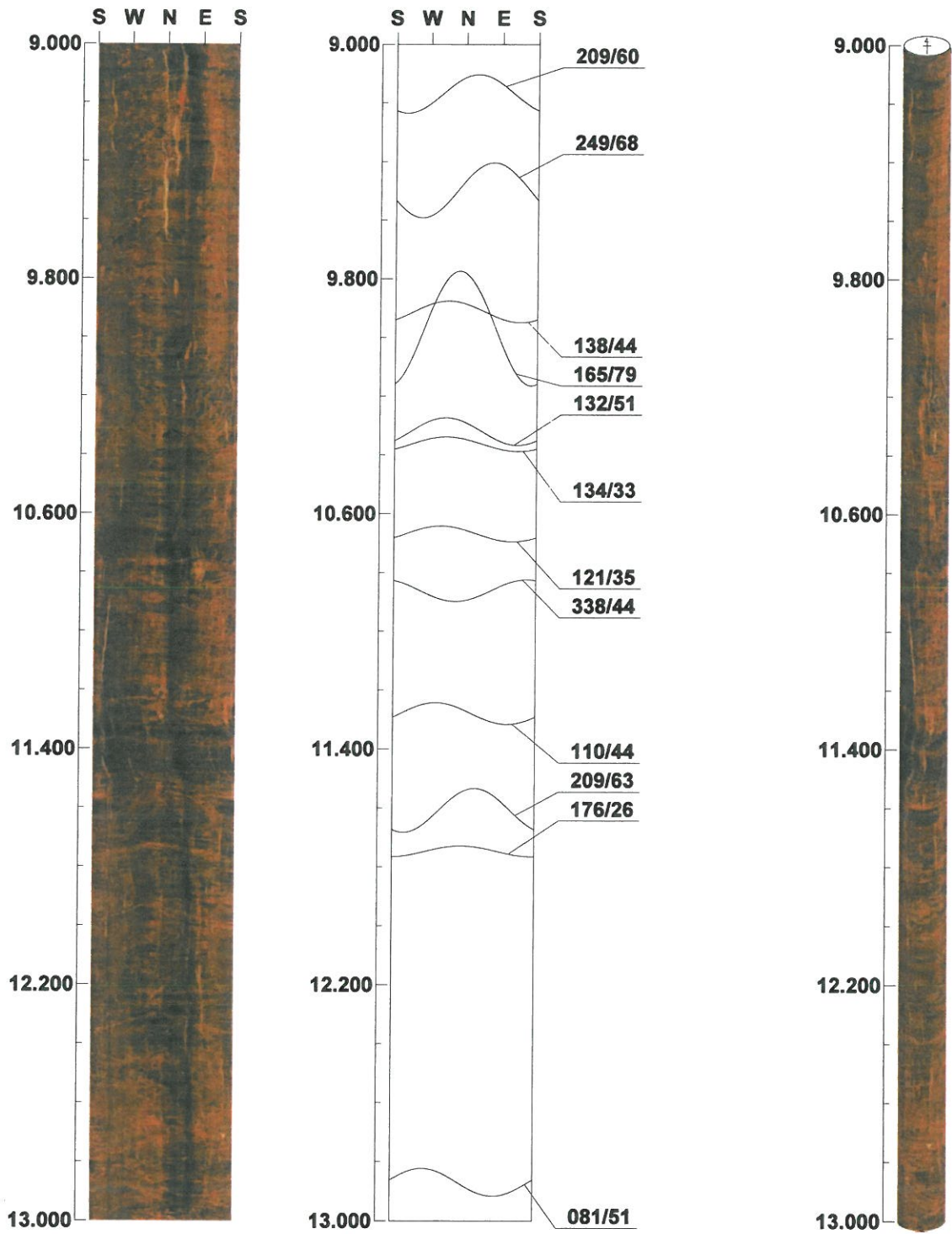
Project name: BRUCE HIGHWAY UPGRADE

Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 9.000 - 13.000 m



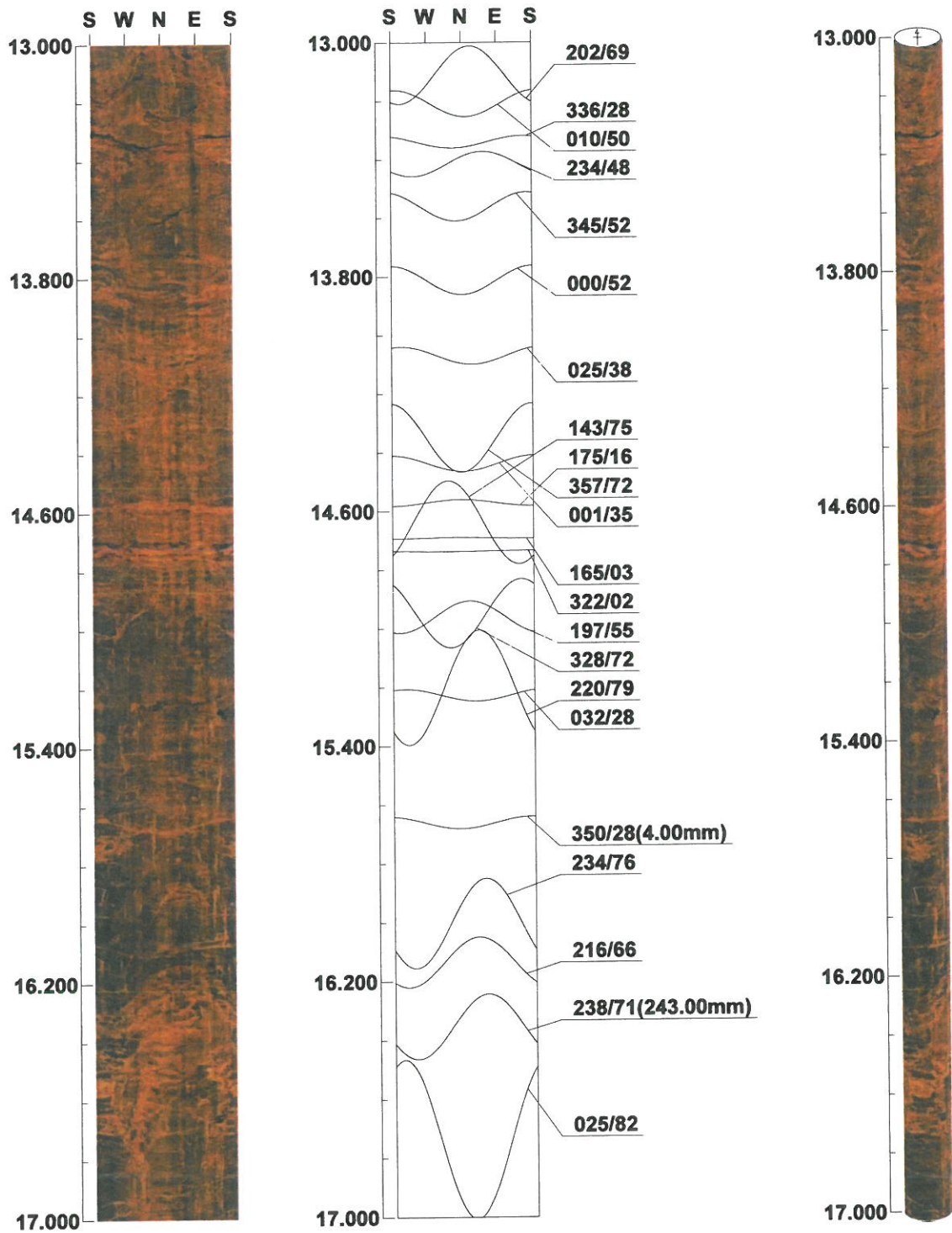
Scale: 1/20 Aspect ratio: 200 %

Project name: BRUCE HIGHWAY UPGRADE
Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 13.000 - 17.000 m



Scale: 1/20

Aspect ratio: 200 %

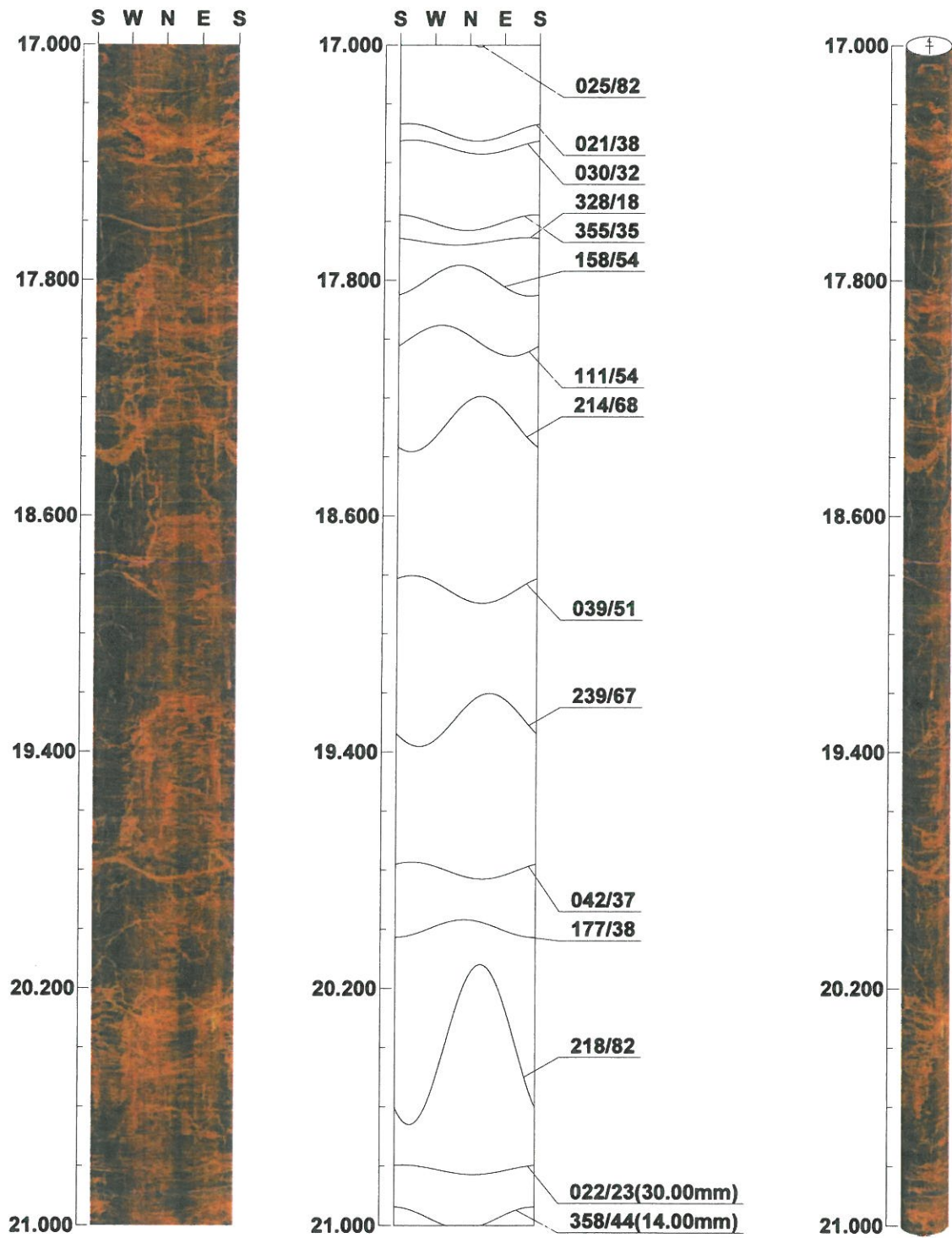
Project name: BRUCE HIGHWAY UPGRADE

Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 17.000 - 21.000 m



Scale: 1/20

Aspect ratio: 200 %

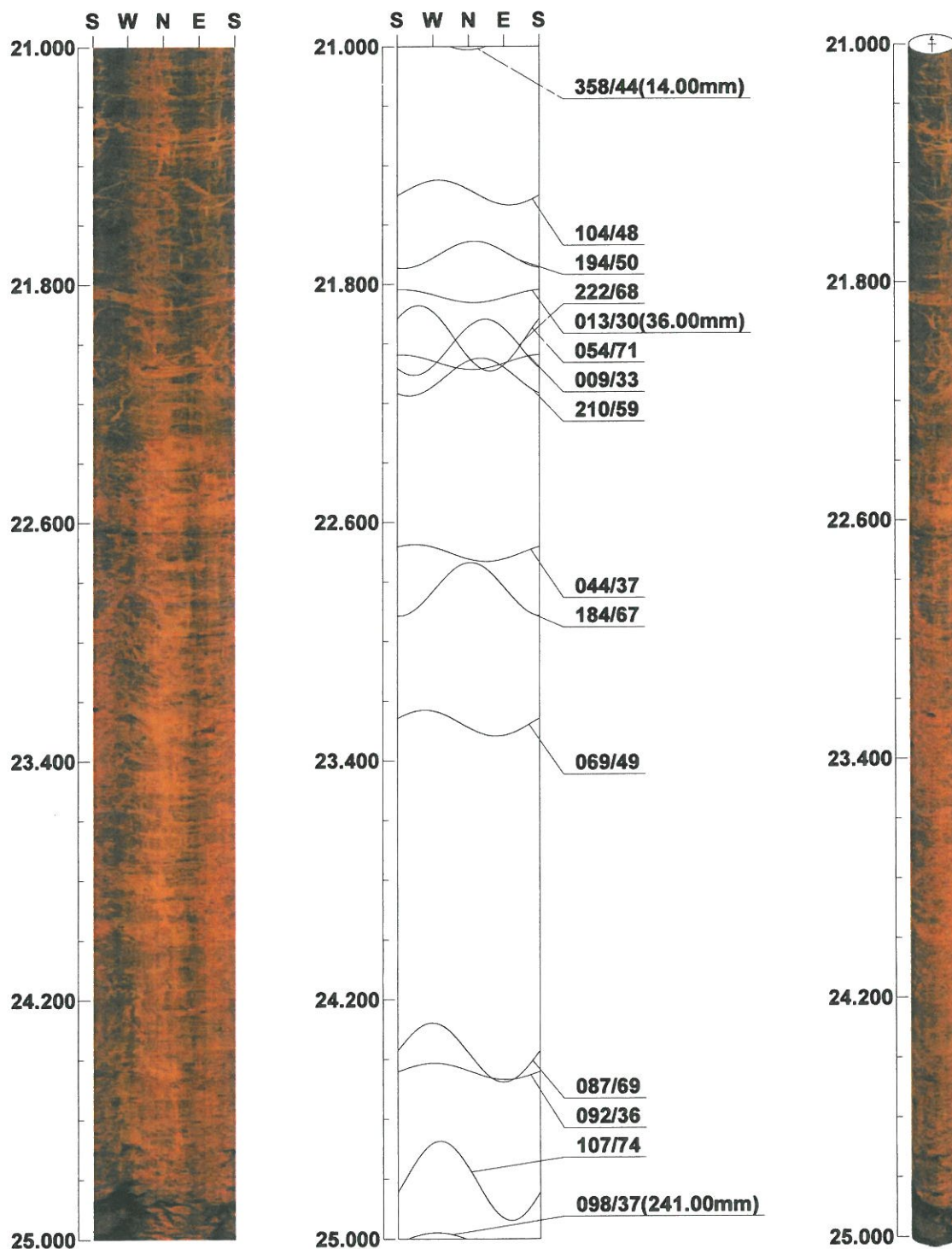
Project name: BRUCE HIGHWAY UPGRADE

Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 21.000 - 25.000 m



Scale: 1/20

Aspect ratio: 200 %

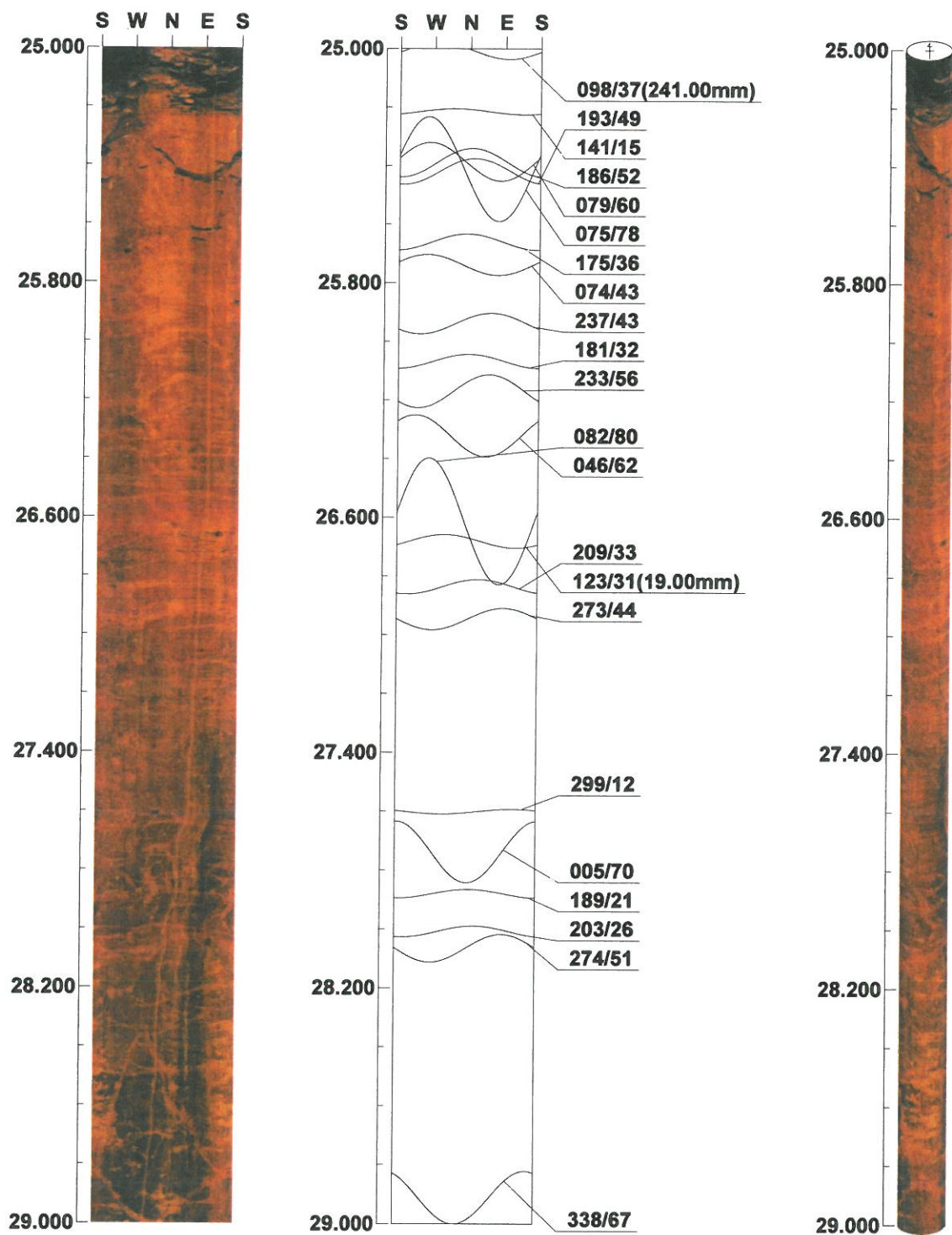
Project name: BRUCE HIGHWAY UPGRADE

Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 25.000 - 29.000 m



Scale: 1/20

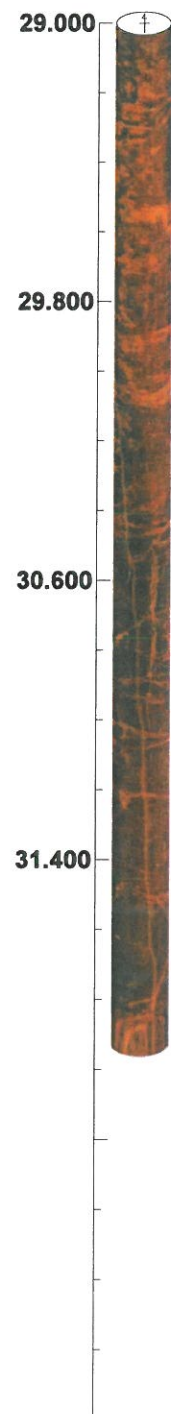
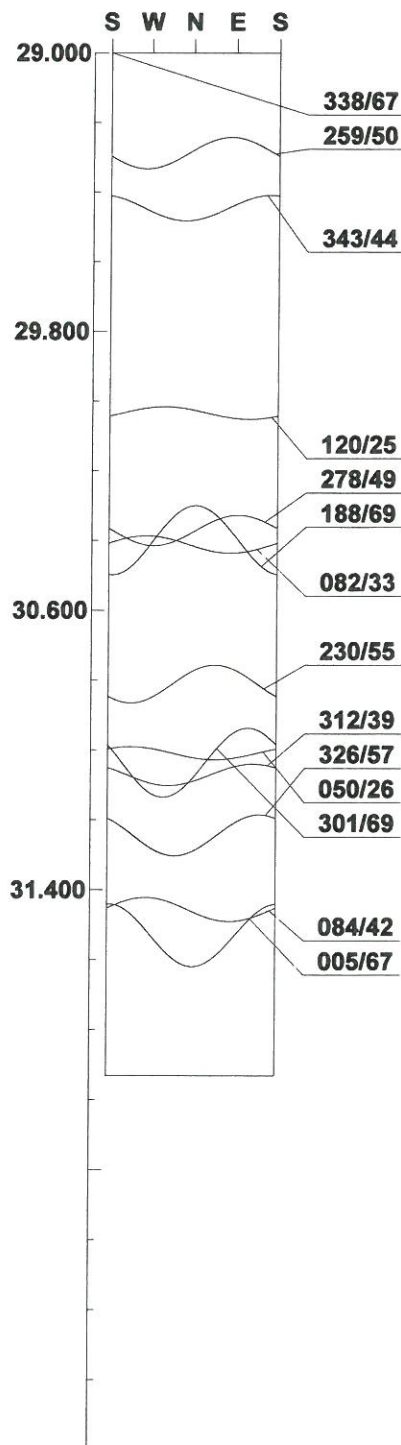
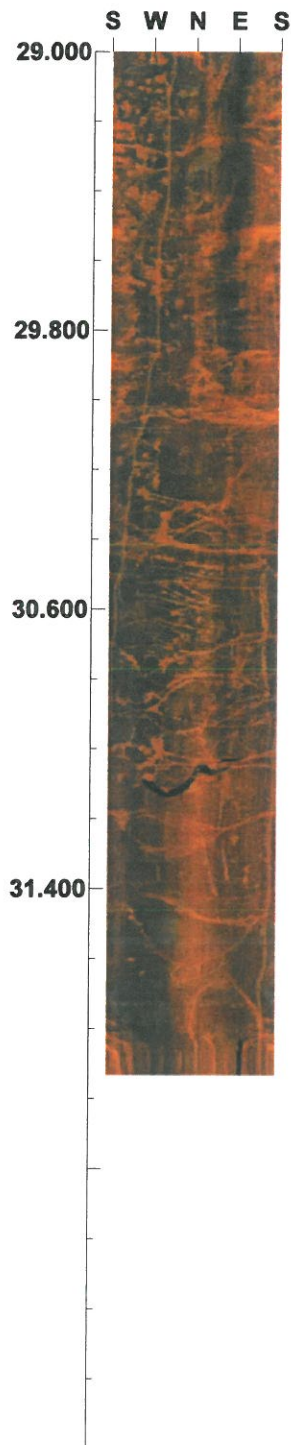
Aspect ratio: 200 %

Project name: BRUCE HIGHWAY UPGRADE
Bore hole No.: BH41

Azimuth: 0

Inclination: -90

Depth range: 29.000 - 31.931 m



Scale: 1/20

Aspect ratio: 200 %

Tab. Table of Discontinuity (1 / 3)

File name: BH41.STR
[]

No.	Depth (m)	Dir/Dip	Sort	Aperture (mm)	Form	Condition	Remark
1	3.885	021/75	ShearZn	34.0	Planar	Weathered	Open/loose
2	4.161	152/35	ShearZn	11.0	Planar	Brec/crus'd	Open/loose
3	4.470	075/18	Joint	0.3	Planar	Smooth	Open
4	4.752	314/73	Joint	0.3	Planar	Rough	Open
5	5.048	313/79	Joint	0.3	Planar	Rough	Open
6	5.398	345/64	ShearZn	9.0	Planar	Brec/crus'd	Open/fil'd
7	6.093	206/49	Joint	0.3	Undulating	Rough	Tight
8	6.171	288/39	Joint	0.3	Planar	Rough	Open
9	6.919	077/67	Joint	0.3	Planar	Smooth	Tight
10	7.136	050/49	Joint	0.3	Planar	Rough	Tight
11	7.589	147/43	Joint	0.3	Planar	Rough	Tight
12	9.169	209/60	Joint	0.3	Planar	Rough	Tight
13	9.498	249/68	Joint	0.3	Planar	Rough	Tight
14	9.912	138/44	Joint	0.3	Undulating	Rough	Tight
15	9.969	165/79	Joint	0.3	Undulating	Rough	Open
16	10.320	132/51	Joint	0.3	Planar	Rough	Open
17	10.363	134/33	Joint	0.3	Planar	Rough	Open
18	10.668	121/35	Joint	0.3	Planar	Rough	Open
19	10.861	338/44	Joint	0.3	Planar	Smooth	Open
20	11.279	110/44	Joint	0.3	Planar	Rough	Open
21	11.608	209/63	Joint	0.3	Planar	Rough	Tight
22	11.747	176/26	Joint	0.3	Planar	Rough	Open
23	12.869	081/51	Joint	0.5	Planar	Rough	Tight/Fil'd
24	13.111	202/69	Joint	2.0	Undulating	Sheared	Open/loose
25	13.208	010/50	Joint	0.3	Planar	Rough	Tight
26	13.340	336/28	ShearZn	21.0	Planar	Brec/crus'd	Open/loose
27	13.415	234/48	Joint	0.5	Planar	Brec/crus'd	Open/loose
28	13.561	345/52	Joint	0.5	Planar	Rough	Open
29	13.812	000/52	Joint	0.5	Planar	Smooth	Open
30	14.069	025/38	Joint	0.5	Planar	Smooth	Open
31	14.350	357/72	Joint	0.3	Planar	Rough	Tight
32	14.437	001/35	Joint	0.3	Planar	Rough	Open
33	14.571	175/16	ShearZn	8.0	Planar	Brec/crus'd	Open
34	14.638	143/75	Joint	0.3	Undulating	Rough	Tight
35	14.691	165/03	Joint	0.3	Planar	Rough	Tight
36	14.736	322/02	Joint	0.3	Planar	Smooth	Tight
37	14.948	328/72	Joint	0.3	Undulating	Rough	Open
38	14.960	197/55	Joint	0.3	Planar	Smooth	Tight
39	15.200	220/79	Joint	0.3	Planar	Rough	Open
40	15.226	032/28	Joint	0.5	Planar	Rough	Open/loose
41	15.660	350/28	Joint	4.0	Planar	Rough	Open
42	16.002	234/76	Joint	0.5	Planar	Smooth	Open
43	16.134	216/66	Joint	0.3	Planar	Rough	Tight
44	16.353	238/71	ShearZn	243.0	Planar	Brec/crus'd	Open/loose
45	16.736	025/82	Joint	0.3	Undulating	Rough	Open
46	17.297	021/38	Joint	0.5	Planar	Rough	Open
47	17.347	030/32	ShearZn	76.0	Planar	Brec/crus'd	Open/loose
48	17.604	355/35	ShearZn	4.0	Planar	Brec/crus'd	Open
49	17.668	328/18	Bed/foliat	0.0	Planar	Smooth	Tight
50	17.801	158/54	Joint	0.3	Planar	Rough	Open

Tab. Table of Discontinuity (2 / 3)

File name: BH41.STR
[]

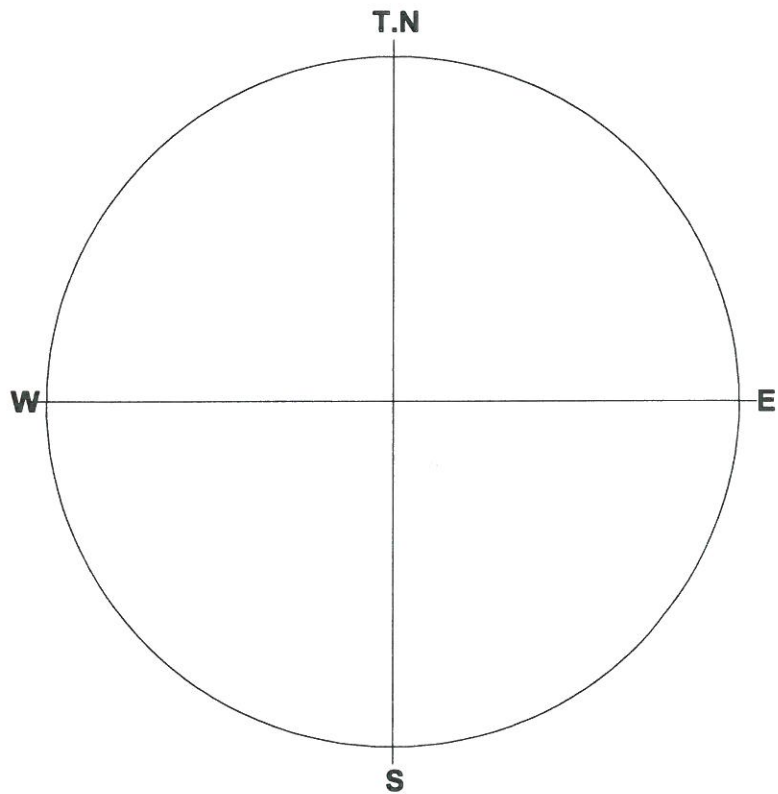
No.	Depth (m)	Dir/Dip	Sort	Aperture (mm)	Form	Condition	Remark
51	18.005	111/54	Joint	0.3	Planar	Smooth	Open
52	18.288	214/68	ShearZn	15.0	Planar	Brec/crus'd	Open
53	18.849	039/51	Joint	1.0	Planar	Brec/crus'd	Open
54	19.291	239/67	ShearZn	6.0	Planar	Brec/crus'd	Open
55	19.801	042/37	ShearZn	5.0	Planar	Brec/crus'd	Open
56	19.997	177/38	Joint	1.0	Planar	Rough	Tight/Fil'd
57	20.390	218/82	Joint	0.5	Undulating	Rough	Open
58	20.812	022/23	ShearZn	30.0	Planar	Brec/crus'd	Open
59	20.974	358/44	ShearZn	14.0	Planar	Brec/crus'd	Open
60	21.492	104/48	Joint	1.0	Planar	Rough	Tight/Fil'd
61	21.701	194/50	Joint	0.3	Planar	Smooth	Tight/Fil'd
62	21.840	013/30	ShearZn	36.0	Planar	Brec/crus'd	Open
63	21.982	054/71	Joint	0.5	Planar	Rough	Tight/Fil'd
64	22.012	222/68	Joint	0.3	Planar	Rough	Tight
65	22.062	009/33	ShearZn	31.0	Planar	Brec/crus'd	Open
66	22.112	210/59	Joint	0.3	Planar	Rough	Open
67	22.703	044/37	ShearZn	13.0	Planar	Brec/crus'd	Open
68	22.825	184/67	Joint	0.3	Planar	Rough	Tight
69	23.274	069/49	ShearZn	18.0	Planar	Brec/crus'd	Open
70	24.377	087/69	Joint	0.3	Planar	Rough	Tight
71	24.440	092/36	ShearZn	42.0	Planar	Brec/crus'd	Open
72	24.806	107/74	Joint	0.3	Planar	Rough	Open
73	25.008	098/37	ShearZn	241.0	Planar	Brec/crus'd	Loose/caved
74	25.216	141/15	Joint	10.0	Planar	Brec/crus'd	Open/loose
75	25.387	079/60	Joint	1.0	Planar	Rough	Open/loose
76	25.390	186/52	Joint	0.3	Planar	Rough	Tight
77	25.412	075/78	Joint	0.3	Planar	Rough	Tight
78	25.420	193/49	Joint	0.3	Planar	Rough	Tight
79	25.661	175/36	Joint	0.3	Planar	Rough	Open
80	25.739	074/43	Joint	0.3	Planar	Rough	Tight
81	25.939	237/43	Joint	0.3	Planar	Smooth	Open
82	26.068	180/32	Joint	0.3	Planar	Smooth	Open
83	26.170	233/56	Joint	0.3	Planar	Rough	Open
84	26.322	046/62	Joint	0.3	Planar	Rough	Open
85	26.613	082/80	Joint	0.3	Planar	Rough	Tight
86	26.681	123/31	ShearZn	19.0	Planar	Brec/crus'd	Open
87	26.836	209/33	Joint	0.3	Planar	Smooth	Open
88	26.946	273/44	Joint	0.3	Planar	Rough	Open
89	27.601	299/12	Joint	0.3	Planar	Rough	Open
90	27.728	005/70	Joint	0.3	Planar	Rough	Tight
91	27.880	189/21	Joint	0.3	Planar	Rough	Open
92	28.008	203/26	Joint	0.5	Planar	Rough	Open
93	28.065	274/51	Joint	0.5	Planar	Rough	Open
94	28.911	338/67	Joint	0.5	Planar	Rough	Open
95	29.288	259/50	Joint	0.5	Planar	Rough	Open
96	29.446	343/44	Joint	0.5	Planar	Smooth	Open
97	30.034	120/25	ShearZn	22.0	Planar	Brec/crus'd	Open
98	30.371	278/49	Joint	0.5	Planar	Rough	Open
99	30.399	188/69	Joint	0.5	Planar	Rough	Open
100	30.411	082/33	Joint	0.5	Planar	Rough	Open

Tab. Table of Discontinuity (3 / 3)

File name: BH41.STR
[]

No.	Depth (m)	Dir/Dip	Sort	Aperture (mm)	Form	Condition	Remark
101	30.811	230/55	Joint	0.5	Planar	Smooth	Tight/Fil'd
102	31.009	050/26	Joint	0.5	Planar	Smooth	Open
103	31.036	301/69	Joint	0.3	Planar	Rough	Tight
104	31.071	312/39	Joint	0.3	Planar	Rough	Open
105	31.244	326/57	Joint	0.3	Planar	Rough	Open
106	31.456	084/42	Joint	0.5	Planar	Smooth	Open
107	31.530	005/67	Joint	0.5	Planar	Rough	Open

BH41.STR
<<BEDDING/FOLIATION>>



Number of Data : 1/107

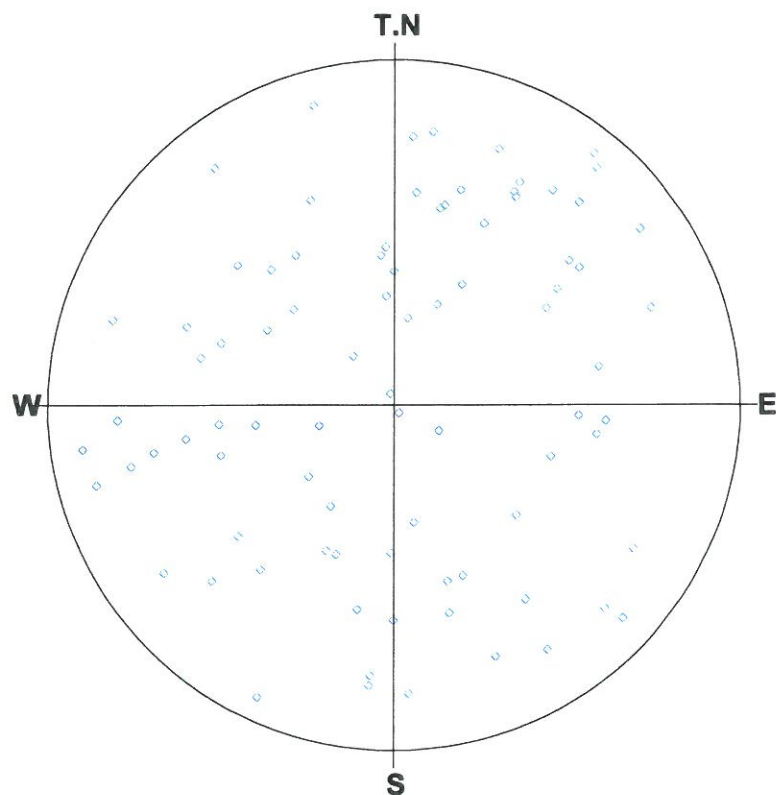
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	:Bed/foliat --	1		:Boundary --	0
	:Joint --	0			
	:Parting --	0			
	:ShearZn --	0			
	:Fault --	0			
	:Vein --	0			

Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR
<<JOINT>>



Number of Data : 85/107

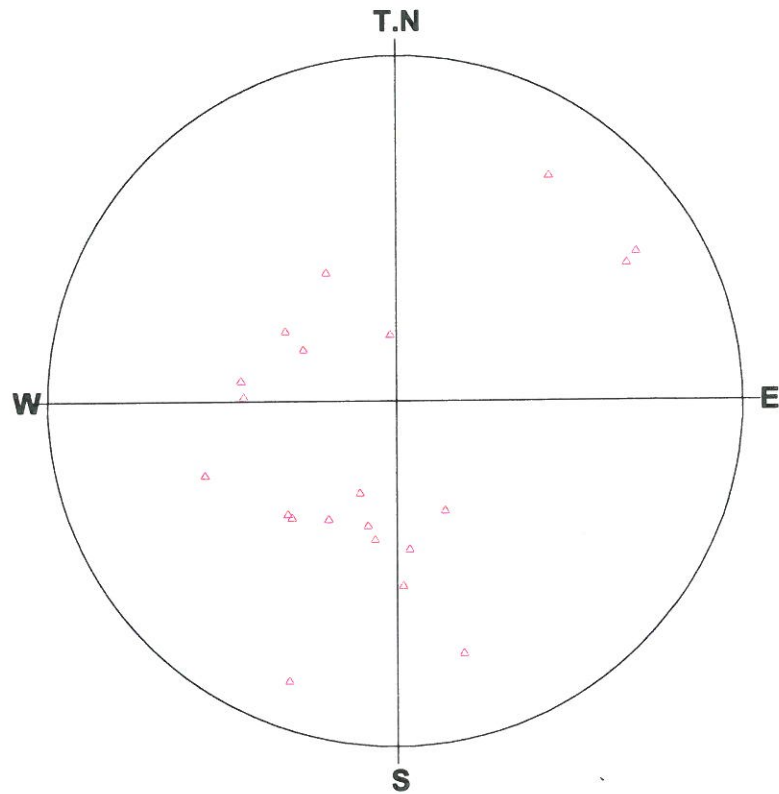
<Legend>

	:Bed/foliat --	0		:Boundary --	0
	:Joint --	85			
	:Parting --	0			
	:ShearZn --	0			
	:Fault --	0			
	:Vein --	0			

Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR
<<SHEAR ZONE>>



Number of Data : 21/107

<Legend>

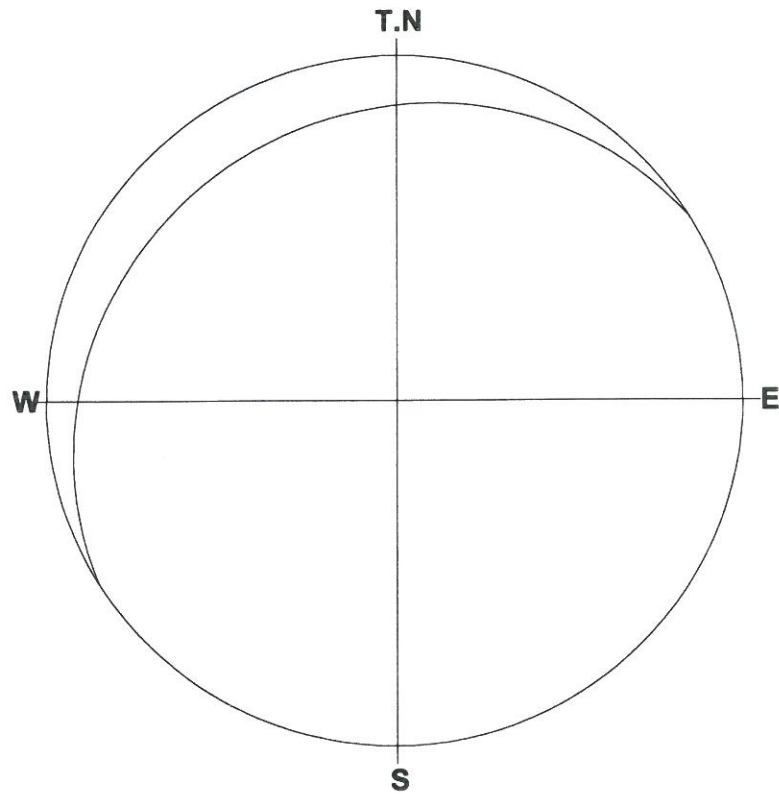
○	:Bed/foliat	--	0	○	:Boundary	--	0
◇	:Joint	--	0				
□	:Parting	--	0				
△	:ShearZn	--	21				
▽	:Fault	--	0				
×	:Vein	--	0				

Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR

<<BEDDING/FOLIATION>>



Number of Data:1/107

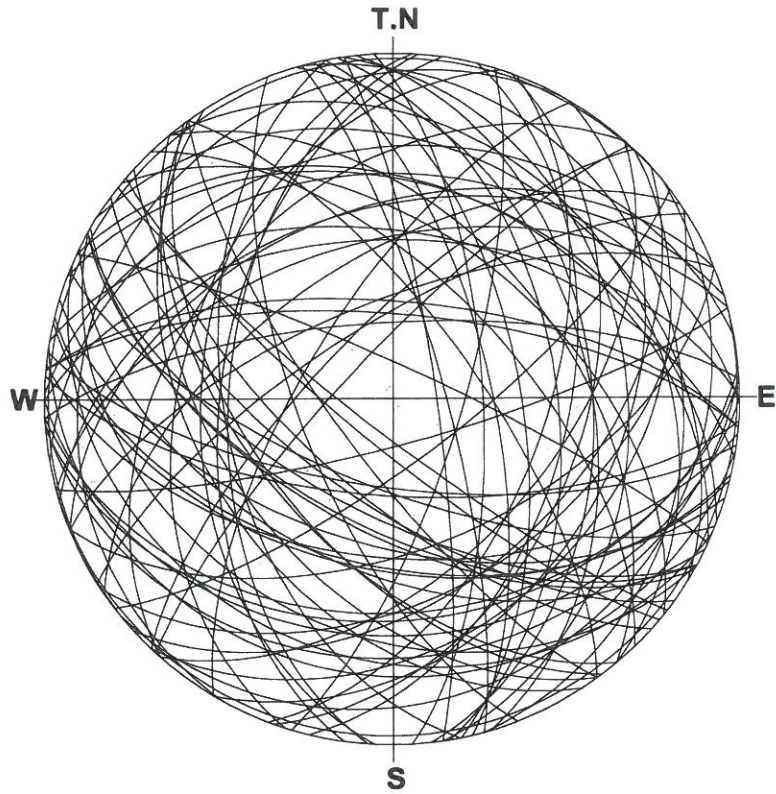
1 : 328/18(49)

Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR

<<JOINT>>



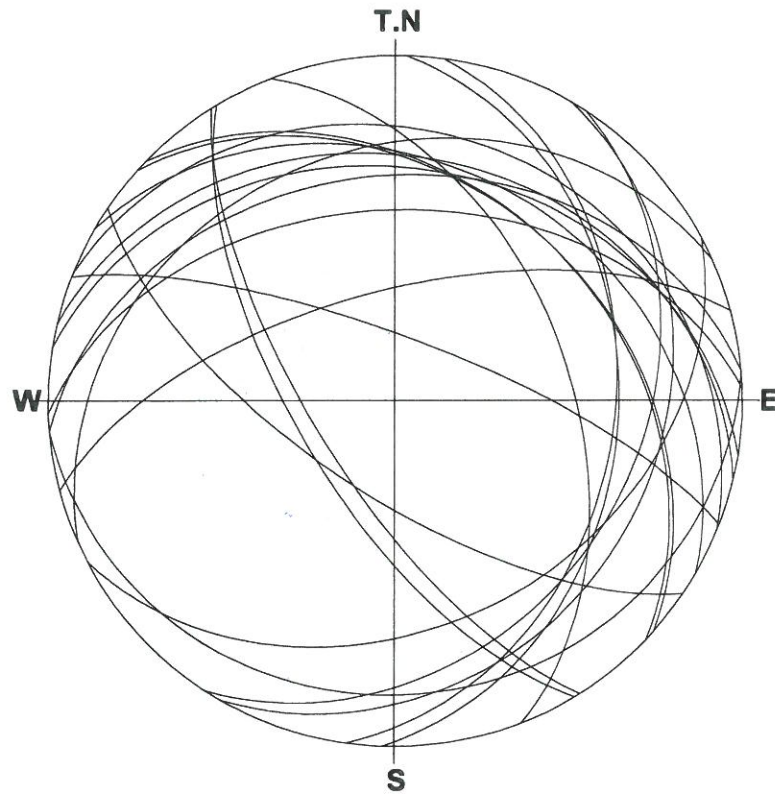
Number of Data:85/107

1 : 075/18(3)	6 : 077/67(9)
2 : 314/73(4)	7 : 050/49(10)
3 : 313/79(5)	8 : 147/43(11)
4 : 206/49(7)	9 : 209/60(12)
5 : 288/39(8)	10 : 249/68(13)

Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR
<<SHEAR ZONE>>



Number of Data:21/107

1 : 021/75(1)	6 : 238/71(44)
2 : 152/35(2)	7 : 030/32(47)
3 : 345/64(6)	8 : 355/35(48)
4 : 336/28(26)	9 : 214/68(52)
5 : 175/16(33)	10 : 239/67(54)

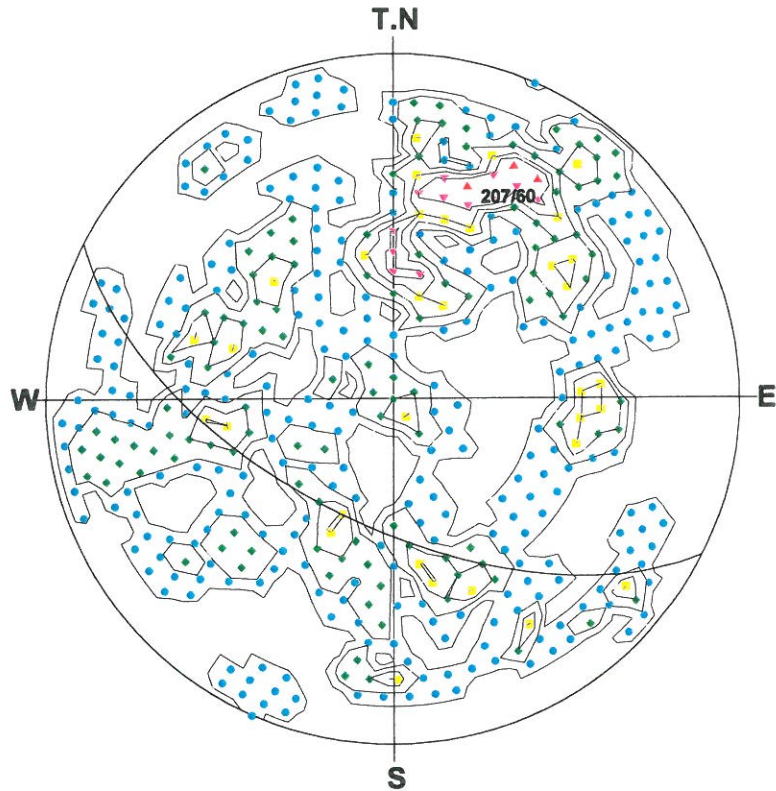
Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR

<<JOINT>>

***** % Diagram *****



Number of Data : 85

<Legend> Sym. (%)

▲ : 5

▼ : 4 - 5

■ : 3 - 4

◆ : 2 - 3

● : 1 - 2

● : 0 - 1

Contour Value (%)

Contour 1 : 0

Contour 2 : 1

Contour 3 : 2

Contour 4 : 3

Contour 5 : 4

Contour 6 : 5



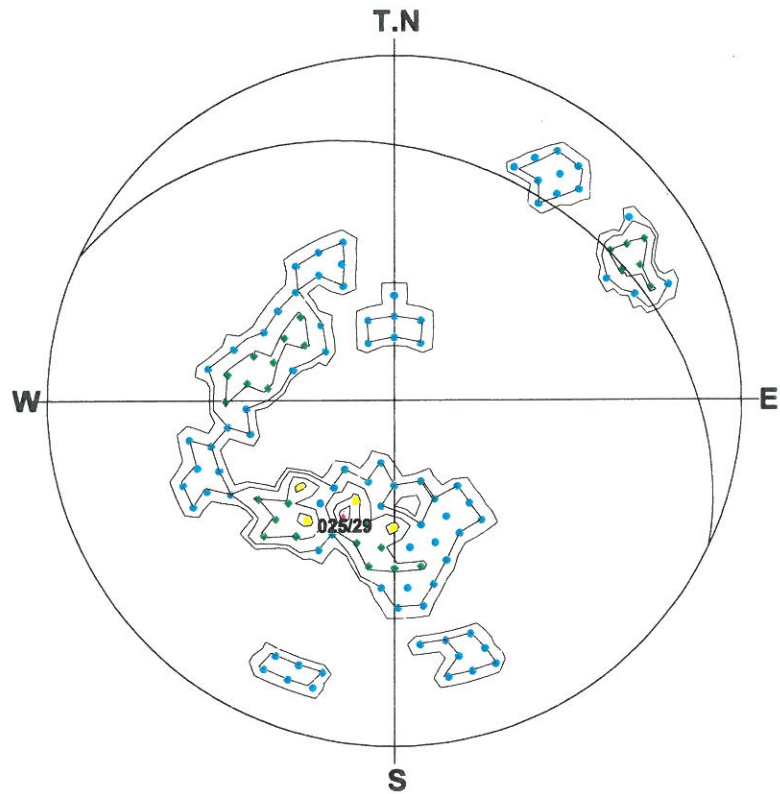
Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR

<<SHEAR ZONE>>

******* % Diagram *******



Number of Data : 21

<Legend> Sym. (%)

- ▲ : 19**
- ▼ : 15 - 19**
- : 11 - 15**
- ◆ : 7 - 11**
- : 3 - 7**
- : 0 - 3**

Contour Value (%)

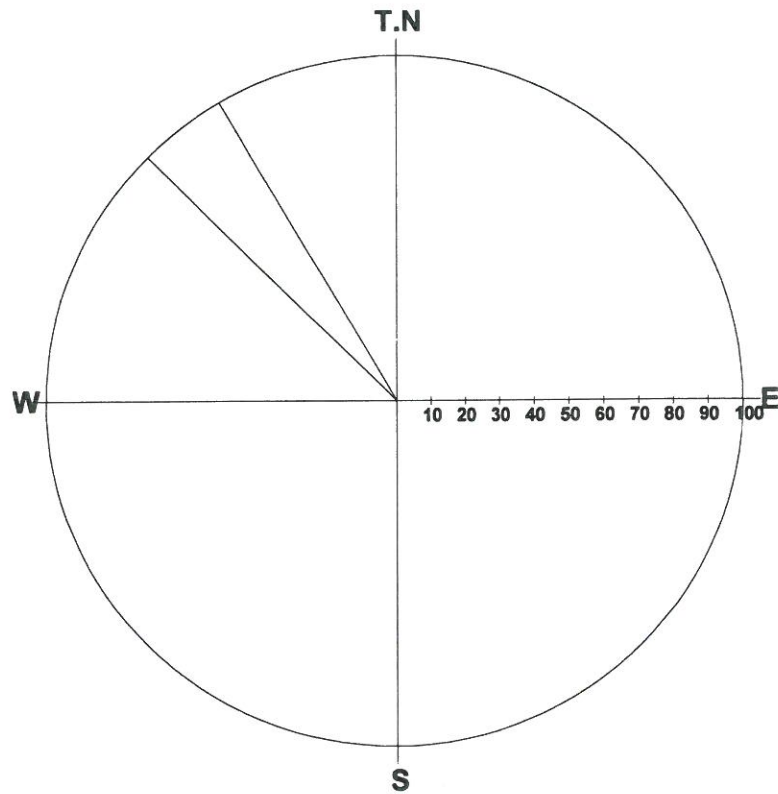
- Contour 1 : 0** ☐
- Contour 2 : 3** ☐
- Contour 3 : 7** ☐
- Contour 4 : 11** ☐
- Contour 5 : 15** ☐
- Contour 6 : 19** ☐

Schmidt (L.H)

Depth : 3.885 - 31.530 m

BH41.STR

<<BEDDING/FOLIATION>>



Number of Data : 1/107

Max : 100.0%

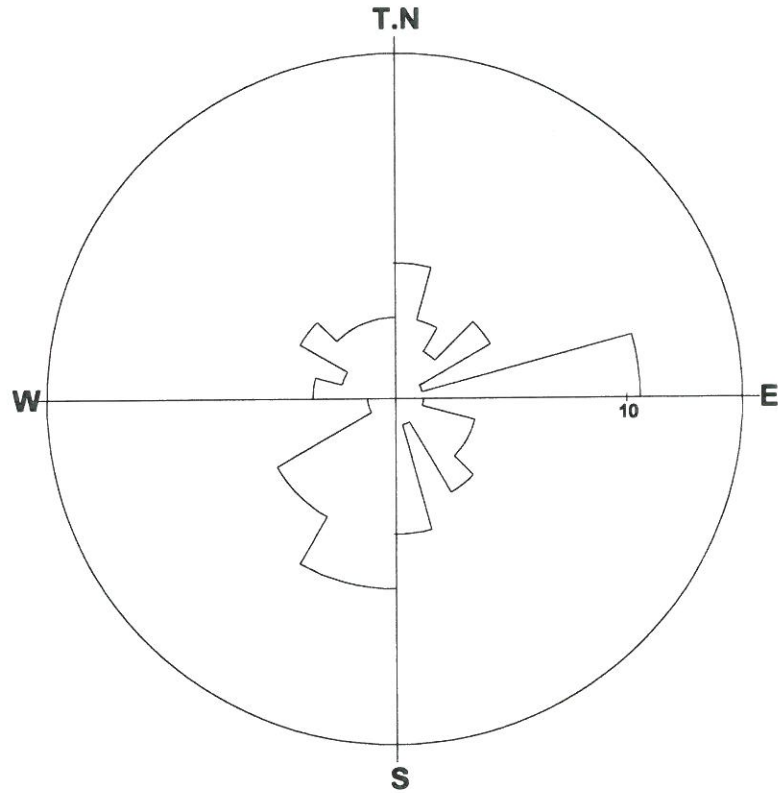
Grouping Angle : 15 deg

Dir	%	Dir	%	Dir	%
0-	0	135-	0	270-	0
15-	0	150-	0	285-	0
30-	0	165-	0	300-	0
45-	0	180-	0	315-	100
60-	0	195-	0	330-	0
75-	0	210-	0	345-	0
90-	0	225-	0		
105-	0	240-	0		
120-	0	255-	0		

Depth : 3.885 - 31.530 m

BH41.STR

<<JOINT>>



Number of Data : 85/107

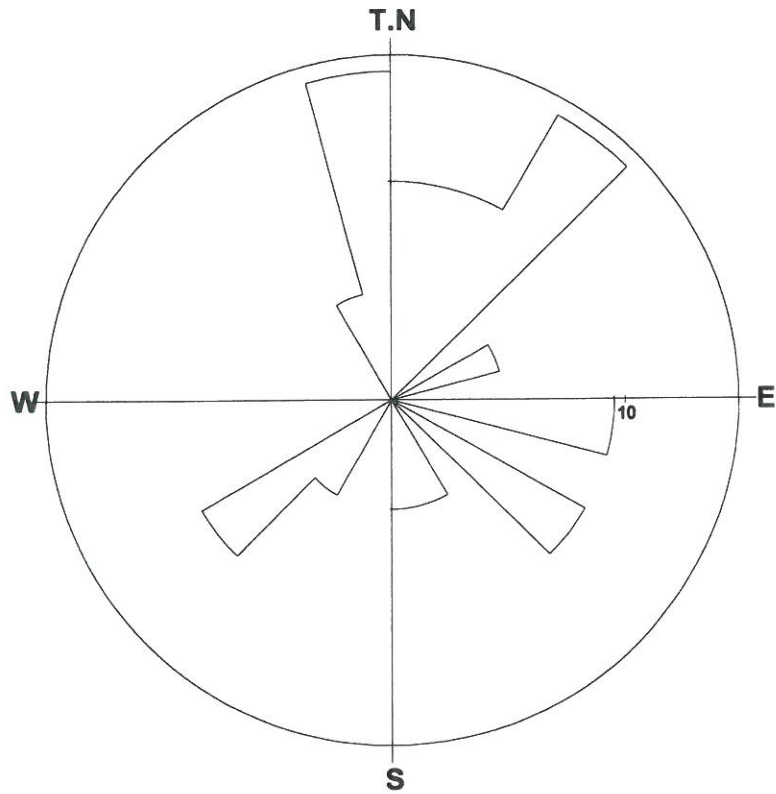
Max : 10.6%

Grouping Angle : 15 deg

Dir	%	Dir	%	Dir	%
0-	6	135-	5	270-	4
15-	4	150-	1	285-	2
30-	2	165-	6	300-	5
45-	5	180-	8	315-	4
60-	1	195-	8	330-	4
75-	11	210-	6	345-	4
90-	1	225-	6		
105-	4	240-	1		
120-	4	255-	1		

Depth : 3.885 - 31.530 m

BH41.STR
<<SHEAR ZONE>>



Number of Data : 21/107

Max : 14.3%

Grouping Angle : 15 deg

Dir	%	Dir	%	Dir	%
0-	10	135-	0	270-	0
15-	10	150-	5	285-	0
30-	14	165-	5	300-	0
45-	0	180-	0	315-	0
60-	5	195-	0	330-	5
75-	0	210-	5	345-	14
90-	10	225-	10		
105-	0	240-	0		
120-	10	255-	0		

Depth : 3.885 - 31.530 m

Title: BH41.STR
 Comment: JOINT
 Depth: 3.885 - 31.530 m
 Aperture: 0.0 - 243.0 mm

Sort: 1/7
 Form: 8/8
 Condition: 11/11
 Remark: 11/11

2009/ 9/ 2

Elevation: 0.000m
 Water Level: 32.500m

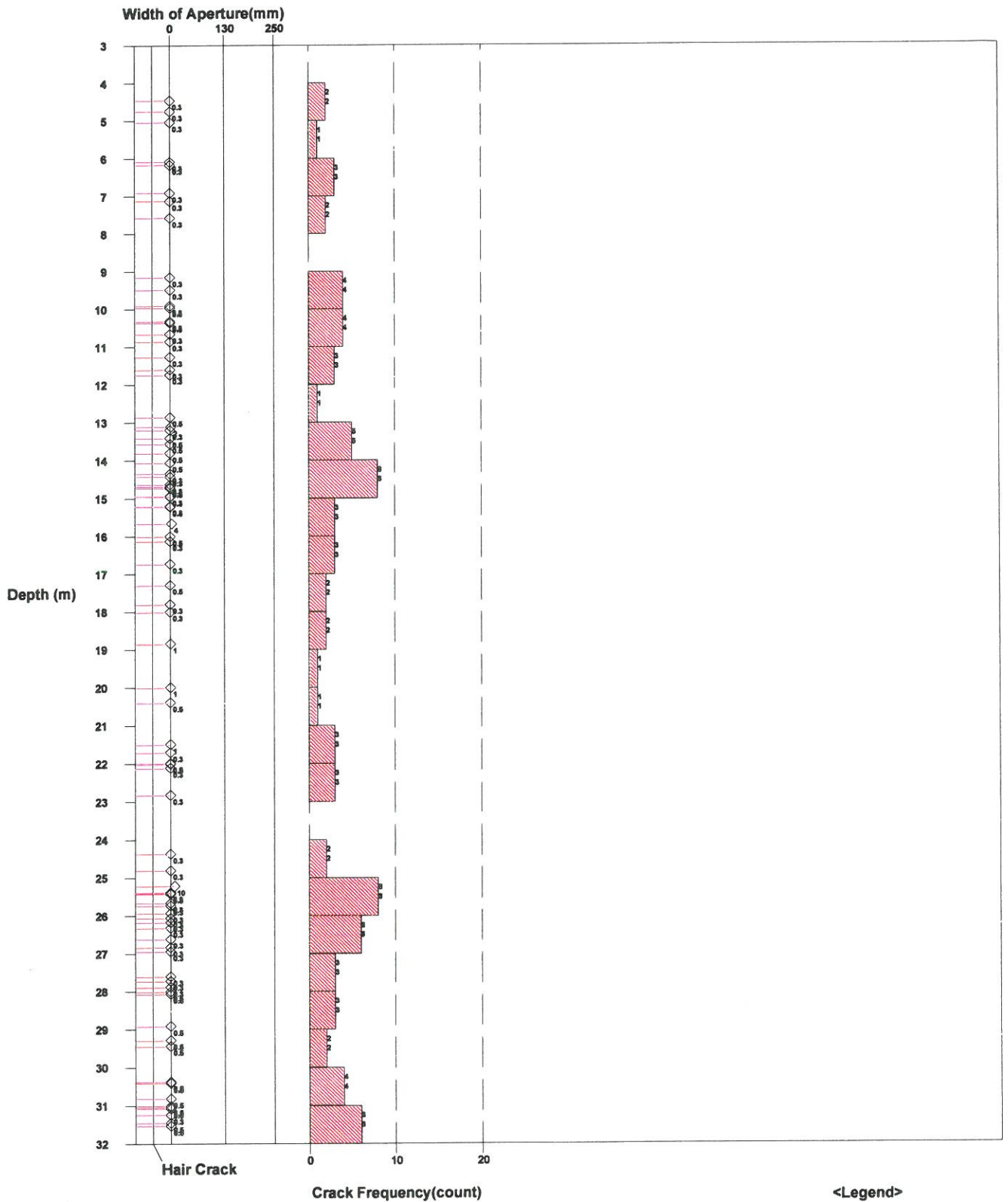


Fig. Rock Mass Condition Graph

All Crack Frequency
 Open Crack Frequency
 Water Level

Title: BH41.STR
 Comment: SHEAR ZONE
 Depth: 3.885 - 31.530 m
 Aperture: 0.0 - 243.0 mm

Sort: 1/7
 Form: 8/8
 Condition: 11/11
 Remark: 11/11

2009/ 9/ 2
 Elevation: 0.000m
 Water Level: 32.500m

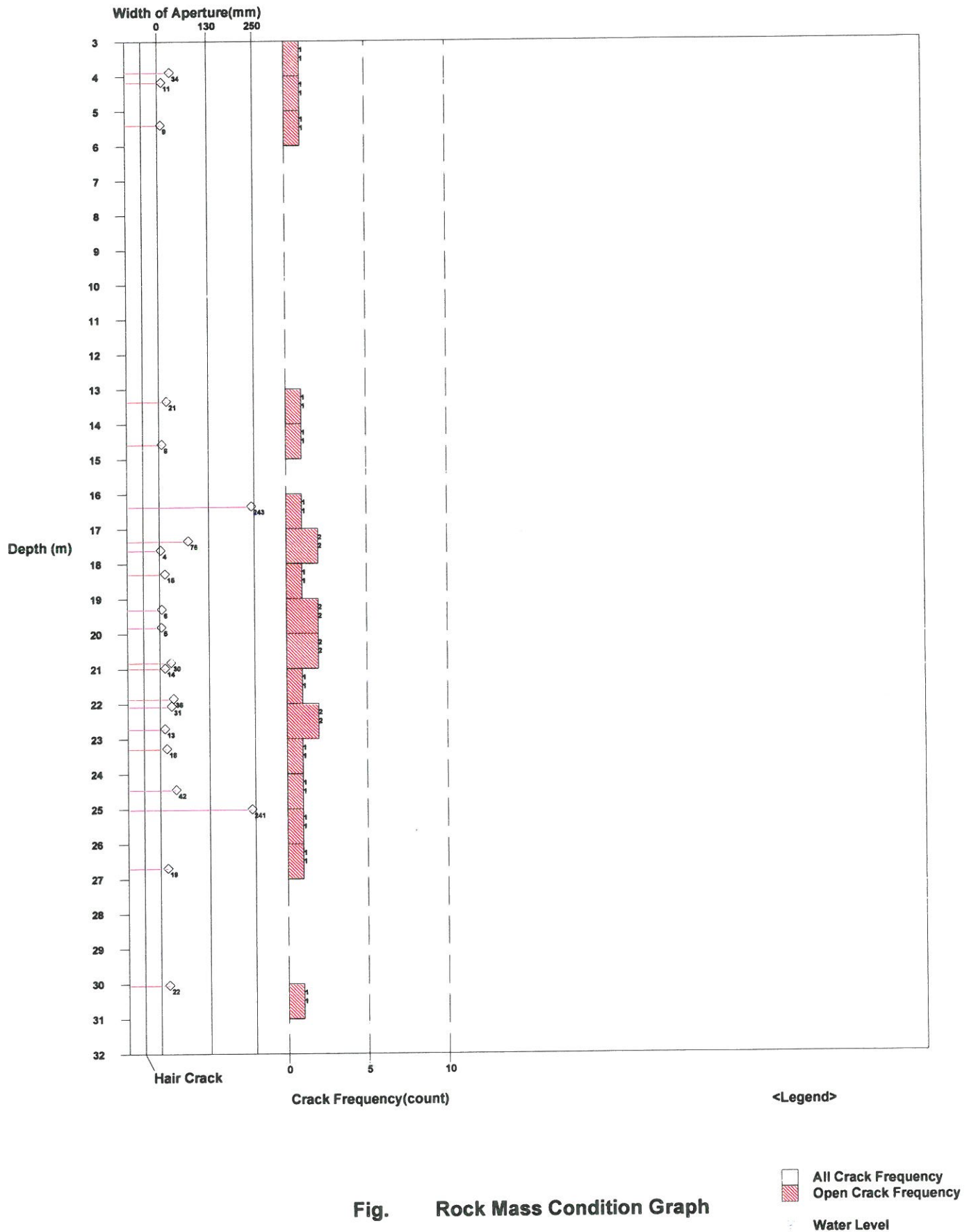
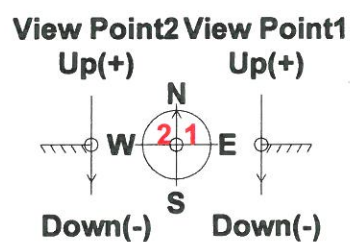
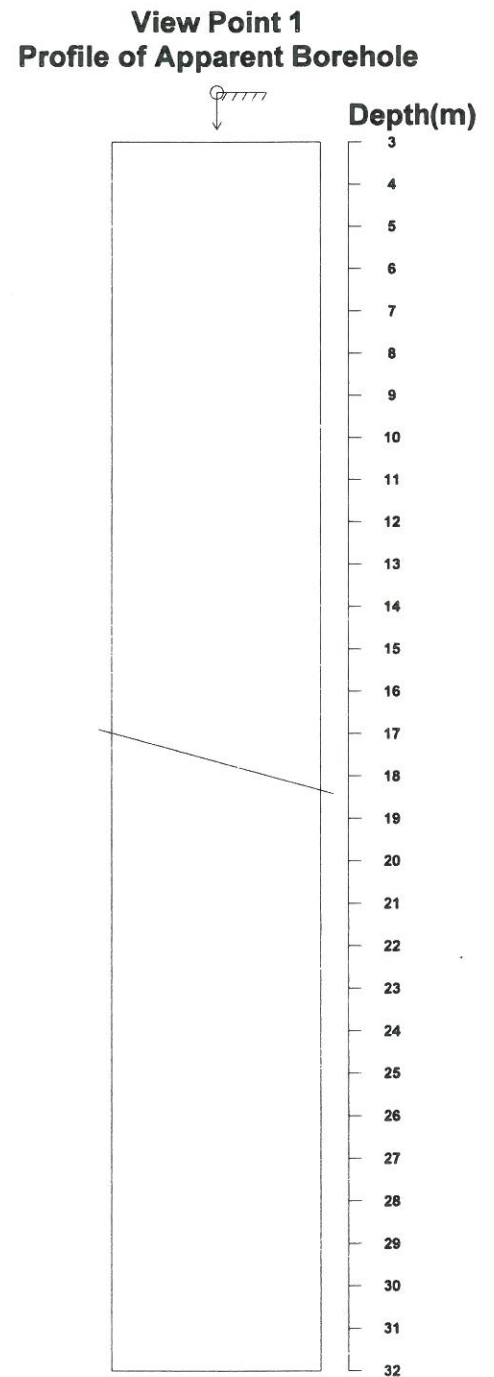
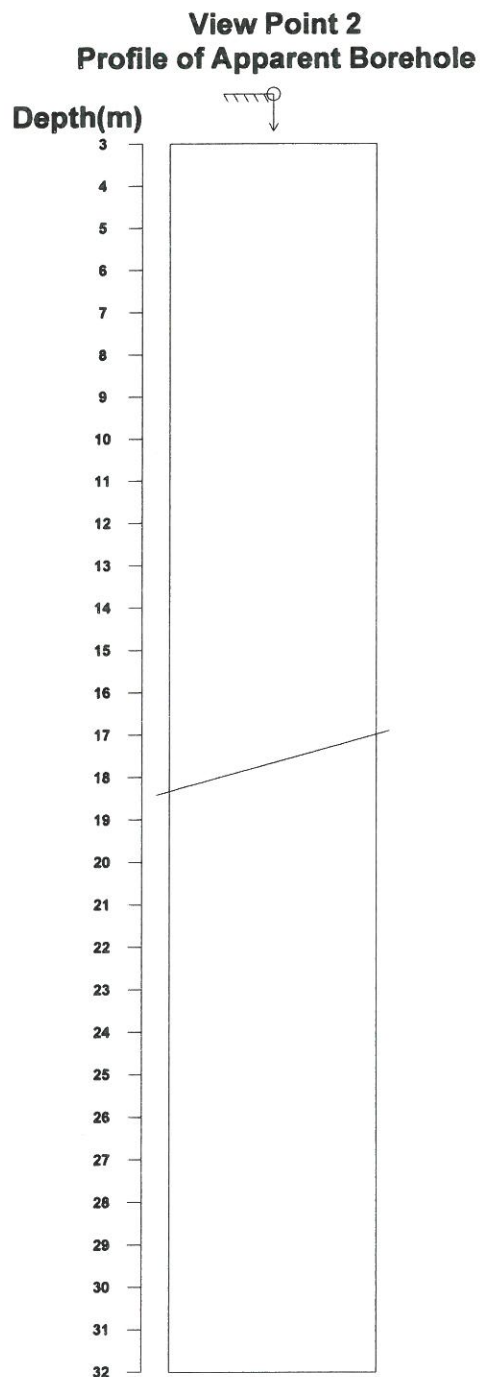


Fig. Rock Mass Condition Graph

Title: BH41.STR
Comment: BEDDING/FOLIATION
Depth: 3.885 - 31.530 m
Aperture: 0.0 - 243.0 mm

Sort: 1/ 7
Form: 8/ 8
Condition: 11/11
Remark: 11/11



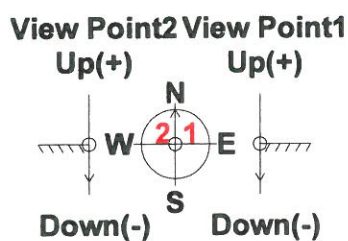
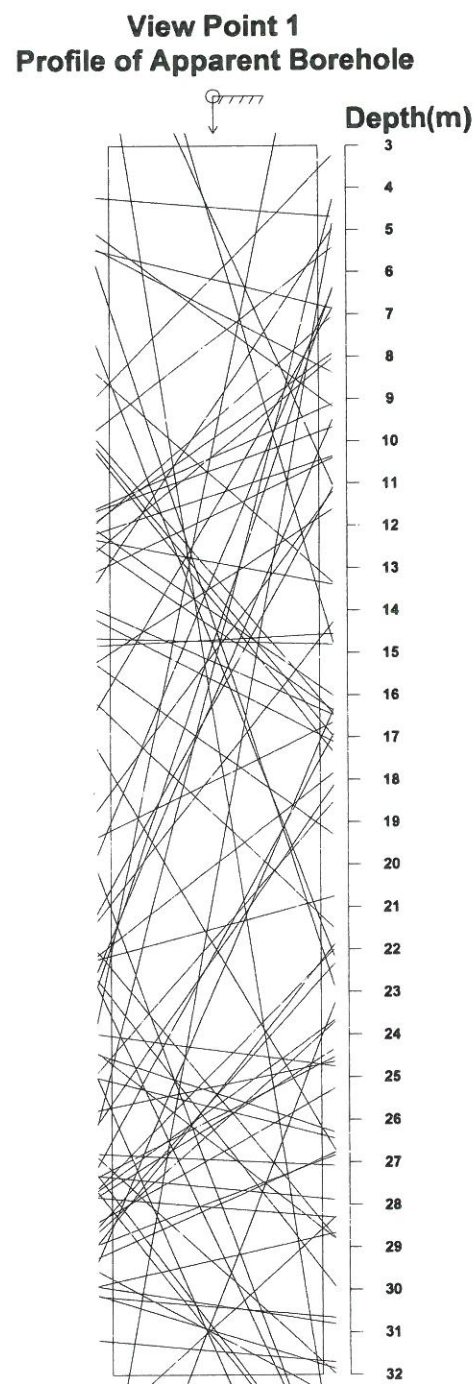
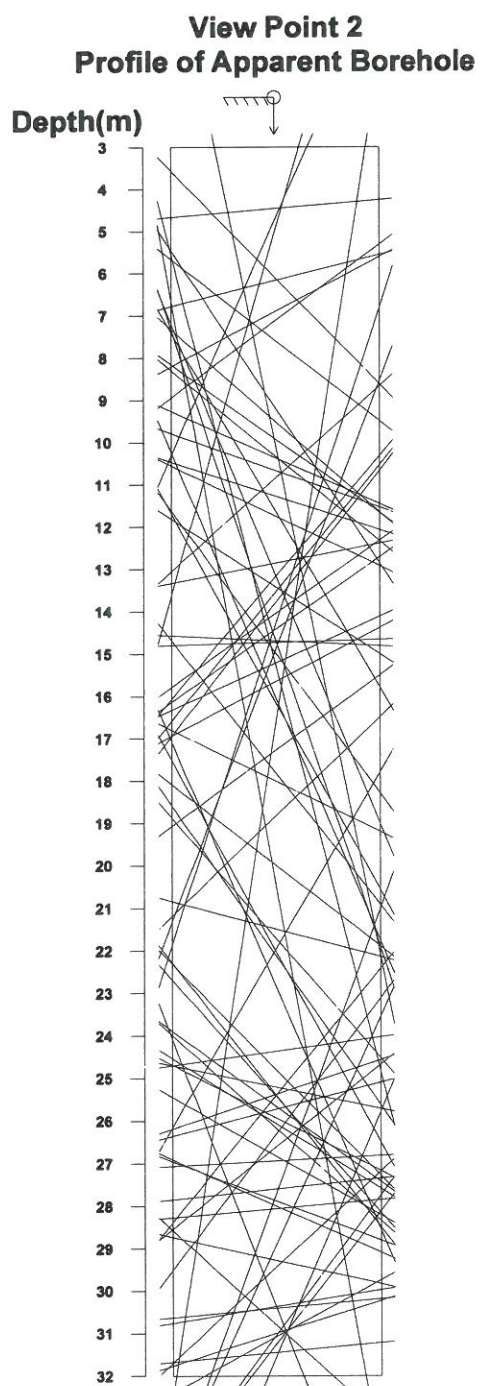
Direction: 0 deg
Inclination: Vertical(Down)

<Legend>
 Entrance G.L.
 Bottom

Fig. Apparent Dip

Title: BH41.STR
Comment: JOINT
Depth: 3.885 - 31.530 m
Aperture: 0.0 - 243.0 mm

Sort: 1/ 7
Form: 8/ 8
Condition: 11/11
Remark: 11/11



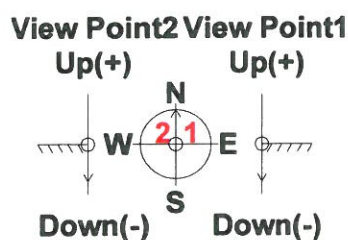
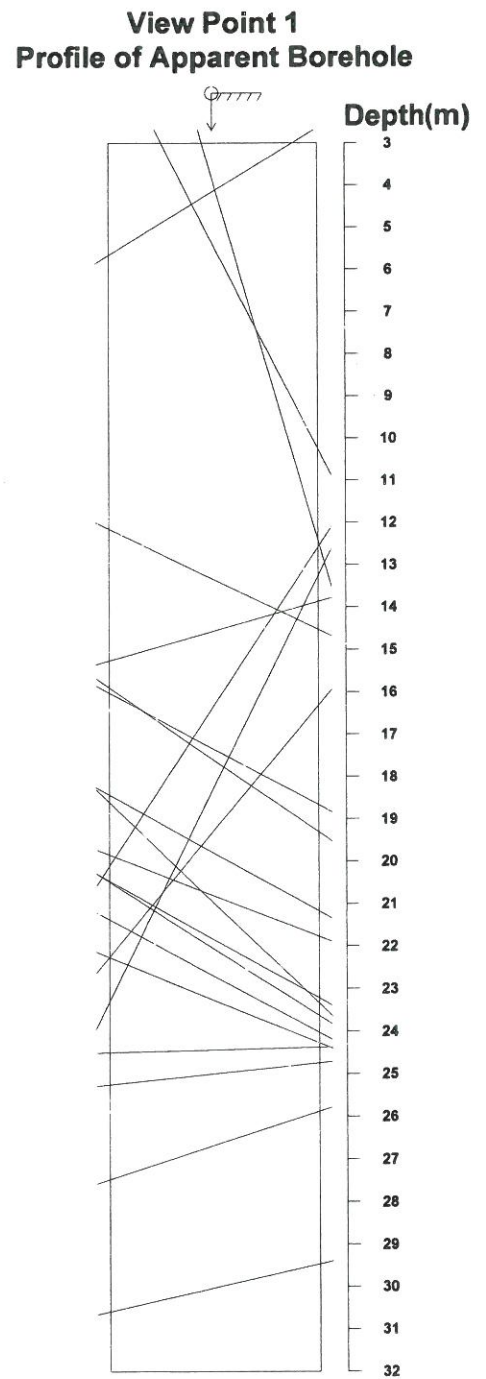
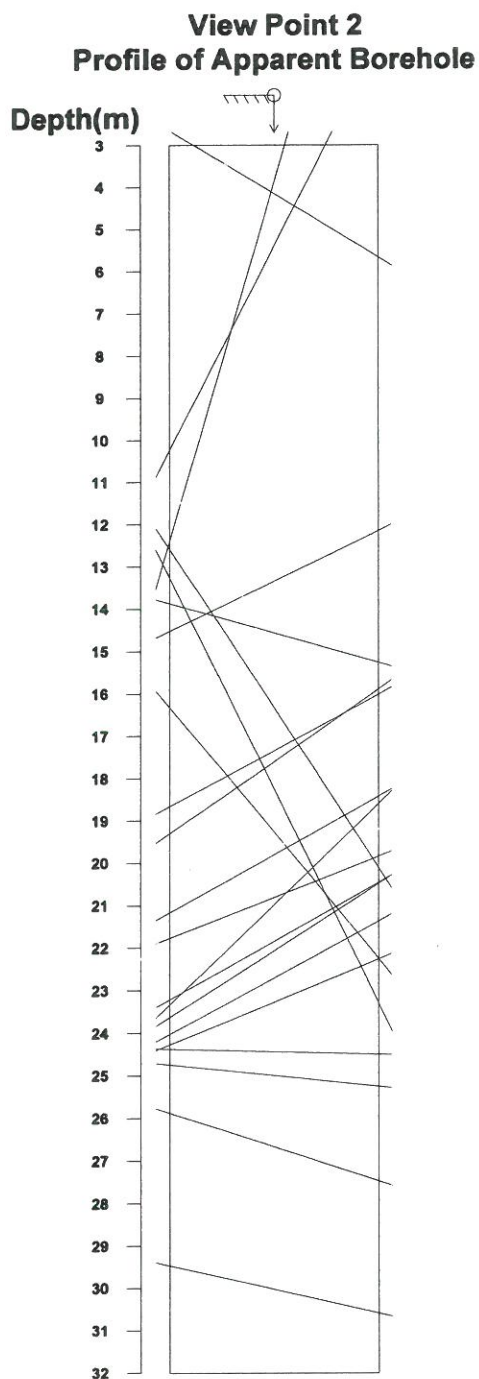
Direction: 0 deg
Inclination: Vertical(Down)

<Legend>
Entrance **G.L**
Bottom

Fig. Apparent Dip

Title: BH41.STR
Comment: SHEAR ZONE
Depth: 3.885 - 31.530 m
Aperture: 0.0 - 243.0 mm

Sort: 1/ 7
Form: 8/ 8
Condition: 11/11
Remark: 11/11



Direction: 0 deg
Inclination: Vertical(Down)

<Legend>
Entrance **G.L**
Bottom

Fig. Apparent Dip