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PROJECT Bruce Highway Upgrade (Cooroy to Curra) Section C  
LOCATION Cut 11 COORDINATES 471260.7 E; 7095292.7 N  
PROJECT No FG5799 SURFACE R.L. 81.10m PLUNGE \_\_\_\_\_ DATE STARTED 04/07/11 GRID DATUM MG94  
JOB No 232/10A/2 HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 05/07/11 DRILLER Drillsure Pty Ltd

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	81.10					<b>TOPSOIL</b>							
80.90						<b>Silty CLAY (Residual):</b> Brown, fine grained, moist, firm. High plasticity, traces of organics.	(CH)						
80.10					A	<b>SILTSTONE (XW):</b> Exhibits engineering properties of a brown, fine grained, moist, stiff, high plasticity, silty clay.	XW					2.4,7 N=11	SPT
78.60					B	<b>SILTSTONE (HW):</b> Brown/grey, fine grained.	HW					11,30/100mm N>50	SPT
77.70					(40)	<b>SILTSTONE (MW):</b> Brown/grey, fine grained, subtly foliated, medium strength, indurated and/or slightly metamorphosed.	MW						
					100 (74)	Defects: -Joint at 20°-25° (4-5/m) -Joint at 40°-50° (3-4/m) -Joint at 55°-60° (<1/m) -Joint at 65°-70° (1/m)						Is(50) = 0.61MPa Is(50) = 0.47MPa J, 65°, Pl, O, SR, Thinly Cinf, FeSt	x o
					100 (0)	Defects are generally close to medium spaced. Defect surfaces are planar, tight or open, smooth or slightly rough, clay infilled, iron stained.						DD = 2.62t/m <sup>3</sup> , WD = 2.68t/m <sup>3</sup> , MC = 2.4%; UCS=12.9MPa	UCS
					100 (49)							J, 70°, Pl, O, Cinf, FeSt	
					100 (15)	7.1-8.4m: HW zone.						BZ HW Clayey Zone BZ	
					100 (34)							Is(50) = 0.52MPa Is(50) = 0.86MPa	x o
					100 (10)							DD = 2.75t/m <sup>3</sup> , MC = 0.4%; Very High Strength. UCS=67.1MPa	UCS
												Clay Band Clay BZ Clay BZ Clay Zone	
												Is(50) = 1.67MPa; * DD = 2.50t/m <sup>3</sup> ; WD = 2.56t/m <sup>3</sup> , MC = 2.8%; UCS=12.9MPa	o UCS

REMARKS \*Point load failed along existing defect

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JA/DC



ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No BH C44
SHEET 2 of 2
REFERENCE No H11050

PROJECT Bruce Highway Upgrade (Cooroy to Curra) Section C
LOCATION Cut 11
COORDINATES 471260.7 E; 7095292.7 N
PROJECT No FG5799 SURFACE R.L. 81.10m PLUNGE DATE STARTED 04/07/11 GRID DATUM MGA94
JOB No 232/10A/2 HEIGHT DATUM AHD BEARING DATE COMPLETED 05/07/11 DRILLER Drillsure Pty Ltd

Table with columns: DEPTH (m), R.L. (m), AUGER CASING WASH BORING CORE DRILLING, RQD (%), CORE REC %, SAMPLE, MATERIAL DESCRIPTION, LITHOLOGY, WEATHERING, INTACT STRENGTH, DEFECT SPACING (mm), GRAPHIC LOG, ADDITIONAL DATA AND TEST RESULTS, SAMPLES TESTS. Includes detailed geological descriptions and test results for various soil types like SILTSTONE (HW) and SILTSTONE (MW).

OLD\_DMR\_LIB\_01A\_GLB\_Log\_A\_ENGINEERING\_BOREHOLE\_LOG\_W/LITHOLOGY\_FG5799 - BRUCE HWY UPGRADE SECTION C.C.P.I. DWG46352.GDW Datepl.CPT.Tool (M: Add: In: 12/12/2011 18:29

REMARKS \*Point load failed along existing defect.

LOGGED BY JA/DC

**CORE PHOTO LOG - BH C44**

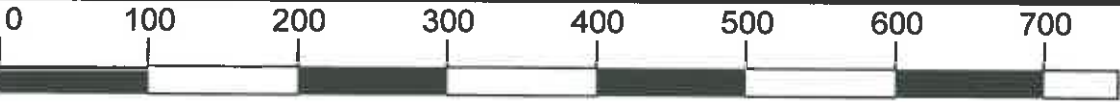
Project Name:	BRUCE HIGHWAY UPGRADE - SECTION C		
Project No.:	FG5799	Date:	08/09/2011
Details:	Cut 11	Start Depth (m):	3.40
Reference No.:	H11050	Finish Depth (m):	19.00





**CORE PHOTO LOG - BH C44**

Project Name:	BRUCE HIGHWAY UPGRADE - SECTION C		
Project No.:	FG5799	Date:	08/09/2011
Details:	Cut 11	Start Depth (m):	3.40
Reference No.:	H11050	Finish Depth (m):	19.00



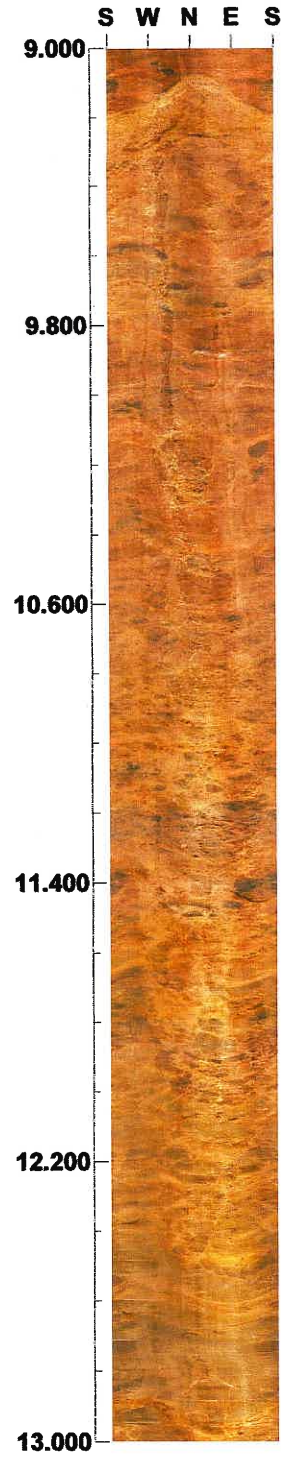
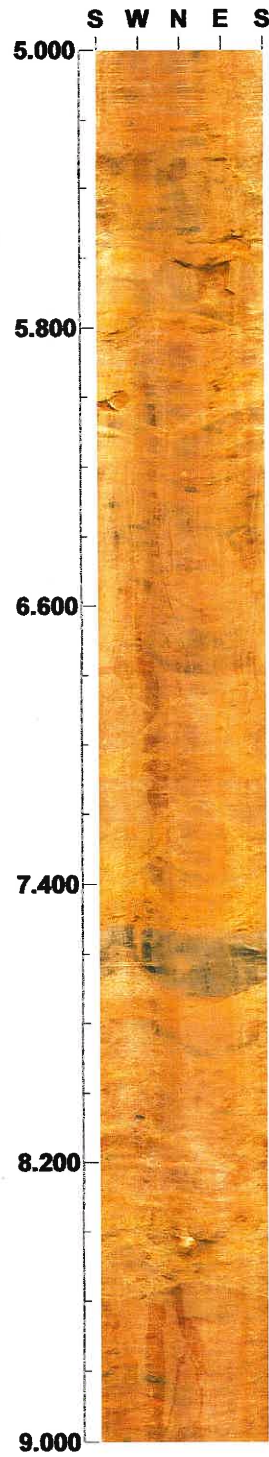
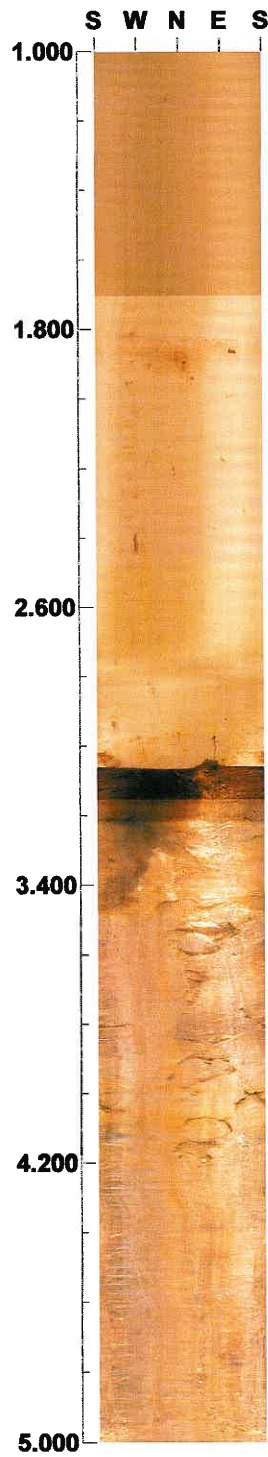
SCALE 1:5

**Project name: BRUCE HIGHWAY UPGRADE SECTION C**  
**Bore hole No.: C-44**

**Azimuth: 0**

**Inclination: -90**

**Depth range: 1.000 - 13.000 m**



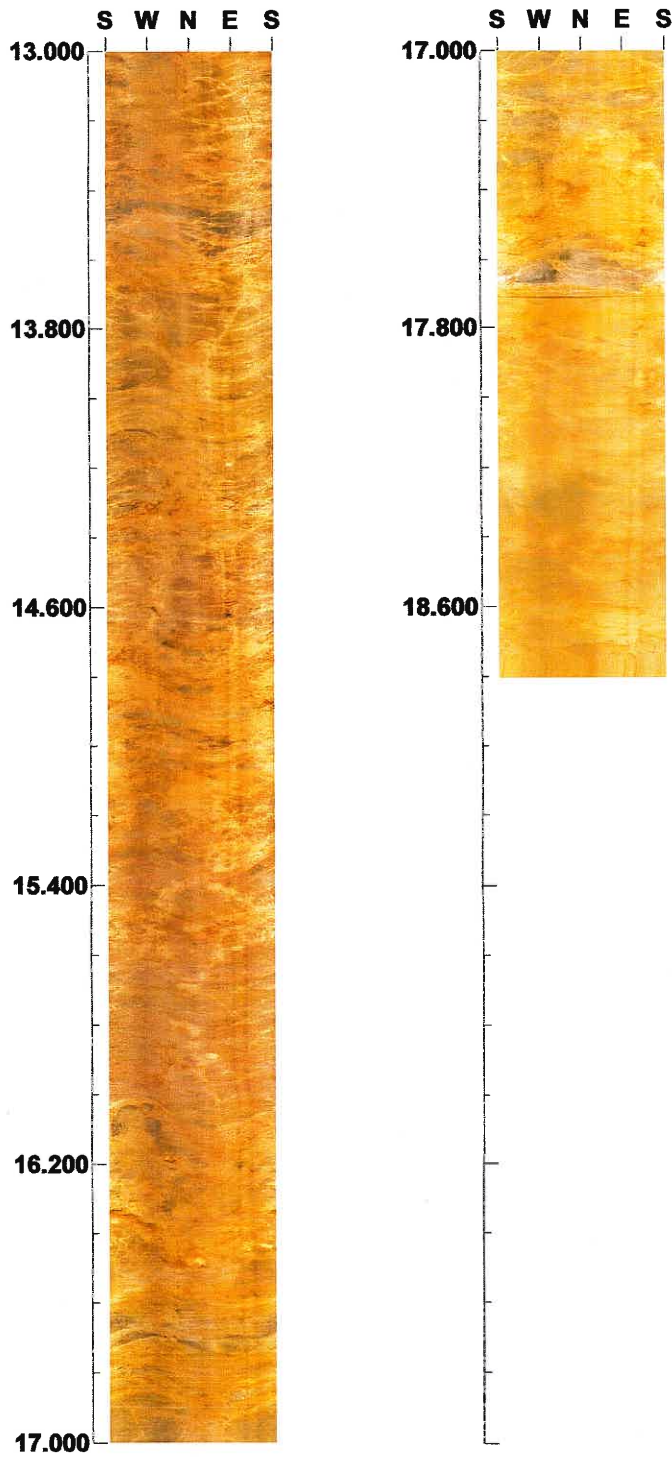
**Scale: 1/20      Aspect ratio: 200 %**

**Project name: BRUCE HIGHWAY UPGRADE SECTION C**  
**Bore hole No.: C-44**

**Azimuth: 0**

**Inclination: -90**

**Depth range: 13.000 - 18.803 m**



**Scale: 1/20    Aspect ratio: 200 %**

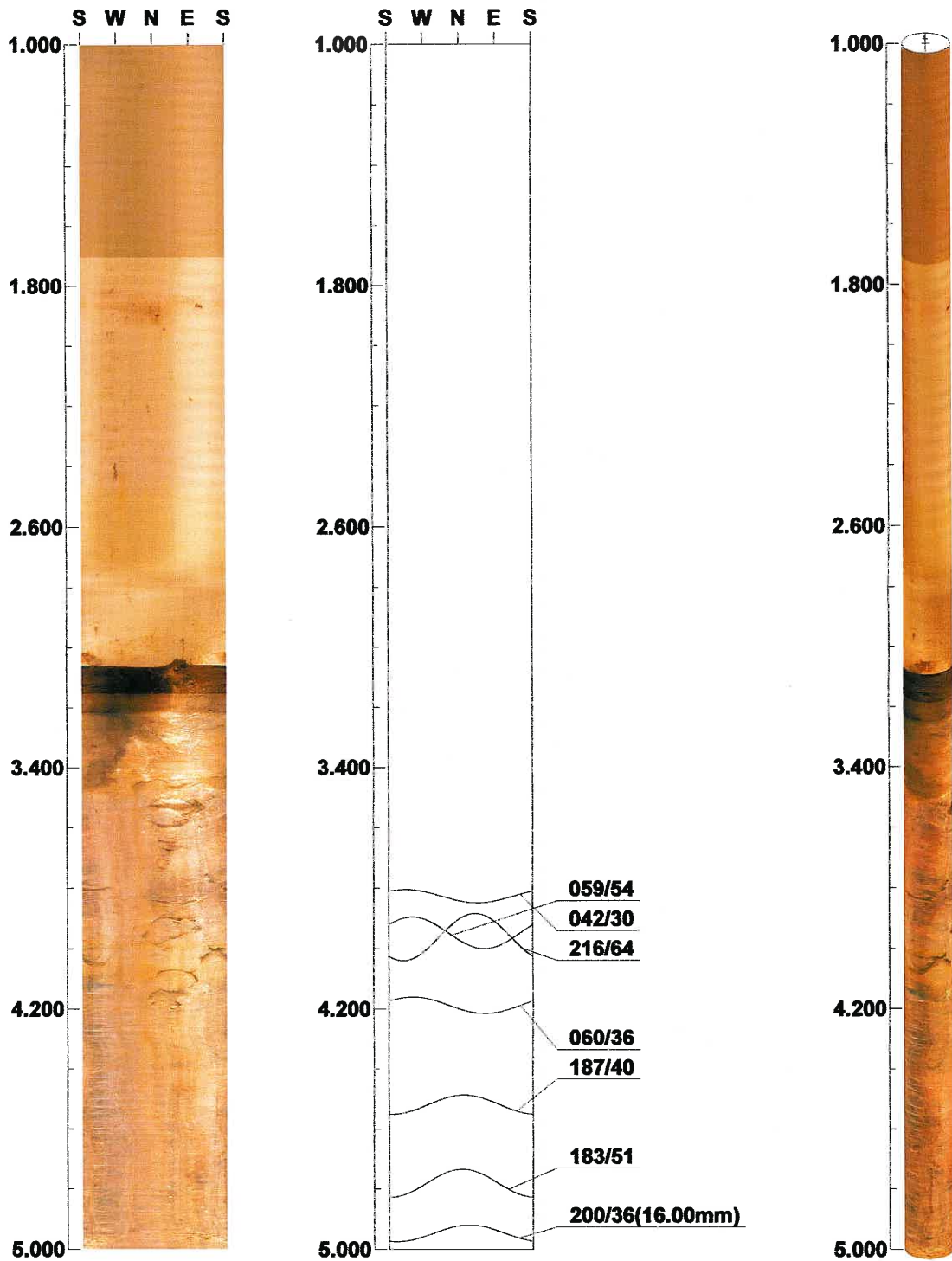


**Project name: BRUCE HIGHWAY UPGRADE SECTION C**  
**Bore hole No.: C-44**

**Azimuth: 0**

**Inclination: -90**

**Depth range: 1.000 - 5.000 m**



**Scale: 1/20**

**Aspect ratio: 200 %**

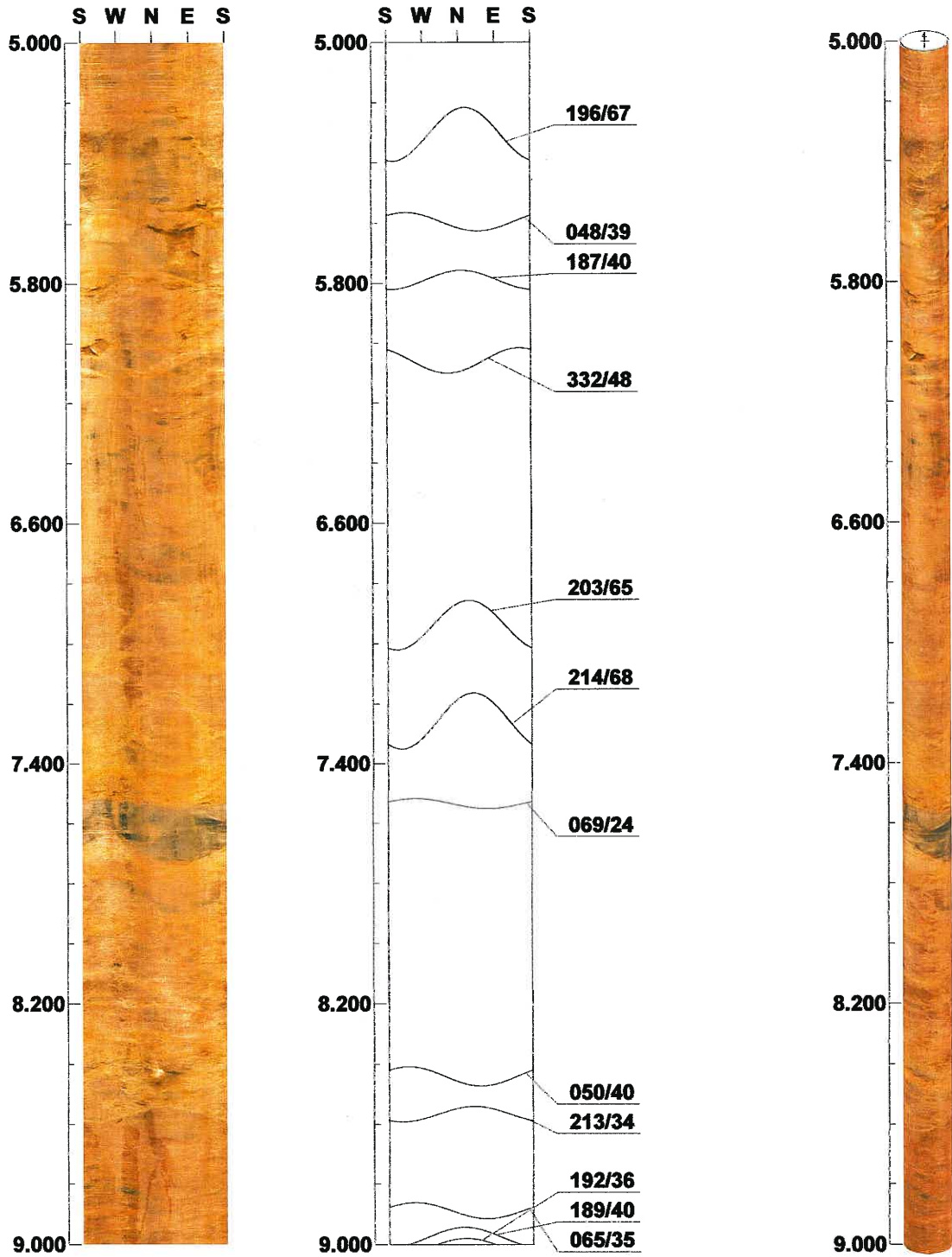


Project name: BRUCE HIGHWAY UPGRADE SECTION C  
Bore hole No.: C-44

Azimuth: 0

Inclination: -90

Depth range: 5.000 - 9.000 m



Scale: 1/20

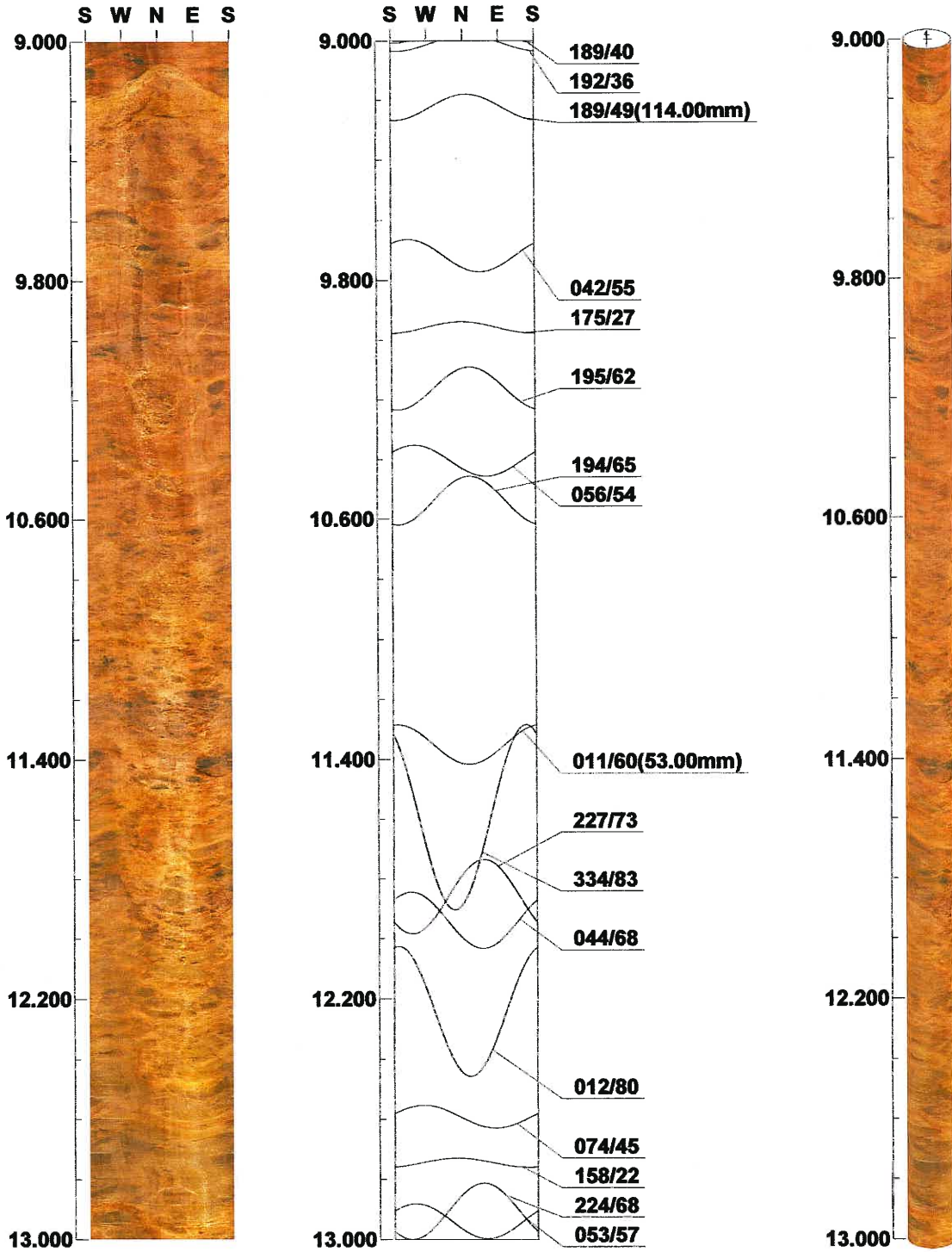
Aspect ratio: 200 %

Project name: BRUCE HIGHWAY UPGRADE SECTION C  
Bore hole No.: C-44

Azimuth: 0

Inclination: -90

Depth range: 9.000 - 13.000 m



Scale: 1/20

Aspect ratio: 200 %

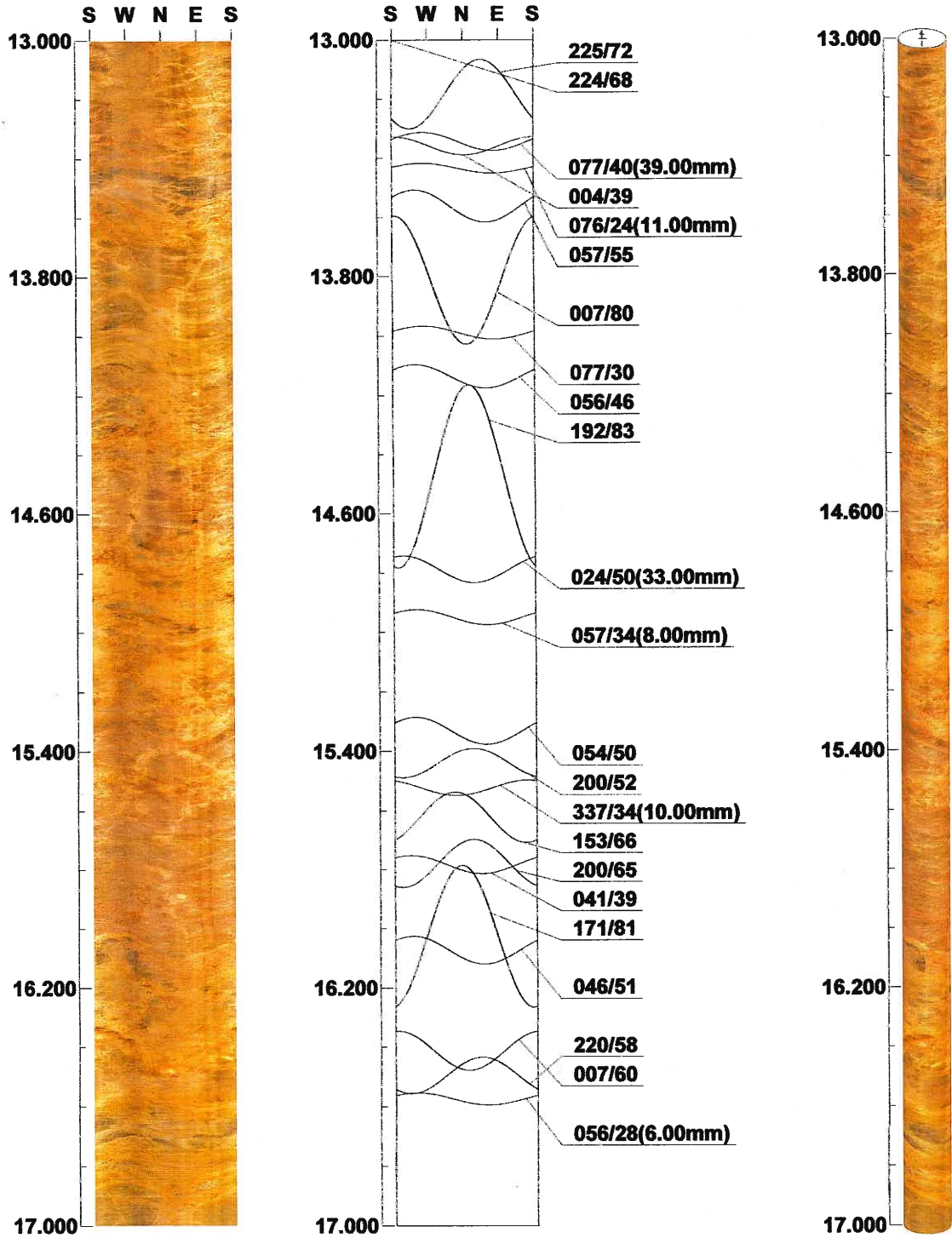
Project name: BRUCE HIGHWAY UPGRADE SECTION C

Bore hole No.: C-44

Azimuth: 0

Inclination: -90

Depth range: 13.000 - 17.000 m



Scale: 1/20

Aspect ratio: 200 %

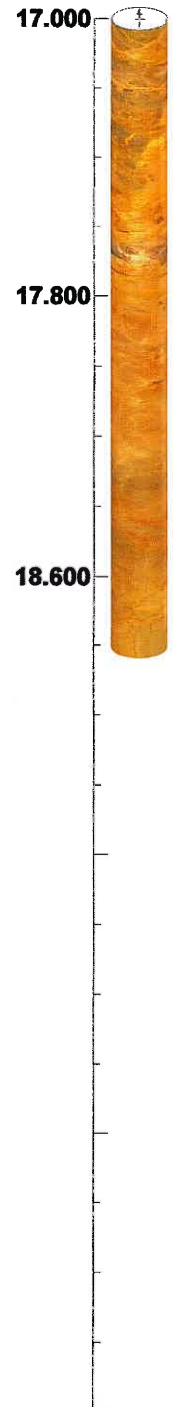
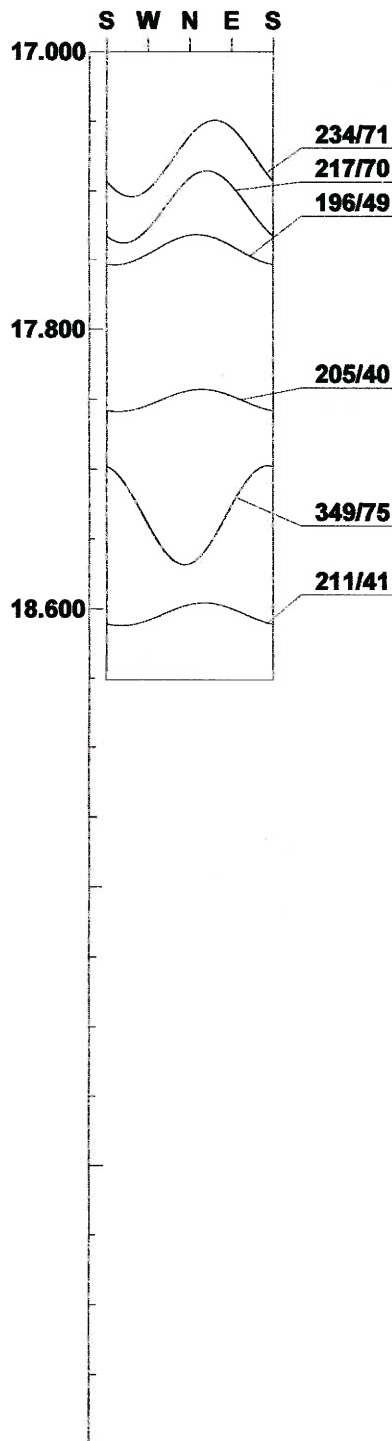
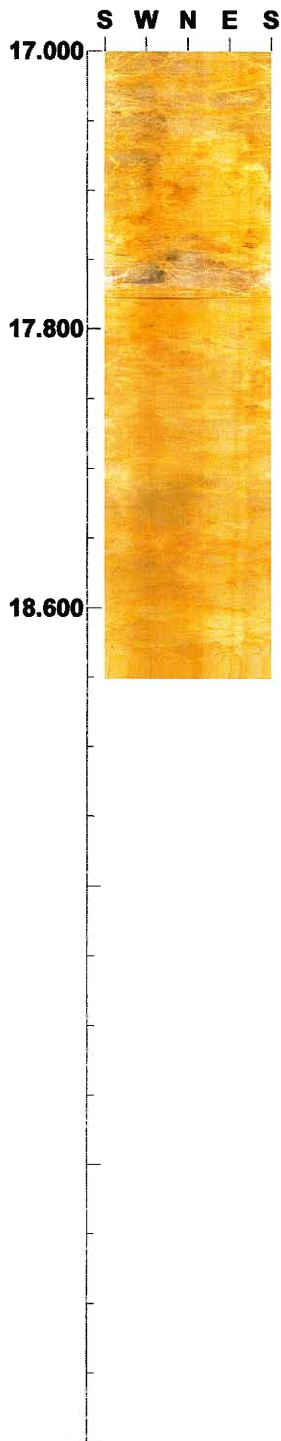
Project name: BRUCE HIGHWAY UPGRADE SECTION C

Bore hole No.: C-44

Azimuth: 0

Inclination: -90

Depth range: 17.000 - 18.803 m



Scale: 1/20

Aspect ratio: 200 %



Tab. Table of Discontinuity ( 1 / 2 )

File name: C-44.STR  
[ ]

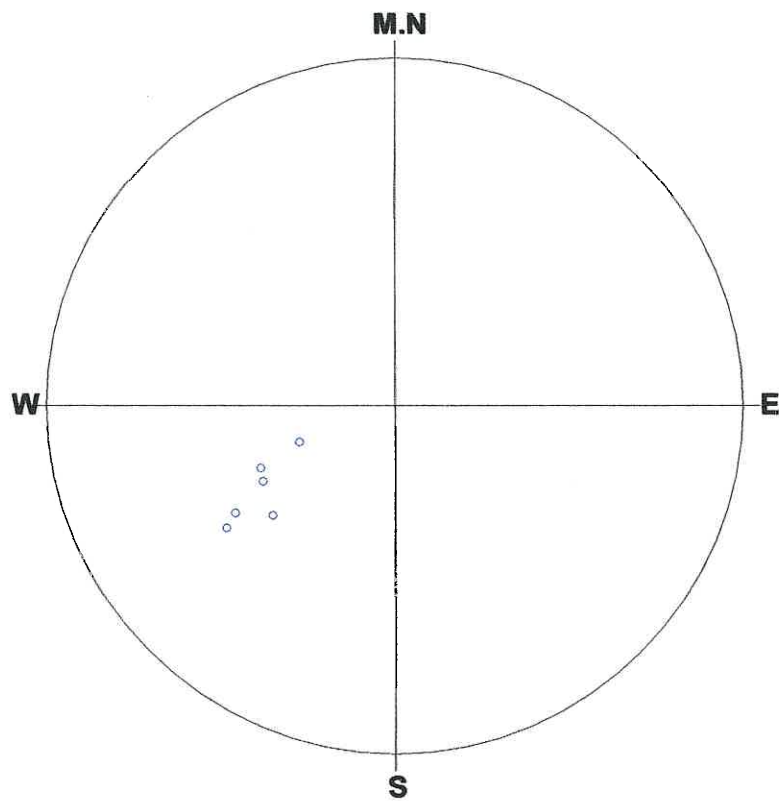
No.	Depth (m)	Dir/Dip	Sort	Aperture (mm)	Form	Condition	Remark
1	3.826	042/30	Parting	0.3	Planar	Smooth	Open
2	3.947	059/54	Joint	0.3	Planar	Smooth	Tight
3	3.961	216/64	Joint	0.3	Planar	Smooth	Open
4	4.187	060/36	Foliation	0.0	Planar	Smooth	Tight
5	4.518	187/40	Joint	0.3	Planar	Smooth	Tight
6	4.780	183/51	Joint	0.3	Planar	Smooth	Tight
7	4.947	200/36	ShearZone	16.0	Planar	Brec/crus'd	Open
8	5.306	196/67	Joint	0.5	Planar	Rough	Open
9	5.596	048/39	Foliation	0.0	Planar	Smooth	Tight
10	5.789	187/40	ShearZone	17.0	Planar	Brec/crus'd	Open
11	6.059	332/48	ShearZone	20.0	Planar	Brec/crus'd	Open
12	6.938	203/65	Joint	0.5	Planar	Rough	Open
13	7.257	214/68	Joint	0.3	Planar	Rough	Tight
14	7.534	069/24	Foliation	0.0	Planar	Smooth	Tight
15	8.439	050/40	ShearZone	53.0	Planar	Brec/crus'd	Open/loose
16	8.565	213/34	Joint	0.5	Planar	Rough	Open
17	8.888	065/35	Foliation	0.0	Planar	Smooth	Tight
18	8.975	189/40	Joint	0.3	Planar	Smooth	Open
19	9.008	192/36	Joint	0.3	Planar	Smooth	Open
20	9.224	189/49	ShearZone	114.0	Planar	Brec/crus'd	Open/loose
21	9.718	042/55	ShearZone	5.0	Planar	Brec/crus'd	Open
22	9.958	175/27	Joint	0.5	Planar	Rough	Open
23	10.162	195/62	Fault	0.3	Planar	Rough	Tight
24	10.404	056/54	ShearZone	11.0	Planar	Brec/crus'd	Open
25	10.538	194/65	ShearZone	21.0	Planar	Brec/crus'd	Open
26	11.350	011/60	ShearZone	53.0	Planar	Brec/crus'd	Open
27	11.594	334/83	Fault	0.3	Planar	Rough	Tight
28	11.859	227/73	Fault	0.3	Undulating	Rough	Tight
29	11.938	044/68	Fault	0.3	Undulating	Rough	Tight
30	12.241	012/80	Fault	0.3	Undulating	Rough	Open
31	12.591	074/45	ShearZone	20.0	Planar	Brec/crus'd	Open
32	12.744	158/22	Joint	0.3	Planar	Smooth	Tight
33	12.906	224/68	Joint	0.3	Planar	Rough	Tight
34	12.939	053/57	ShearZone	27.0	Planar	Brec/crus'd	Open/loose
35	13.183	225/72	Joint	0.3	Planar	Rough	Open/fil'd
36	13.344	077/40	ShearZone	39.0	Planar	Brec/crus'd	Open
37	13.359	004/39	Joint	0.3	Planar	Rough	Open
38	13.435	076/24	ShearZone	11.0	Planar	Brec/crus'd	Open/loose
39	13.563	057/55	ShearZone	75.0	Planar	Brec/crus'd	Open/loose
40	13.812	007/80	Joint	0.5	Planar	Rough	Open
41	13.989	077/30	ShearZone	9.0	Planar	Brec/crus'd	Open
42	14.135	056/46	Foliation	0.0	Planar	Smooth	Tight
43	14.473	192/83	Fault	0.3	Planar	Rough	Open
44	14.787	024/50	ShearZone	33.0	Planar	Brec/crus'd	Open
45	14.949	057/34	ShearZone	8.0	Planar	Brec/crus'd	Open
46	15.331	054/50	Foliation	0.0	Planar	Smooth	Tight
47	15.439	200/52	Joint	0.3	Planar	Rough	Open
48	15.522	337/34	ShearZone	10.0	Planar	Brec/crus'd	Open
49	15.622	153/66	Joint	0.3	Planar	Rough	Tight/fil'd
50	15.778	200/65	Joint	0.3	Planar	Offset	Tight/fil'd

Tab. Table of Discontinuity ( 2 / 2 )

File name: C-44.STR  
[ ]

No.	Depth (m)	Dir/Dip	Sort	Aperture (mm)	Form	Condition	Remark
51	15.782	041/39	ShearZone	6.0	Planar	Brec/crus'd	Open
52	16.025	171/81	Joint	0.3	Planar	Rough	Open
53	16.072	046/51	ShearZone	33.0	Planar	Brec/crus'd	Open
54	16.412	007/60	ShearZone	27.0	Planar	Brec/crus'd	Open/loose
55	16.495	220/58	Joint	0.3	Planar	Smooth	Tight
56	16.574	056/28	ShearZone	6.0	Planar	Brec/crus'd	Open
57	17.307	234/71	Fault	0.3	Undulating	Rough	Tight
58	17.447	217/70	Joint	0.3	Planar	Rough	Open
59	17.571	196/49	Fault	0.3	Planar	Rough	Open
60	18.003	205/40	Joint	0.3	Planar	Rough	Tight
61	18.331	349/75	Joint	0.3	Undulating	Rough	Open
62	18.615	211/41	Joint	0.5	Planar	Rough	Open

**C-44.STR**  
**<<FOLIATION>>**



**Number of Data : 6/62**

**<Legend>**

- |              |      |                |   |
|--------------|------|----------------|---|
| ○:Foliation  | -- 6 | + :Mineralban- | 0 |
| ◇:Joint      | -- 0 |                |   |
| □:Parting    | -- 0 |                |   |
| △:Fault      | -- 0 |                |   |
| ▽:ShearZone- | 0    |                |   |
| ×:Vein       | -- 0 |                |   |

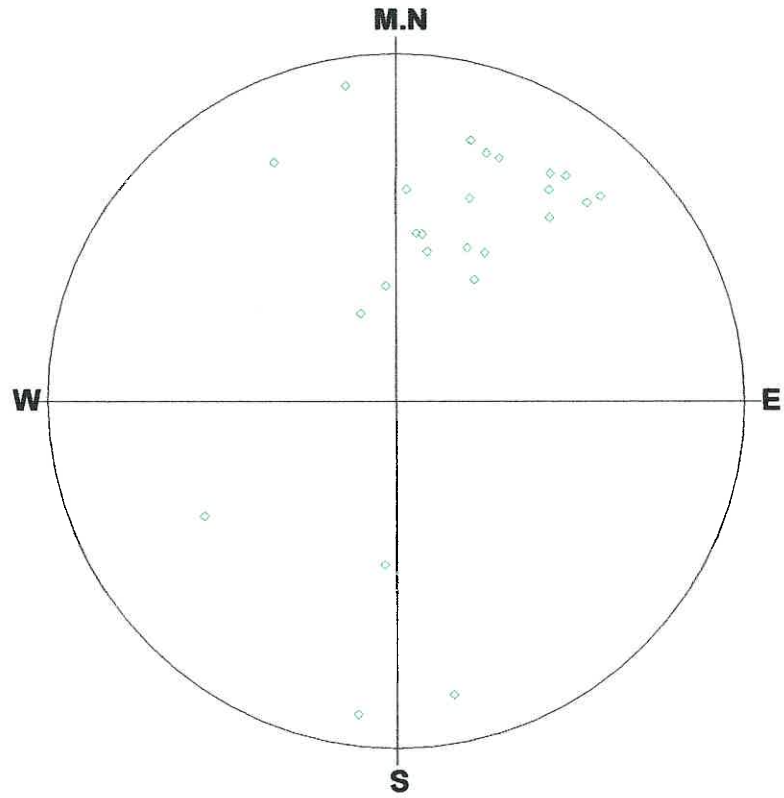
**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**

**<<JOINT>>**



**Number of Data : 25/62**

**<Legend>**

- |              |    |    |               |   |
|--------------|----|----|---------------|---|
| ○:Foliation  | -- | 0  | +:Mineralban- | 0 |
| ◇:Joint      | -- | 25 |               |   |
| □:Parting    | -- | 0  |               |   |
| △:Fault      | -- | 0  |               |   |
| ▽:ShearZone- | -- | 0  |               |   |
| ×:Vein       | -- | 0  |               |   |

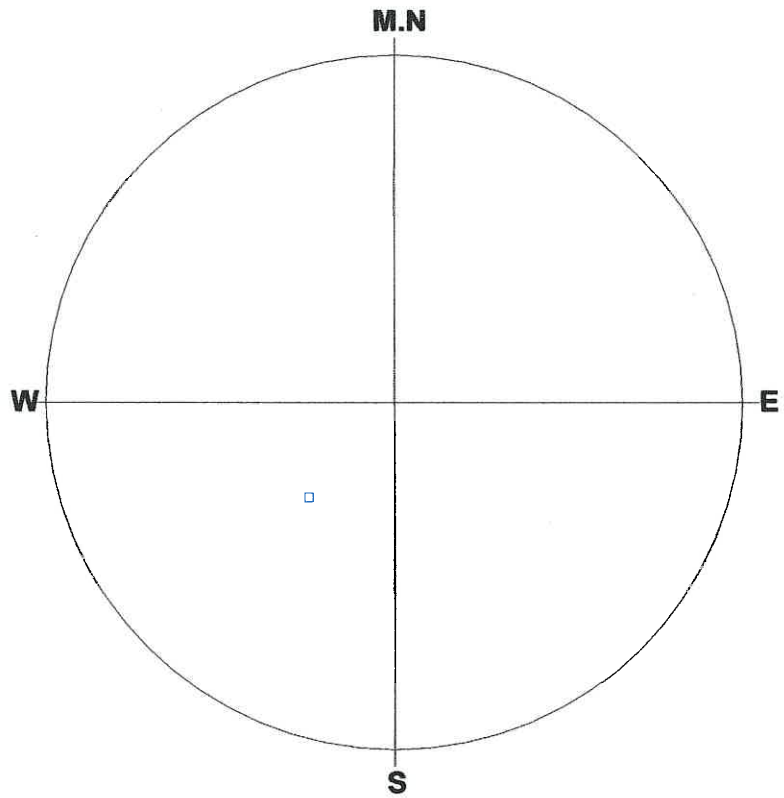
**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**



**C-44.STR**  
**<<PARTING>>**



**Number of Data : 1/62**

**<Legend>**

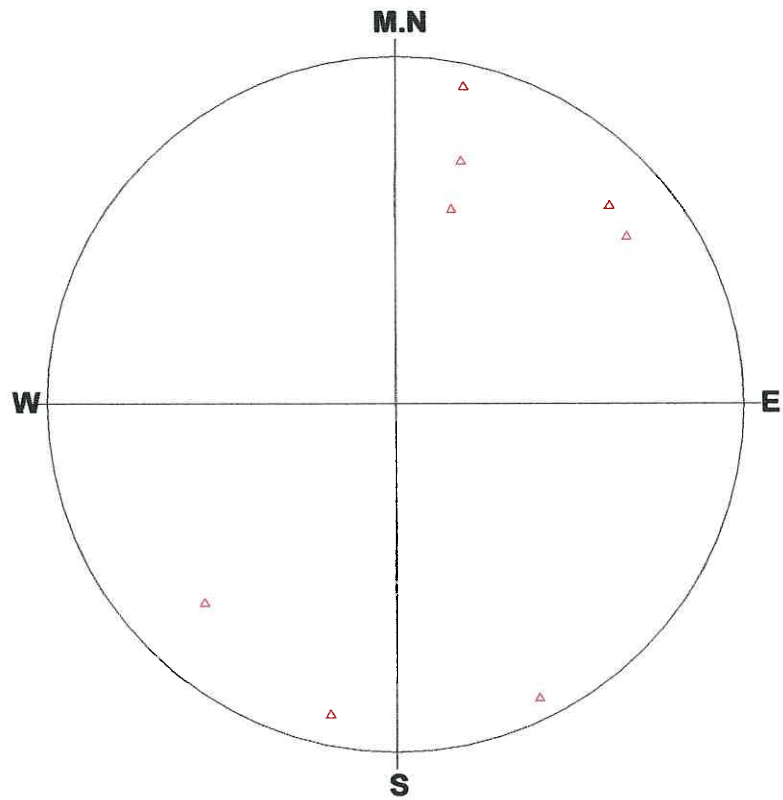
- |             |    |   |               |   |
|-------------|----|---|---------------|---|
| ○:Foliation | -- | 0 | +:Mineralban- | 0 |
| ◇:Joint     | -- | 0 |               |   |
| □:Parting   | -- | 1 |               |   |
| △:Fault     | -- | 0 |               |   |
| ▽:ShearZone | -- | 0 |               |   |
| ×:Vein      | -- | 0 |               |   |

**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<FAULT>>**



**Number of Data : 8/62**

**<Legend>**

- |                  |                  |
|------------------|------------------|
| ○:Foliation -- 0 | + :Mineralban- 0 |
| ◇:Joint -- 0     |                  |
| □:Parting -- 0   |                  |
| △:Fault -- 8     |                  |
| ▽:ShearZone- 0   |                  |
| ×:Vein -- 0      |                  |

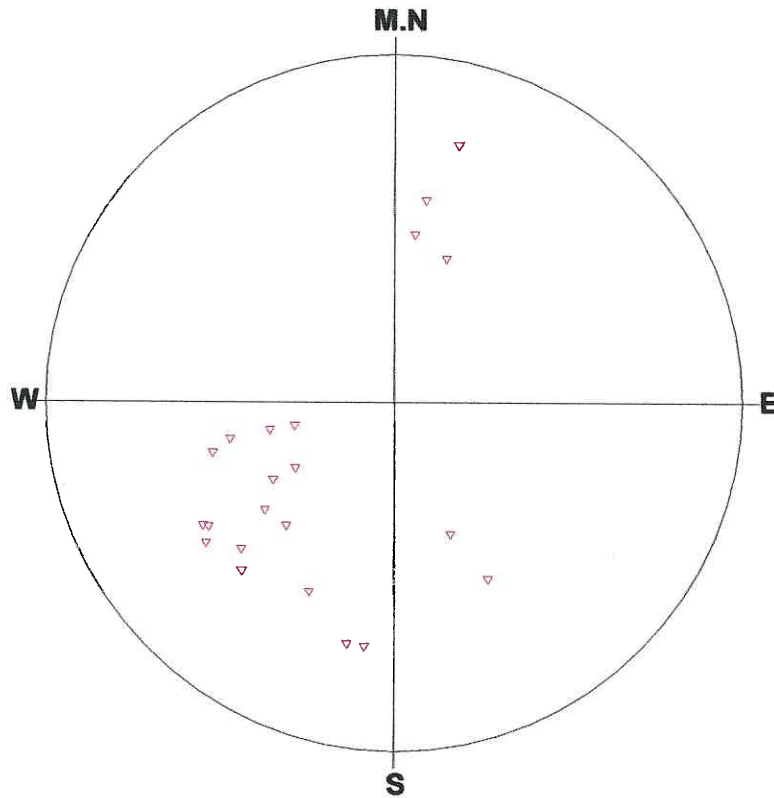
**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**

**<<SHEAR ZONE>>**



**Number of Data : 22/62**

**<Legend>**

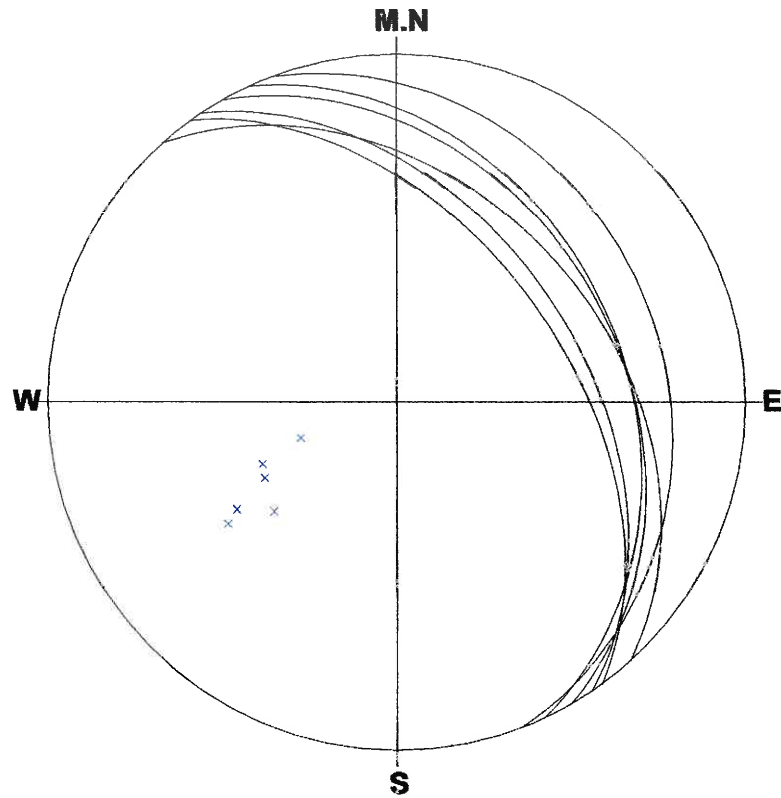
- |              |    |    |               |   |
|--------------|----|----|---------------|---|
| ○:Foliation  | -- | 0  | +:Mineralban- | 0 |
| ◇:Joint      | -- | 0  |               |   |
| □:Parting    | -- | 0  |               |   |
| △:Fault      | -- | 0  |               |   |
| ▽:ShearZone- |    | 22 |               |   |
| ×:Vein       | -- | 0  |               |   |

**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<FOLIATION>>**



**Number of Data:6/62**

- |                       |                       |
|-----------------------|-----------------------|
| <b>1 : 060/36(4)</b>  | <b>6 : 054/50(46)</b> |
| <b>2 : 048/39(9)</b>  |                       |
| <b>3 : 069/24(14)</b> |                       |
| <b>4 : 065/35(17)</b> |                       |
| <b>5 : 056/46(42)</b> |                       |

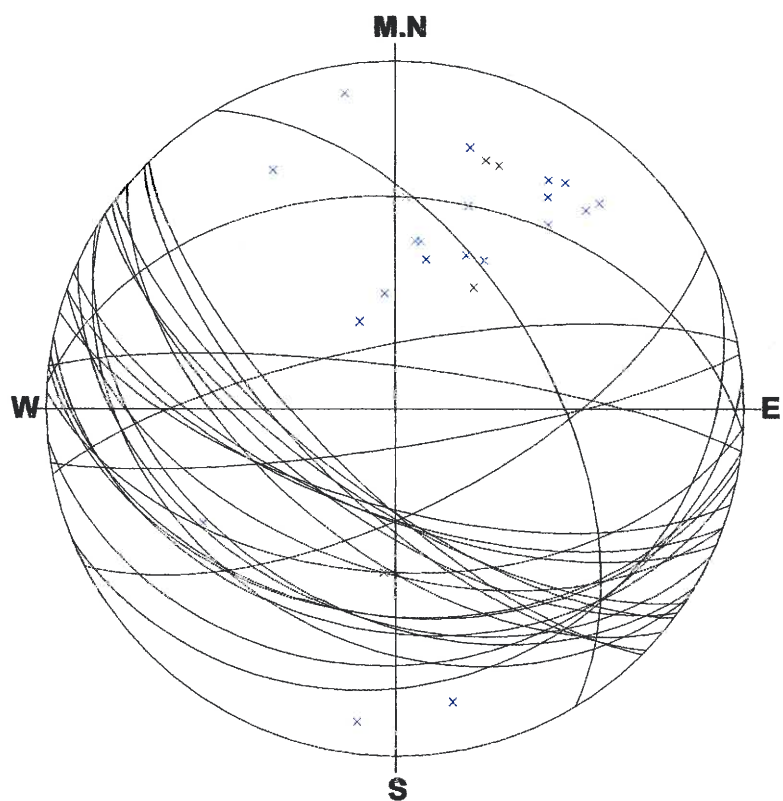
**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**



**C-44.STR**  
**<<JOINT>>**



**Number of Data:25/62**

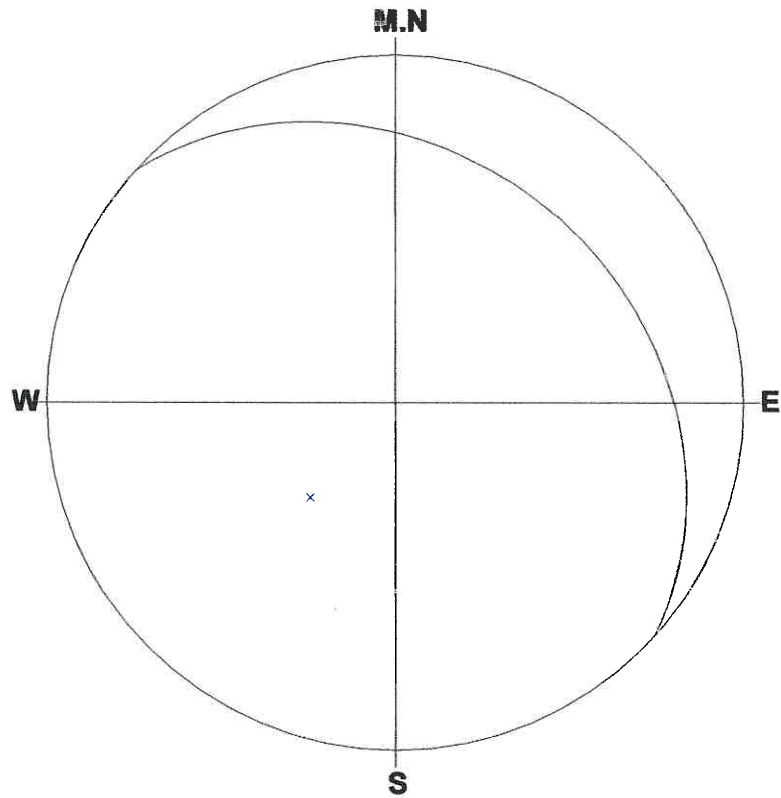
<b>1 : 059/54(2)</b>	<b>6 : 203/65(12)</b>
<b>2 : 216/64(3)</b>	<b>7 : 214/68(13)</b>
<b>3 : 187/40(5)</b>	<b>8 : 213/34(16)</b>
<b>4 : 183/51(6)</b>	<b>9 : 189/40(18)</b>
<b>5 : 196/67(8)</b>	<b>10 : 192/36(19)</b>

**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<PARTING>>**



**Number of Data:1/62**

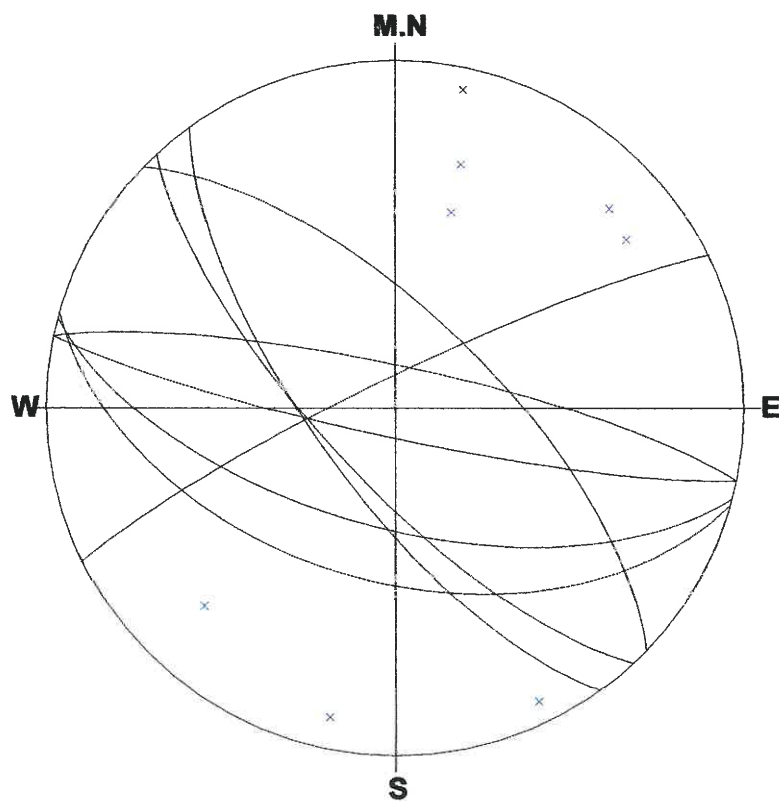
**1 : 042/30(1)**

**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<FAULT>>**



**Number of Data:8/62**

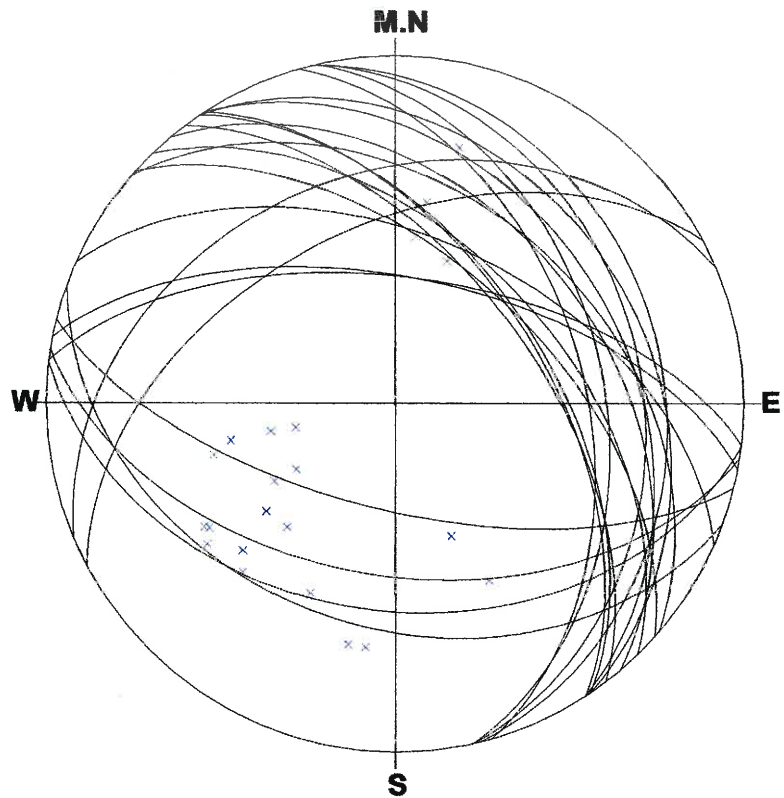
- |                       |                       |
|-----------------------|-----------------------|
| <b>1 : 195/62(23)</b> | <b>6 : 192/83(43)</b> |
| <b>2 : 334/83(27)</b> | <b>7 : 234/71(57)</b> |
| <b>3 : 227/73(28)</b> | <b>8 : 196/49(59)</b> |
| <b>4 : 044/68(29)</b> |                       |
| <b>5 : 012/80(30)</b> |                       |

**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<SHEAR ZONE>>**



**Number of Data:22/62**

<b>1 : 200/36(7)</b>	<b>6 : 042/55(21)</b>
<b>2 : 187/40(10)</b>	<b>7 : 056/54(24)</b>
<b>3 : 332/48(11)</b>	<b>8 : 194/65(25)</b>
<b>4 : 050/40(15)</b>	<b>9 : 011/60(26)</b>
<b>5 : 189/49(20)</b>	<b>10 : 074/45(31)</b>

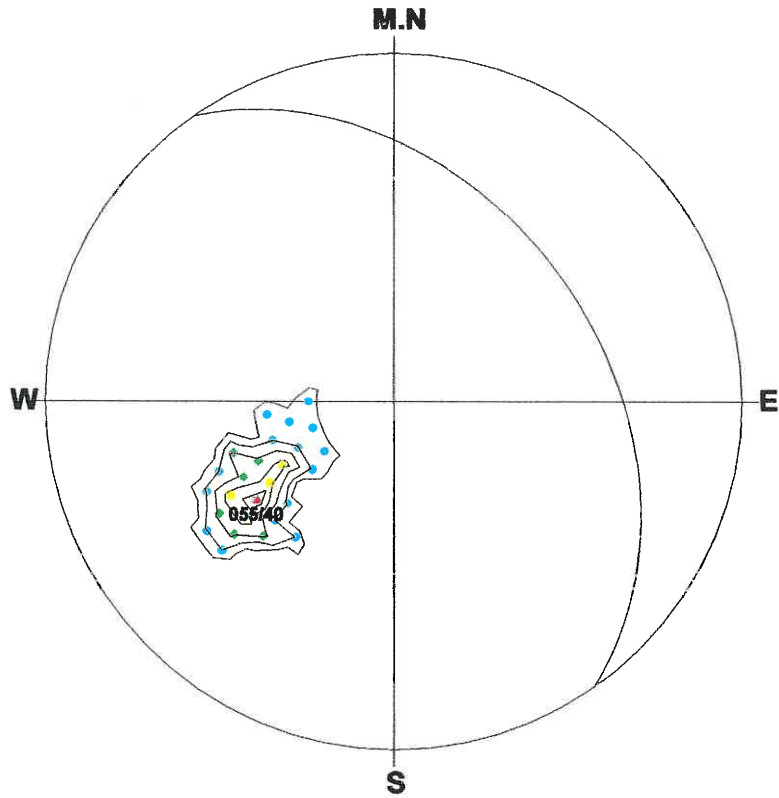
**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<FOLIATION>>**

\*\*\*\*\* % Diagram \*\*\*\*\*



**Number of Data : 6**

<b>&lt;Legend&gt; Sym. (%)</b>	<b>Contour Value (%)</b>
<b>▲ : 66</b>	<b>Contour 1 : 0</b> <input type="checkbox"/>
<b>▼ : 53 - 66</b>	<b>Contour 2 : 13</b> <input type="checkbox"/>
<b>■ : 40 - 53</b>	<b>Contour 3 : 26</b> <input type="checkbox"/>
<b>◆ : 26 - 40</b>	<b>Contour 4 : 40</b> <input type="checkbox"/>
<b>● : 13 - 26</b>	<b>Contour 5 : 53</b> <input type="checkbox"/>
<b>⊕ : 0 - 13</b>	<b>Contour 6 : 66</b> <input type="checkbox"/>

**Schmidt (L.H)**

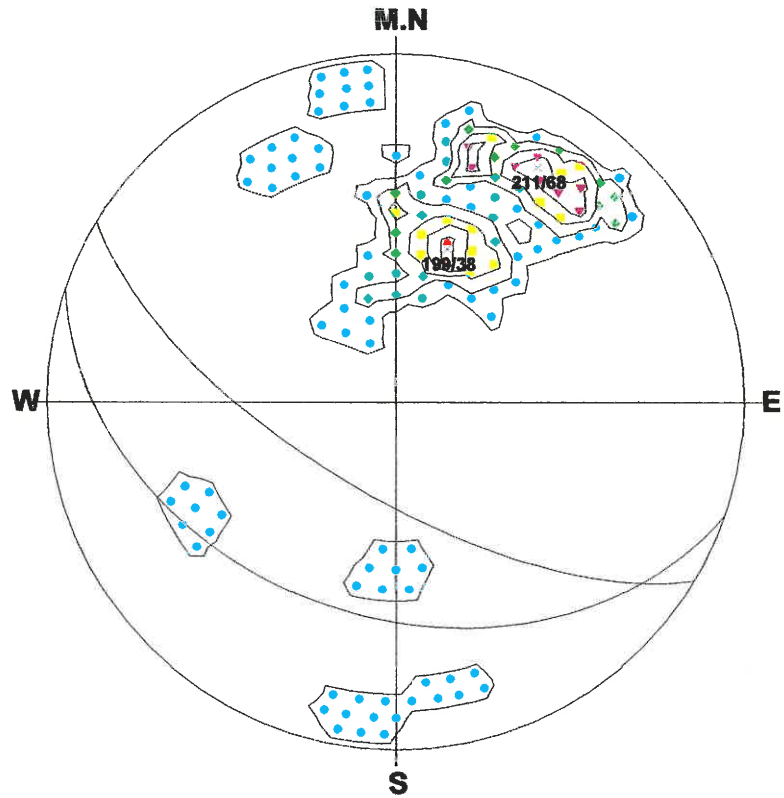
**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

C-44.STR

<<JOINT>>

\*\*\*\*\* % Diagram \*\*\*\*\*



Number of Data : 25

<Legend> Sym. (%)

- ▲ : 20
- ▼ : 16 - 20
- : 12 - 16
- ◆ : 8 - 12
- : 4 - 8
- ⊕ : 0 - 4

Contour Value (%)

- Contour 1 : 0
- Contour 2 : 4
- Contour 3 : 8
- Contour 4 : 12
- Contour 5 : 16
- Contour 6 : 20

Schmidt (L.H)

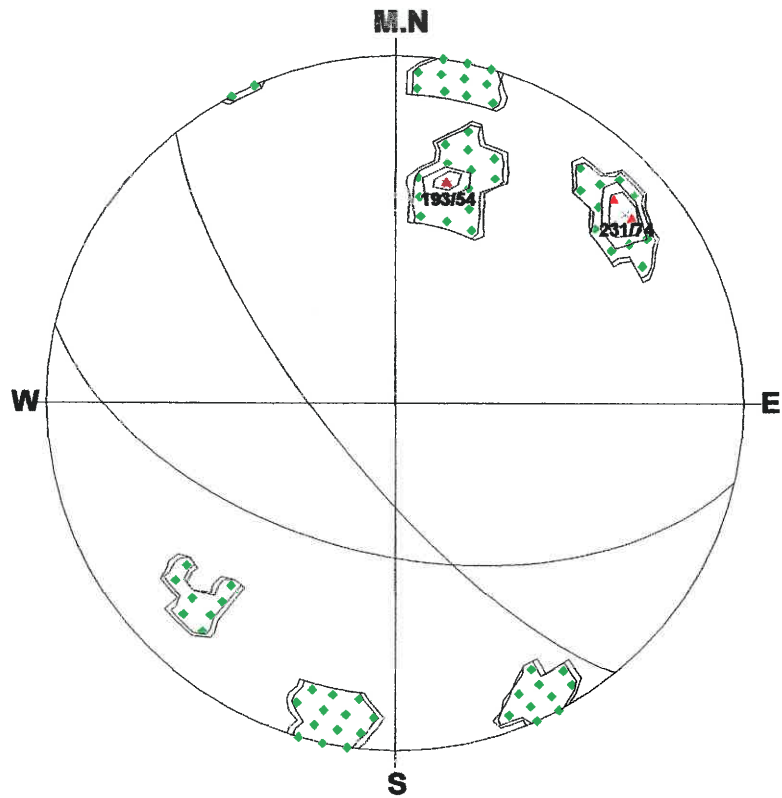
Depth : 3.826 - 18.615 m

Aperture : 0.0 - 114.0 mm



**C-44.STR**  
**<<FAULT>>**

**\*\*\*\*\* % Diagram \*\*\*\*\***



**Number of Data : 8**

**<Legend> Sym. (%)**

- ▲ : 25
- ▼ : 20 - 25
- : 15 - 20
- ◆ : 10 - 15
- : 5 - 10
- + : 0 - 5

**Contour Value (%)**

- Contour 1 : 0
- Contour 2 : 5
- Contour 3 : 10
- Contour 4 : 15
- Contour 5 : 20
- Contour 6 : 25

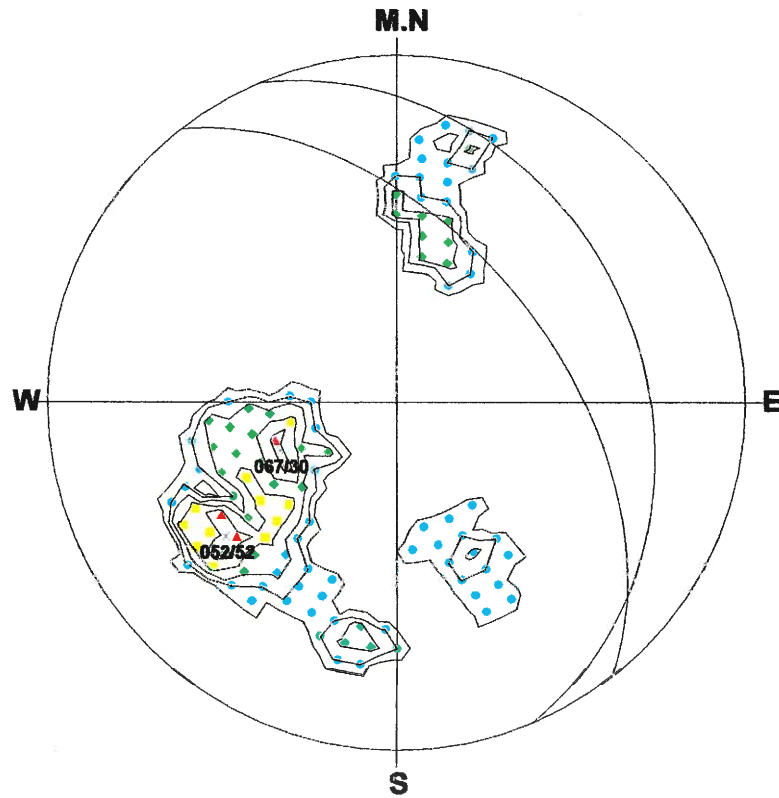
**Schmidt (L.H)M**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<SHEAR ZONE>>**

**\*\*\*\*\* % Diagram \*\*\*\*\***



**Number of Data : 22**

**<Legend> Sym. (%)**

- ▲ : 18**
- ▼ : 14 - 18**
- : 10 - 14**
- ◆ : 7 - 10**
- : 3 - 7**
- ⊕ : 0 - 3**

**Contour Value (%)**

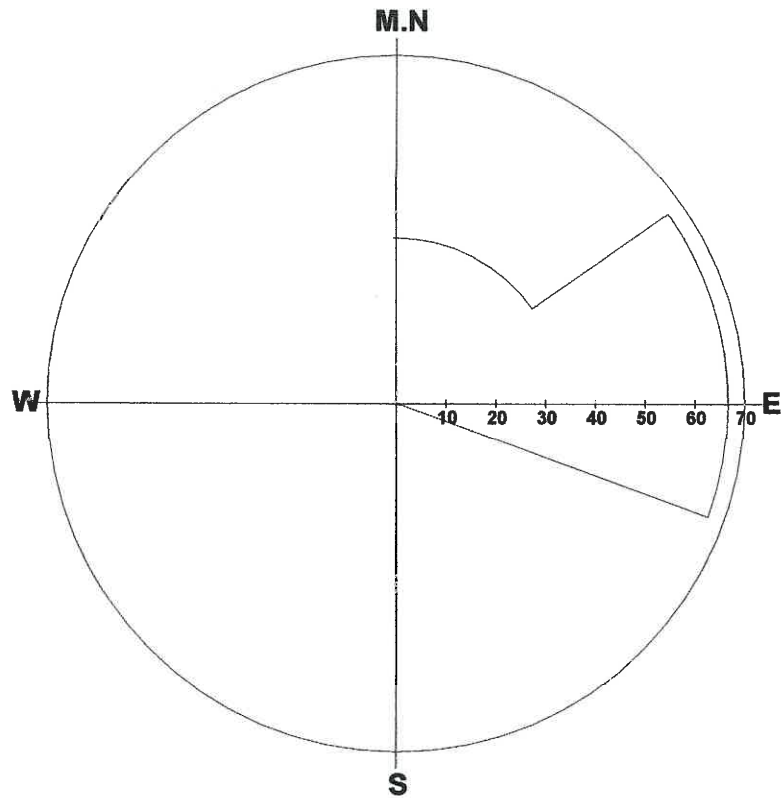
- Contour 1 : 0**
- Contour 2 : 3**
- Contour 3 : 7**
- Contour 4 : 10**
- Contour 5 : 14**
- Contour 6 : 18**

**Schmidt (L.H)**

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<FOLIATION>>**



**Number of Data : 6/62**

**Max : 66.7%**

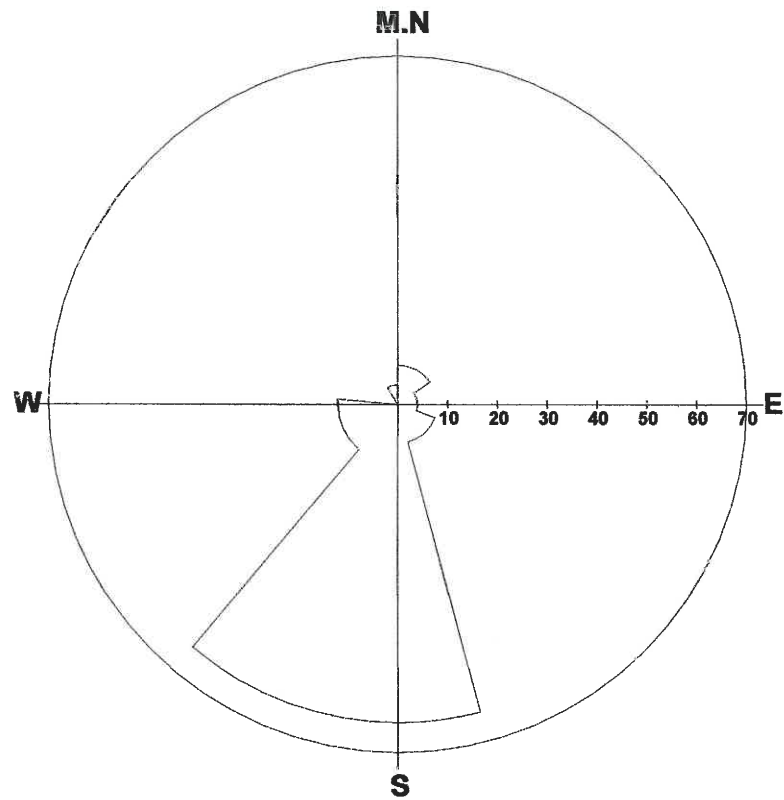
**Grouping Angle : 55 deg**

Dir	%
0-	33
55-	67
110-	0
165-	0
220-	0
275-	0
330-	0

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<JOINT>>**



**Number of Data : 25/62**

**Max : 64.0%**

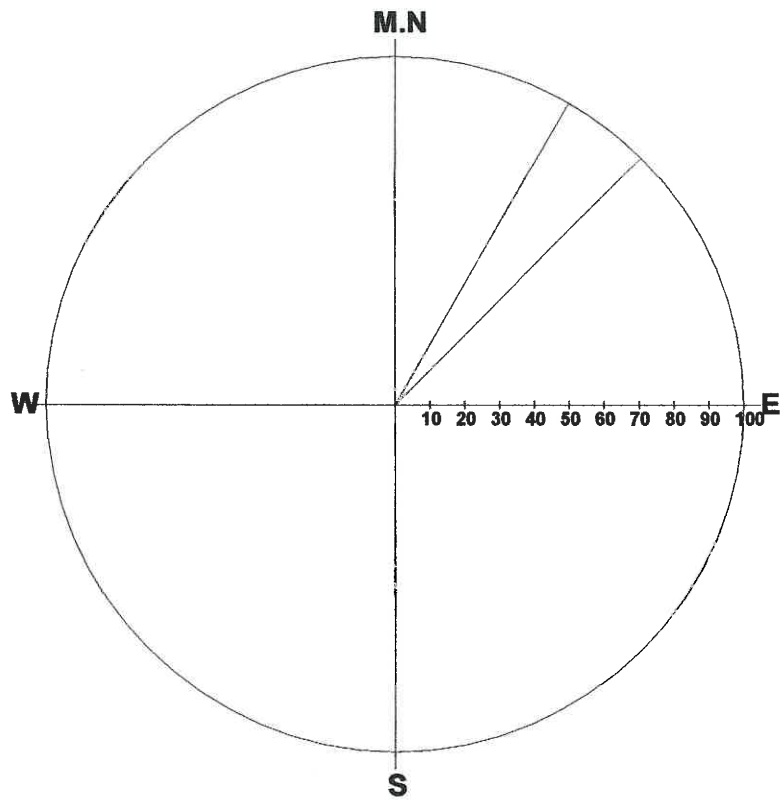
**Grouping Angle : 55 deg**

Dir	%
0-	8
55-	4
110-	8
165-	64
220-	12
275-	0
330-	4

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<PARTING>>**



**Number of Data : 1/62**

**Max : 100.0%**

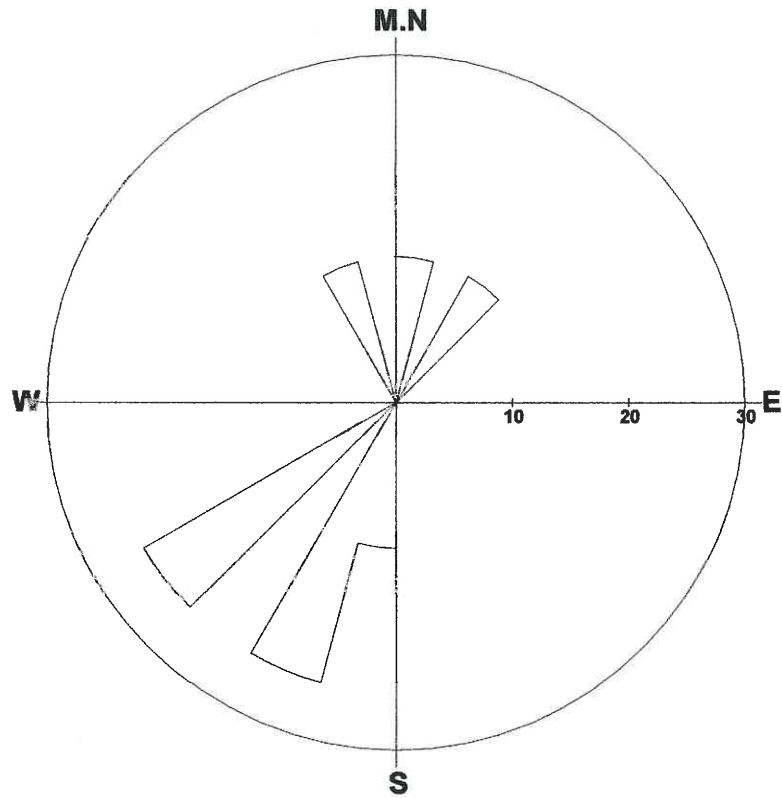
**Grouping Angle : 15 deg**

Dir	%	Dir	%	Dir	%
0-	0	135-	0	270-	0
15-	0	150-	0	285-	0
30-	100	165-	0	300-	0
45-	0	180-	0	315-	0
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 : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

**C-44.STR**  
**<<FAULT>>**



**Number of Data : 8/62**

**Max : 25.0%**

**Grouping Angle : 15 deg**

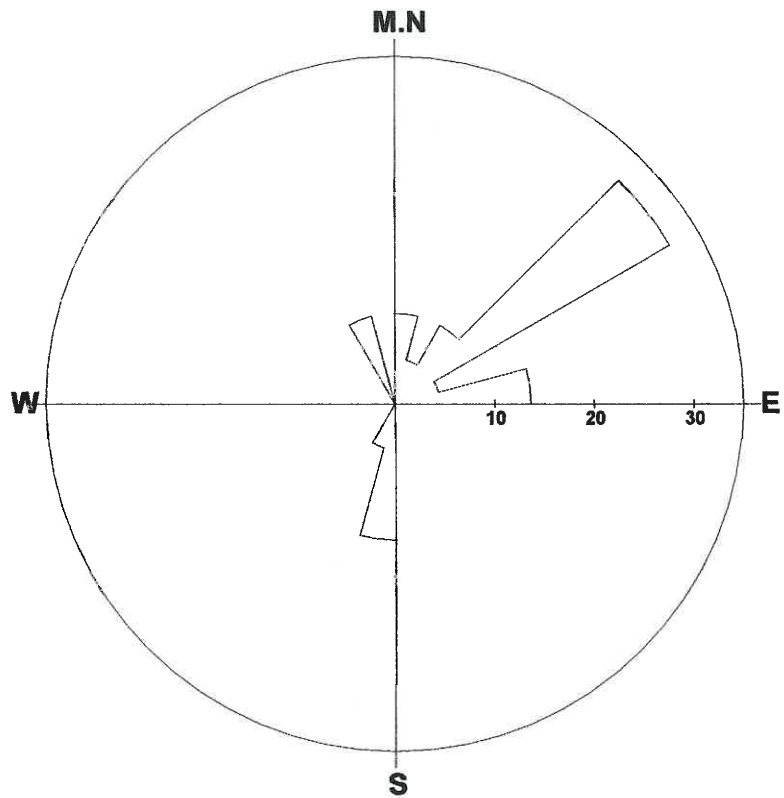
Dir	%	Dir	%	Dir	%
0-	13	135-	0	270-	0
15-	0	150-	0	285-	0
30-	13	165-	0	300-	0
45-	0	180-	13	315-	0
60-	0	195-	25	330-	13
75-	0	210-	0	345-	0
90-	0	225-	25		
105-	0	240-	0		
120-	0	255-	0		

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**



**C-44.STR**  
**<<SHEAR ZONE>>**



**Number of Data : 22/62**

**Max : 31.8%**

**Grouping Angle : 15 deg**

Dir	%	Dir	%	Dir	%
0-	9	135-	0	270-	0
15-	5	150-	0	285-	0
30-	9	165-	0	300-	0
45-	32	180-	14	315-	0
60-	5	195-	5	330-	9
75-	14	210-	0	345-	0
90-	0	225-	0		
105-	0	240-	0		
120-	0	255-	0		

**Depth : 3.826 - 18.615 m**

**Aperture : 0.0 - 114.0 mm**

Title: C-44.STR  
 Comment: JOINT  
 Depth: 3.826 - 18.615 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9

2011/ 8/ 31  
 Elevation: 0.000m  
 Water Level: 17.710m

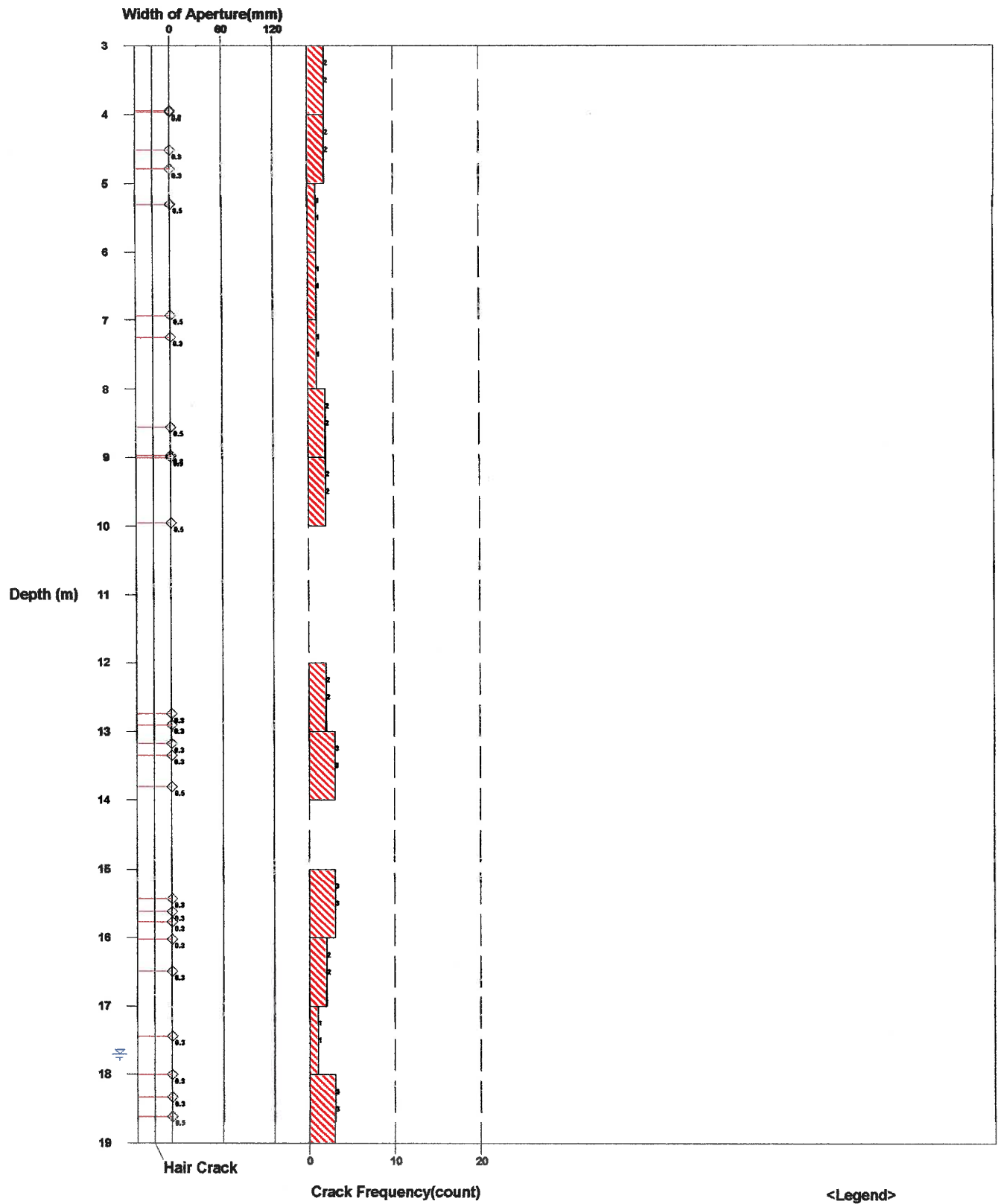


Fig. Rock Mass Condition Graph

- All Crack Frequency
- Open Crack Frequency
- Water Level

Title: C-44.STR  
 Comment: PARTING  
 Depth: 3.826 - 18.815 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9

2011/ 8/ 31  
 Elevation: 0.000m  
 Water Level: 17.710m

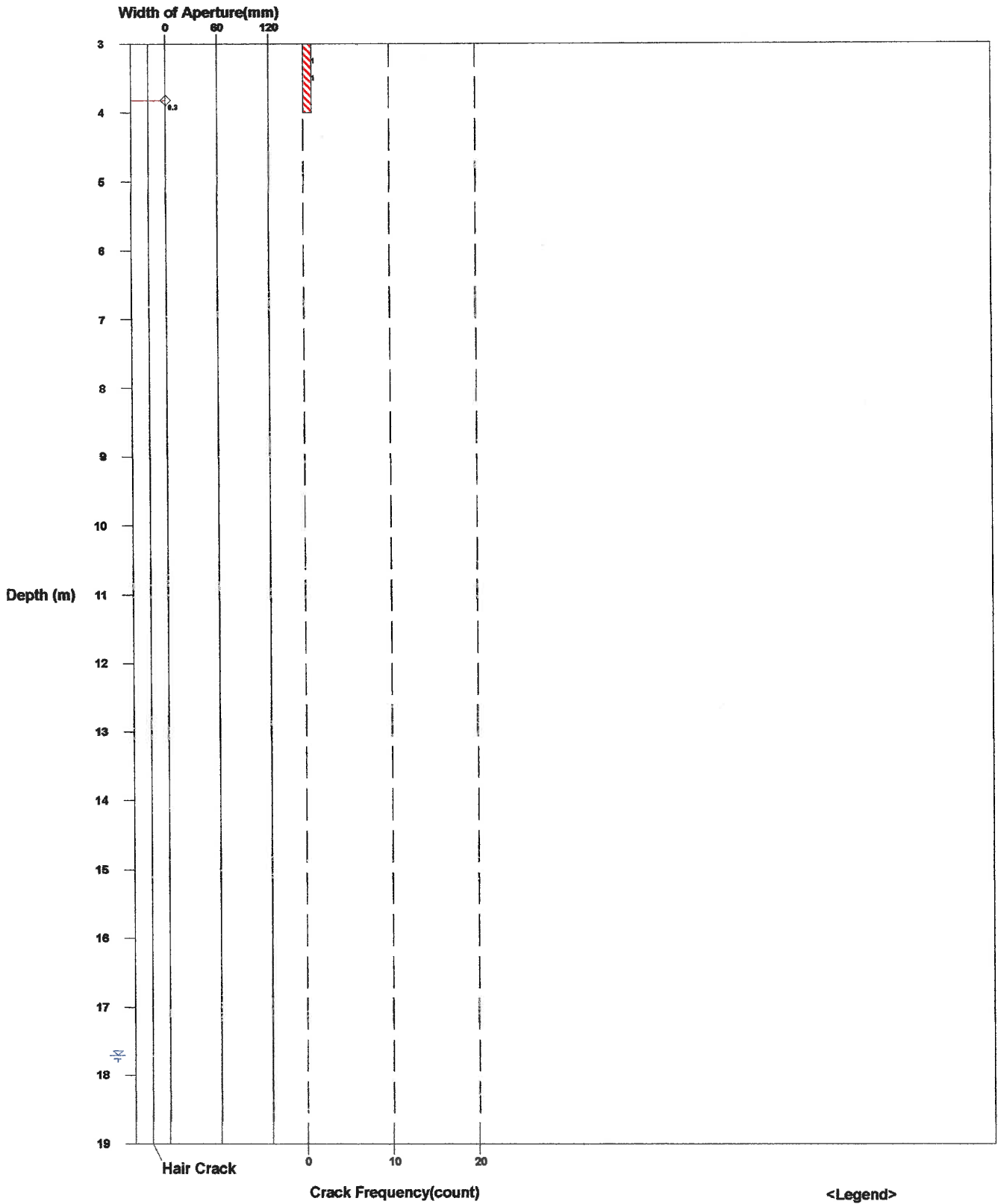


Fig. Rock Mass Condition Graph

- <Legend>
- All Crack Frequency
  - Open Crack Frequency
  - Water Level

Title: C-44.STR  
 Comment: FAULT  
 Depth: 3.826 - 18.615 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9

2011/ 8/ 31  
 Elevation: 0.000m  
 Water Level: 17.710m

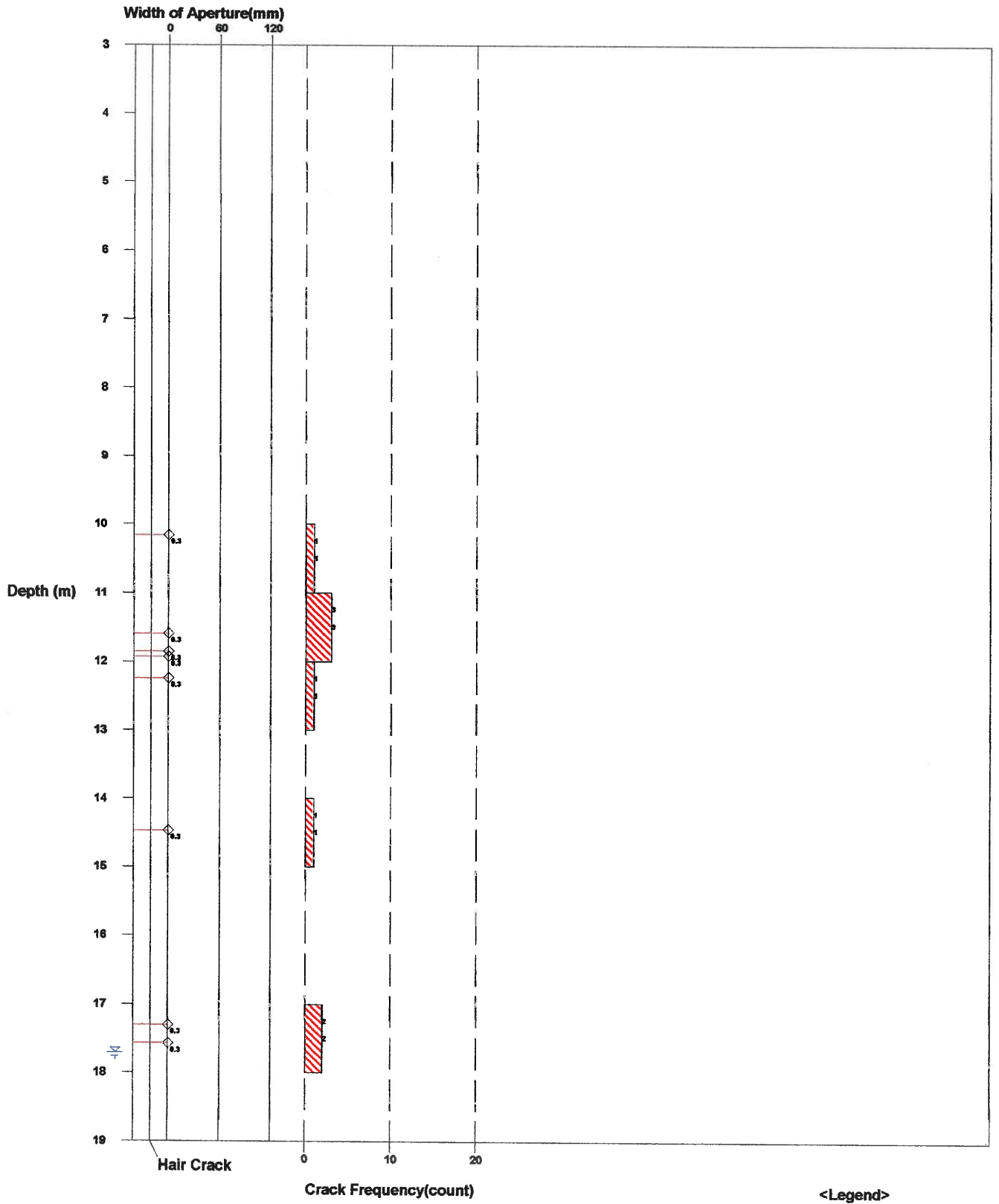


Fig. Rock Mass Condition Graph

All Crack Frequency  
 Open Crack Frequency  
 Water Level

Title: C-44.STR  
 Comment: SHEAR ZONE  
 Depth: 3.826 - 18.615 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9

2011/ 8/ 31  
 Elevation: 0.000m  
 Water Level: 17.710m

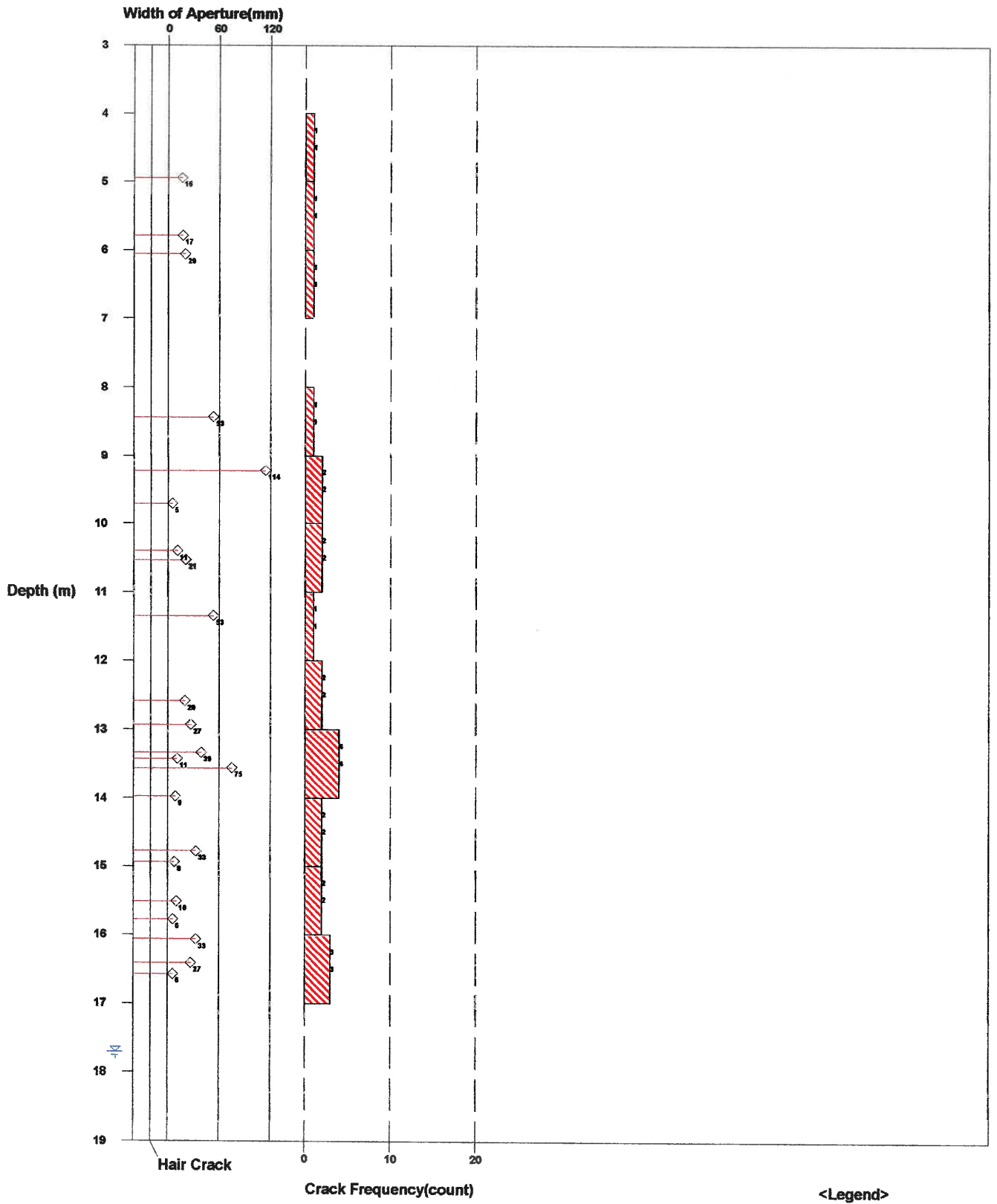
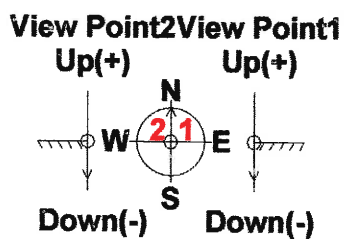
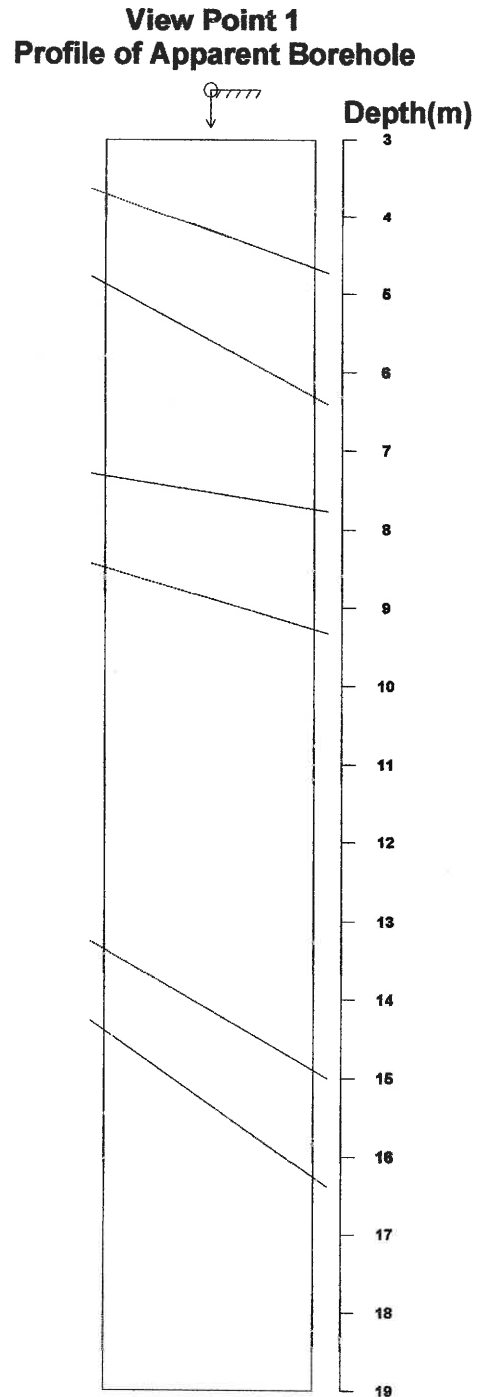
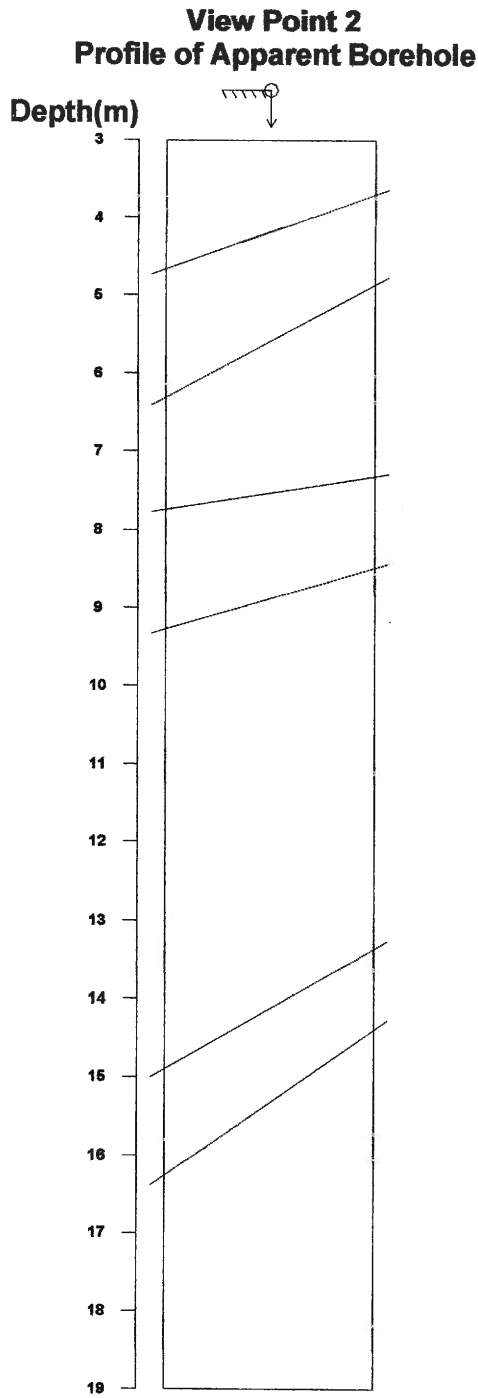


Fig. Rock Mass Condition Graph

- All Crack Frequency
- Open Crack Frequency
- Water Level

Title: C-44.STR  
 Comment: FOLIATION  
 Depth: 3.826 - 18.615 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9



Direction: 0 deg  
 Inclination: Vertical(Down)

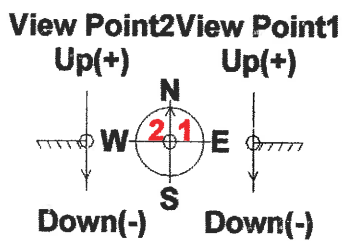
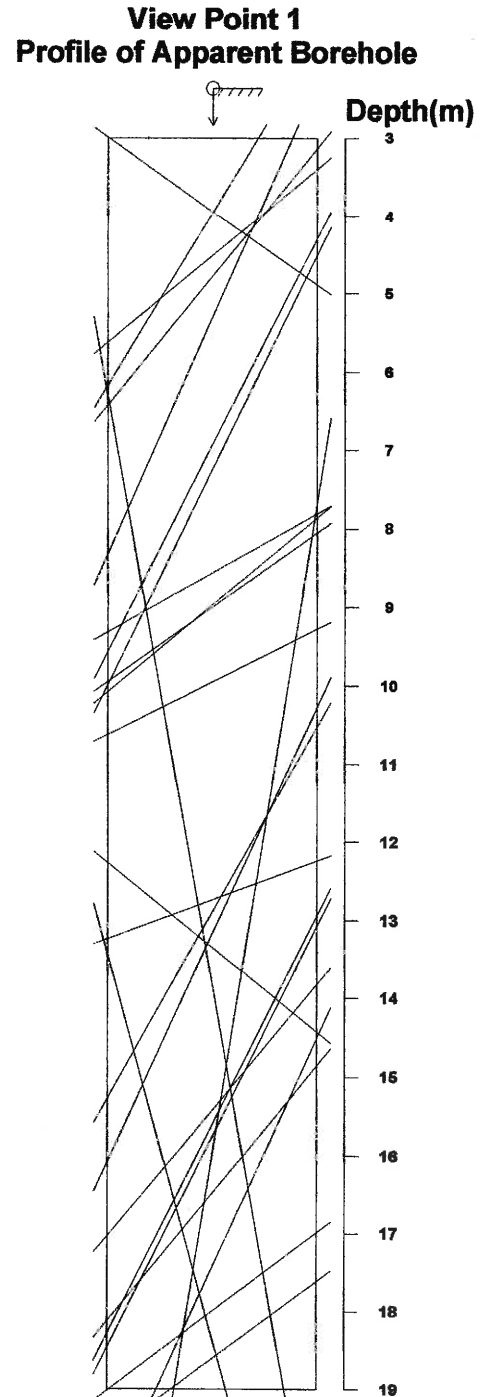
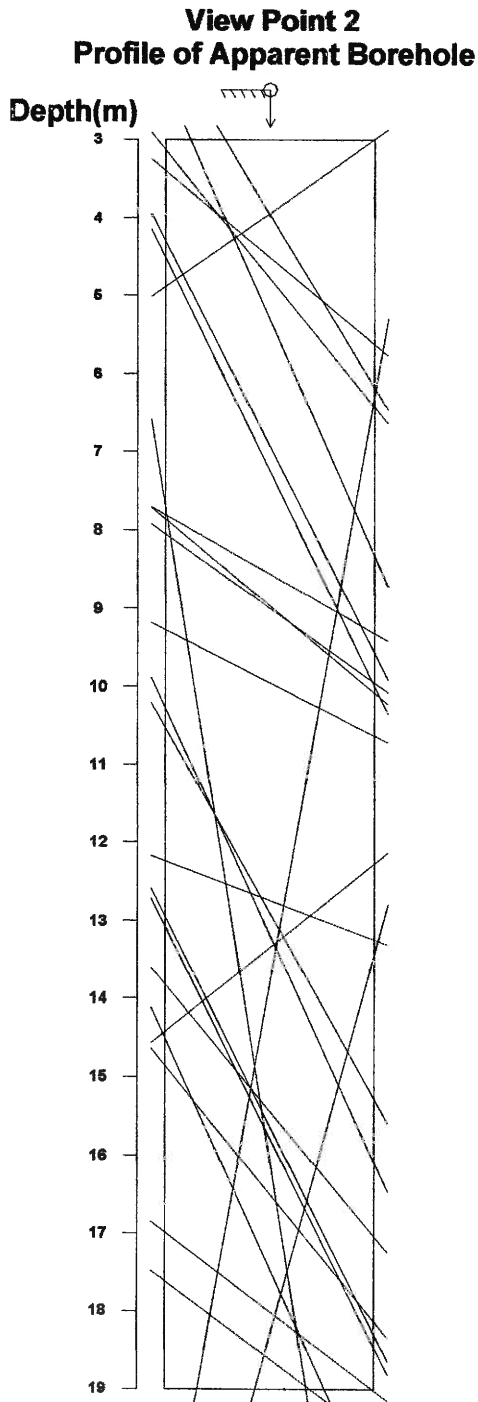
<Legend>  
 Entrance G.L.  
 Bottom

Fig. Apparent Dip



Title: C-44.STR  
 Comment: JOINT  
 Depth: 3.826 - 18.615 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9



Direction: 0 deg  
 Inclination: Vertical(Down)

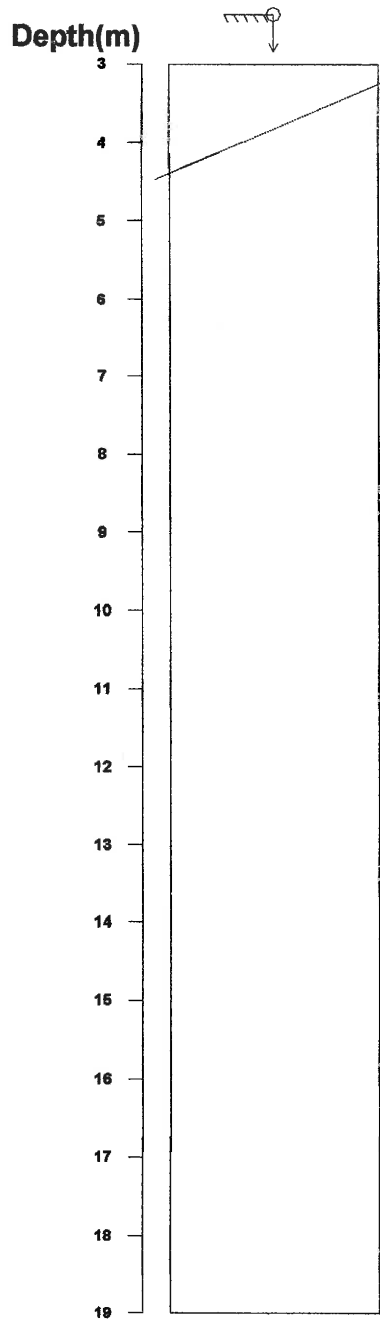
<Legend>  
 Entrance G.L.  
 Bottom Bottom

Fig. Apparent Dip

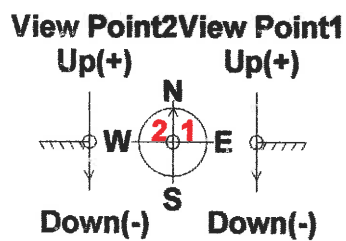
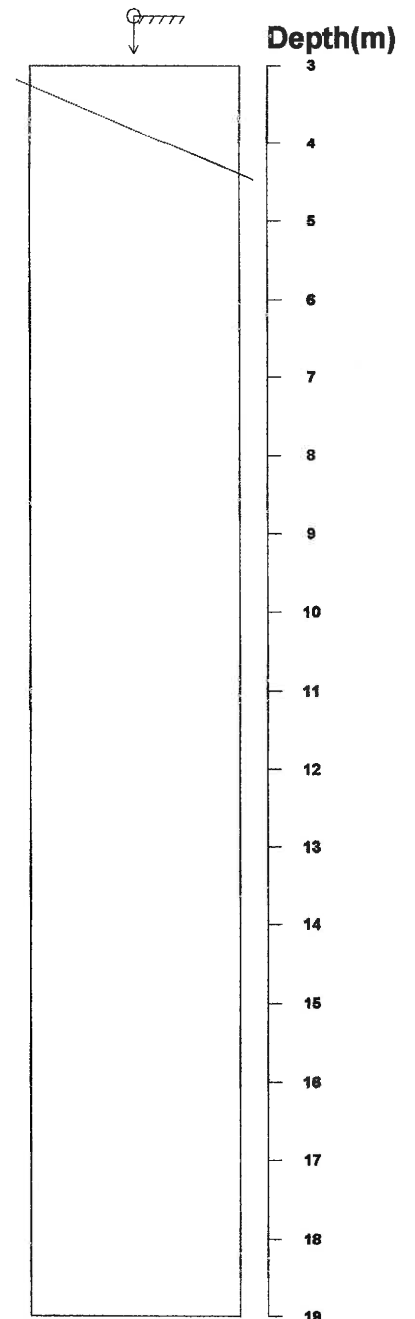
Title: C-44.STR  
 Comment: PARTING  
 Depth: 3.826 - 18.615 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9

**View Point 2  
 Profile of Apparent Borehole**



**View Point 1  
 Profile of Apparent Borehole**



Direction: 0 deg  
 Inclination: Vertical(Down)

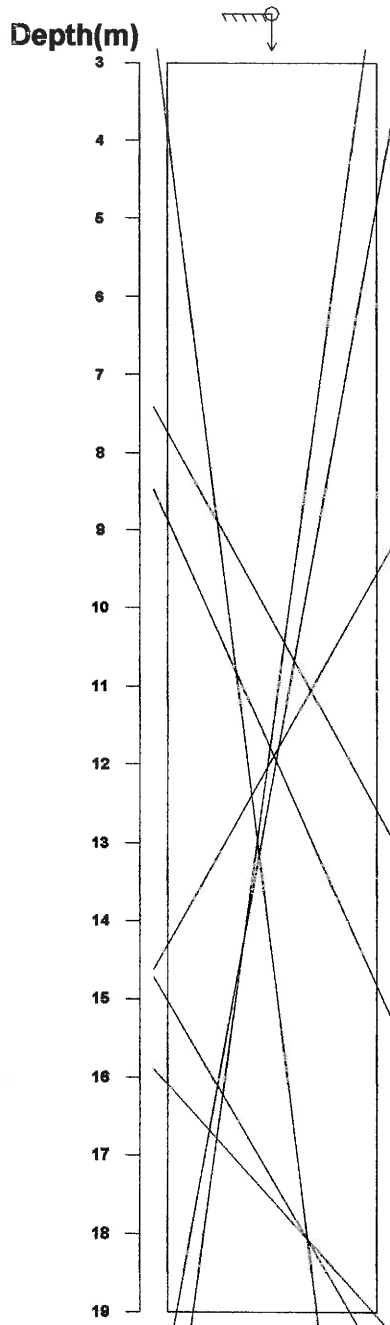
<Legend>  
 Entrance G.L.  
 Bottom Bottom

**Fig. Apparent Dip**

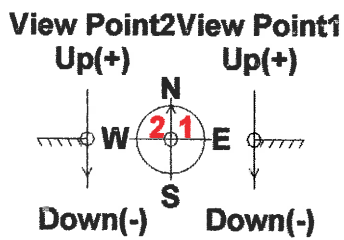
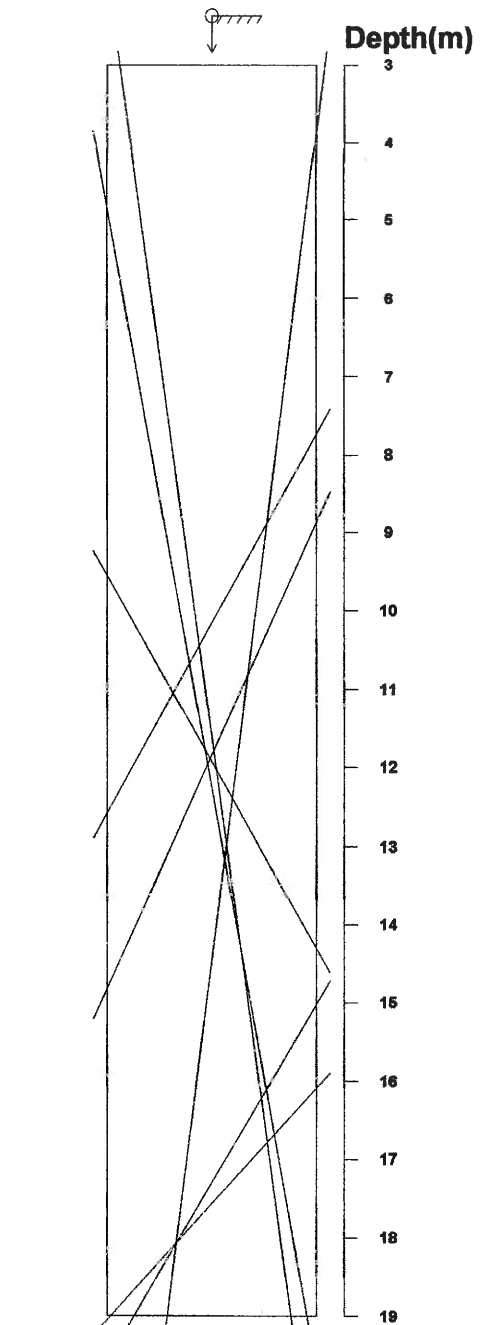
**Title: C-44.STR**  
**Comment: FAULT**  
**Depth: 3.826 - 18.615 m**  
**Aperture: 0.0 - 114.0 mm**

**Sort: 1/7**  
**Form: 5/5**  
**Condition: 11/11**  
**Remark: 9/9**

**View Point 2**  
**Profile of Apparent Borehole**



**View Point 1**  
**Profile of Apparent Borehole**



**Direction: 0 deg**  
**Inclination: Vertical(Down)**

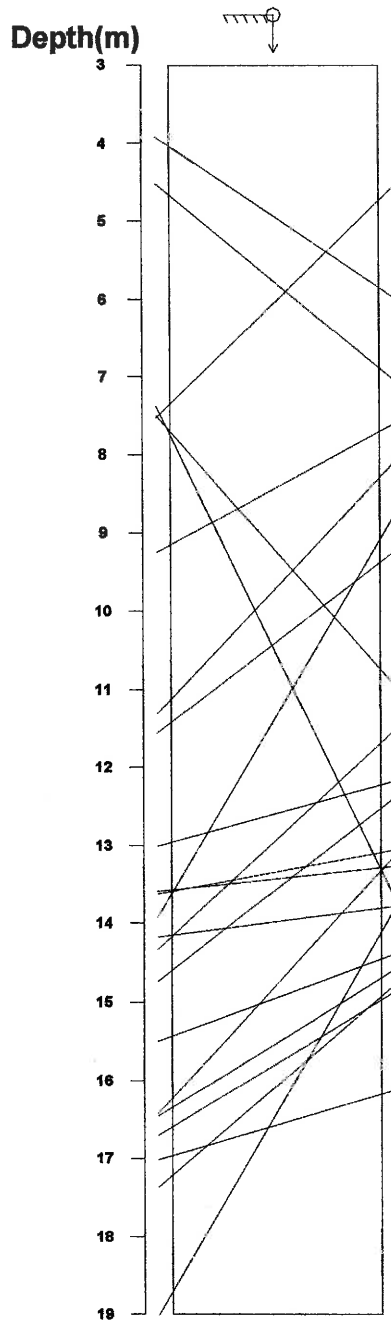
**<Legend>**  
**Entrance** **G.L**  
**Bottom**

**Fig. Apparent Dip**

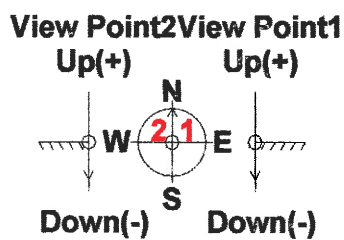
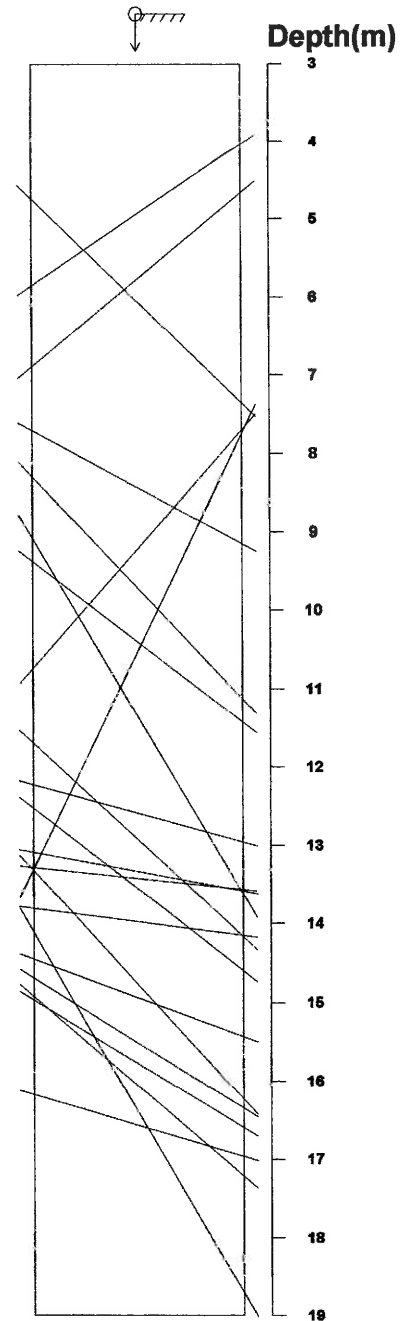
Title: C-44.STR  
 Comment: SHEAR ZONE  
 Depth: 3.826 - 18.615 m  
 Aperture: 0.0 - 114.0 mm

Sort: 1/7  
 Form: 5/5  
 Condition: 11/11  
 Remark: 9/9

**View Point 2  
 Profile of Apparent Borehole**



**View Point 1  
 Profile of Apparent Borehole**



Direction: 0 deg  
 Inclination: Vertical(Down)

<Legend>  
 Entrance G.L.  
 Bottom

Fig. Apparent Dip