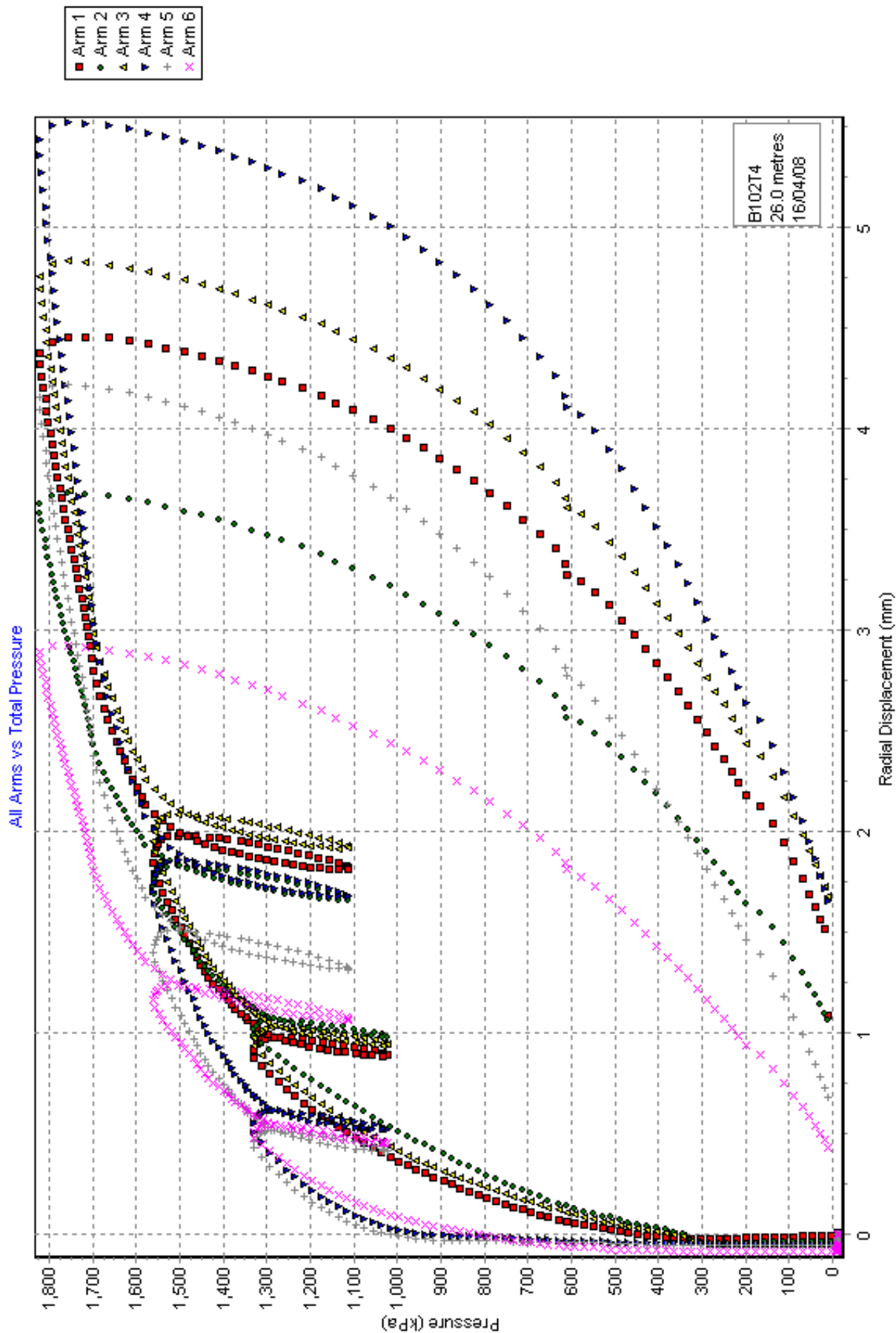
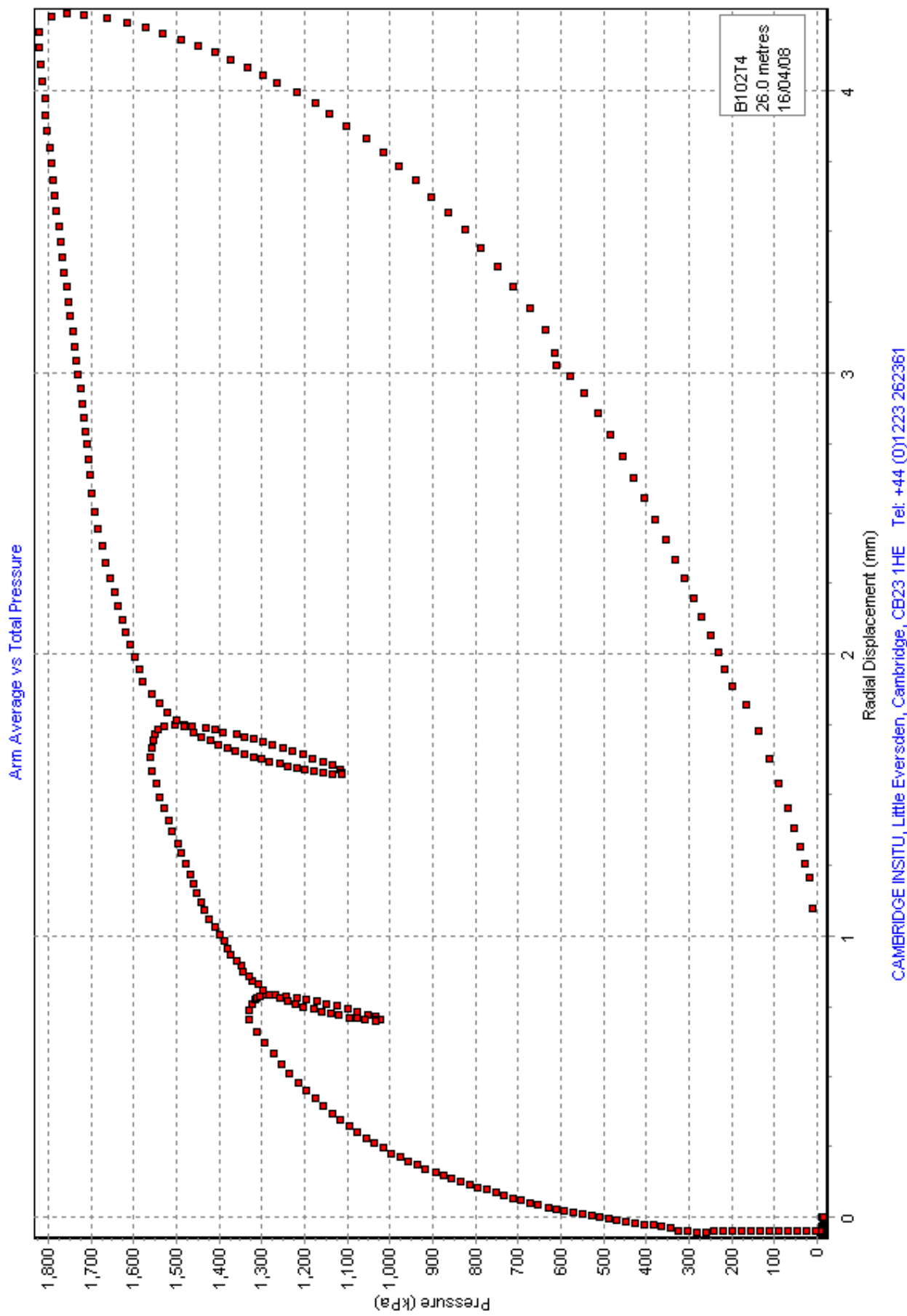
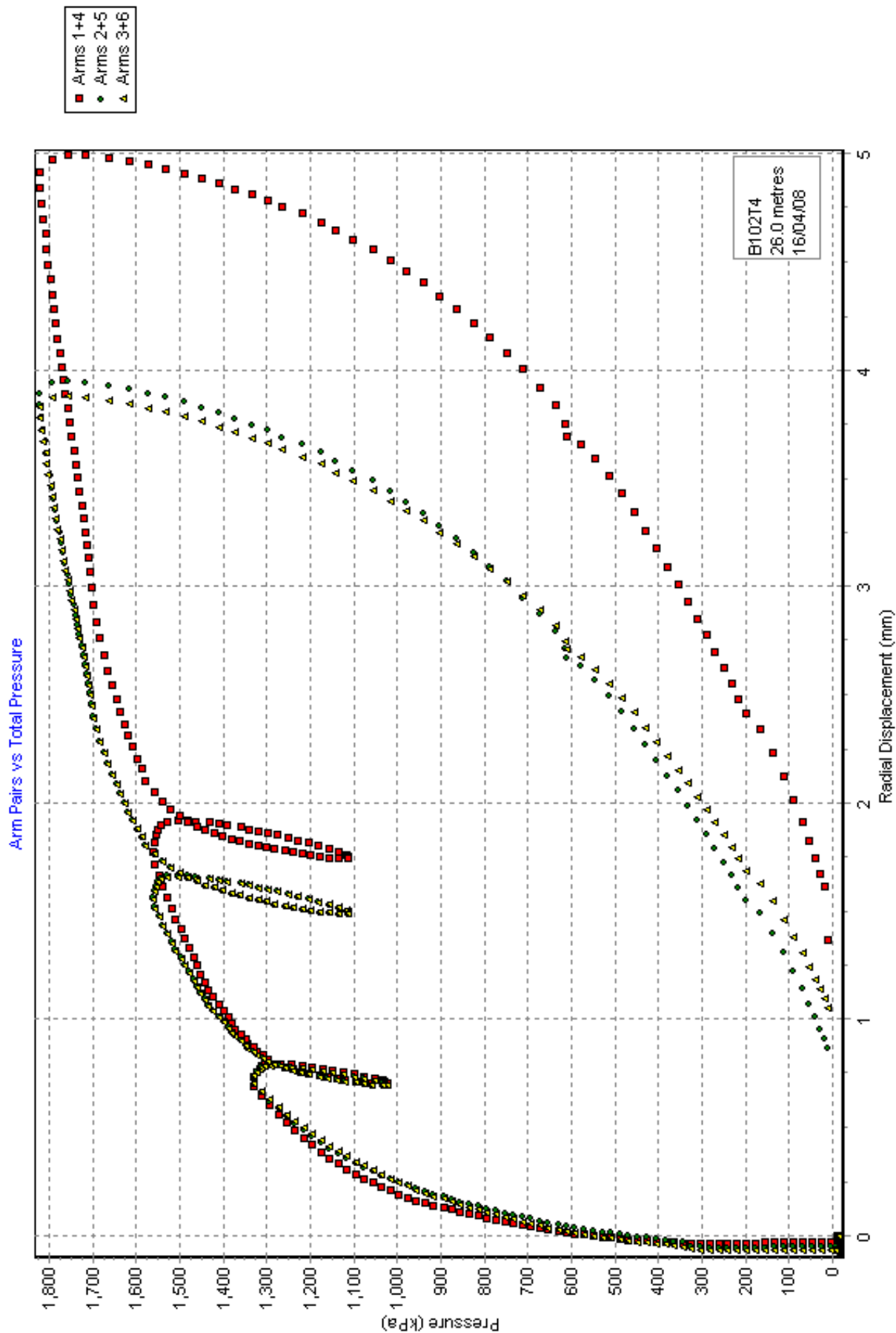


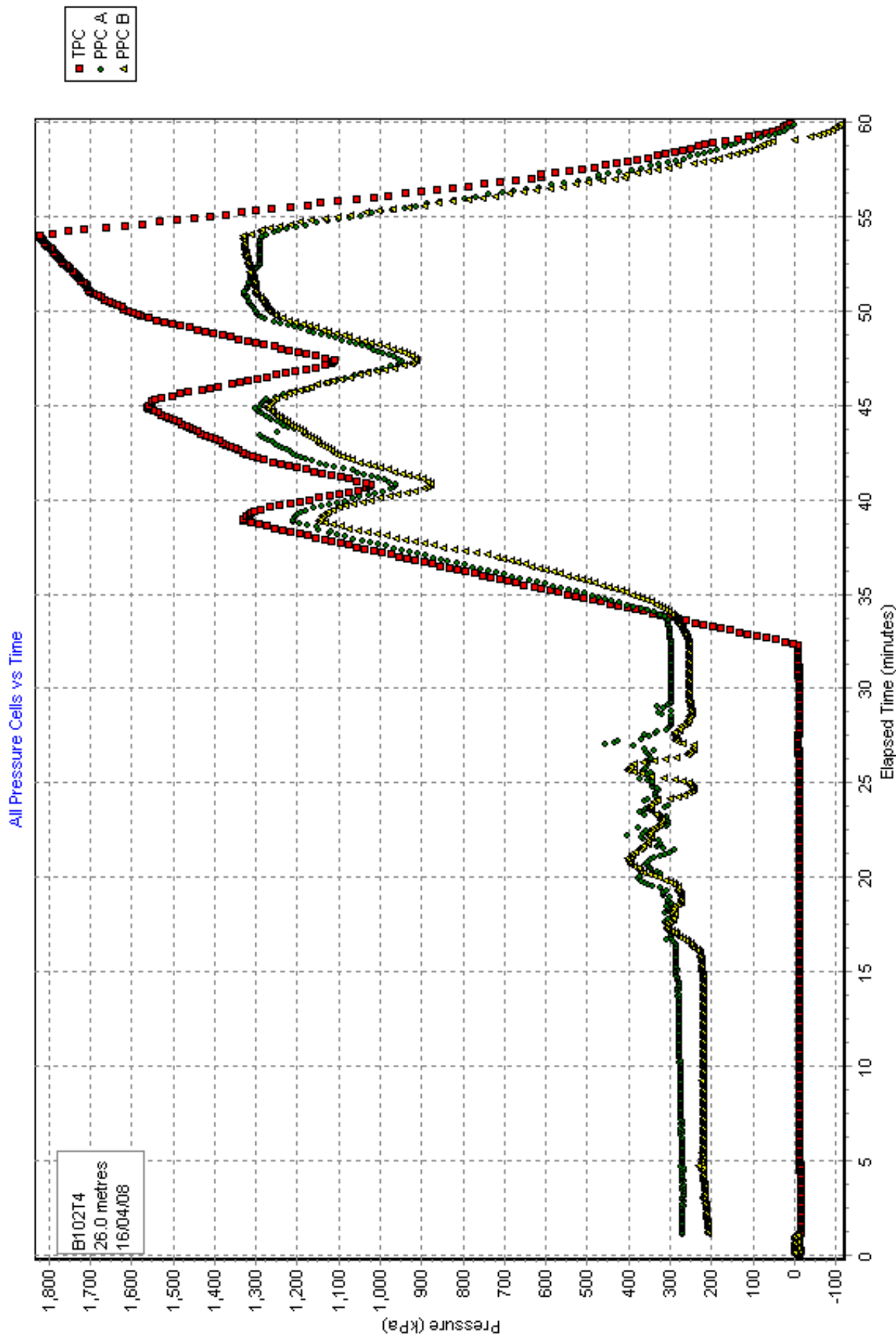


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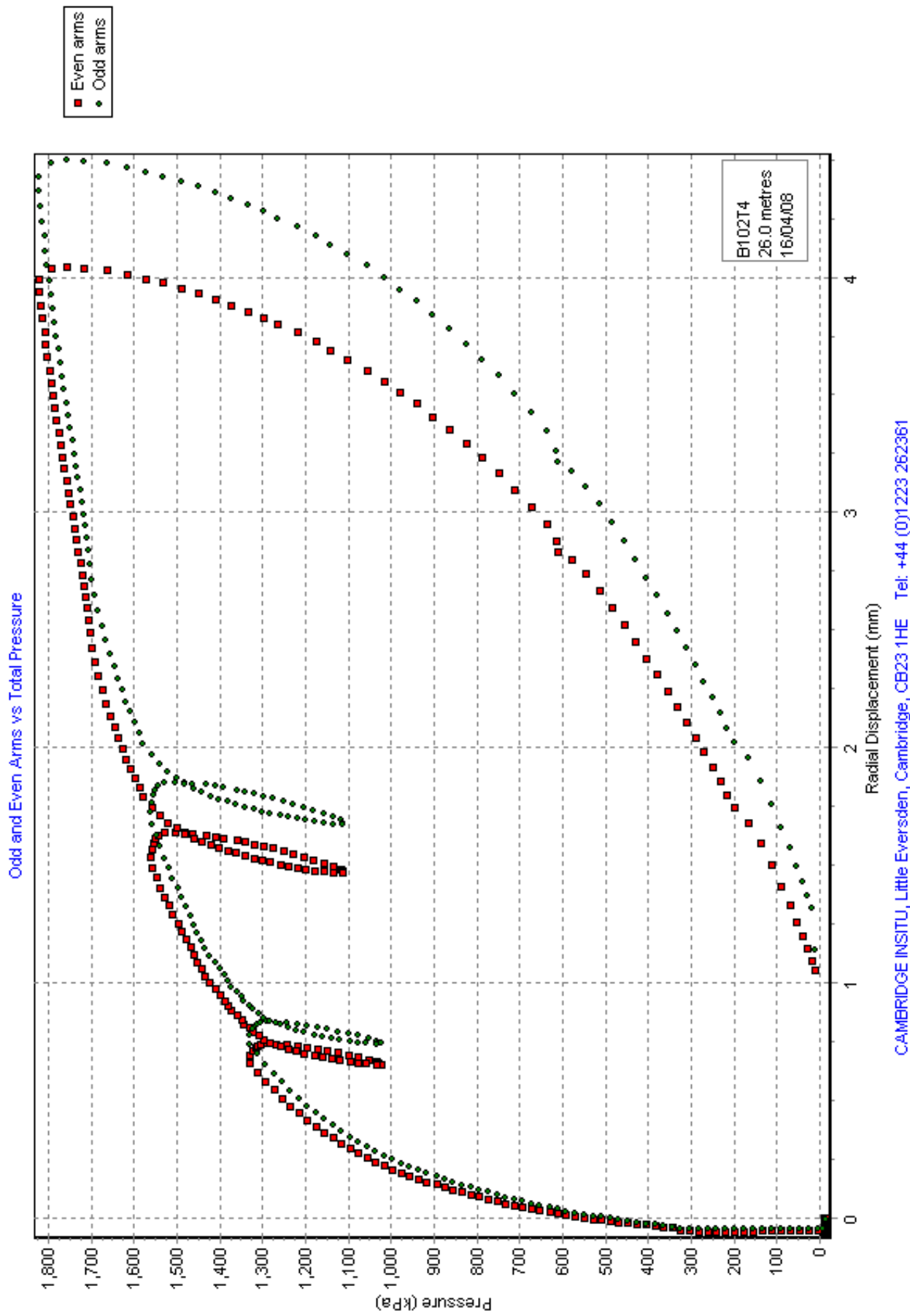




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[DETAILS OF TEST]

Project : 36237
Site : Denmark Place
Borehole : BH102
Test name : B102T5
Test date : 17 Apr 08
Test depth : 33.00 Metres
Water table : 5.6 Metres
Ambient PWP : 268.8 kPa
Material : Lambeth Group - clay
Probe : Digital 6 arm weak rock self boring pressuremeter
Diameter : 88.1 mm
Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out
The file includes results from a curve fitting analysis

Analysed by RWW on 18 Apr 08

Remarks: Reddish/Grey clay, very stiff - SAF

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm) : "Arm ave=0.420"
Po from Marsland & Randolph (kPa) : "Arm ave=839.5"
Po from Lift off (kPa) : "Arm ave=849.5"
PWP versus Total Stress (kPa) : "PPC Ave=358.4"
Best estimate of Po (kPa) : "Arm ave=1006.0"

[UNDRAINED STRENGTH PARAMETERS]

Gibson & Anderson 1961 - Cu (kPa) : "Arm ave=664.7"
Limit pressure (kPa) : "Arm ave=4962"
Jefferies 1988 - Cu (kPa) : "Arm ave=658.5"
Undrained yield stress (kPa) : "Arm ave=1279.6"

[LINEAR INTERPRETATION OF SHEAR MODULUS G]

Initial slope shear modulus (MPa) : "Arm ave=79.4"

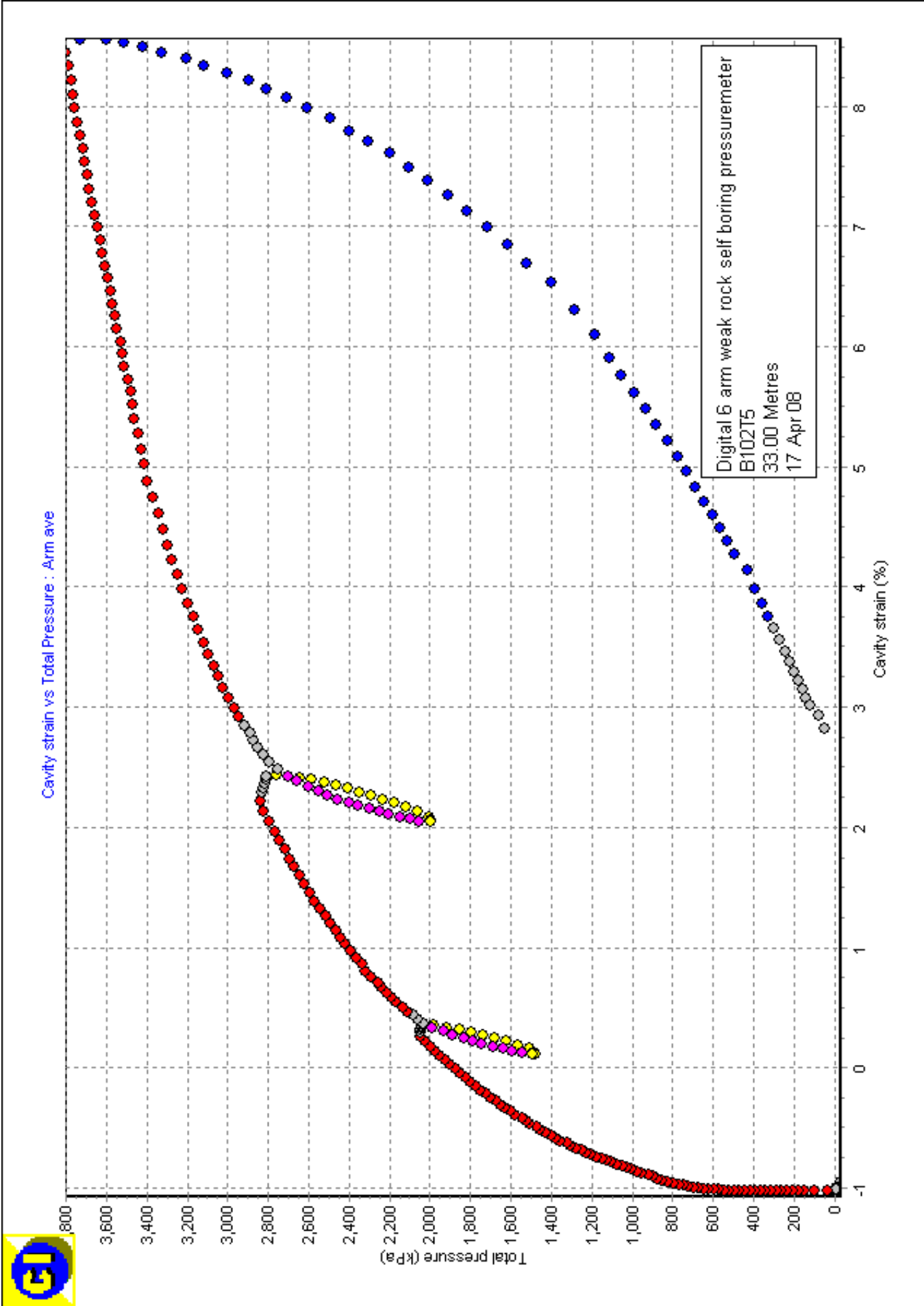
Axis	Loop	Value	Mean Strain	Mean Pc	dE	dPc
	No	(MPa)	(%)	(kPa)	(%)	(kPa)
Arm ave	1	112.6	0.250	1759	0.489	552
Arm ave	2	96.0	2.253	2358	0.796	767

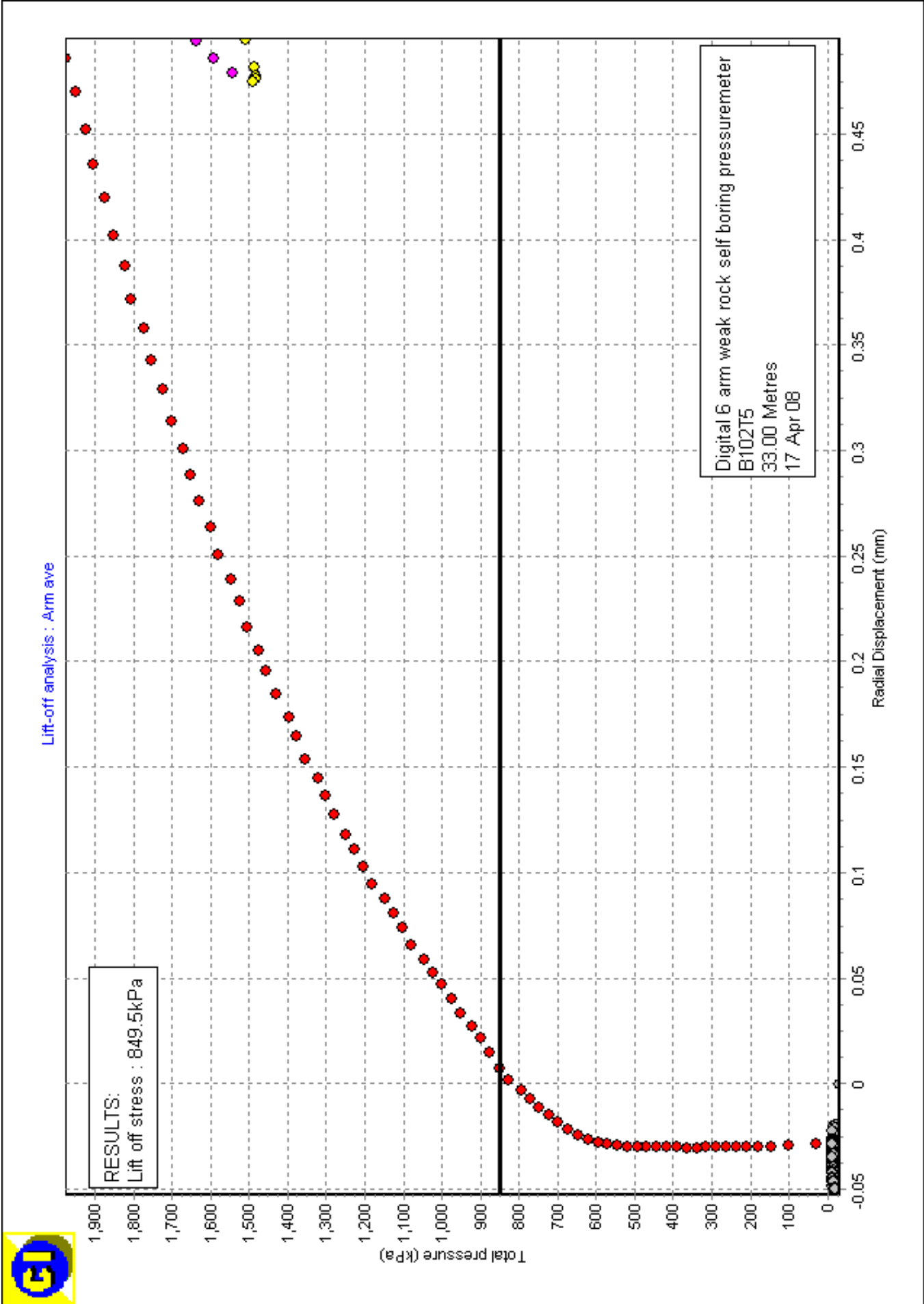
[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

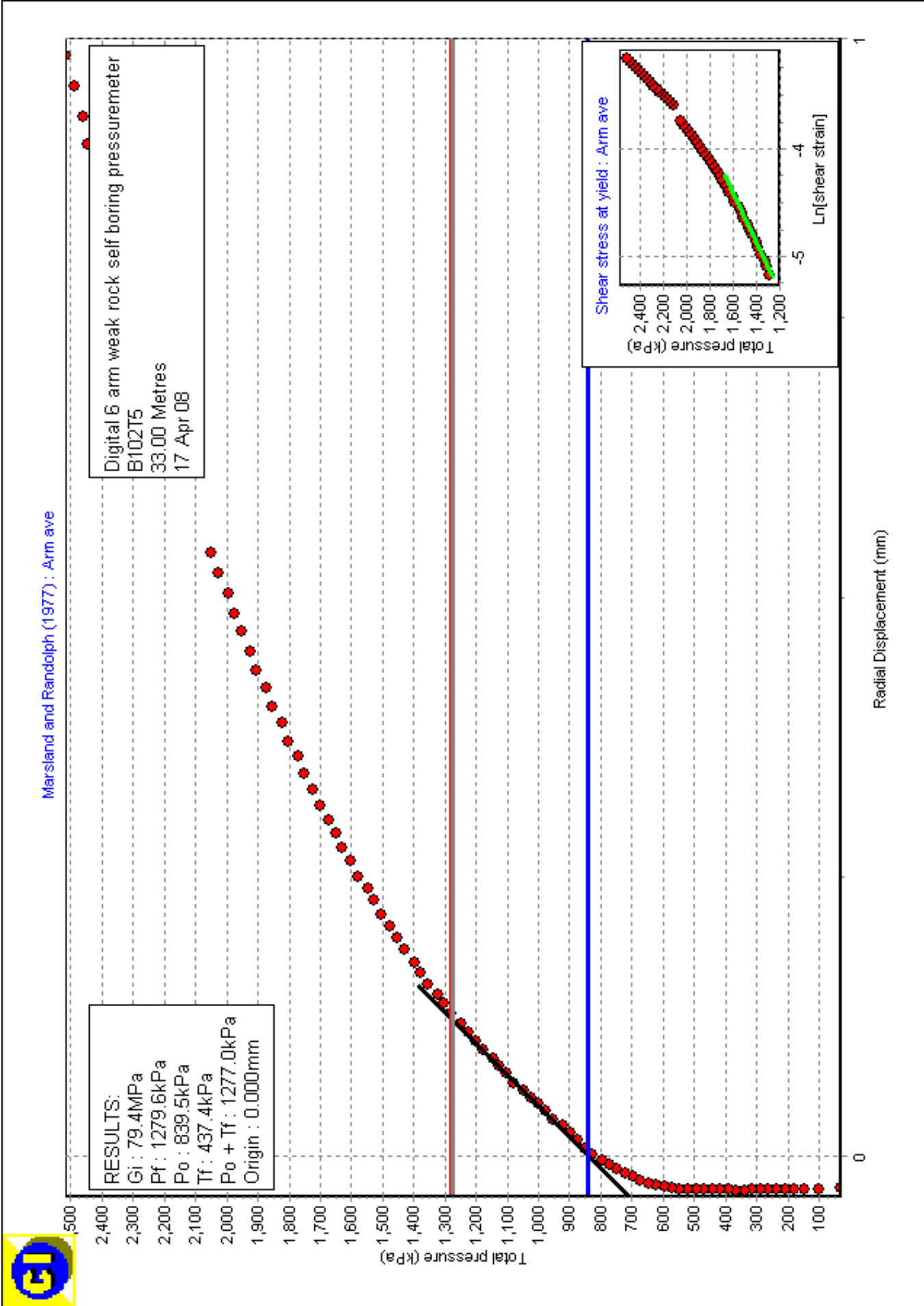
Axis	Loop	Intercept	Alpha	Gradient
	No	(MPa)	(MPa)	
Arm ave	1	23.503	16.624	0.707
Arm ave	2	20.866	14.296	0.685

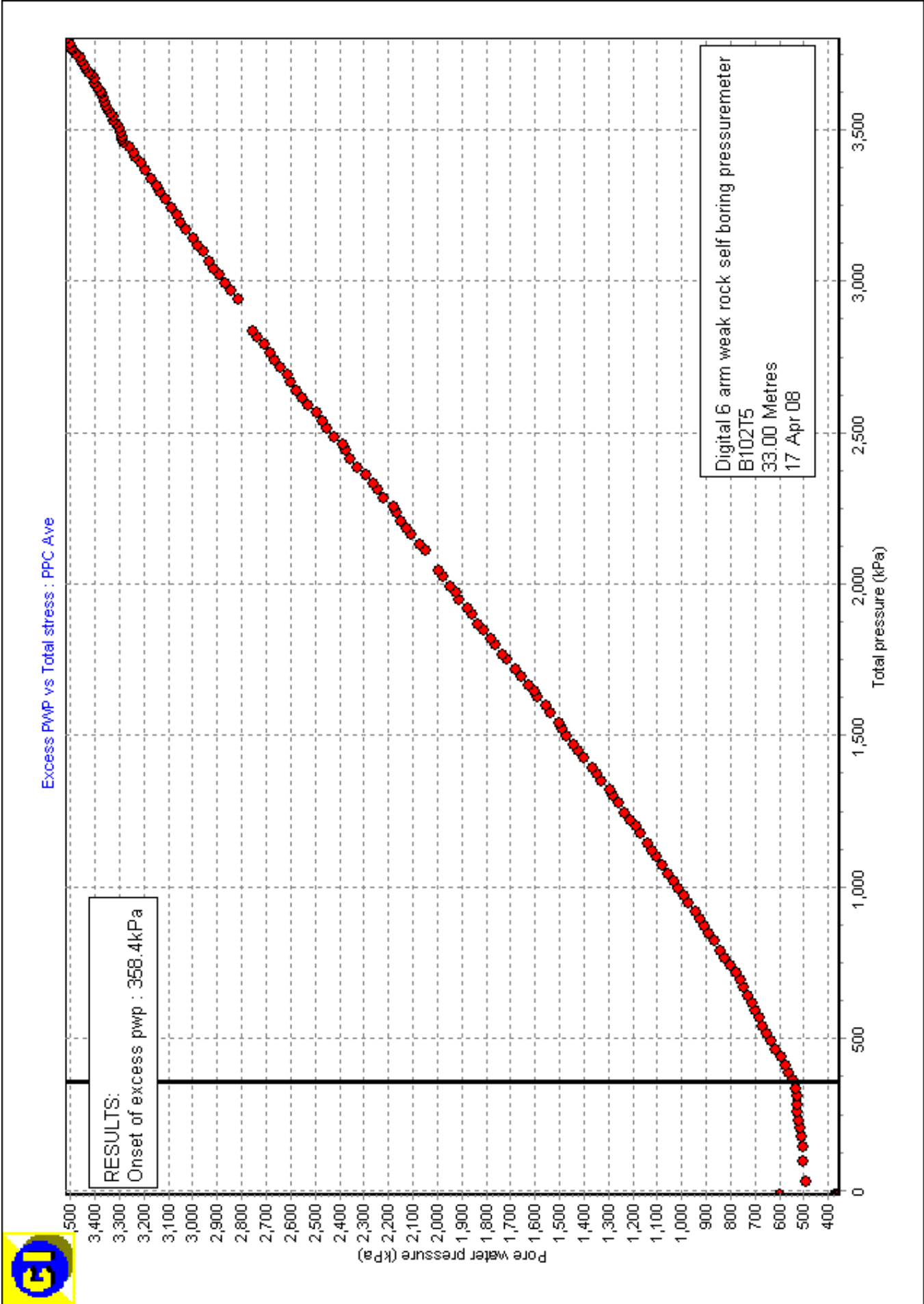
[PARAMETERS USED FOR UNDRAINED CURVE MODELLING]

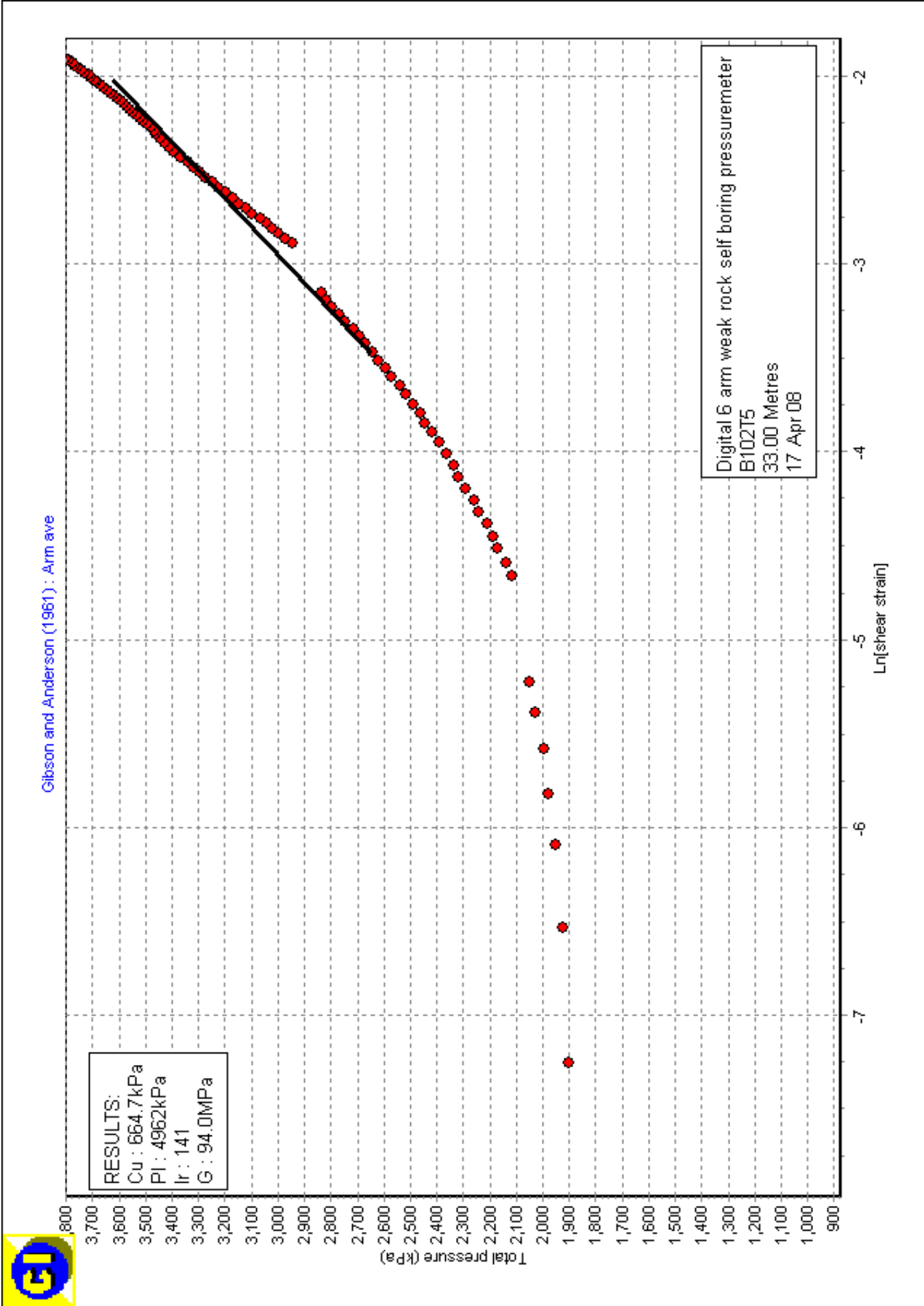
Axis is Arm ave
Strain Origin (mm) : 0.42
Po (kPa) : 1006
Cu (kPa) : 664.7
Limit pressure (kPa) : 4962
Non-linear exponent : 0.685
Calculated alpha (MPa) : 14.424
G at yield (MPa) : 59.3

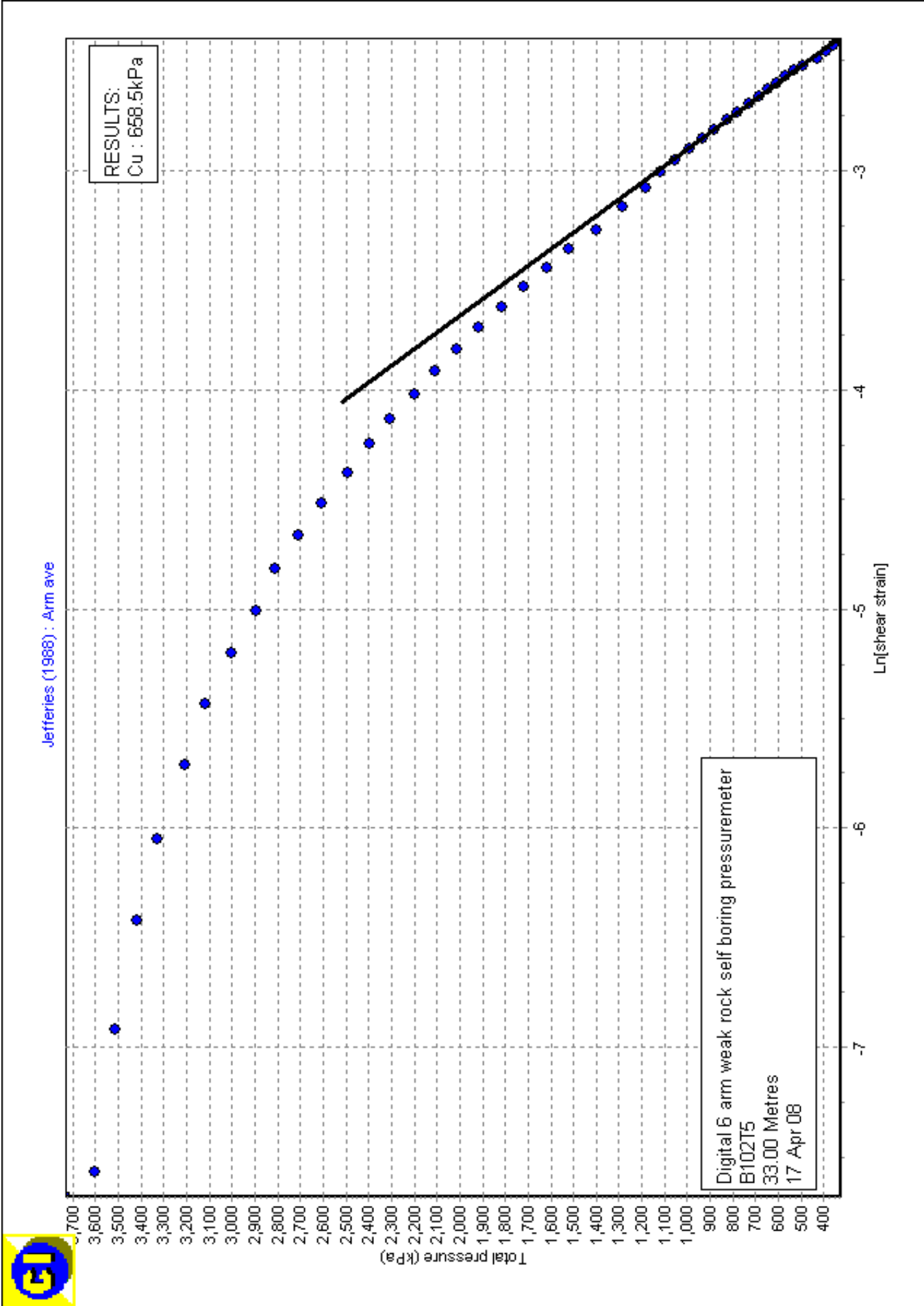






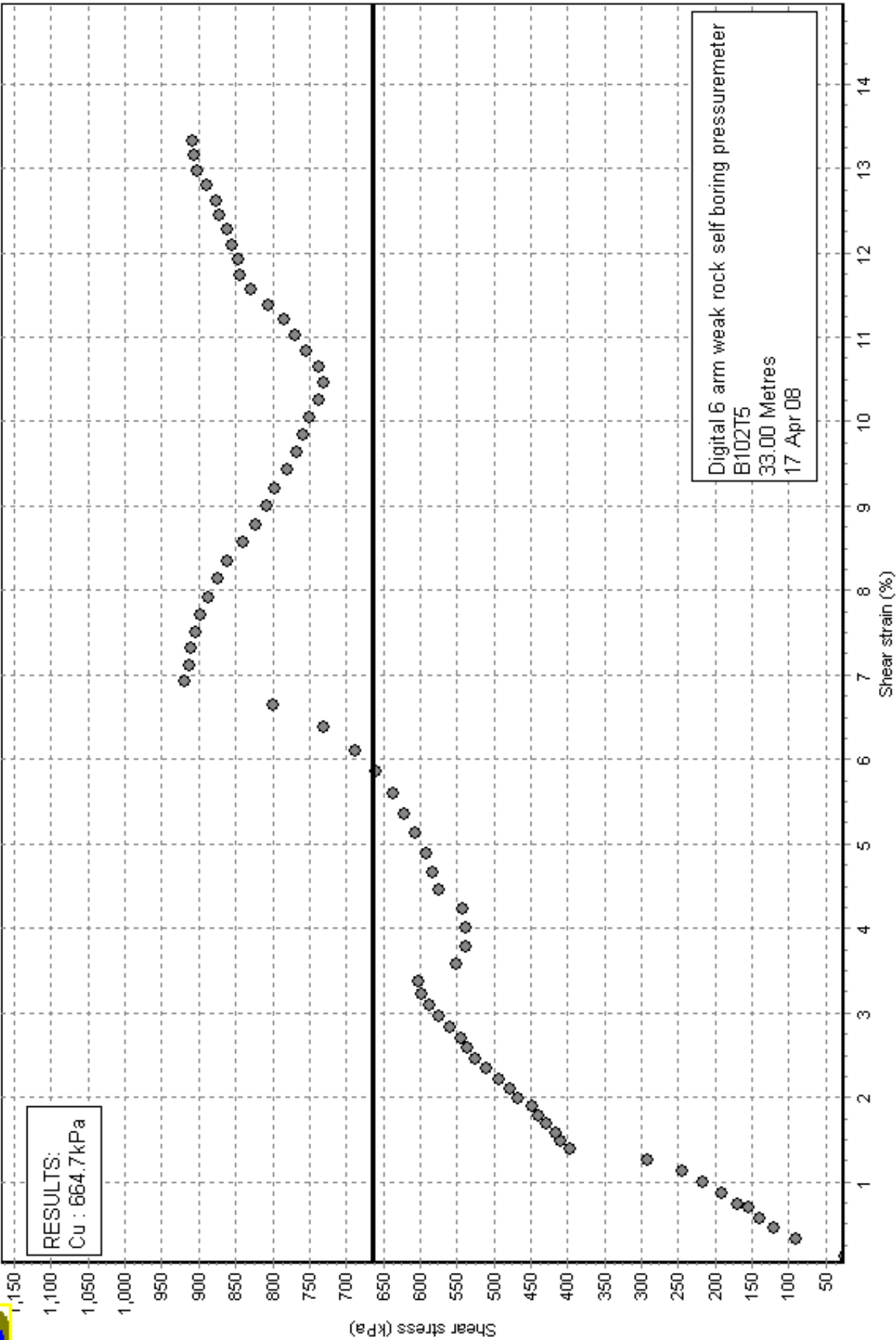






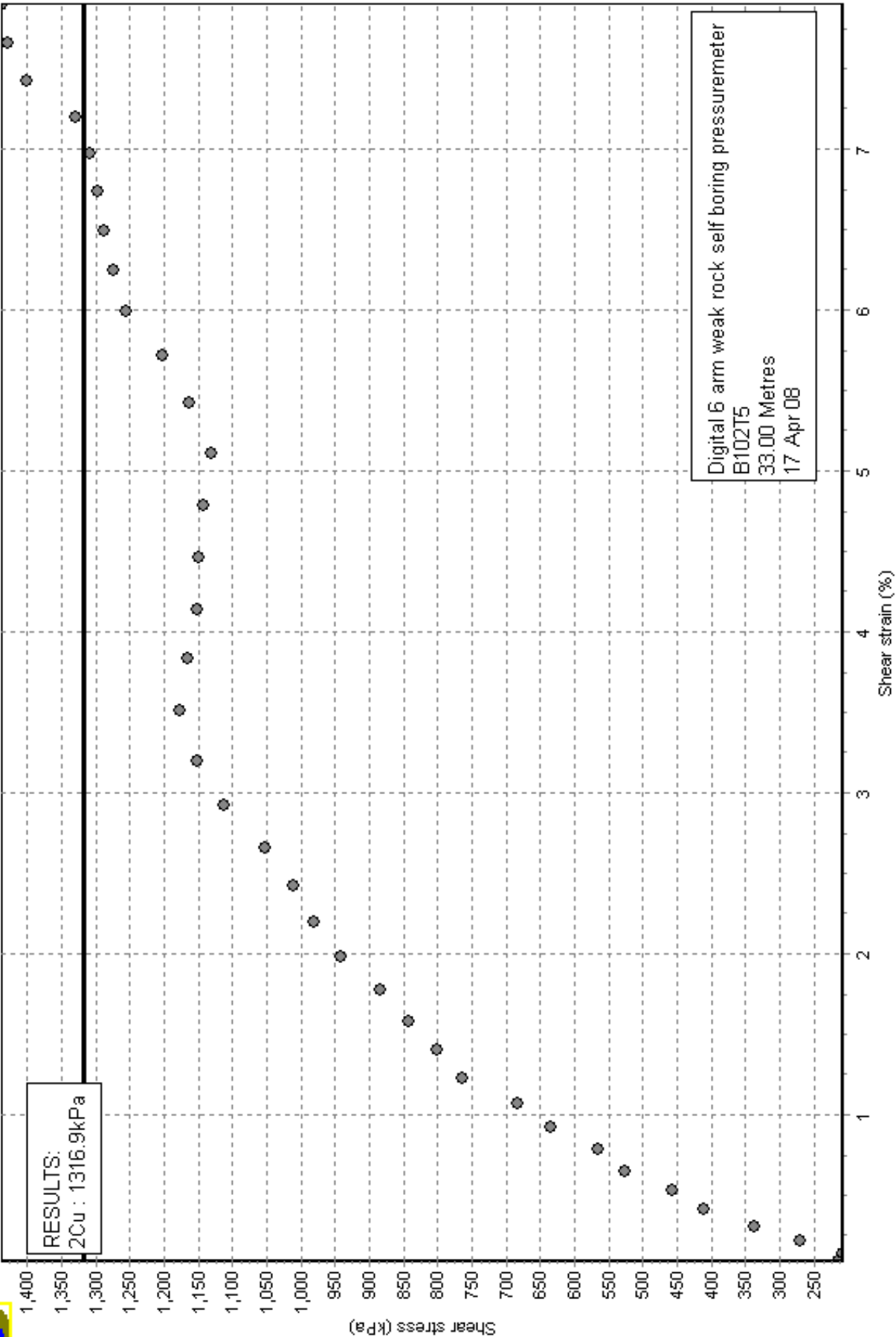


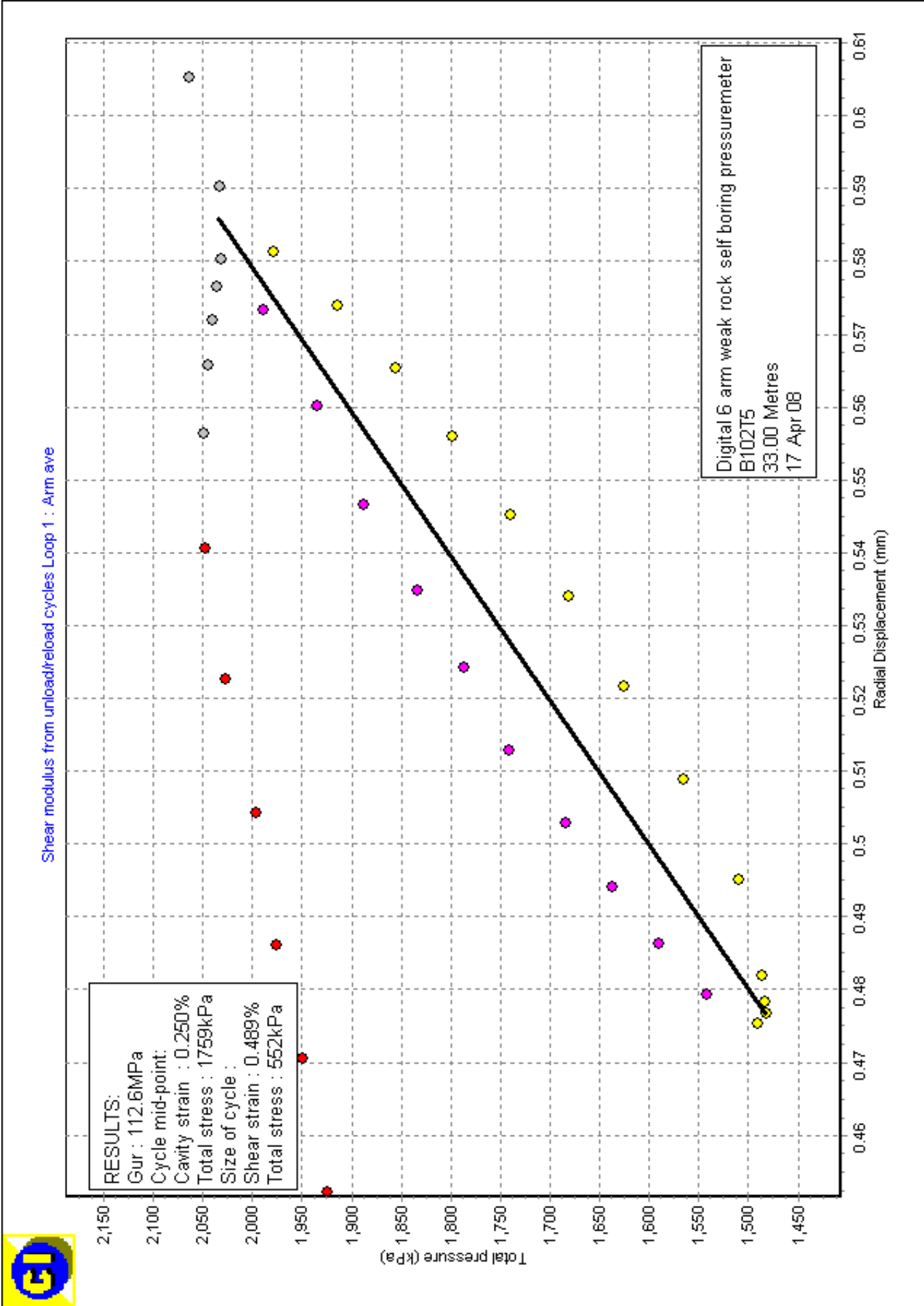
Palmer 1972 (expansion) : Arm ave

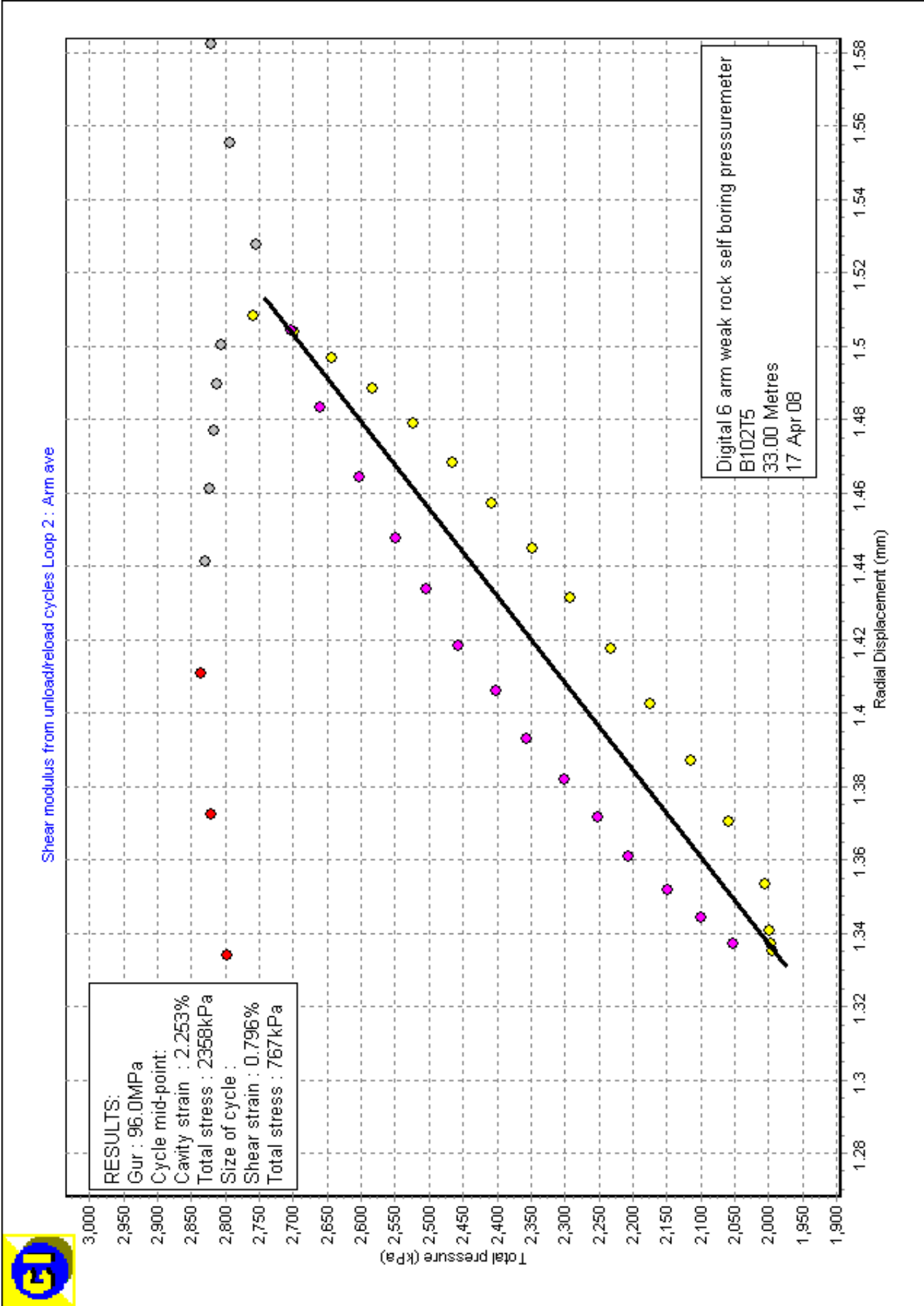


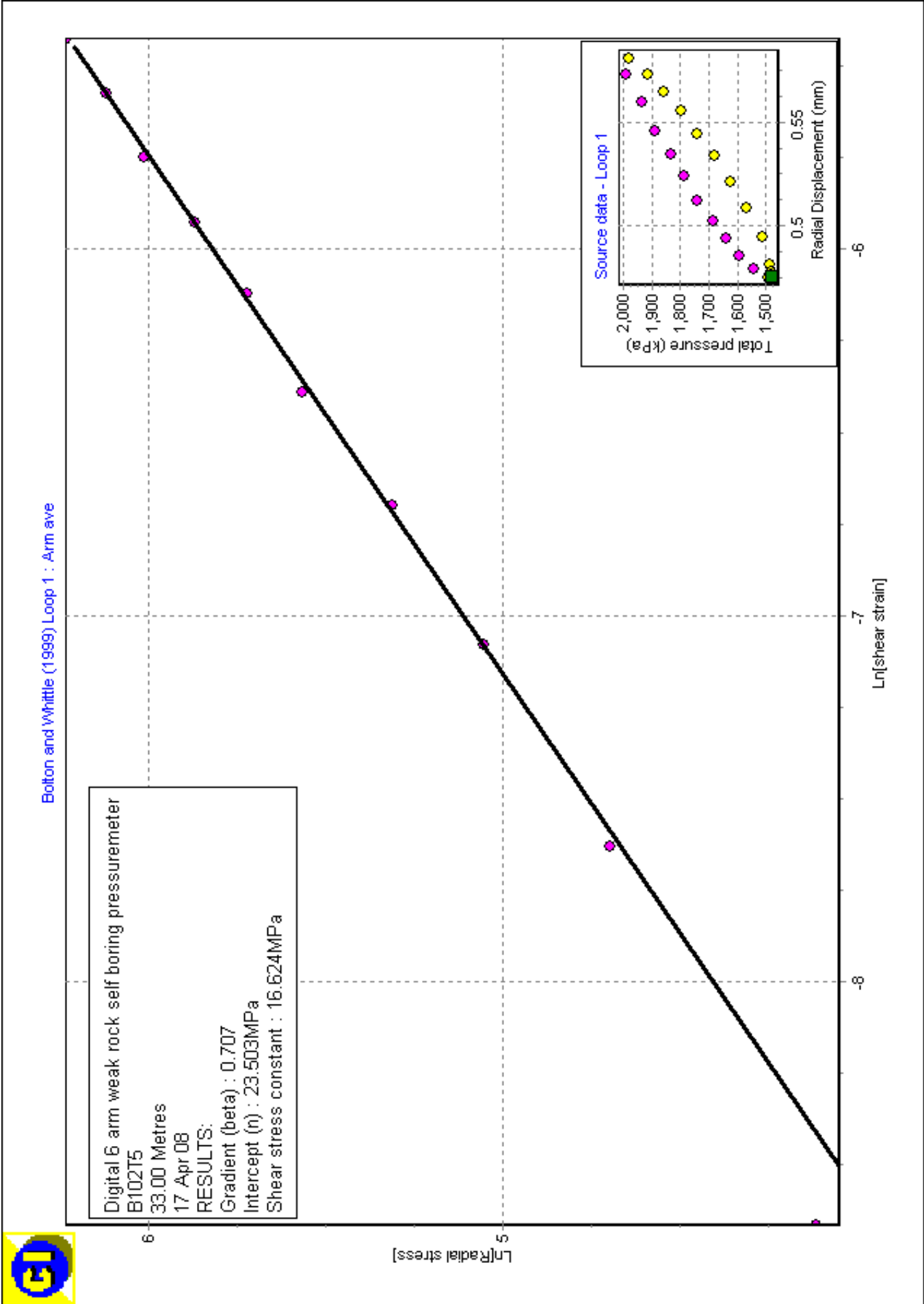


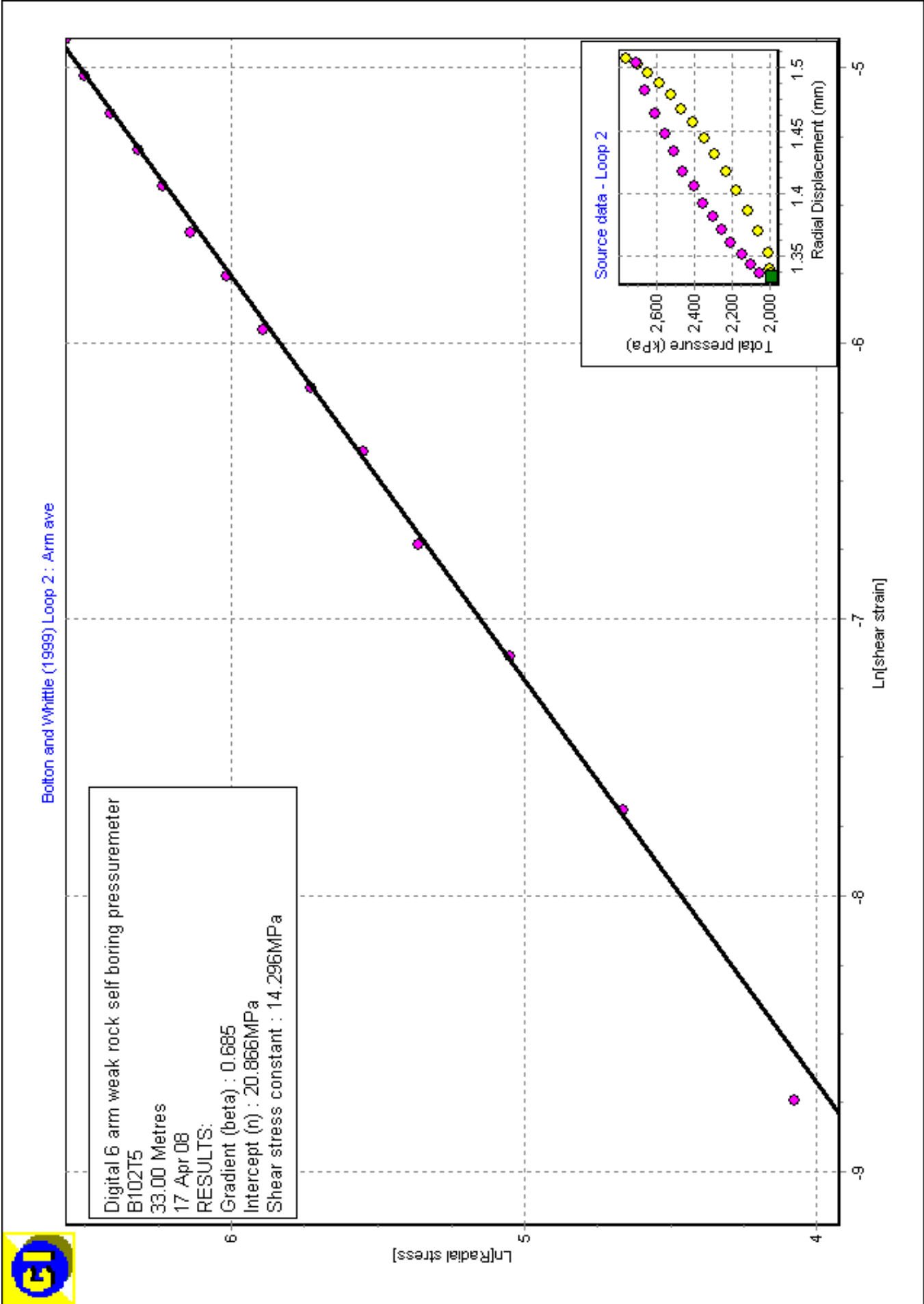
Palmer 1972 (contraction) : Arm ave

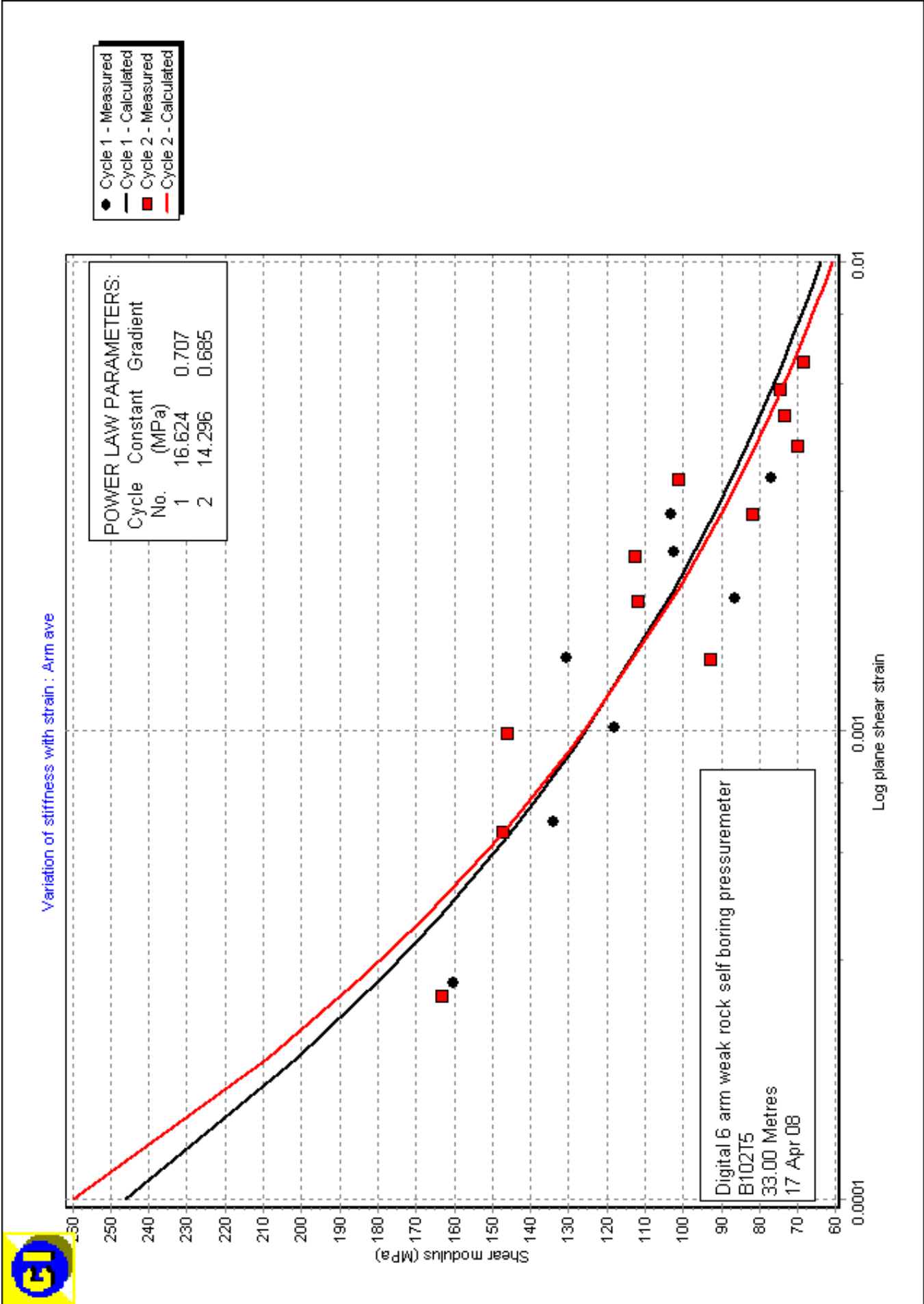


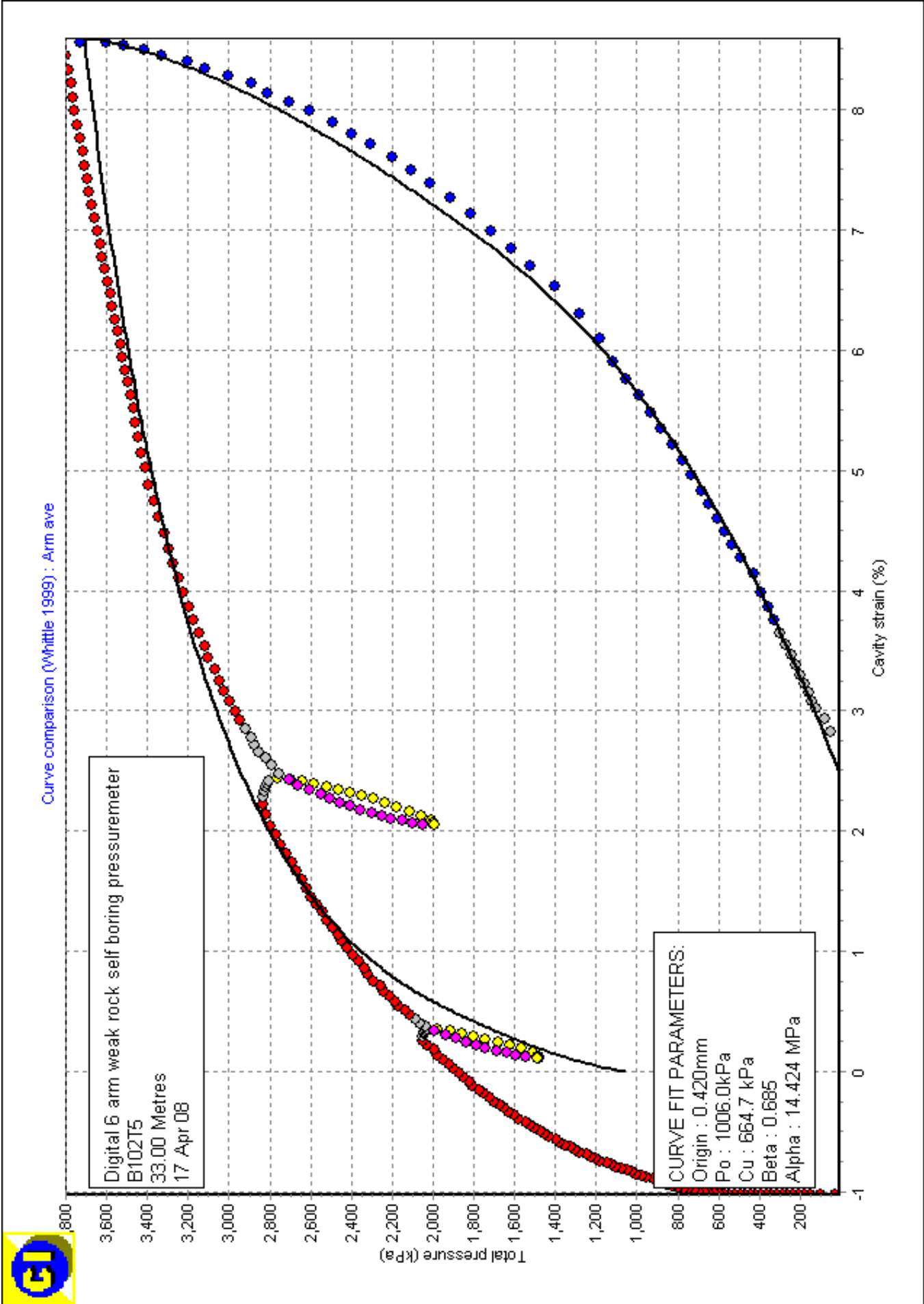








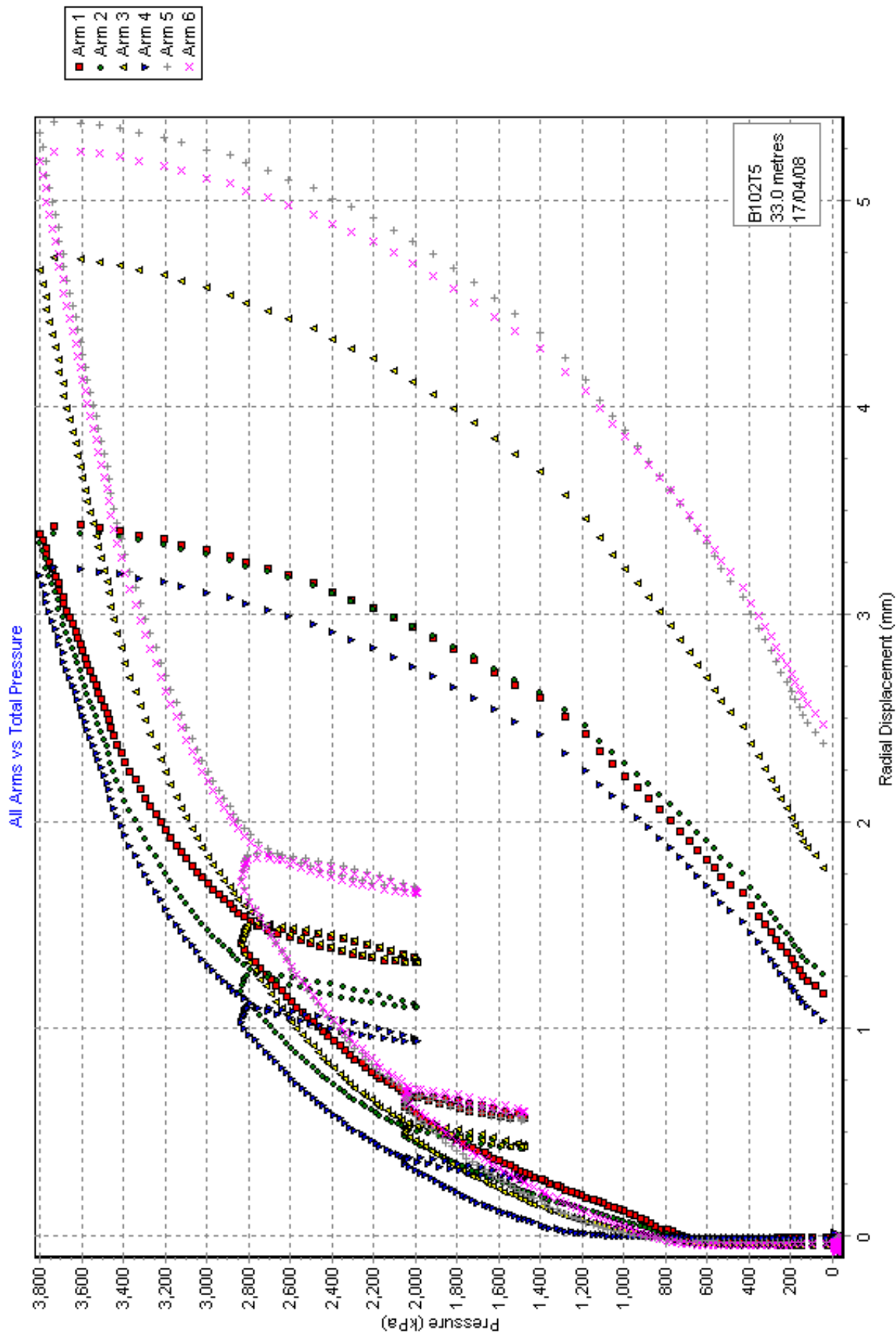




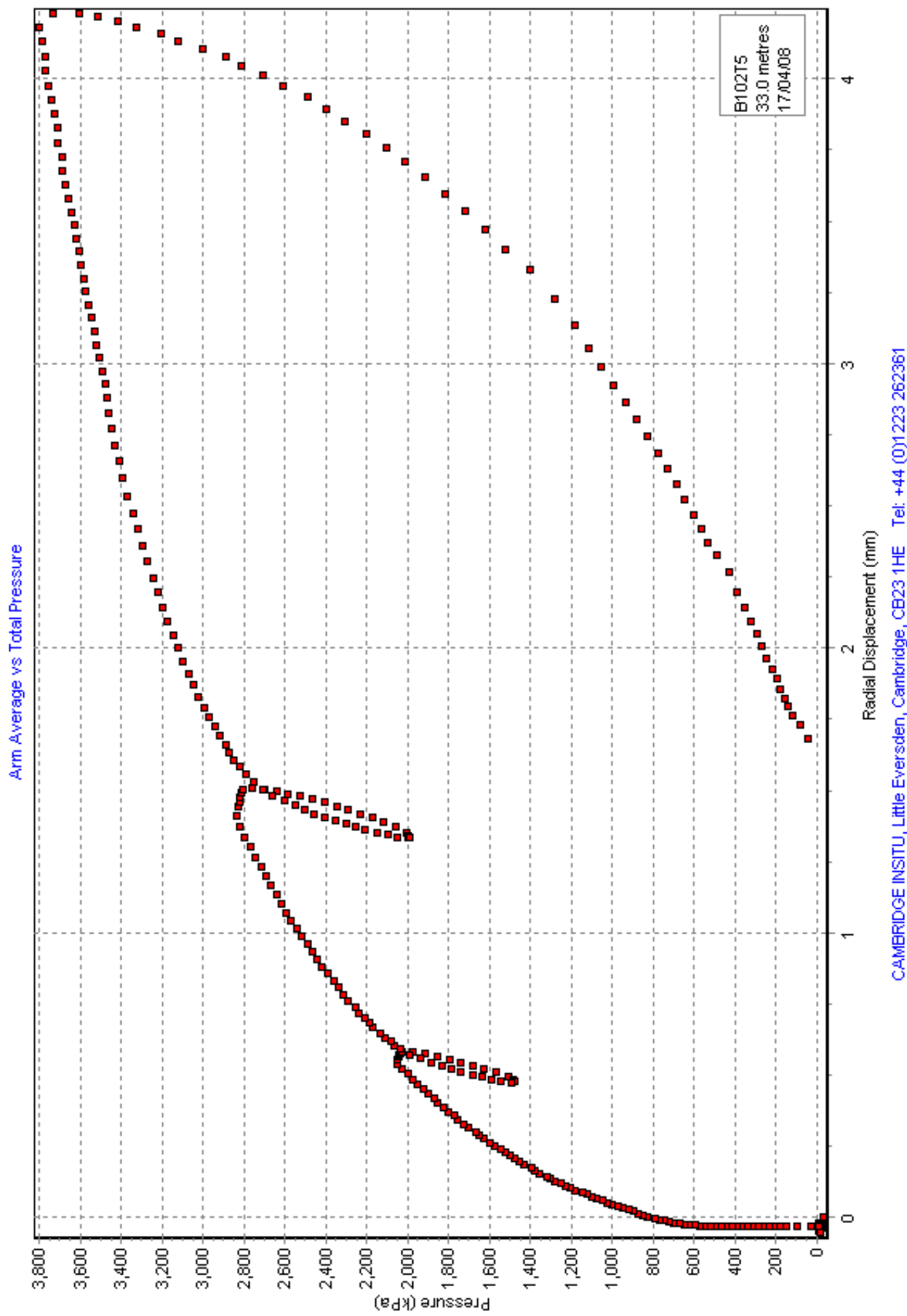
6 ARM SELF BORING PRESSUREMETER

TEST RECORD SHEET

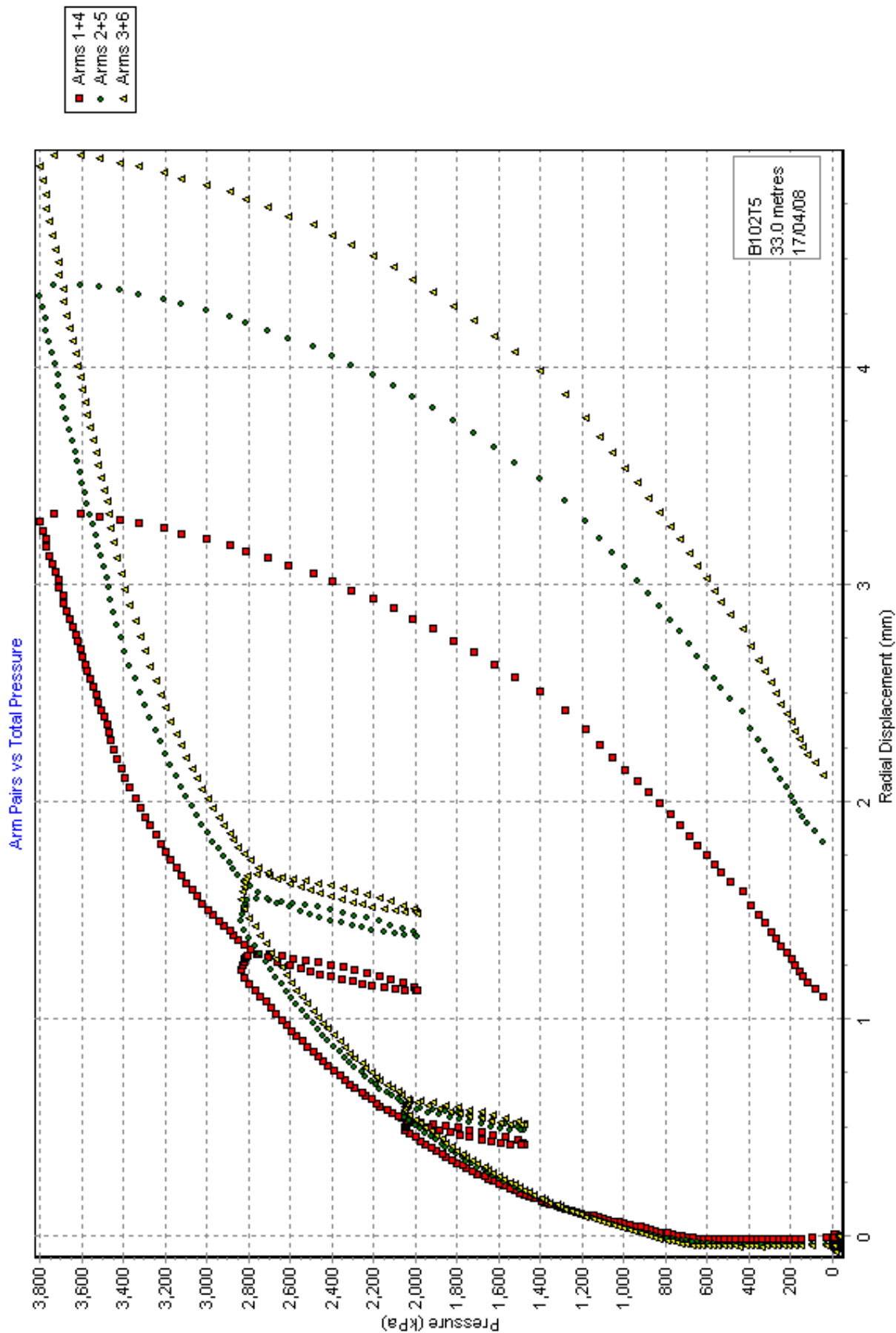
Site	Date	Day	Borehole	Test	Depth to Test Centre (below ground level)				
DENTABLE P&S	7/4/08	THUR	B102	5	33m				
Weather:- F.M.S			Material:- LAM BATH 400P - R3000H/400P CLAY						
Water table	Drilling Start	Drilling End	Distance	Drill Rate	Ram Pressure				
?	11:58	12:35	1m	1m/40min	2.30 BARS				
Ground level :-			Orientation:-						
Water Press./	Inst. OD	Shoe OD	Cutter Type	Cutter position			Probe Reference		
300k	88.1	89.1	73 RR	4mm			'MONEY'		
Drilling Remarks:- DIFFICULT - PULSED BACK SAWTACK TIME.									
Strain Rate	Press. Rate	Cycle Time	Gas Bottle	Battery	PPC Type	Max Pressure Cap.			
1%/min	4(H)	6 SEC	150 BAR	12.45	TRW	10MPa			
Arm 1	Arm 2	Arm 3	Arm 4	Arm 5	Arm 6	PPC A	PPC B	TPC	Date:-
-110	83	-61	-33	-83	130	-1022	-916	-2453	Ground Level Zeros
									Pre-drilling Zeros
-112	71	-75	31	91	119	-908	-796	-2441	Post-drilling Zeros
									Pre-test Zeros
									Ground Level Zeros
Test starts:-		12:38							
Line	Notes								
711	Hard 2.1MPa								
716	LOOP 1 PR5 - Back to PRA at end of loop								
771	Hard 2.45MPa								
778	LOOP 2 PR5								
838	PR3								
864	unloaded								
Test ends:-		13:07							
Max Press:-		3801 KPa							
Calibrated Data details:									
Mem. Correction.		Mem. Compression.		Strain Cals.			Pressure Cals.		
W013051		W013052		10/4/08			11/4/08		
TEST REMARKS: V. Good P&S response, strain hardening loading.									
Driller: DAW Tester: RW.									



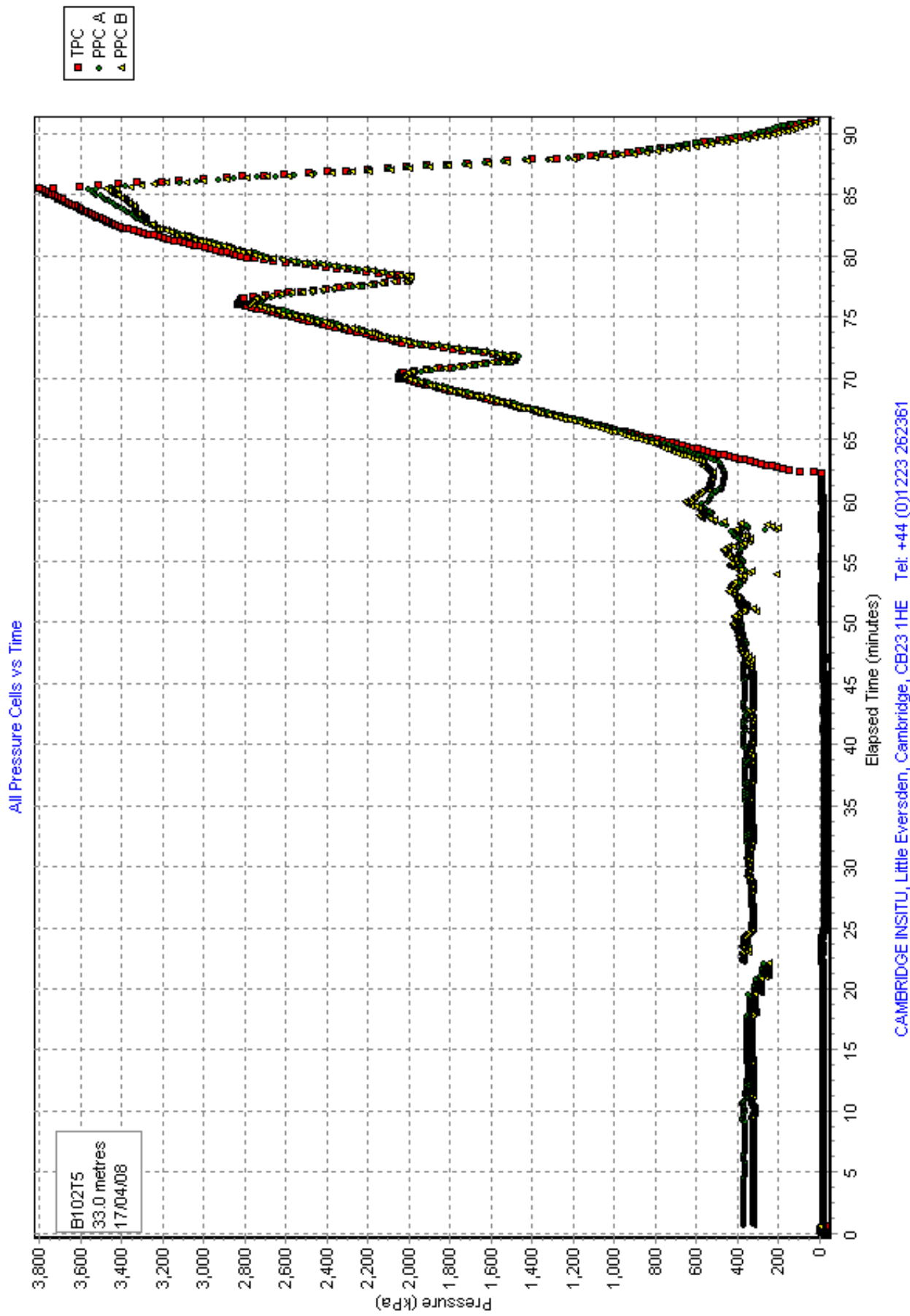
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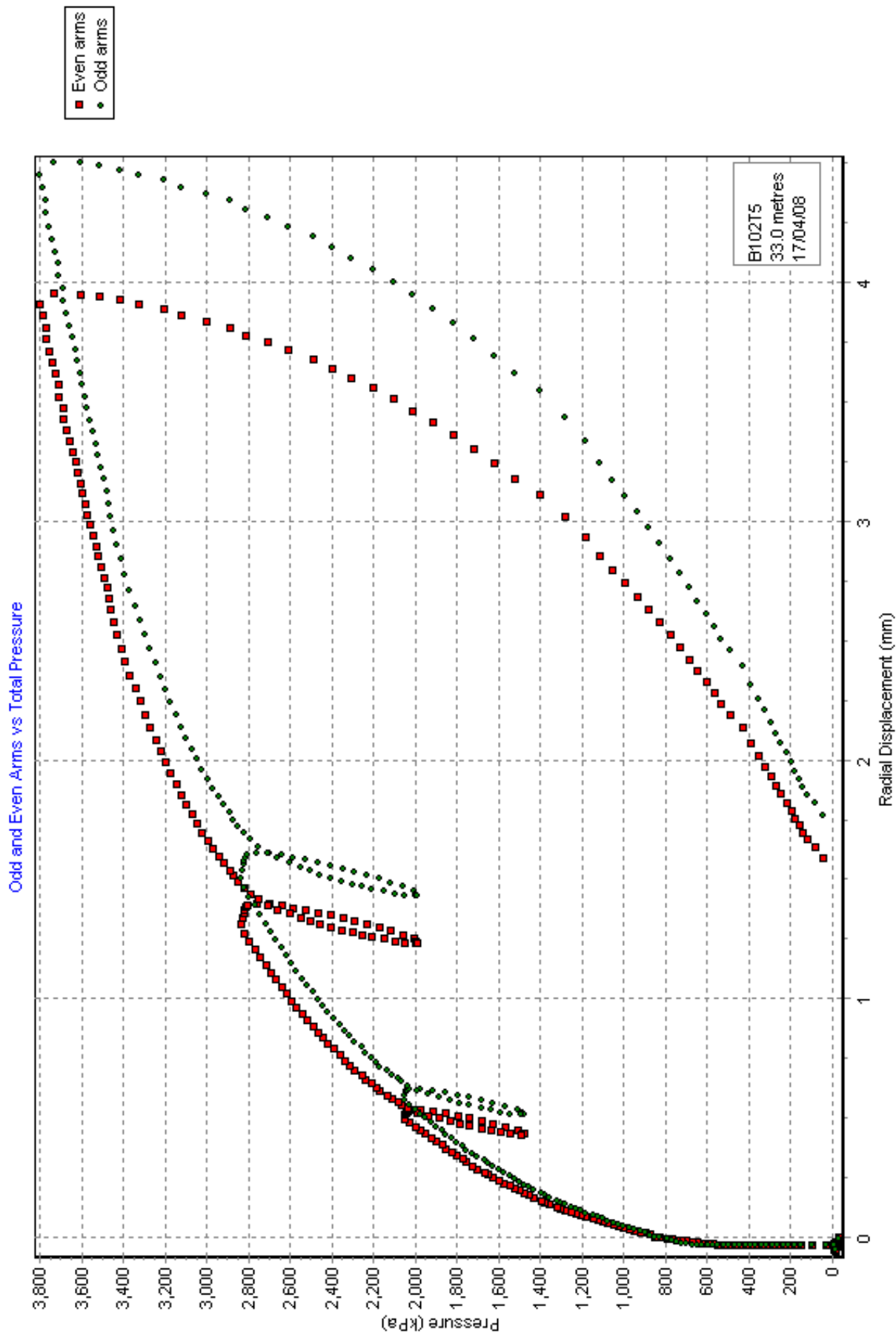


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[DETAILS OF TEST]

Project : 36237
Site : Denmark Place
Borehole : BH102
Test name : B102T6
Test date : 18 Apr 08
Test depth : 43.00 Metres
Water table : 5.6 Metres
Ambient PWP : 366.9 kPa
Material : Lambeth Group - clay/sand
Probe : Digital 6 arm weak rock self boring pressuremeter
Diameter : 88.1 mm
Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out
The file includes results from a curve fitting analysis

Analysed by RWW on 18 Apr 08

Remarks:

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm) : "Arm ave=0.054"
Po from Marsland & Randolph (kPa) : "Arm ave=976.0"
Po from Lift off (kPa) : "Arm ave=1017.3"
PWP versus Total Stress (kPa) : "PPC Ave=310.3"
Best estimate of Po (kPa) : "Arm ave=1017.0"

[UNDRAINED STRENGTH PARAMETERS]

Gibson & Anderson 1961 - Cu (kPa) : "Arm ave=1748.7"
Limit pressure (kPa) : "Arm ave=9854"
Jefferies 1988 - Cu (kPa) : "Arm ave=1047.3"
Undrained yield stress (kPa) : "Arm ave=2218.9"

[LINEAR INTERPRETATION OF SHEAR MODULUS G]

Initial slope shear modulus (MPa) : "Arm ave=115.1"

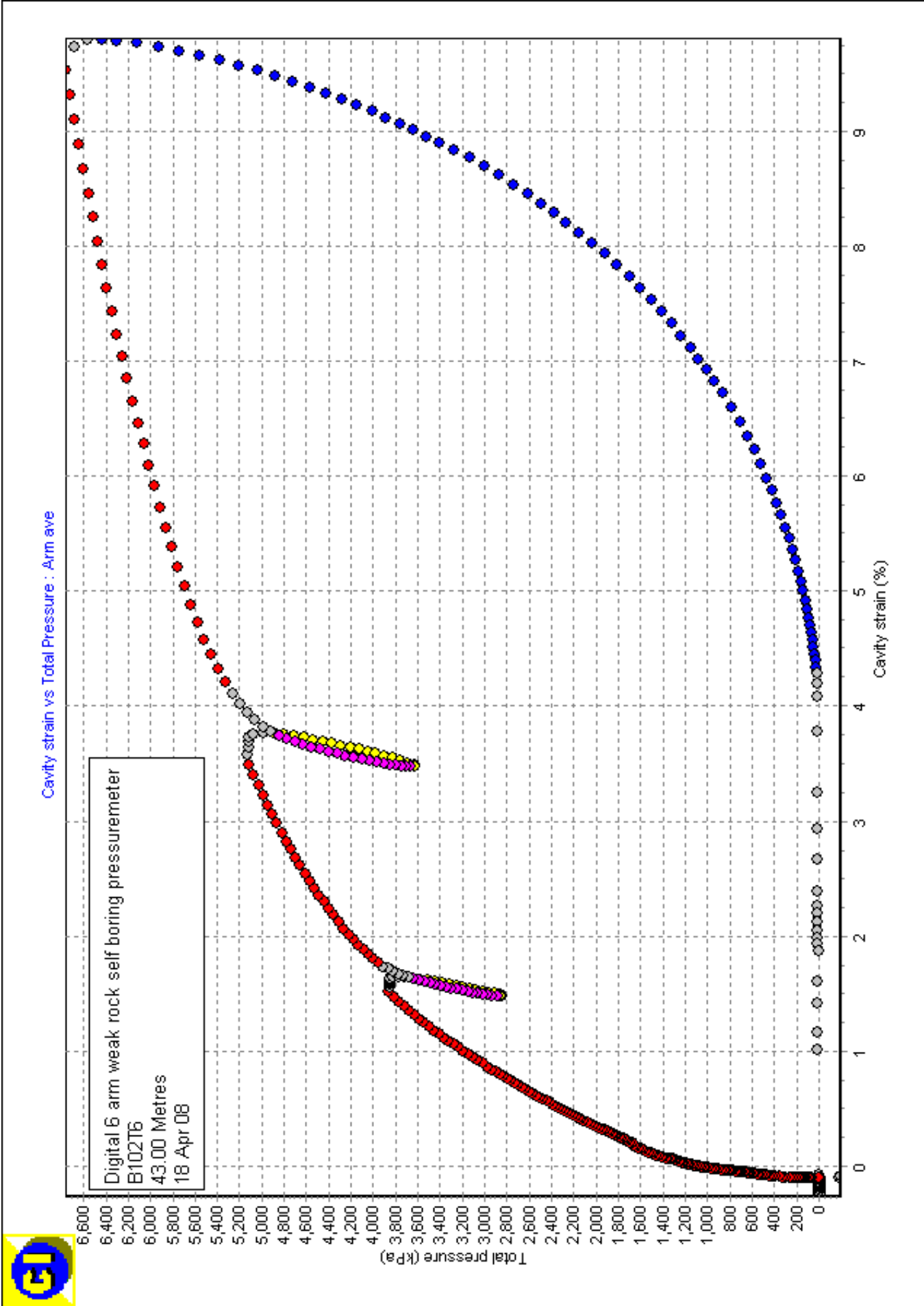
Axis	Loop No	Value (MPa)	Mean Strain (%)	Mean Pc (kPa)	dE (%)	dPc (kPa)
Arm ave	1	261.8	1.569	3258	0.325	852
Arm ave	2	231.2	3.632	4269	0.571	1324

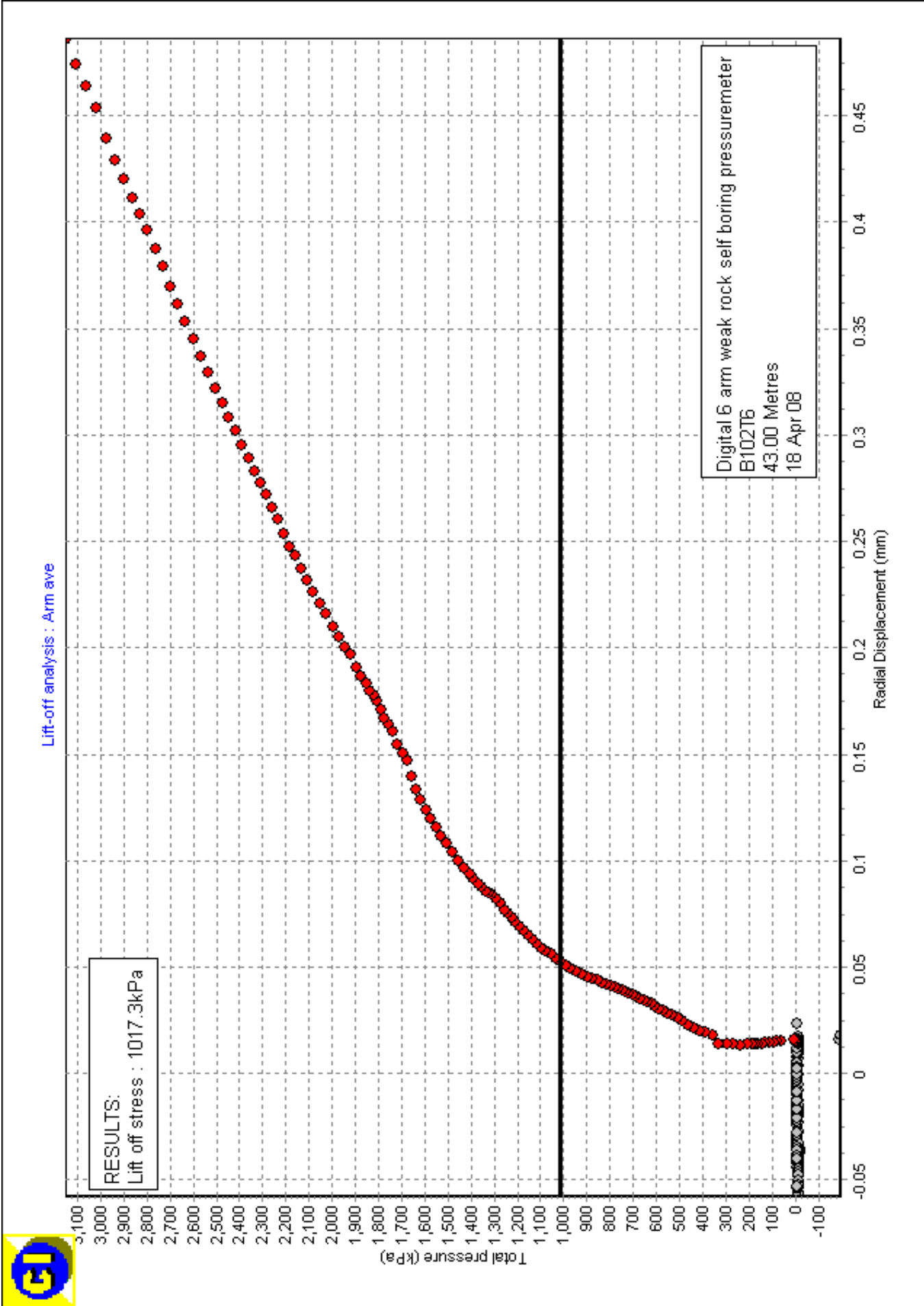
[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

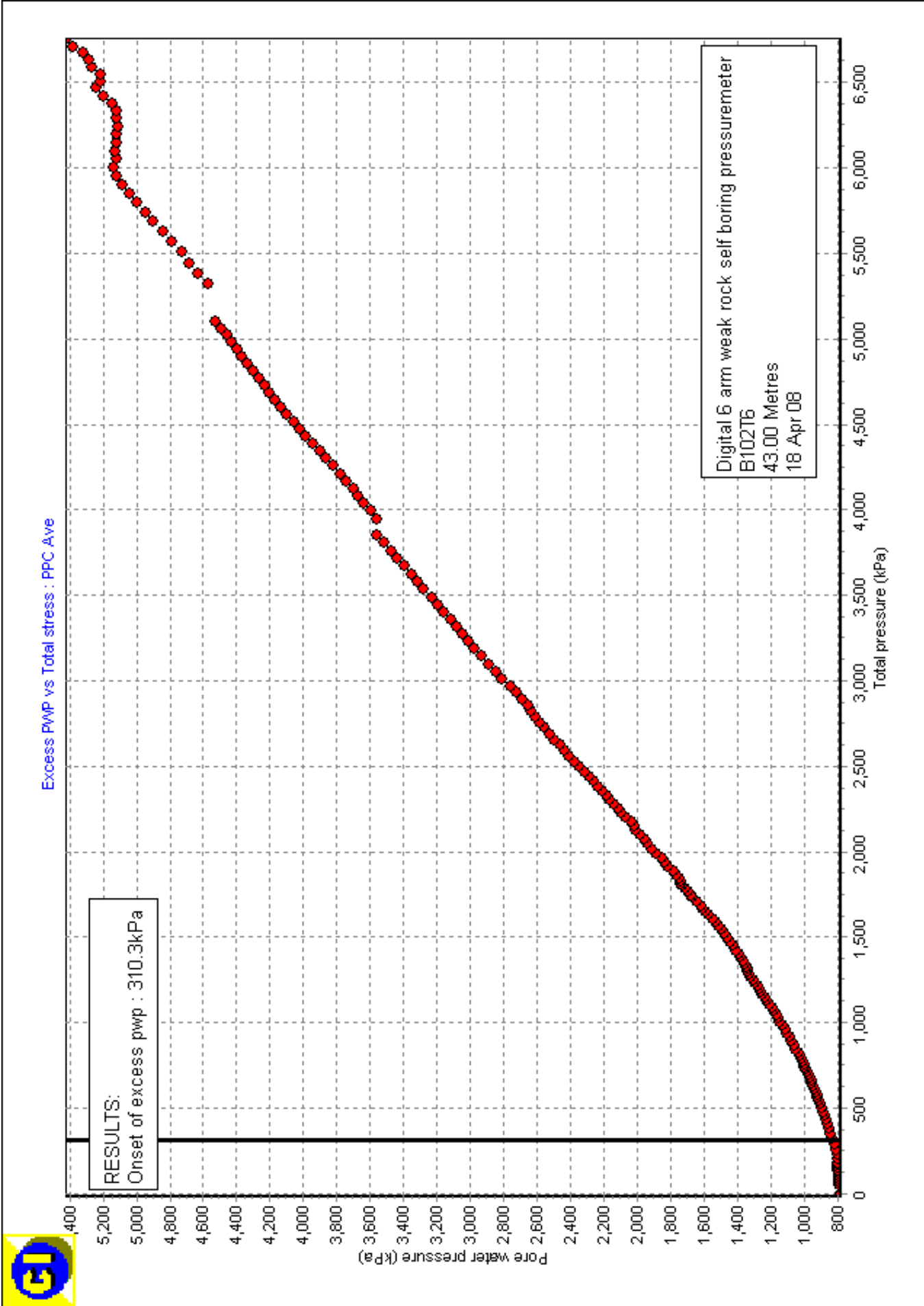
Axis	Loop No	Intercept (MPa)	Alpha (MPa)	Gradient
Arm ave	1	57.681	42.590	0.738
Arm ave	2	55.721	39.838	0.715

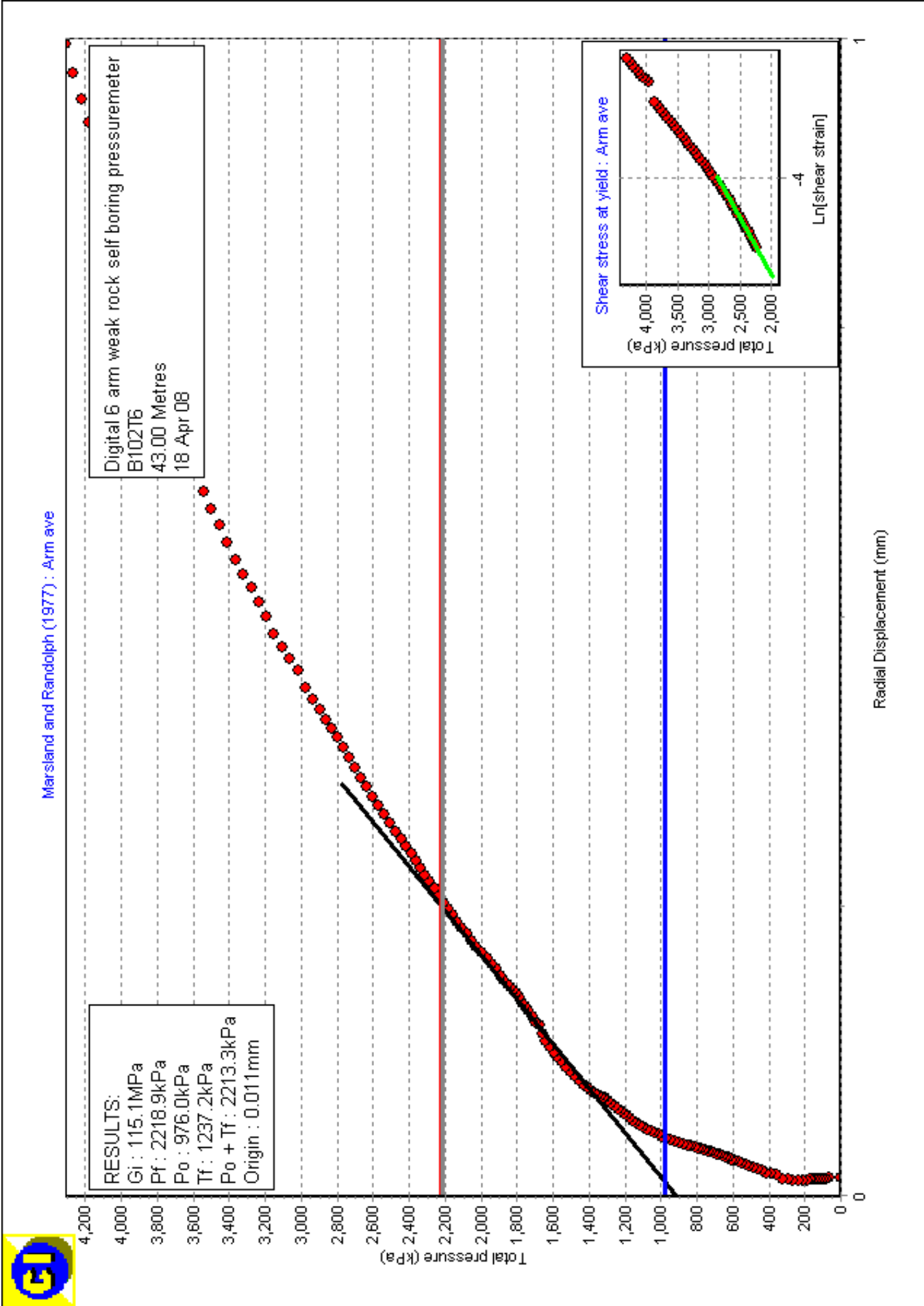
[PARAMETERS USED FOR UNDRAINED CURVE MODELLING]

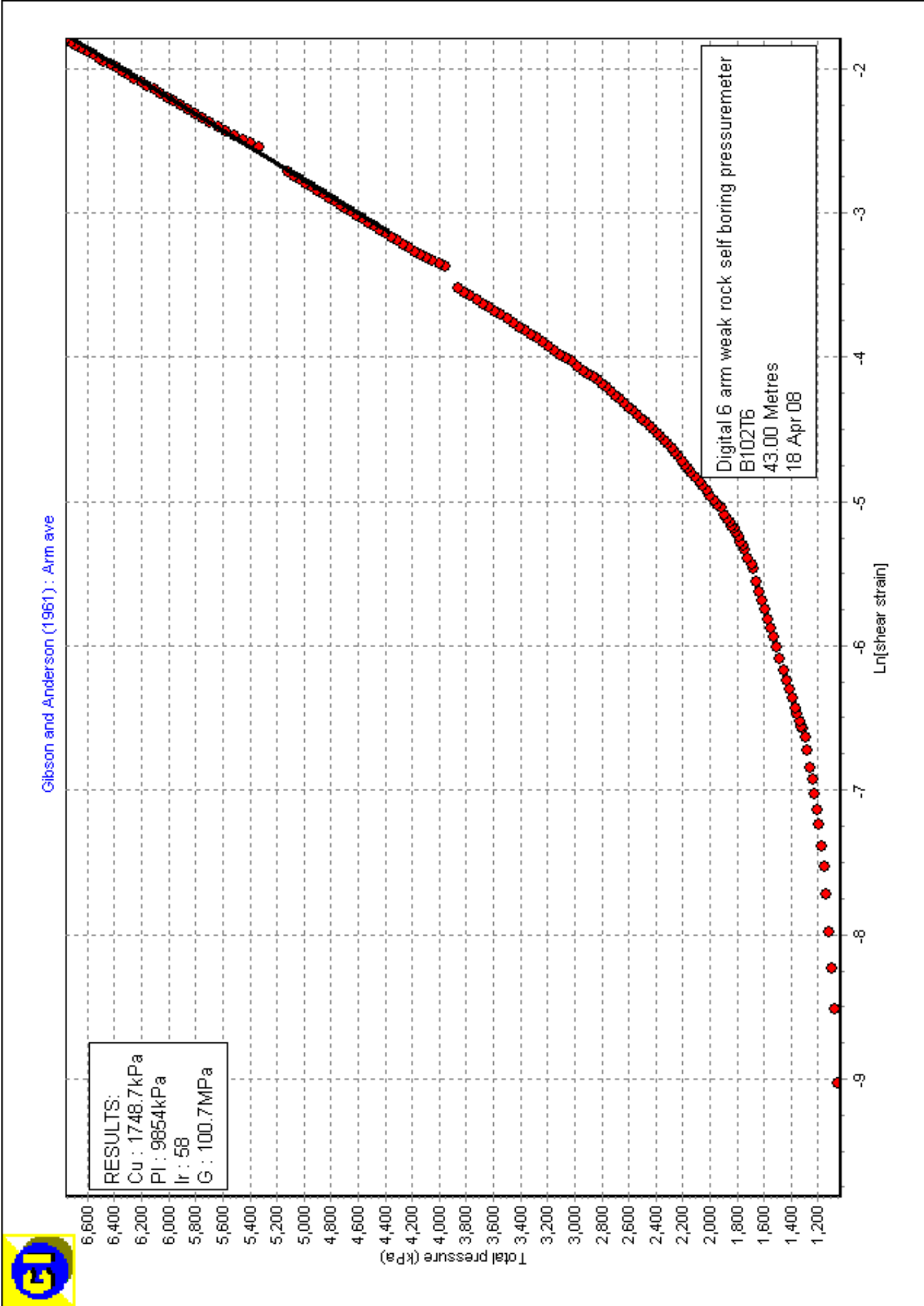
Axis is Arm ave
Strain Origin (mm) : 0.45
Po (kPa) : 1502
Cu (kPa) : 1082.6
Limit pressure (kPa) : 8366
Non-linear exponent : 0.715
Calculated alpha (MPa) : 37.064
G at yield (MPa) : 151.6

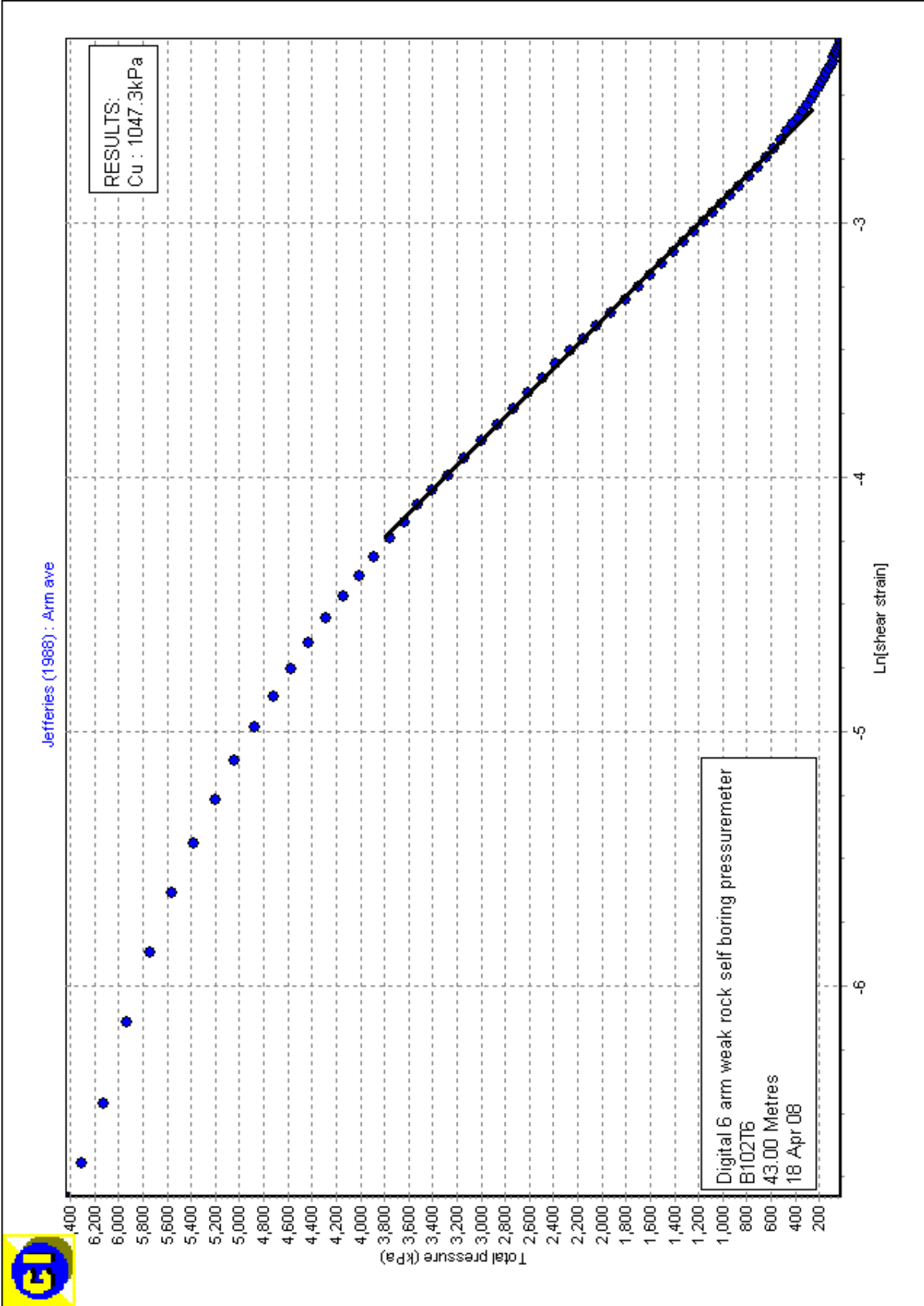


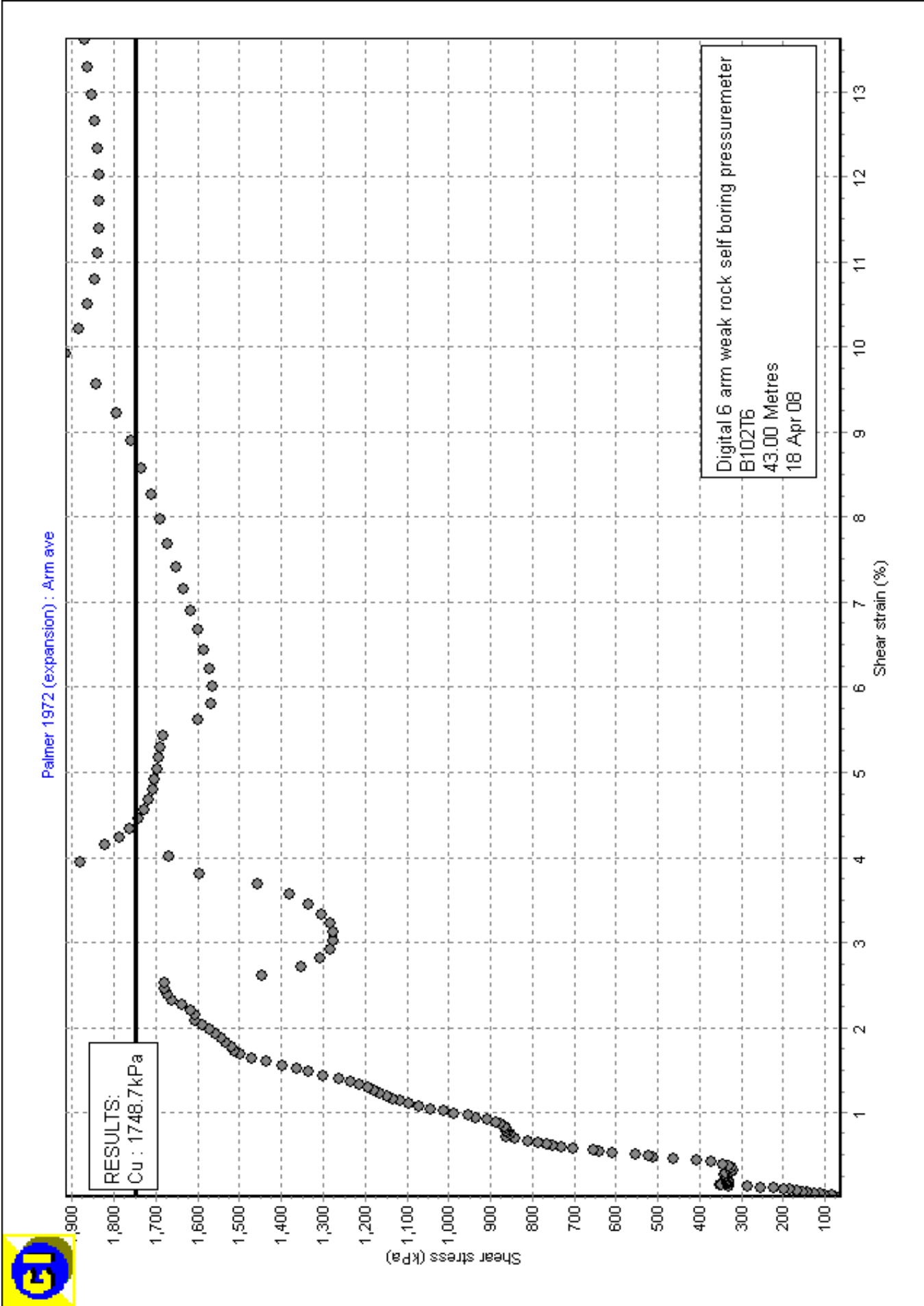


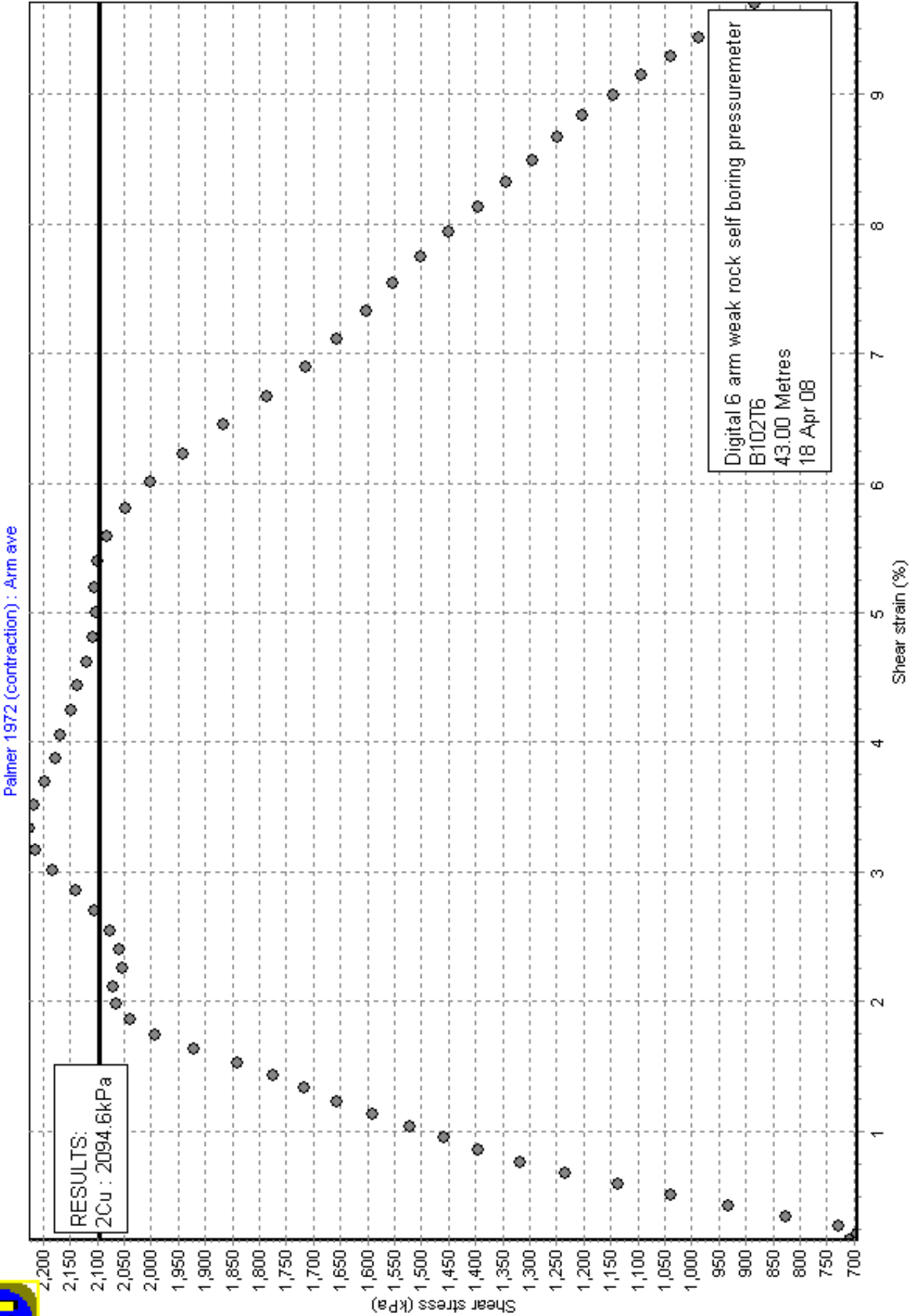


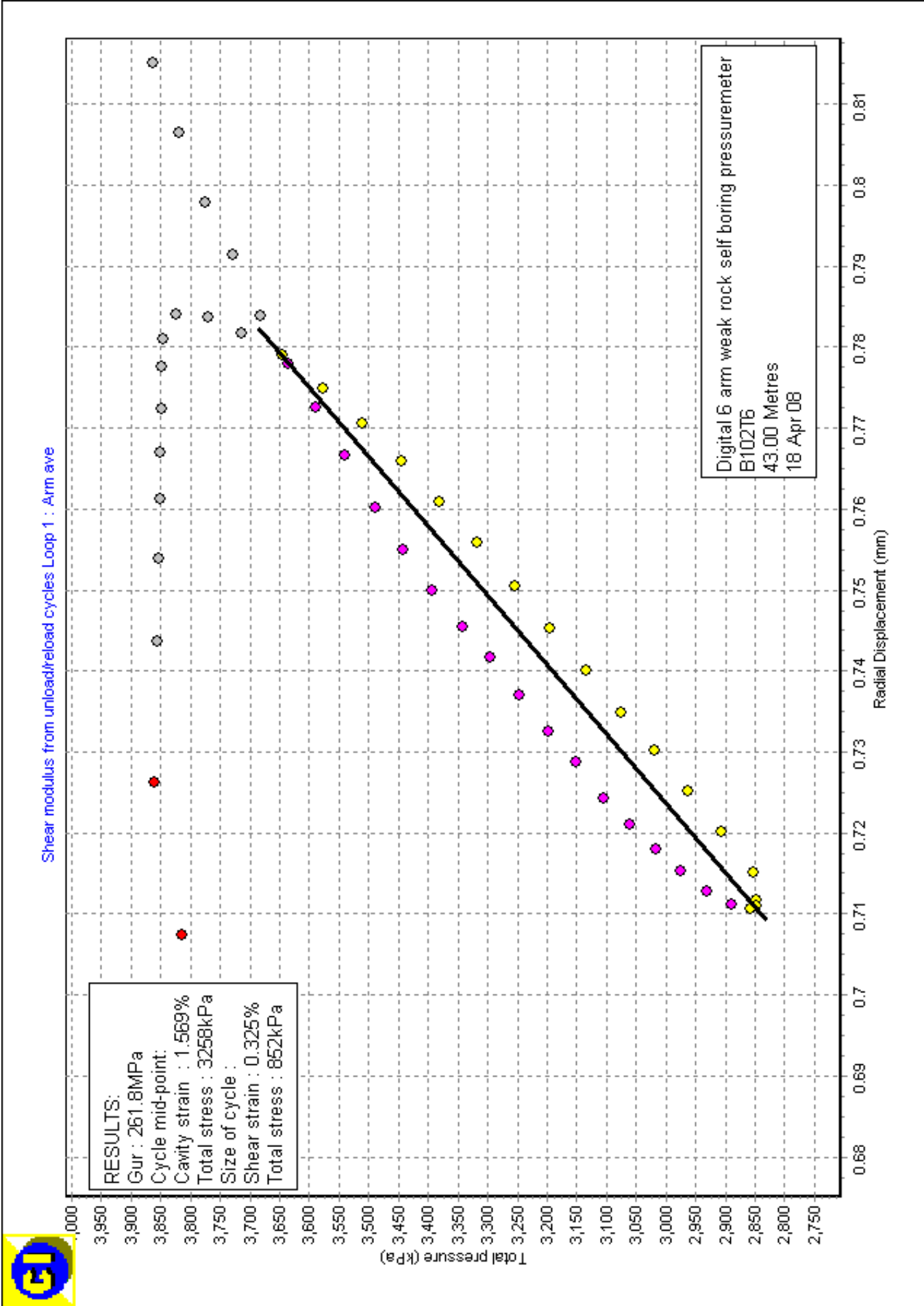


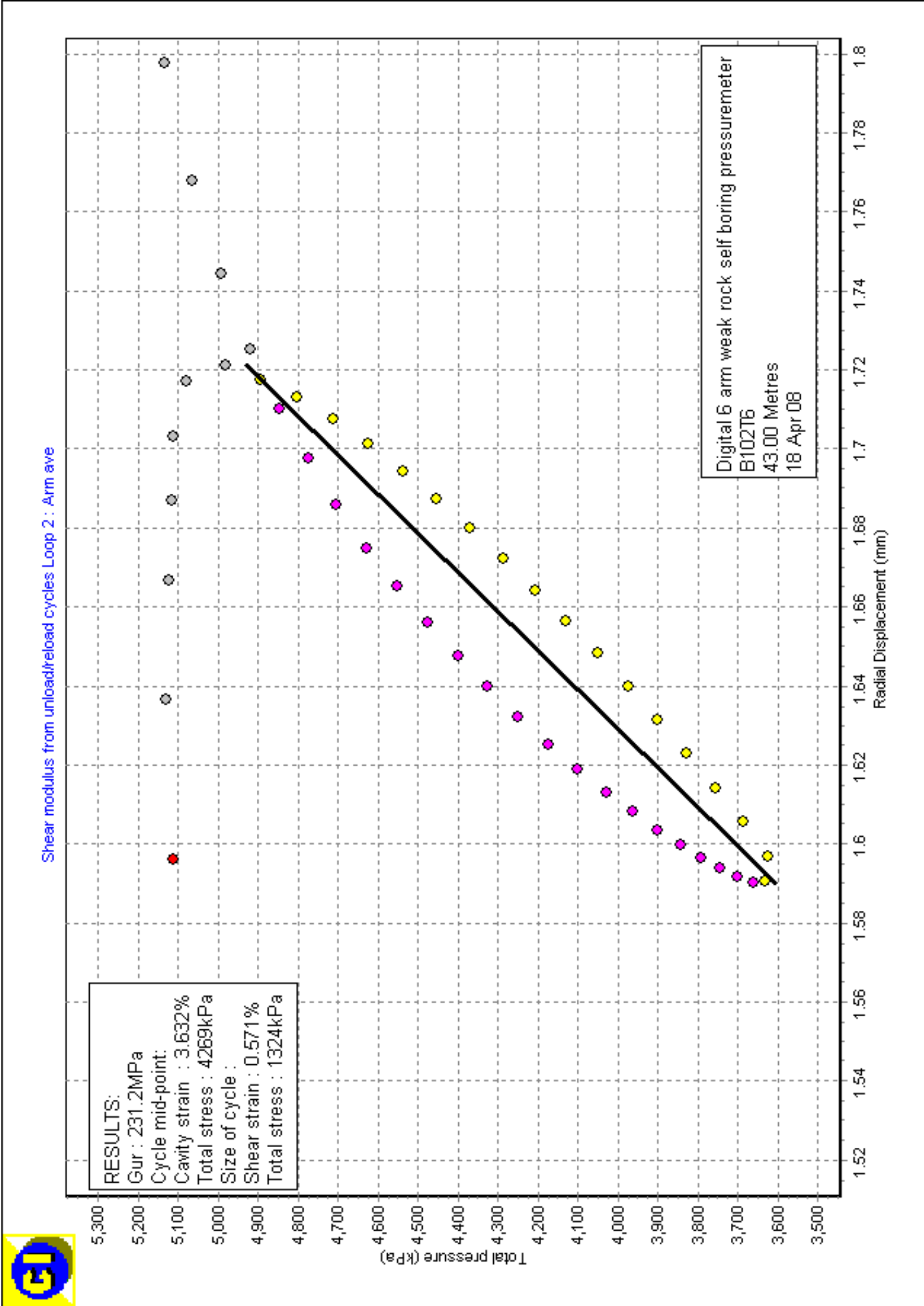


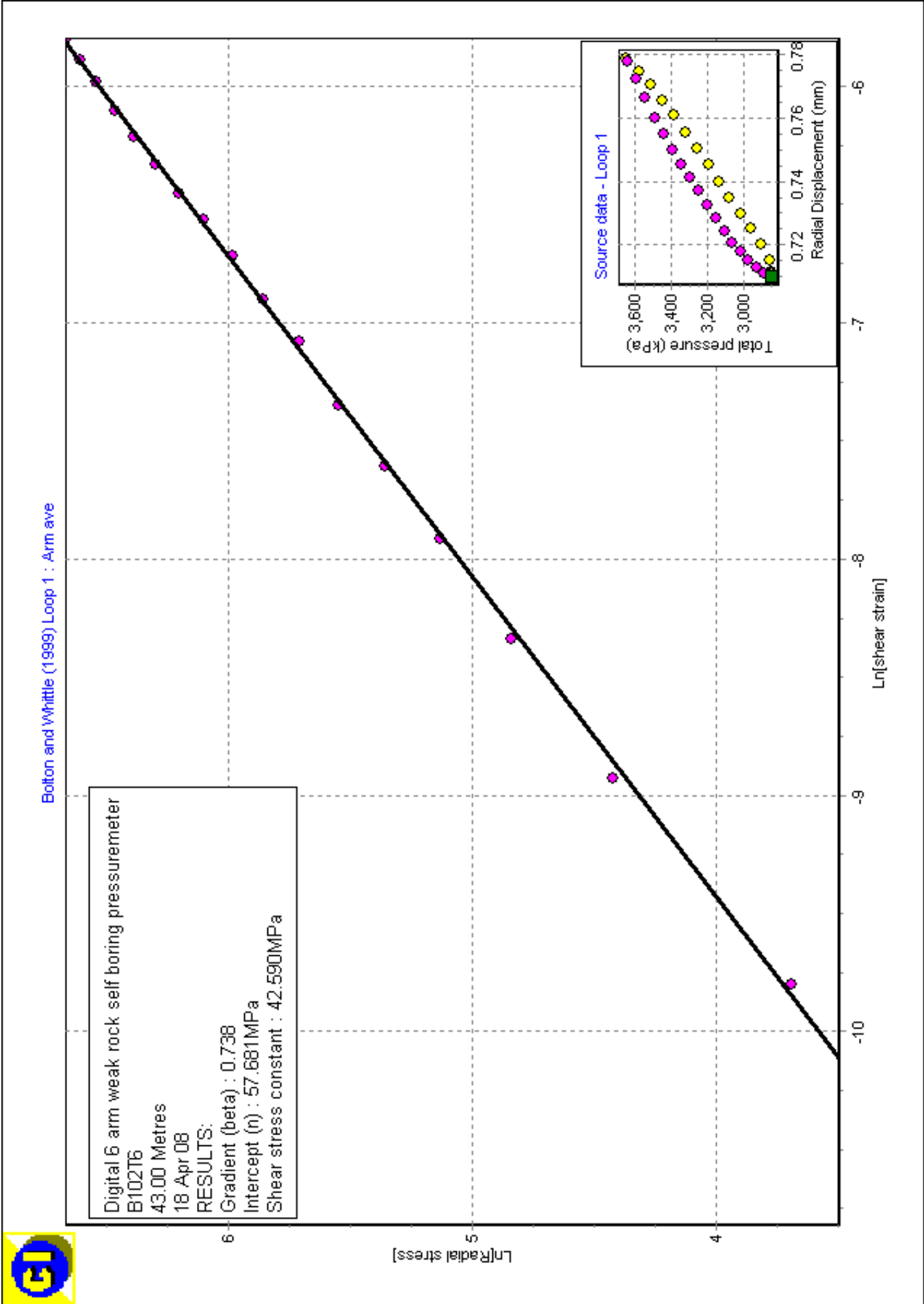


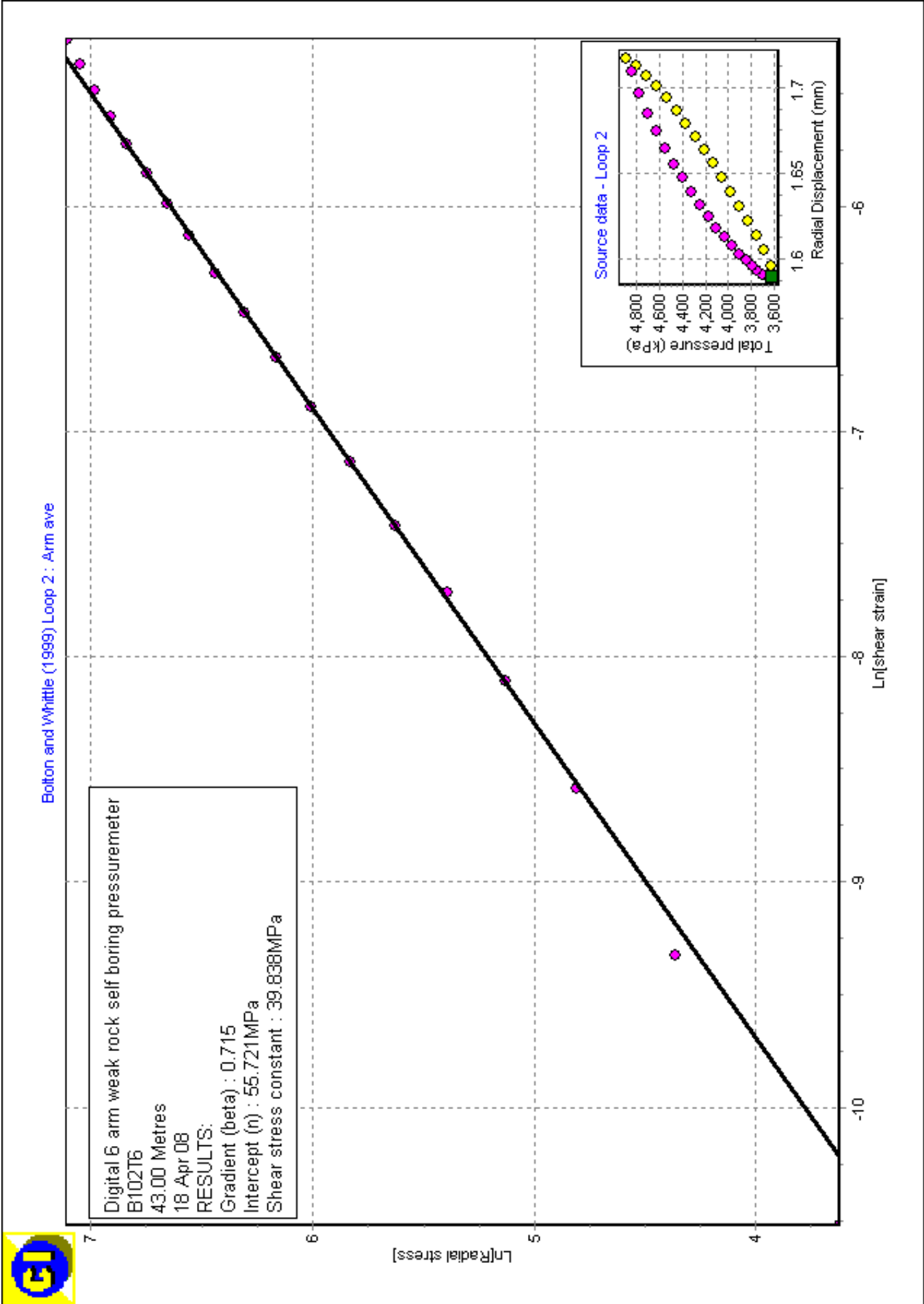


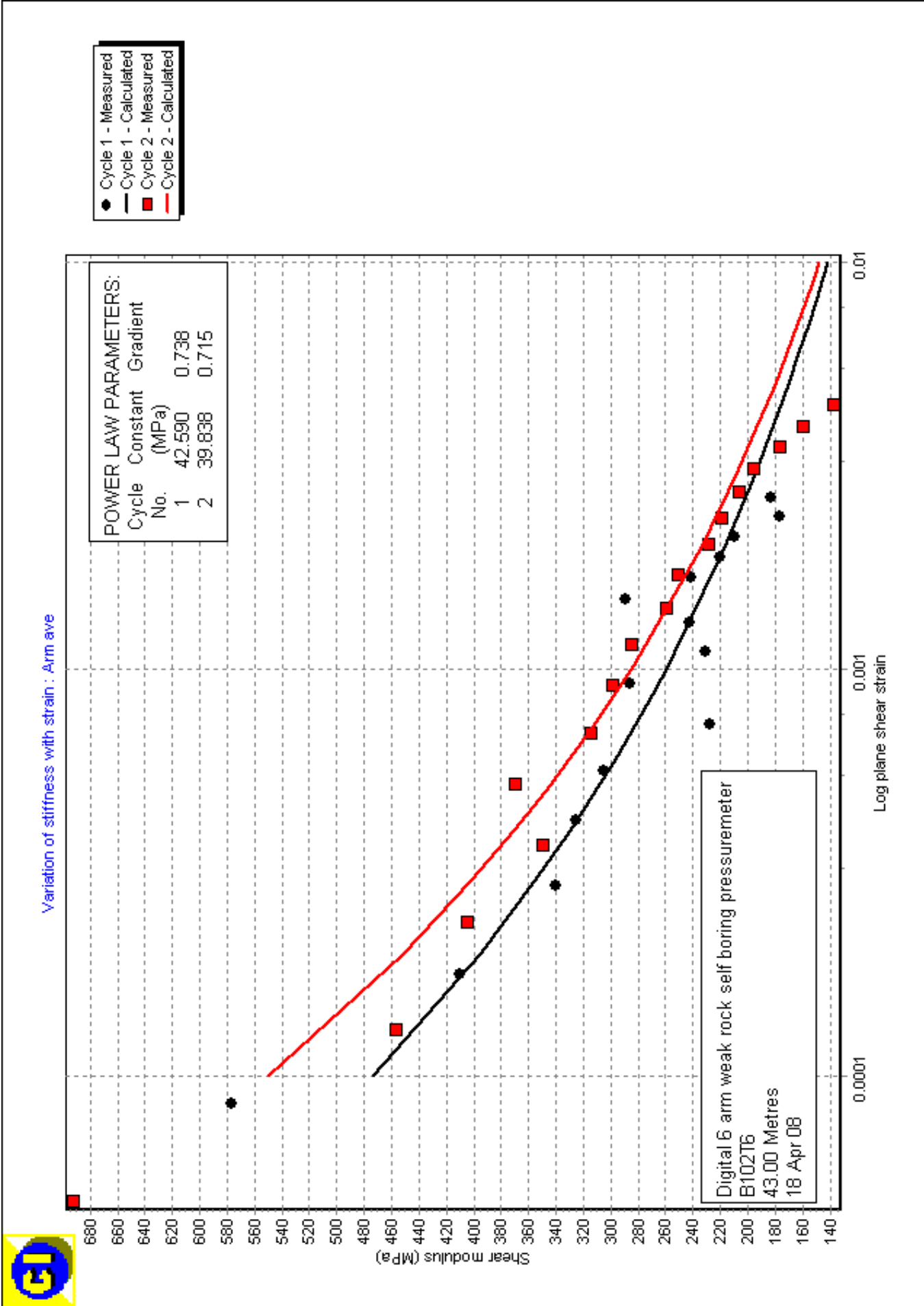


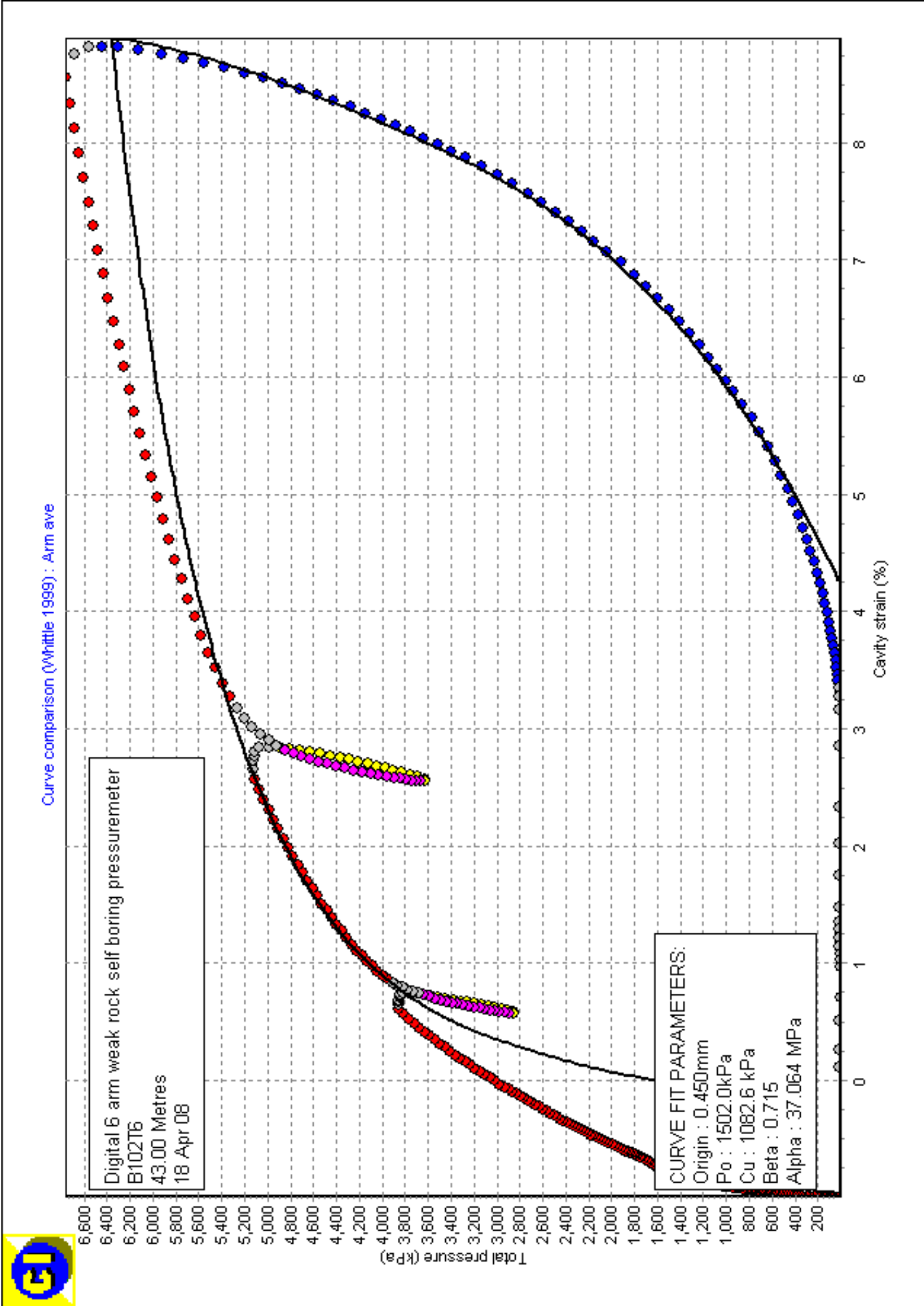








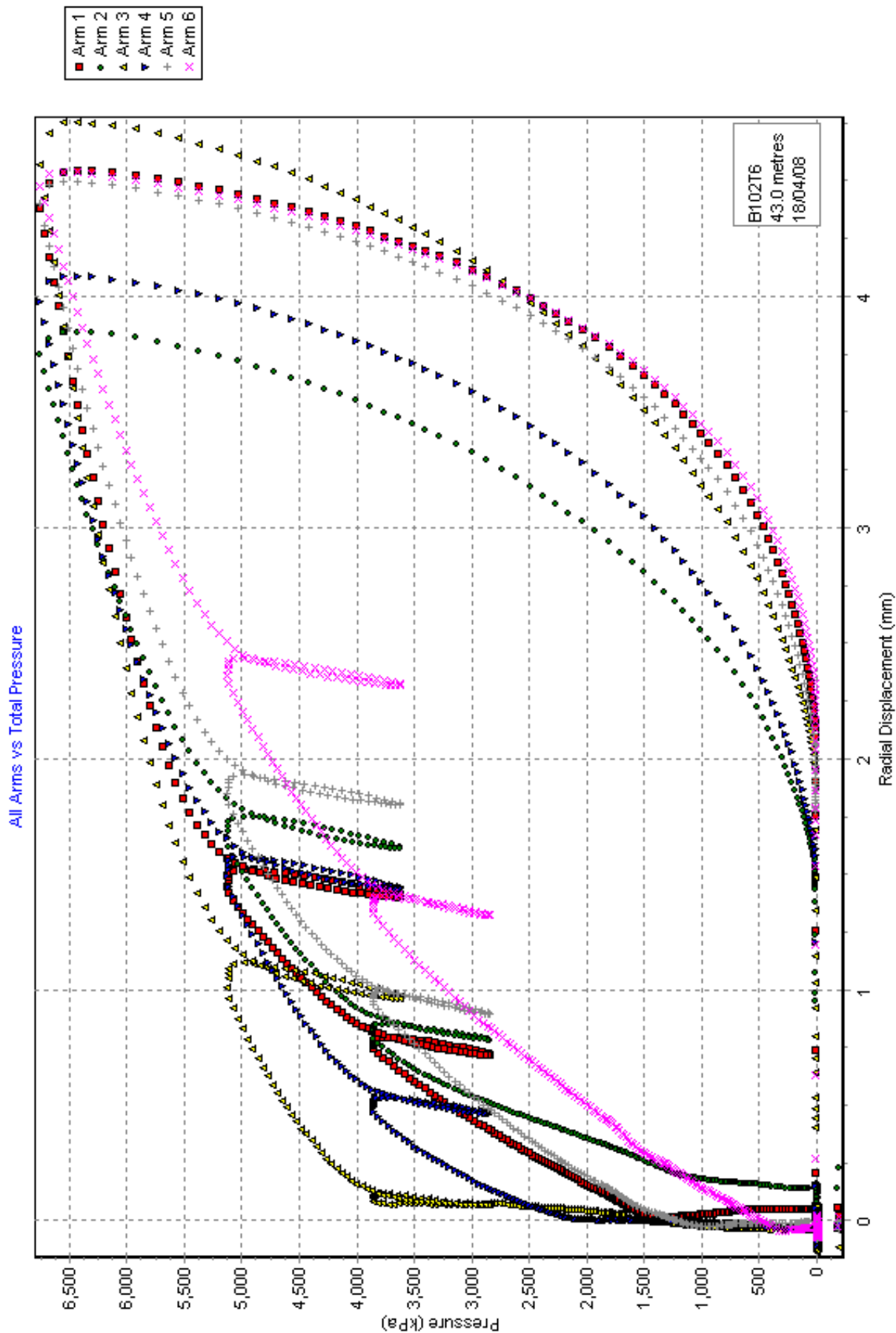




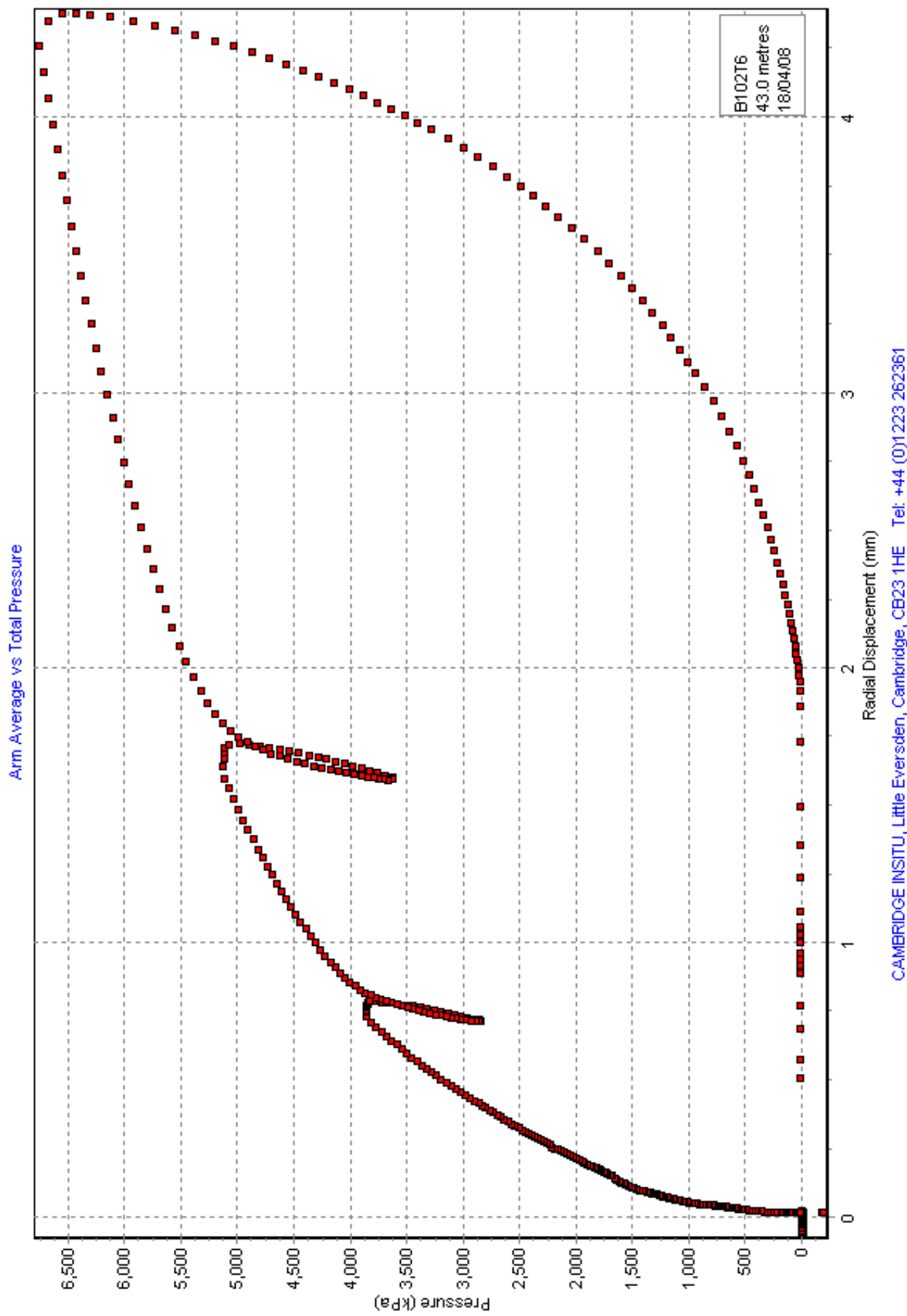
6 ARM SELF BORING PRESSUREMETER

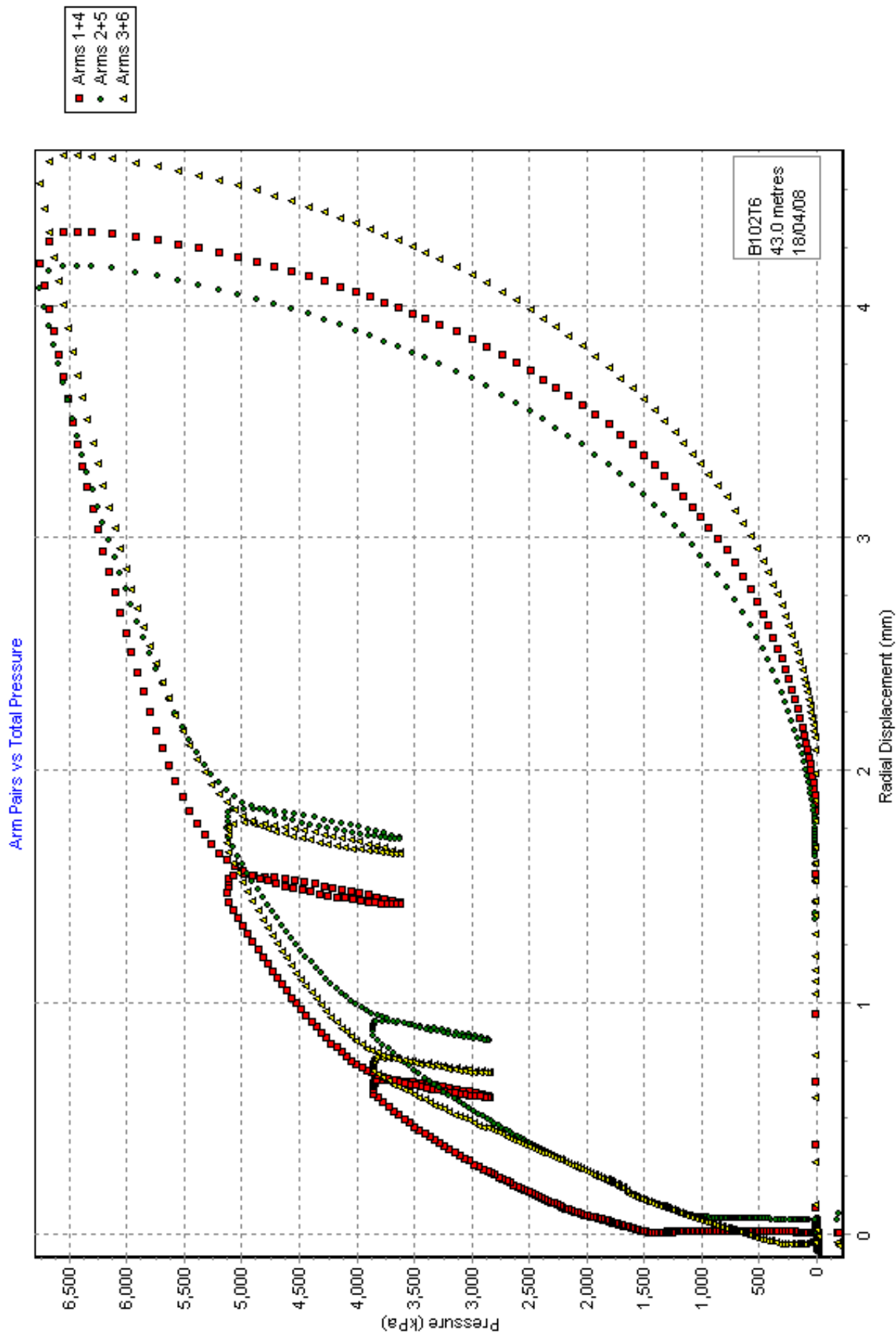
TEST RECORD SHEET

Site	Date	Day	Borehole	Test	Depth to Test Centre (below ground level)
DELMARIC PLAYS	18/4/08	Fri	102	6	43
Weather:- OVERCAST			Material:- Laminated - Laminated Sand/Clay		
Water table	Drilling Start	Drilling End	Distance	Drill Rate	Ram Pressure
?	11:05	11:40	1m	1m/35min	150 Bars
Ground level :-			Orientation:- NR		
Water Press.	Inst. OD	Shoe OD	Cutter Type	Cutter position	Probe Reference
200psi	89.1	89.1	73 RR	3mm	'1702-7'
Drilling Remarks:- SLIGHTLY BRISQ - SAND BARS REDUCE WP					
Strain Rate	Press. Rate	Cycle Time	Gas Bottle	Battery	PPC Type
- Hand Control		6.5 sec	300 BAR	12.5	TRV8
Max Pressure Cap.					
10 MPa					
Arm 1	Arm 2	Arm 3	Arm 4	Arm 5	Arm 6
-107	83	-67	36	-82	130
PPC A	PPC B	TPC	Date:-		
-1020	-918	-2448	Ground Level Zeros		
Pre-drilling Zeros					
Post-drilling Zeros					
-89	135	-80	24	-83	121
-904	-665	-2447	Pre-test Zeros		
Ground Level Zeros					
Test starts:-		11:50.			
Line	Notes				
561	Herd				
289	Loop 1				
640	Herd				
643	Loop 2				
717	unloaded				
Test ends:-		12:31.			
Max Press:-		675 MPa			
Calibrated Data details:					
Mem. Correction.	Mem. Compression.	Strain Cals.	Pressure Cals.		
W0130T1	W0130T2	10/4/08	11/4/08		
TEST REMARKS: AS before, good pump response & strain hardening. Pump fails to zero at end of test.					
Driller: Sam					
Tester: RW					

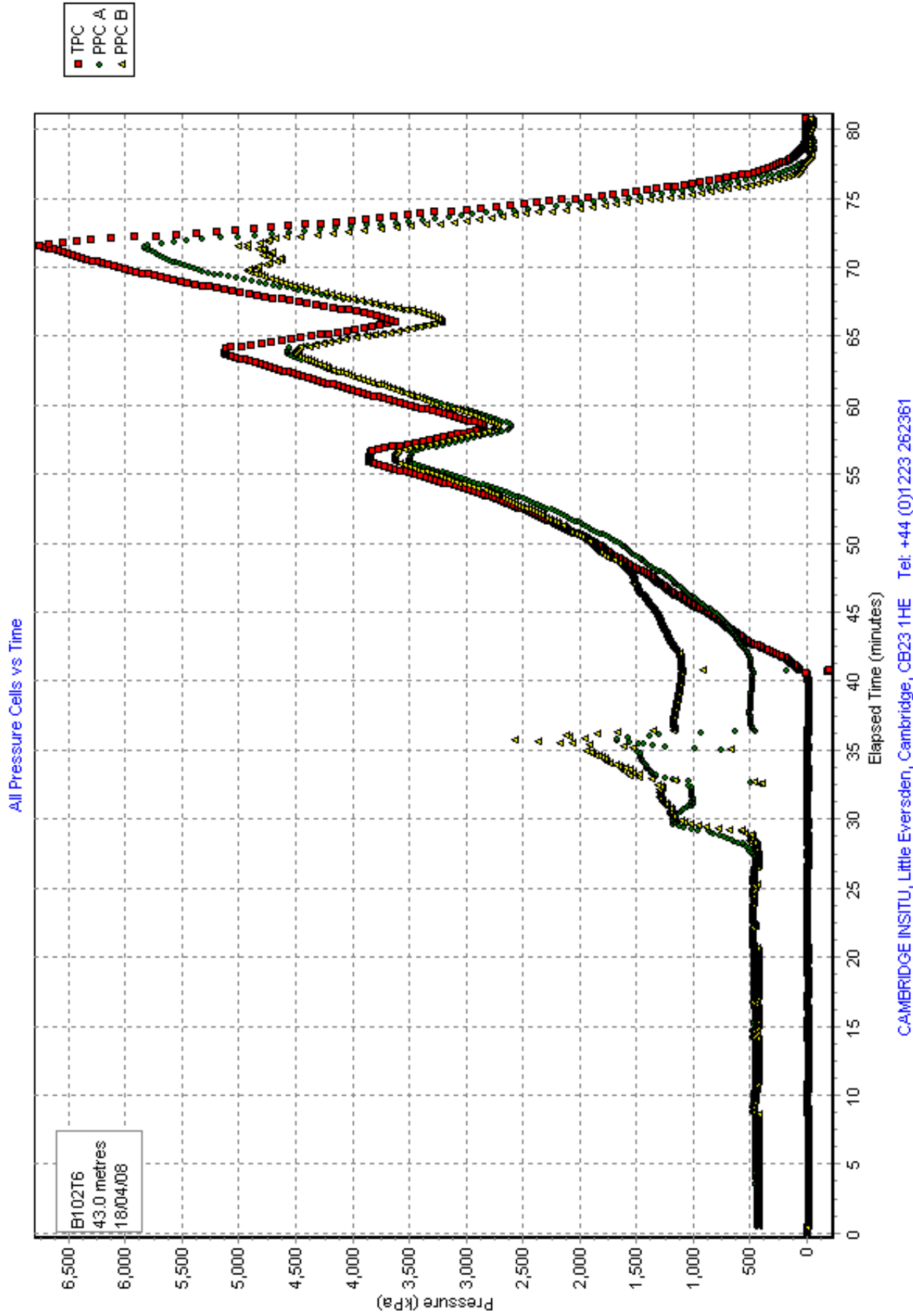


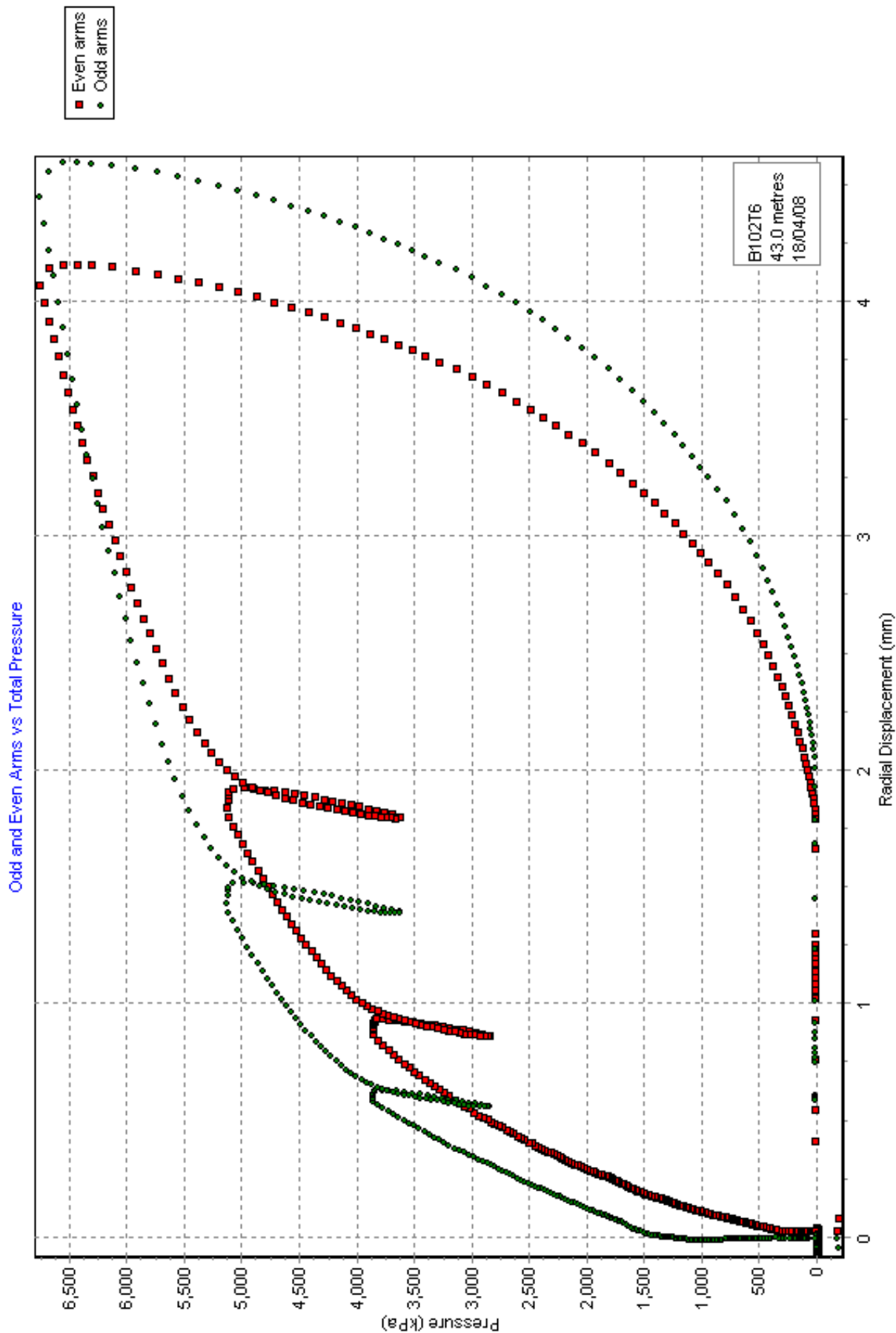
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[DETAILS OF TEST]

Project : 36237
Site : Denmark Place
Borehole : BH102
Test name : B102T7
Test date : 21 Apr 08
Test depth : 47.90 Metres
Water table : 5.6 Metres
Ambient PWP : 0.0 kPa
Material : Upnor Beds
Probe : Digital 6 arm weak rock self boring pressuremeter
Diameter : 88.1 mm
Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out

Analysed by RWW on 22 Apr 08

Remarks: Shoe edge and CHL badly damaged by gravel. Material gravelly, silty, greenish sand.

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm) : "Arm ave=2.016"
Po from Marsland & Randolph (kPa) : "Arm ave=1389.5"
Best estimate of Po (kPa) : "Arm ave=1390.0"

[UNDRAINED STRENGTH PARAMETERS]

Jefferies 1988 - Cu (kPa) : "Arm ave=722.9"
Undrained yield stress (kPa) : "Arm ave=2051.2"

[DRAINED ANALYSIS OF SANDS - HUGHES et al 1977]

Constant volume friction angle (°) : 32.0
Angle of internal friction (°) : "Arm ave=39.3"
Dilation angle (°) : "Arm ave=9.0"
Gradient of log-log plot : "Arm ave=0.448"

[LINEAR INTERPRETATION OF SHEAR MODULUS G]

Initial slope shear modulus (MPa) : "Arm ave=79.1"

Axis	Loop	Value	Mean Strain	Mean Pc	dE	dPc
	No	(MPa)	(%)	(kPa)	(%)	(kPa)
Arm ave	1	205.7	0.423	1568	0.278	573
Arm ave	2	208.5	2.111	2985	0.577	1208

[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

Axis	Loop	Intercept	Alpha	Gradient
	No	(MPa)	(MPa)	
Arm ave	1	29.940	20.126	0.672
Arm ave	2	41.164	28.039	0.681



Cavity strain vs Total Pressure : Arm ave

