

INSTRUMENTATION SYSTEMS FOR AND FAILURE MECHANISMS OF
AN
INDUCED SLOPE FAILURE PROJECT

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VOLUME TWO - Appendices

APPENDICES

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APPENDIX A

DATE TO DAY NUMBER CORRELATION

DATE/DAY NUMBER CORRELATION 1987 & 1988

DATE	DAY No.	DATE	DAY No.	DATE	DAY No.
01-Aug-87	-519	05-Mar-88	-302	08-Oct-88	-85
08-Aug-87	-512	12-Mar-88	-295	15-Oct-88	-78
15-Aug-87	-505	19-Mar-88	-288	22-Oct-88	-71
22-Aug-87	-498	26-Mar-88	-281	29-Oct-88	-64
29-Aug-87	-491	02-Apr-88	-274	05-Nov-88	-57
05-Sep-87	-484	09-Apr-88	-267	12-Nov-88	-50
12-Sep-87	-477	16-Apr-88	-260	19-Nov-88	-43
19-Sep-87	-470	23-Apr-88	-253	26-Nov-88	-36
26-Sep-87	-463	30-Apr-88	-246	03-Dec-88	-29
03-Oct-87	-456	07-May-88	-239	10-Dec-88	-22
10-Oct-87	-449	14-May-88	-232	17-Dec-88	-15
17-Oct-87	-442	21-May-88	-225	24-Dec-88	-8
24-Oct-87	-435	28-May-88	-218	31-Dec-88	-1
31-Oct-87	-428	04-Jun-88	-211		
07-Nov-87	-421	11-Jun-88	-204		
14-Nov-87	-414	18-Jun-88	-197		
21-Nov-87	-407	25-Jun-88	-190		
28-Nov-87	-400	02-Jul-88	-183		
05-Dec-87	-393	09-Jul-88	-176		
12-Dec-87	-386	16-Jul-88	-169		
19-Dec-87	-379	23-Jul-88	-162		
26-Dec-87	-372	30-Jul-88	-155		
02-Jan-88	-365	06-Aug-88	-148		
09-Jan-88	-358	13-Aug-88	-141		
16-Jan-88	-351	20-Aug-88	-134		
23-Jan-88	-344	27-Aug-88	-127		
30-Jan-88	-337	03-Sep-88	-120		
06-Feb-88	-330	10-Sep-88	-113		
13-Feb-88	-323	17-Sep-88	-106		
20-Feb-88	-316	24-Sep-88	-99		
27-Feb-88	-309	01-Oct-88	-92		

DATE/DAY NUMBER CORRELATION 1989

DATE	DAY No.	DATE	DAY No.	DATE	DAY No.
01-Jan-89	0	01-Feb-89	31	04-Mar-89	62
02-Jan-89	1	02-Feb-89	32	05-Mar-89	63
03-Jan-89	2	03-Feb-89	33	06-Mar-89	64
04-Jan-89	3	04-Feb-89	34	07-Mar-89	65
05-Jan-89	4	05-Feb-89	35	08-Mar-89	66
06-Jan-89	5	06-Feb-89	36	09-Mar-89	67
07-Jan-89	6	07-Feb-89	37	10-Mar-89	68
08-Jan-89	7	08-Feb-89	38	11-Mar-89	69
09-Jan-89	8	09-Feb-89	39	12-Mar-89	70
10-Jan-89	9	10-Feb-89	40	13-Mar-89	71
11-Jan-89	10	11-Feb-89	41	14-Mar-89	72
12-Jan-89	11	12-Feb-89	42	15-Mar-89	73
13-Jan-89	12	13-Feb-89	43	16-Mar-89	74
14-Jan-89	13	14-Feb-89	44	17-Mar-89	75
15-Jan-89	14	15-Feb-89	45	18-Mar-89	76
16-Jan-89	15	16-Feb-89	46	19-Mar-89	77
17-Jan-89	16	17-Feb-89	47	20-Mar-89	78
18-Jan-89	17	18-Feb-89	48	21-Mar-89	79
19-Jan-89	18	19-Feb-89	49	22-Mar-89	80
20-Jan-89	19	20-Feb-89	50	23-Mar-89	81
21-Jan-89	20	21-Feb-89	51	24-Mar-89	82
22-Jan-89	21	22-Feb-89	52	25-Mar-89	83
23-Jan-89	22	23-Feb-89	53	26-Mar-89	84
24-Jan-89	23	24-Feb-89	54	27-Mar-89	85
25-Jan-89	24	25-Feb-89	55	28-Mar-89	86
26-Jan-89	25	26-Feb-89	56	29-Mar-89	87
27-Jan-89	26	27-Feb-89	57	30-Mar-89	88
28-Jan-89	27	28-Feb-89	58	31-Mar-89	89
29-Jan-89	28	01-Mar-89	59	01-Apr-89	90
30-Jan-89	29	02-Mar-89	60	02-Apr-89	91
31-Jan-89	30	03-Mar-89	61	03-Apr-89	92

DATE/DAY NUMBER CORRELATION 1989

DATE	DAY No.	DATE	DAY No.	DATE	DAY No.
04-Apr-89	93	05-May-89	124	05-Jun-89	155
05-Apr-89	94	06-May-89	125	06-Jun-89	156
06-Apr-89	95	07-May-89	126	07-Jun-89	157
07-Apr-89	96	08-May-89	127	08-Jun-89	158
08-Apr-89	97	09-May-89	128	09-Jun-89	159
09-Apr-89	98	10-May-89	129	10-Jun-89	160
10-Apr-89	99	11-May-89	130	11-Jun-89	161
11-Apr-89	100	12-May-89	131	12-Jun-89	162
12-Apr-89	101	13-May-89	132	13-Jun-89	163
13-Apr-89	102	14-May-89	133	14-Jun-89	164
14-Apr-89	103	15-May-89	134	15-Jun-89	165
15-Apr-89	104	16-May-89	135	16-Jun-89	166
16-Apr-89	105	17-May-89	136	17-Jun-89	167
17-Apr-89	106	18-May-89	137	18-Jun-89	168
18-Apr-89	107	19-May-89	138	19-Jun-89	169
19-Apr-89	108	20-May-89	139	20-Jun-89	170
20-Apr-89	109	21-May-89	140	21-Jun-89	171
21-Apr-89	110	22-May-89	141	22-Jun-89	172
22-Apr-89	111	23-May-89	142	23-Jun-89	173
23-Apr-89	112	24-May-89	143	24-Jun-89	174
24-Apr-89	113	25-May-89	144	25-Jun-89	175
25-Apr-89	114	26-May-89	145	26-Jun-89	176
26-Apr-89	115	27-May-89	146	27-Jun-89	177
27-Apr-89	116	28-May-89	147	28-Jun-89	178
28-Apr-89	117	29-May-89	148	29-Jun-89	179
29-Apr-89	118	30-May-89	149	30-Jun-89	180
30-Apr-89	119	31-May-89	150	01-Jul-89	181
01-May-89	120	01-Jun-89	151	02-Jul-89	182
02-May-89	121	02-Jun-89	152	03-Jul-89	183
03-May-89	122	03-Jun-89	153	04-Jul-89	184
04-May-89	123	04-Jun-89	154	05-Jul-89	185

DATE/DAY NUMBER CORRELATION 1989

DATE	DAY No.	DATE	DAY No.	DATE	DAY No.
06-Jul-89	186	06-Aug-89	217	06-Sep-89	248
07-Jul-89	187	07-Aug-89	218	07-Sep-89	249
08-Jul-89	188	08-Aug-89	219	08-Sep-89	250
09-Jul-89	189	09-Aug-89	220	09-Sep-89	251
10-Jul-89	190	10-Aug-89	221	10-Sep-89	252
11-Jul-89	191	11-Aug-89	222	11-Sep-89	253
12-Jul-89	192	12-Aug-89	223	12-Sep-89	254
13-Jul-89	193	13-Aug-89	224	13-Sep-89	255
14-Jul-89	194	14-Aug-89	225	14-Sep-89	256
15-Jul-89	195	15-Aug-89	226	15-Sep-89	257
16-Jul-89	196	16-Aug-89	227	16-Sep-89	258
17-Jul-89	197	17-Aug-89	228	17-Sep-89	259
18-Jul-89	198	18-Aug-89	229	18-Sep-89	260
19-Jul-89	199	19-Aug-89	230	19-Sep-89	261
20-Jul-89	200	20-Aug-89	231	20-Sep-89	262
21-Jul-89	201	21-Aug-89	232	21-Sep-89	263
22-Jul-89	202	22-Aug-89	233	22-Sep-89	264
23-Jul-89	203	23-Aug-89	234	23-Sep-89	265
24-Jul-89	204	24-Aug-89	235	24-Sep-89	266
25-Jul-89	205	25-Aug-89	236	25-Sep-89	267
26-Jul-89	206	26-Aug-89	237	26-Sep-89	268
27-Jul-89	207	27-Aug-89	238	27-Sep-89	269
28-Jul-89	208	28-Aug-89	239	28-Sep-89	270
29-Jul-89	209	29-Aug-89	240	29-Sep-89	271
30-Jul-89	210	30-Aug-89	241	30-Sep-89	272
31-Jul-89	211	31-Aug-89	242	01-Oct-89	273
01-Aug-89	212	01-Sep-89	243		
02-Aug-89	213	02-Sep-89	244		
03-Aug-89	214	03-Sep-89	245		
04-Aug-89	215	04-Sep-89	246		
05-Aug-89	216	05-Sep-89	247		

APPENDIX B**INCLINOMETER DATA**

Inclinometer 01

Inclinometer 02

Inclinometer 03

Inclinometer 04

Inclinometer 05

Inclinometer 06

Inclinometer 07

Inclinometer 08

Inclinometer 09

Inclinometer 10

Inclinometer 11

Inclinometer 12

String Inclinometer 01

String Inclinometer 02

INCLINOMETER 01

Total Depth 10.0 metres

INCLINOMETER O1 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
14-Jan-88	-353	-168	-160	-148	-151	-148	-148	-150	-152	-151
20-Jan-88	-347	-168	-159	-148	-152	-150	-149	-151	-154	-153
02-Feb-88	-334	0	-159	-148	-151	-149	-147	-150	-152	-151
25-Feb-88	-311	-167	-160	-148	-151	-149	-147	-149	-152	-151
02-Mar-88	-305	-168	-159	-148	-151	-148	-147	-150	-152	-151
13-Mar-88	-294	-168	-159	-148	-152	-148	-145	-150	-151	-152
11-Apr-88	-265	-167	-159	-148	-151	-149	-148	-151	-152	-151
05-May-88	-241	-171	-159	-149	-151	-148	-147	-150	-154	-151
25-May-88	-221	-168	-159	-147	-151	-149	-147	-151	-153	-150
13-Jul-88	-172	-167	-159	-148	-151	-149	-147	-149	-151	-151
14-Dec-88	-18	-169	-158	-146	-149	-147	-146	-149	-152	-151
27-Jan-89	26	-172	-158	-146	-149	-147	-146	-149	-151	-151
10-Feb-89	40	-172	-159	-146	-149	-147	-146	-149	-152	-150
20-Mar-89	78	-172	-159	-147	-149	147	-146	-149	-152	-150
30-Mar-89	88	-169	-159	-146	-149	-147	-146	-149	-152	-150
18-Apr-89	107	-169	-159	-146	-149	-147	-146	-148	-152	-150
04-May-89	123	-170	-159	-146	-149	-146	-146	-149	-151	-150
19-Jun-89	169	-165	-155	-144	-147	-146	-145	-149	-151	-150
24-Jun-89	174	-168	-158	-146	-149	-147	-146	-150	-153	-151
29-Jun-89	179	-171	-159	-146	-150	-147	-148	-150	-153	-151
03-Jul-89	183	-169	-157	-144	-149	-148	-148	-149	-151	-150
05-Jul-89	185	-169	-156	-144	-147	-146	-145	-150	-154	-151
06-Jul-89	186	-163	-157	-145	-148	-145	-148	-149	-151	-151
27-Jun-89	177	-170	-158	-146	-149	-147	-146	-149	-152	-150
07-Jul-89	187	-170	-157	-145	-148	-146	-146	-149	-152	-150
10-Jul-89	190	-173	-157	-145	-148	-146	-146	-150	-152	-150
12-Jul-89	192	-174	-157	-145	-148	-146	-146	-149	-152	-150
14-Jul-89	194	-170	-157	-145	-148	-146	-146	-149	-152	-150
16-Jul-89	196	-169	-157	-145	-147	-145	-146	-149	-152	-150
18-Jul-89	198	-174	-145	-145	-147	-146	-146	-149	-151	-150
20-Jul-89	200	-173	-157	-144	-147	-146	-146	-149	-152	-150
24-Jul-89	204	-180	-157	-144	-147	-145	-145	-148	-151	-150
27-Jul-89	207	-183	-158	-143	-146	-145	-145	-148	-152	-150
18-Sep-89	260	-181	-158	-143	-146	-144	-144	-148	-151	-149
27-Oct-89	299	-161	-149	-142	-146	-144	-145	-148	-151	-149

INCLINOMETER O1 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
14-Jan-88	-353	-143	-145	-145	-146	-148	-140	-141	-129	-114
20-Jan-88	-347	-145	-146	-148	-148	-150	-142	-143	-132	-115
02-Feb-88	-334	-143	-145	-145	-146	-149	-140	-141	-129	-113
25-Feb-88	-311	-143	-145	-146	-146	-148	-140	-141	-129	-114
02-Mar-88	-305	-143	-145	-145	-146	-147	-141	-141	-130	-113
13-Mar-88	-294	-145	-144	-145	-146	-147	-140	-141	-130	-113
11-Apr-88	-265	-143	-145	-146	-147	-149	-140	-141	-130	-113
05-May-88	-241	-143	-145	-146	-146	-148	-140	-141	-130	-113
25-May-88	-221	-143	-145	-146	-146	-149	-140	-141	-130	-113
13-Jul-88	-172	-143	-145	-146	-146	-148	-141	-141	-131	-114
14-Dec-88	-18	-144	-145	-145	-146	-148	-140	-141	-130	-113
27-Jan-89	26	-143	-144	-145	-146	-148	-140	-141	-130	-114
10-Feb-89	40	-143	-145	-145	-146	-148	-140	-141	-130	-114
20-Mar-89	78	-143	-145	-146	-146	-148	-140	-140	-130	-114
30-Mar-89	88	-143	-145	-145	-146	-148	-139	-141	-130	-114
18-Apr-89	107	-142	-144	-145	-145	-148	-139	-140	-130	-114
04-May-89	123	-143	-144	-145	-145	-148	-139	-140	-130	-113
19-Jun-89	169	-142	-143	-144	-144	-146	-137	-139	-129	-113
24-Jun-89	174	-144	-145	-146	-145	-147	-137	-139	-130	-114
29-Jun-89	179	-145	-146	-145	-146	-147	-138	-140	-130	-114
03-Jul-89	183	-143	-144	-143	-144	-147	-138	-138	-130	-113
05-Jul-89	185	-144	-146	-144	-145	-147	-137	-139	-131	-114
06-Jul-89	186	-143	-144	-145	-144	-145	-136	-136	-128	-112
27-Jun-89	177	-143	-144	-144	-145	-146	-137	-138	-129	-113
07-Jul-89	187	-143	-144	-144	-144	-146	-137	-138	-129	-113
10-Jul-89	190	-143	-145	-145	-146	-147	-136	-138	-130	-114
12-Jul-89	192	-143	-144	-144	-145	-146	-136	-137	-129	-113
14-Jul-89	194	-143	-144	-144	-144	-145	-135	-137	-129	-113
16-Jul-89	196	-143	-144	-144	-144	-145	-135	-137	-129	-113
18-Jul-89	198	-143	-144	-144	-145	-145	-135	-136	-129	-114
20-Jul-89	200	-143	-144	-144	-144	-145	-135	-136	-129	-114
24-Jul-89	204	-143	-144	-144	-144	-145	-135	-136	-129	-113
27-Jul-89	207	-143	-144	-144	-144	-145	-135	-136	-129	-113
18-Sep-89	260	-142	-143	-143	-144	-145	-135	-135	-129	-113
27-Oct-89	299	-142	-143	-144	-144	-145	-135	-135	-129	-113

INCLINOMETER O1 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m		
		9.0	9.5	10.0
14-Jan-88	-353	-102	-100	0
20-Jan-88	-347	-103	-100	0
02-Feb-88	-334	-102	-98	0
25-Feb-88	-311	-103	-99	0
02-Mar-88	-305	-102	-99	0
13-Mar-88	-294	-102	-99	0
11-Apr-88	-265	-103	-99	0
05-May-88	-241	-103	-99	0
25-May-88	-221	-103	-100	0
13-Jul-88	-172	-103	-99	0
14-Dec-88	-18	-103	-99	0
27-Jan-89	26	-102	-99	0
10-Feb-89	40	-102	-99	0
20-Mar-89	78	-102	-99	0
30-Mar-89	88	-103	-99	0
18-Apr-89	107	-102	-99	0
04-May-89	123	-103	-100	0
19-Jun-89	169	-101	-98	0
24-Jun-89	174	-103	-98	0
29-Jun-89	179	-104	-99	0
03-Jul-89	183	-102	-99	0
05-Jul-89	185	-101	-100	0
06-Jul-89	186	-101	-97	0
27-Jun-89	177	-101	-99	0
07-Jul-89	187	-102	-99	0
10-Jul-89	190	-102	-99	0
12-Jul-89	192	-102	-99	0
14-Jul-89	194	-102	-99	0
16-Jul-89	196	-102	-99	0
18-Jul-89	198	-102	-99	0
20-Jul-89	200	-103	-99	0
24-Jul-89	204	-102	-99	0
27-Jul-89	207	-102	-99	0
18-Sep-89	260	-102	-99	0
27-Oct-89	299	-102	-99	0

INCLINOMETER 02

Total Depth 10.0 metres

INCLINOMETER 02 : Face A/B Mean Deviations (0.1mm)

DATE	DAY	depth m								
	No.	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
25-Nov-87	-403	23	12	9	8	-1	-13	-25	-35	-32
02-Feb-88	-334	22	11	9	8	-2	-13	-25	-35	-32
25-Feb-88	-311	21	12	9	8	-1	-12	-25	-35	-32
01-Mar-88	-306	20	12	9	8	-1	-13	-25	-35	-32
13-Mar-88	-294	21	12	10	8	-1	-14	-23	-35	-32
11-Apr-88	-265	21	12	10	9	-1	-13	-26	-34	-32
05-May-88	-241	21	11	9	7	-2	-14	-25	-35	-32
25-May-88	-221	23	12	9	8	2	-15	-25	-39	-33
13-Jul-88	-172	47	17	11	9	-1	-11	-27	-35	-32
18-Oct-88	-75	38	21	16	15	3	-10	-22	-33	-31
14-Dec-88	-18	41	21	17	15	3	-10	-22	-33	-31
27-Jan-89	26	41	21	17	15	4	-9	-22	-33	-31
20-Mar-89	78	40	20	18	15	4	-9	-22	-33	-31
30-Mar-89	88	39	21	18	15	4	-10	-22	-33	-30
18-Apr-89	107	40	21	18	16	4	-9	-22	-33	-30
04-May-89	123	40	20	18	15	4	-10	-22	-33	-31
19-Jun-89	169	19	15	16	13	1	-11	-24	-35	-32
24-Jun-89	174	31	17	16	14	1	-9	-23	-32	-30
27-Jun-89	177	28	16	15	13	2	-10	-22	-34	-31
29-Jun-89	179	31	18	16	14	4	-9	-21	-34	-30
03-Jul-89	183	28	18	17	14	3	-9	-21	-32	-32
05-Jul-89	185	23	17	17	14	4	-9	-21	-33	-30
06-Jul-89	186	24	17	16	15	5	-9	-20	-33	-30
07-Jul-89	187	31	19	18	17	6	-7	-20	-32	-29
10-Jul-89	190	34	20	18	19	7	-5	-19	-31	-28
12-Jul-89	192	29	20	20	19	8	-5	-19	-31	-28
14-Jul-89	194	24	18	21	20	9	-4	-18	-30	-27
16-Jul-89	196	17	13	23	22	11	-2	-16	-29	-26
17-Jul-89	197	10	9	23	24	13	-1	-16	-28	-25
18-Jul-89	198	11	7	23	24	13	-1	-16	-28	-26
20-Jul-89	200	10	4	23	25	13	0	-16	-28	-25
21-Jul-89	201	3	2	23	25	13	0	-15	-28	-25
24-Jul-89	204	-4	-1	23	26	14	0	-15	-27	-25
27-Jul-89	207	-4	-3	23	26	14	1	-14	-27	-25
18-Sep-89	260	12	13	24	28	17	4	-12	-25	-22
27-Oct-89	299	34	26	28	29	18	4	-12	-25	-22

INCLINOMETER 02 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
25-Nov-87	-403	-35	-26	-17	-6	-3	8	14	24	26
02-Feb-88	-334	-35	-26	-17	-6	-3	7	14	24	25
25-Feb-88	-311	-35	-26	-18	-6	-3	8	13	24	25
01-Mar-88	-306	-35	-26	-18	-6	-4	8	13	24	26
13-Mar-88	-294	-35	-26	-18	-6	-4	9	14	24	26
11-Apr-88	-265	-35	-27	-17	-6	-3	8	14	24	26
05-May-88	-241	-35	-27	-18	-6	-2	8	13	24	25
25-May-88	-221	-38	-27	-16	-6	-2	9	14	25	26
13-Jul-88	-172	-35	-26	-19	-6	-3	7	13	24	26
18-Oct-88	-75	-34	-26	-17	-6	-4	8	13	24	26
14-Dec-88	-18	-34	-26	-17	-5	-3	8	14	24	26
27-Jan-89	26	-33	-25	-17	-5	-3	8	14	25	26
20-Mar-89	78	-33	-25	-16	-5	-2	10	15	25	26
30-Mar-89	88	-33	-25	-16	-4	-1	10	15	24	26
18-Apr-89	107	-33	-25	-16	-4	-1	11	15	24	27
04-May-89	123	-33	-25	-16	-4	-1	11	15	25	27
19-Jun-89	169	-34	-27	-17	-5	-1	10	15	24	26
24-Jun-89	174	-32	-25	-15	-2	3	13	16	25	27
27-Jun-89	177	-33	-25	-15	-3	3	12	16	24	25
29-Jun-89	179	-32	-25	-16	-2	4	14	17	23	26
03-Jul-89	183	-32	-25	-14	-2	7	14	17	24	27
05-Jul-89	185	-30	-25	-14	-2	6	14	15	24	25
06-Jul-89	186	-29	-25	-15	-2	6	14	17	26	26
07-Jul-89	187	-30	-24	-13	-1	7	14	16	25	27
10-Jul-89	190	-29	-23	-12	0	8	15	17	25	27
12-Jul-89	192	-29	-23	-12	1	8	15	16	25	27
14-Jul-89	194	-28	-23	-12	1	8	15	16	25	26
16-Jul-89	196	-28	-22	-11	1	9	15	17	25	27
17-Jul-89	197	-27	-22	-10	2	9	15	17	25	27
18-Jul-89	198	-26	-22	-10	2	10	16	17	26	27
20-Jul-89	200	-27	-21	-10	1	9	15	17	25	27
21-Jul-89	201	-26	-21	-10	1	9	15	17	25	27
24-Jul-89	204	-26	-21	-9	2	9	16	17	26	27
27-Jul-89	207	-26	-21	-9	2	9	16	17	25	27
18-Sep-89	260	-24	-20	-9	2	9	15	17	26	27
27-Oct-89	299	-24	-20	-8	2	10	16	17	25	26

INCLINOMETER 02 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m		
		9.0	9.5	10.0
25-Nov-87	-403	31	37	0
02-Feb-88	-334	31	37	0
25-Feb-88	-311	31	38	0
01-Mar-88	-306	31	37	0
13-Mar-88	-294	31	37	0
11-Apr-88	-265	31	38	0
05-May-88	-241	20	37	0
25-May-88	-221	31	38	0
13-Jul-88	-172	31	37	0
18-Oct-88	-75	31	37	0
14-Dec-88	-18	32	38	0
27-Jan-89	26	32	37	0
20-Mar-89	78	32	38	0
30-Mar-89	88	31	38	0
18-Apr-89	107	32	38	0
04-May-89	123	32	38	0
19-Jun-89	169	31	38	0
24-Jun-89	174	32	39	0
27-Jun-89	177	31	37	0
29-Jun-89	179	32	38	0
03-Jul-89	183	32	37	0
05-Jul-89	185	32	39	0
06-Jul-89	186	33	39	0
07-Jul-89	187	32	38	0
10-Jul-89	190	32	39	0
12-Jul-89	192	32	38	0
14-Jul-89	194	31	38	0
16-Jul-89	196	32	38	0
17-Jul-89	197	32	38	0
18-Jul-89	198	32	39	0
20-Jul-89	200	32	39	0
21-Jul-89	201	32	38	0
24-Jul-89	204	32	38	0
27-Jul-89	207	32	38	0
18-Sep-89	260	32	38	0
27-Oct-89	299	32	39	0

INCLINOMETER 03

Total Depth 15.0 metres

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
25-Nov-87	-403	-124	-121	-100	-73	-51	-39	-39	-32	-29
07-Jan-88	-360	-124	-120	-100	-73	-50	-39	-38	-31	-30
20-Jan-88	-347	-122	-120	-100	-73	-51	-38	-39	-30	-30
02-Feb-88	-334	-124	-119	-100	-73	-49	-38	-38	-30	-29
25-Feb-88	-311	-123	-120	-99	-72	-51	-39	-39	-32	-30
29-Feb-88	-307	-122	-121	-100	-73	-51	-39	-37	-30	-29
13-Mar-88	-294	-129	-120	-100	-74	-51	-39	-38	-34	-29
05-May-88	-241	-124	-120	-99	-72	-52	-38	-39	-30	-29
25-May-88	-221	-121	-121	-100	-73	-51	-38	-33	-30	-29
11-Apr-88	-265	-124	-120	-99	-72	-55	-35	-39	-30	-29
13-Jul-88	-172	-105	-113	-100	-74	-52	-39	-41	-31	-30
14-Dec-88	-18	-112	-113	-97	-70	-49	-37	-37	-29	-28
27-Jan-89	26	-112	-112	-97	-69	-49	-37	-37	-29	-27
10-Feb-89	40	-109	-112	-96	-69	-49	-36	-37	-29	-27
20-Mar-89	78	-109	-111	-95	-68	-48	-36	-36	-29	-27
30-Mar-89	88	-108	-111	-95	-68	-48	-36	-36	-29	-27
18-Apr-89	107									
04-May-89	123	-40	-20	18	15	4	-10	-22	-33	-31
19-Jun-89	169	-19	-15	16	13	1	-11	-24	-35	-32
24-Jun-89	174	-31	-17	16	14	1	-9	-23	-32	-30
24-Jun-89	174	-112	-113	-95	-68	-47	-35	-35	-28	-23
27-Jun-89	177	-113	-112	-95	-68	-48	-36	-33	-27	-24
29-Jun-89	179	-111	-113	-94	-66	-45	-36	-33	-27	-24
02-Jul-89	182	-109	-111	-96	-68	-47	-36	-32	-28	-22
03-Jul-89	183	-110	-110	-95	-68	-46	-37	-32	-27	-20
04-Jul-89	184	-111	-110	-95	-66	-45	-36	-31	-27	-21
06-Jul-89	186	-102	-101	-87	-58	-39	-30	-36	-26	-22
07-Jul-89	187	-90	-90	-78	-51	-33	-28	-24	-23	-16
08-Jul-89	188	-79	-79	-70	-46	-28	-24	-20	-21	-15
09-Jul-89	189	-77	-74	-66	-43	-26	-22	-18	-19	-12
10-Jul-89	190	-77	-71	-63	-41	-24	-21	-17	-19	-12
12-Jul-89	192	-71	-65	-60	-39	-22	-19	-15	-17	-11
13-Jul-89	193	-65	-62	-58	-37	-20	-18	-14	-17	-10
14-Jul-89	194	-59	-59	-57	-35	-19	-16	-13	-16	-9
16-Jul-89	196	-52	-53	-54	-33	-16	-14	-6	-9	-3

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
17-Jul-89	197	-54	-53	-54	-33	-14	-13	-3	-7	-2
18-Jul-89	198	-48	-53	-54	-33	-14	-12	-1	-6	-1
19-Jul-89	199	-47	-52	-53	-32	-13	-11	-1	-4	0
20-Jul-89	200	-47	-52	-53	-32	-12	-10	0	-4	0
21-Jul-89	201	-38	-51	-52	-31	-12	-10	1	-3	1
24-Jul-89	204	-42	-50	-52	-31	-10	-9	2	-2	2
27-Jul-89	207	-38	-50	-52	-30	-10	-8	3	-2	2
18-Sep-89	260	69	25	0	35	54	24	21	11	9
09-Oct-89	281	97	39	3	36	54	24	21	11	9
27-Oct-89	299	76	48	26	54	78	32	23	12	10

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
25-Nov-87	-403	-20	-15	-7	-14	-11	-9	-15	-22	-13
07-Jan-88	-360	-20	-14	-8	-14	-11	-9	-14	-22	-14
20-Jan-88	-347	-21	-14	-7	-14	-11	-9	-15	-22	-13
02-Feb-88	-334	-20	-14	-8	-13	-11	-9	-15	-22	-14
25-Feb-88	-311	-19	-14	-7	-14	-11	-9	-16	-22	-14
29-Feb-88	-307	-20	-14	-8	-13	-11	-9	-15	-22	-14
13-Mar-88	-294	-20	-14	-8	-14	-11	-9	-15	-22	-14
05-May-88	-241	-19	-14	-7	-14	-11	-9	-15	-22	-13
25-May-88	-221	-18	-13	-8	-14	-12	-10	-15	-23	-14
11-Apr-88	-265	-20	-14	-8	-14	-11	-9	-16	-23	-14
13-Jul-88	-172	-20	-15	-8	-14	-11	-9	-15	-22	-14
14-Dec-88	-18	-17	-13	-6	-13	-10	-8	-14	-21	-12
27-Jan-89	26	-17	-13	-7	-13	-10	-7	-14	-21	-12
10-Feb-89	40	-17	-13	-6	-12	-9	-8	-14	-21	-12
20-Mar-89	78	-16	-12	-6	-12	-9	-7	-13	-21	-12
30-Mar-89	88	-17	-12	-5	-11	-9	-6	-13	-21	-11
18-Apr-89	107									
04-May-89	123	-33	-25	-16	-4	-1	11	15	25	27
19-Jun-89	169	-34	-27	-17	-5	-1	10	15	24	26
24-Jun-89	174	-32	-25	-15	-2	3	13	16	25	27
24-Jun-89	174	-10	-11	-3	-9	0	14	-7	-20	-11
27-Jun-89	177	-8	-12	-3	-7	2	24	-9	-21	-13
29-Jun-89	179	-9	-13	-3	-8	4	28	-9	-19	-12
02-Jul-89	182	-7	-14	-4	-8	4	32	-7	-21	-12
03-Jul-89	183	-3	-12	-4	-6	5	35	-10	-21	-11
04-Jul-89	184	-5	-13	-3	-8	6	38	-9	-19	-10
06-Jul-89	186	-6	-13	-3	-7	9	47	-11	-20	-13
07-Jul-89	187	-2	-11	-2	-6	8	46	-9	-21	-11
08-Jul-89	188	1	-11	-1	-6	9	48	-8	-20	-11
09-Jul-89	189	3	-9	0	-6	10	48	-8	-20	-11
10-Jul-89	190	3	-9	0	-5	10	48	-8	-20	-11
12-Jul-89	192	5	-9	1	-5	11	49	-8	-20	-11
13-Jul-89	193	6	-8	2	-5	11	50	-8	-20	-11
14-Jul-89	194	6	-8	2	-5	11	52	-8	-20	-11
16-Jul-89	196	12	-6	4	-3	13	55	-8	-20	-11

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
17-Jul-89	197	14	-5	5	-2	14	57	-7	-20	-11
18-Jul-89	198	14	-5	5	-2	16	57	-7	-19	-11
19-Jul-89	199	16	-4	5	-1	15	58	-7	-20	-11
20-Jul-89	200	16	-4	6	-1	16	57	-7	-20	-11
21-Jul-89	201	16	-4	6	0	16	57	-7	-20	-10
24-Jul-89	204	17	-3	6	-1	16	57	-7	-19	-10
27-Jul-89	207	18	-3	7	0	17	57	-7	-19	-10
18-Sep-89	260	28	-2	8	1	19	56	-7	-19	-10
09-Oct-89	281	29	-2	8	1	19	56	-7	-19	-10
27-Oct-89	299	30	-2	8	1	19	56	-6	-19	-9

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
25-Nov-87	-403	-15	-26	-25	-17	-11	0	7	-22	-30
07-Jan-88	-360	-15	-28	-24	-17	-10	1	7	-22	-30
20-Jan-88	-347	-15	-27	-25	-17	-10	1	7	-22	-31
02-Feb-88	-334	-15	-26	-24	-17	-11	0	7	-22	-30
25-Feb-88	-311	-16	-27	-25	-16	-11	1	7	-22	-30
29-Feb-88	-307	-12	-29	-24	-17	-11	0	4	-17	-30
13-Mar-88	-294	-16	-26	-24	-17	-11	0	6	-20	-30
05-May-88	-241	-15	-26	-25	-17	-11	0	7	-22	-30
25-May-88	-221	-15	-27	-25	-17	-11	-1	7	-23	-30
11-Apr-88	-265	-15	-28	-25	-17	-11	0	7	-22	-27
13-Jul-88	-172	-13	-28	-25	-17	-11	-1	4	-17	-30
14-Dec-88	-18	-15	-26	-25	-17	-11	0	5	-18	-30
27-Jan-89	26	-14	-26	-24	-17	-11	1	7	-21	-30
10-Feb-89	40	-14	-26	-24	-16	-10	1	7	-22	-30
20-Mar-89	78	-14	-26	-24	-16	-11	1	7	-22	-31
30-Mar-89	88	-14	-26	-24	-16	-10	1	7	-22	-30
18-Apr-89	107									
04-May-89	123	32	38	0	0	0	0	0	0	0
19-Jun-89	169	31	38	0	0	0	0	0	0	0
24-Jun-89	174	32	39	0	0	0	0	0	0	0
24-Jun-89	174	-15	-25	-24	-16	-11	2	7	-21	-30
27-Jun-89	177	-14	-27	-26	-16	-10	1	8	-21	-29
29-Jun-89	179	-13	-27	-23	-15	-12	0	7	-21	-30
02-Jul-89	182	-14	-25	-24	-18	-12	-1	6	-20	-30
03-Jul-89	183	-13	-25	-26	-17	-9	0	9	-23	-30
04-Jul-89	184	-14	-26	-25	-17	-11	0	6	-22	-31
06-Jul-89	186	-14	-26	-25	-17	-11	0	8	-22	-30
07-Jul-89	187	-14	-26	-24	-17	-11	0	7	-22	-30
08-Jul-89	188	-15	-26	-24	-16	-11	1	6	-20	-30
09-Jul-89	189	-14	-25	-24	-16	-10	1	7	-21	-30
10-Jul-89	190	-15	-26	-25	-16	-11	0	7	-23	-30
12-Jul-89	192	-14	-26	-24	-17	-11	0	7	-22	-30
13-Jul-89	193	-14	-25	-24	-17	-10	1	7	-21	-30
14-Jul-89	194	-14	-25	-24	-16	-11	1	7	-20	-30
16-Jul-89	196	-15	-26	-25	-17	-11	0	7	-21	-30

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
17-Jul-89	197	-14	-26	-24	-17	-11	0	7	-22	-30
18-Jul-89	198	-14	-26	-25	-16	-11	0	7	-22	-30
19-Jul-89	199	-15	-26	-24	-17	-11	0	7	-22	-30
20-Jul-89	200	-14	-26	-25	-17	-11	0	7	-22	-30
21-Jul-89	201	-14	-26	-24	-16	-11	1	7	-22	-30
24-Jul-89	204	-14	-27	-25	-17	-11	0	7	-22	-30
27-Jul-89	207	-14	-26	-25	-17	-11	1	7	-22	-30
18-Sep-89	260	-14	-26	-24	-16	-10	0	7	-22	-31
09-Oct-89	281	-14	-27	-25	-16	-10	0	7	-22	-30
27-Oct-89	299	-13	-26	-24	-16	-10	0	7	-22	-31

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m			
		13.5	14.0	14.5	15.0
25-Nov-87	-403	-38	-48	-51	0
07-Jan-88	-360	-38	-48	-50	0
20-Jan-88	-347	-38	-47	-52	0
02-Feb-88	-334	-38	-46	-53	0
25-Feb-88	-311	-38	-47	-51	0
29-Feb-88	-307	-38	-47	-51	0
13-Mar-88	-294	-38	-48	-51	0
05-May-88	-241	-38	-47	-51	0
25-May-88	-221	-39	-47	-51	0
11-Apr-88	-265	-39	-49	-49	0
13-Jul-88	-172	-38	-46	-51	0
14-Dec-88	-18	-38	-47	-51	0
27-Jan-89	26	-38	-47	-50	0
10-Feb-89	40	-39	-48	-50	0
20-Mar-89	78	-39	-47	-50	0
30-Mar-89	88	-38	-48	-50	0
18-Apr-89	107				0
04-May-89	123	0	0	0	0
19-Jun-89	169	0	0	0	0
24-Jun-89	174	0	0	0	0
24-Jun-89	174	-39	-48	-50	0
27-Jun-89	177	-38	-48	-50	0
29-Jun-89	179	-38	-48	-49	0
02-Jul-89	182	-38	-46	-51	0
03-Jul-89	183	-39	-47	-49	0
04-Jul-89	184	-39	-48	-50	0
06-Jul-89	186	-39	-48	-50	0
07-Jul-89	187	-38	-47	-50	0
08-Jul-89	188	-38	-47	-49	0
09-Jul-89	189	-38	-47	-50	0
10-Jul-89	190	-38	-48	-50	0
12-Jul-89	192	-38	-48	-50	0
13-Jul-89	193	-39	-47	-51	0
14-Jul-89	194	-38	-47	-49	0
16-Jul-89	196	-38	-48	-50	0

INCLINOMETER 03 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m			
		13.5	14.0	14.5	15.0
17-Jul-89	197	-38	-47	-50	0
18-Jul-89	198	-38	-48	-50	0
19-Jul-89	199	-38	-47	-51	0
20-Jul-89	200	-39	-48	-50	0
21-Jul-89	201	-38	-47	-50	0
24-Jul-89	204	-39	-48	-50	0
27-Jul-89	207	-38	-48	-50	0
18-Sep-89	260	-38	-48	-49	0
09-Oct-89	281	-39	-48	-49	0
27-Oct-89	299	-39	-48	-49	0

INCLINOMETER 04

Total Depth 15.5 metres

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
25-Nov-87	-403	170	161	146	91	36	14	9	10	14
14-Jan-88	-353	169	162	154	98	37	15	9	10	15
20-Jan-88	-347	172	163	153	99	37	14	9	10	15
03-Feb-88	-333	174	165	156	101	38	15	9	10	15
25-Feb-88	-311	170	162	156	102	37	16	10	10	15
29-Feb-88	-307	169	159	153	101	37	15	10	11	16
14-Mar-88	-293	163	158	154	102	39	15	9	11	15
11-Apr-88	-265	151	149	153	101	38	12	7	14	17
05-May-88	-241	140	142	156	105	24	15	9	10	17
25-May-88	-221	116	121	149	102	39	14	9	11	15
13-Jul-88	-172	291	276	182	101	38	13	9	12	17
19-Aug-88	-135	243	238	168	98	37	12	8	11	18
14-Dec-88	-18	421	419	303	150	47	20	17	20	23
27-Jan-89	26	419	408	315	153	48	21	17	20	23
10-Feb-89	40	468	447	318	153	49	22	18	20	24
27-Feb-89	57	523	507	377	198	48	23	19	21	23
20-Mar-89	78	561	542	398	180	48	23	19	21	25
30-Mar-89	88	569	552	402	181	47	23	20	22	26
18-Apr-89	107	575	560	419	189	47	23	20	22	25
04-May-89	123	580	562	417	189	46	22	20	22	27
21-May-89	140	549	541	427	272	44	18	18	21	25
19-Jun-89	169	619	592	422	187	39	14	16	22	28
22-Jun-89	172	935	907	675	289	34	10	14	23	28
24-Jun-89	174	888	866	651	288	34	9	14	23	29
27-Jun-89	177	929	922	688	297	33	7	13	22	29
29-Jun-89	179	942	915	684	295	31	5	13	25	31
02-Jul-89	182	956	948	703	300	30	4	13	25	30
03-Jul-89	183	949	935	690	301	31	3	12	25	33
04-Jul-89	184	941	922	684	302	28	1	12	27	34
06-Jul-89	186	949	931	700	333	39	1	16	33	37
07-Jul-89	187	1083	1047	797	404	62	4	19	36	39
08-Jul-89	188	1161	1129	879	478	93	9	26	46	48
09-Jul-89	189	1189	1179	944	496	102	11	31	53	53
10-Jul-89	190	1184	1189	928	511	108	11	33	57	56
12-Jul-89	192	1264	1244	977	554	123	12	37	63	61

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
13-Jul-89	193	1402	1331	1049	599	136	12	39	67	63
14-Jul-89	194	1548	1484	1194	699	161	10	43	71	66

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
25-Nov-87	-403	-14	-42	-65	-77	-100	-103	-94	-89	-88
14-Jan-88	-353	-15	-42	-66	-77	-102	-100	-94	-90	-88
20-Jan-88	-347	-15	-42	-65	-77	-102	-99	-93	-89	-88
03-Feb-88	-333	-14	-42	-66	-77	-101	-99	-94	-89	-88
25-Feb-88	-311	-14	-42	-66	-76	-101	-97	-94	-89	-88
29-Feb-88	-307	-14	-41	-65	-76	-100	-100	-93	-89	-88
14-Mar-88	-293	-14	-42	-65	-75	-100	-100	-93	-89	-89
11-Apr-88	-265	-14	-41	-65	-76	-103	-97	-93	-89	-88
05-May-88	-241	-13	-42	-65	-76	-100	-101	-94	-89	-88
25-May-88	-221	-14	-42	-66	-76	-100	-101	-93	-89	-88
13-Jul-88	-172	-14	-42	-65	-75	-99	-101	-93	-89	-88
19-Aug-88	-135	-13	-41	-65	-74	-98	-101	-93	-89	-87
14-Dec-88	-18	-9	-39	-63	-70	-96	-101	-93	-88	-87
27-Jan-89	26	-9	-39	-62	-69	-96	-100	-92	-89	-87
10-Feb-89	40	-10	-39	-62	-69	-97	-100	-92	-88	-87
27-Feb-89	57	-9	-39	-62	-69	-97	-99	-92	-88	-87
20-Mar-89	78	-9	-39	-62	-96	-96	-98	-92	-88	-87
30-Mar-89	88	-9	-39	-62	-68	-97	-97	-91	-88	-87
18-Apr-89	107	-8	-39	-61	-67	-95	-99	-91	-88	-87
04-May-89	123	-8	-38	-60	-67	-96	-96	-90	-87	-87
21-May-89	140	-9	-39	-60	-66	-92	-95	-89	-87	-86
19-Jun-89	169	-9	-39	-57	-59	-89	-95	-85	-88	-86
22-Jun-89	172	-8	-39	-55	-55	-87	-91	-82	-87	-85
24-Jun-89	174	-8	-39	-55	-53	-85	-91	-81	-87	-87
27-Jun-89	177	-10	-39	-56	-48	-81	-89	-75	-86	-85
29-Jun-89	179	-10	-40	-54	-43	-82	-85	-73	-85	-84
02-Jul-89	182	-9	-39	-54	-41	-78	-91	-73	-88	-87
03-Jul-89	183	-9	-43	-55	-39	-77	-88	-72	-86	-86
04-Jul-89	184	-9	-42	-55	-34	-78	-84	-70	-87	-86
06-Jul-89	186	-12	-44	-55	-26	-77	-83	-65	-86	-87
07-Jul-89	187	-10	-42	-53	-24	-74	-84	-64	-86	-86
08-Jul-89	188	-8	-42	-52	-22	-75	-82	-64	-86	-86
09-Jul-89	189	-7	-43	-52	-22	-75	-82	-64	-85	-85
10-Jul-89	190	-6	-43	-51	-21	-76	-81	-63	-86	-87
12-Jul-89	192	-5	-42	-51	-21	-74	-82	-63	-86	-87

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
13-Jul-89	193	-5	-42	-51	-20	-75	-81	-63	-85	-87
14-Jul-89	194	-4	-42	-51	-19	-74	-81	-62	-85	-87

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
25-Nov-87	-403	-84	-84	-83	-76	-63	-47	-36	-33	-43
14-Jan-88	-353	-84	-84	-82	-76	-63	-47	-36	-34	-43
20-Jan-88	-347	-84	-85	-82	-76	-63	-47	-36	-34	-43
03-Feb-88	-333	-84	-84	-83	-76	-63	-47	-36	-34	-43
25-Feb-88	-311	-84	-84	-83	-76	-63	-47	-36	-34	-43
29-Feb-88	-307	-84	-83	-84	-76	-63	-47	-36	-33	-43
14-Mar-88	-293	-84	-84	-84	-76	-63	-47	-36	-33	-43
11-Apr-88	-265	-84	-85	-82	-76	-63	-47	-36	-34	-44
05-May-88	-241	-85	-84	-84	-76	-63	-47	-35	-34	-43
25-May-88	-221	-84	-84	-83	-76	-63	-47	-36	-34	-43
13-Jul-88	-172	-84	-84	-83	-76	-64	-47	-35	-33	-42
19-Aug-88	-135	-84	-83	-84	-77	-64	-48	-36	-33	-42
14-Dec-88	-18	-84	-83	-83	-76	-63	-47	-36	-33	-43
27-Jan-89	26	-84	-83	-83	-76	-63	-47	-35	-33	-43
10-Feb-89	40	-84	-85	-82	-75	-62	-47	-36	-33	-43
27-Feb-89	57	-84	-85	-82	-76	-63	-47	-36	-34	-43
20-Mar-89	78	-84	-85	-81	-76	-63	-46	-36	-33	-43
30-Mar-89	88	-84	-84	-82	-76	-63	-47	-36	-34	-43
18-Apr-89	107	-83	-84	-82	-75	-63	-46	-36	-34	-43
04-May-89	123	-84	-83	-83	-75	-63	-46	-35	-33	-43
21-May-89	140	-83	-83	-82	-76	-62	-47	-36	-34	-43
19-Jun-89	169	-84	-84	-83	-77	-63	-47	-36	-34	-44
22-Jun-89	172	-82	-82	-81	-75	-62	-46	-35	-32	-43
24-Jun-89	174	-84	-85	-81	-76	-62	-48	-36	-34	-44
27-Jun-89	177	-84	-83	-82	-76	-62	-46	-35	-33	-43
29-Jun-89	179	-82	-80	-83	-76	-63	-46	-36	-34	-43
02-Jul-89	182	-85	-83	-83	-76	-64	-46	-36	-35	-43
03-Jul-89	183	-84	-83	-83	-74	-63	-48	-34	-31	-43
04-Jul-89	184	-84	-84	-82	-75	-62	-47	-36	-33	-44
06-Jul-89	186	-84	-82	-83	-76	-63	-46	-36	-33	-45
07-Jul-89	187	-83	-84	-79	-76	-62	-46	-35	-34	-42
08-Jul-89	188	-84	-82	-82	-76	-62	-46	-36	-33	-43
09-Jul-89	189	-83	-82	-81	-75	-62	-46	-35	-33	-42
10-Jul-89	190	-84	-82	-82	-75	-62	-47	-36	-33	-44
12-Jul-89	192	-83	-84	-82	-75	-63	-47	-36	-32	-43

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
13-Jul-89	193	-84	-84	-82	-75	-62	-46	-36	-33	-44
14-Jul-89	194	-83	-83	-80	-76	-62	-46	-36	-34	-42

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m				
		13.5	14.0	14.5	15.0	15.5
25-Nov-87	-403	-44	-37	-28	-18	0
14-Jan-88	-353	-45	-37	-28	-18	0
20-Jan-88	-347	-44	-37	-28	-18	0
03-Feb-88	-333	-45	-37	-28	-18	0
25-Feb-88	-311	-45	-37	-29	-18	0
29-Feb-88	-307	-45	-38	-28	-18	0
14-Mar-88	-293	-45	-38	-28	-17	0
11-Apr-88	-265	-45	-37	-28	-18	0
05-May-88	-241	-44	-37	-28	-18	0
25-May-88	-221	-45	-37	-29	-18	0
13-Jul-88	-172	-44	-38	-29	-18	0
19-Aug-88	-135	-44	-38	-29	-19	0
14-Dec-88	-18	-44	-38	-28	-19	0
27-Jan-89	26	-44	-37	-28	-19	0
10-Feb-89	40	-45	-37	-28	-18	0
27-Feb-89	57	-45	-37	-28	-18	0
20-Mar-89	78	-45	-37	-28	-18	0
30-Mar-89	88	-45	-37	-28	-18	0
18-Apr-89	107	-45	-37	-28	-18	0
04-May-89	123	-45	-37	-28	-18	0
21-May-89	140	-45	-37	-28	-18	0
19-Jun-89	169	-45	-38	-28	-17	0
22-Jun-89	172	-44	-37	-28	-19	0
24-Jun-89	174	-45	-37	-28	-18	0
27-Jun-89	177	-44	-38	-28	-18	0
29-Jun-89	179	-45	-37	-26	-17	0
02-Jul-89	182	-44	-38	-28	-18	0
03-Jul-89	183	-45	-37	-27	-18	0
04-Jul-89	184	-45	-37	-28	-17	0
06-Jul-89	186	-44	-36	-29	-16	0
07-Jul-89	187	-44	-37	-28	-18	0
08-Jul-89	188	-45	-37	-28	-18	0
09-Jul-89	189	-44	-37	-28	-15	0
10-Jul-89	190	-45	-37	-28	-18	0
12-Jul-89	192	-45	-37	-28	-18	0

INCLINOMETER 04 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m				
		13.5	14.0	14.5	15.0	15.5
13-Jul-89	193	-44	-37	-28	-18	0
14-Jul-89	194	-44	-36	-27	-17	0

INCLINOMETER 05

Total Depth 14.0 metres

INCLINOMETER 05 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
07-Jan-88	-360	120	121	119	112	81	62	65	78	107
20-Jan-88	-347	120	122	120	112	82	63	66	77	107
03-Feb-88	-333	119	122	121	113	80	62	66	78	107
25-Feb-88	-311	118	122	122	113	81	62	66	77	107
29-Feb-88	-307	119	122	121	113	81	61	65	77	106
14-Mar-88	-293	120	122	122	113	81	63	66	77	108
13-Apr-88	-263	122	124	124	114	80	63	62	77	108
05-May-88	-241	122	125	126	115	81	63	66	78	107
26-May-88	-220	121	125	127	116	81	62	66	78	108
14-Jul-88	-171	121	126	128	117	82	63	66	78	107
14-Dec-88	-18	127	130	134	126	88	68	72	81	113
27-Jan-89	26	130	134	138	128	89	70	73	82	115
10-Feb-89	40	128	135	140	129	88	69	73	82	116
27-Feb-89	57	131	138	143	131	89	71	74	83	117
20-Mar-89	78	132	140	144	132	90	71	74	83	118
30-Mar-89	88	135	140	144	133	90	71	75	84	119
21-May-89	140	141	0	147	136	93	74	77	86	121
19-Jun-89	169	137	142	148	138	93	74	78	87	123
22-Jun-89	172	138	144	150	140	95	77	81	90	126
22-Jun-89	172	135	142	1448	137	95	76	79	89	125
25-Jun-89	175	136	140	147	138	95	78	80	89	126
28-Jun-89	178	132	139	146	137	95	76	81	89	126
29-Jun-89	179	133	139	147	137	95	76	80	89	128
02-Jul-89	182	132	138	146	138	95	78	81	89	130
03-Jul-89	183	125	136	146	138	95	77	82	91	130
04-Jul-89	184	130	135	145	138	98	78	83	92	132
06-Jul-89	186	132	139	146	139	99	80	85	94	141
07-Jul-89	187	125	130	138	131	93	75	79	88	157
08-Jul-89	188	106	110	119	118	84	66	69	77	180
09-Jul-89	189	105	107	115	115	84	66	67	75	180
10-Jul-89	190	99	104	113	113	84	65	66	75	181
12-Jul-89	192	-96	-99	-106	-109	-84	-63	-63	-72	-181
13-Jul-89	193	95	95	103	106	84	63	63	71	183
14-Jul-89	194	88	89	95	100	81	58	59	68	185

INCLINOMETER 05 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
07-Jan-88	-360	137	142	157	174	194	0	214	218	222
20-Jan-88	-347	138	142	156	174	195	201	214	223	219
03-Feb-88	-333	138	141	157	174	195	201	213	224	220
25-Feb-88	-311	137	142	156	174	194	201	214	223	220
29-Feb-88	-307	137	142	156	174	195	201	213	224	220
14-Mar-88	-293	137	141	153	174	194	201	213	218	221
13-Apr-88	-263	138	144	156	176	195	202	215	224	220
05-May-88	-241	138	142	157	175	195	202	214	224	220
26-May-88	-220	139	143	157	174	195	201	214	219	220
14-Jul-88	-171	137	142	156	174	194	201	214	223	221
14-Dec-88	-18	141	145	158	177	196	202	214	224	220
27-Jan-89	26	141	146	159	177	196	202	215	223	221
10-Feb-89	40	142	147	160	178	197	203	215	223	221
27-Feb-89	57	142	147	160	178	198	204	215	223	221
20-Mar-89	78	143	148	160	179	198	204	216	223	221
30-Mar-89	88	144	148	161	179	198	204	216	224	221
21-May-89	140	147	157	166	182	200	205	216	224	221
19-Jun-89	169	151	181	171	182	200	206	217	224	222
22-Jun-89	172	153	196	174	183	201	205	216	223	223
22-Jun-89	172	152	196	173	182	200	206	216	224	223
25-Jun-89	175	154	214	175	183	200	205	216	223	222
28-Jun-89	178	152	248	181	180	199	204	215	222	220
29-Jun-89	179	155	254	185	182	199	205	217	223	221
02-Jul-89	182	156	262	185	181	199	206	217	223	221
03-Jul-89	183	154	279	189	180	200	205	216	223	223
04-Jul-89	184	157	296	194	180	200	204	215	224	223
06-Jul-89	186	177	429	263	183	199	206	217	222	220
07-Jul-89	187	305	534	274	181	200	205	216	227	222
08-Jul-89	188	417	637	280	181	200	205	216	220	221
09-Jul-89	189	420	647	278	181	200	205	216	226	221
10-Jul-89	190	426	657	279	182	200	205	216	226	221
12-Jul-89	192	0	0	0	0	0	0	0	0	0
13-Jul-89	193	0	0	0	0	0	0	0	0	0
14-Jul-89	194	0	0	0	0	0	0	0	0	0

INCLINOMETER 05 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								depth 13.0
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	
07-Jan-88	-360	201	179	150	126	102	101	113	137	141
20-Jan-88	-347	201	179	151	127	102	101	114	137	141
03-Feb-88	-333	201	179	151	127	103	101	114	136	141
25-Feb-88	-311	201	179	151	127	103	101	113	137	141
29-Feb-88	-307	202	179	151	128	102	101	112	136	142
14-Mar-88	-293	202	179	152	128	102	101	113	136	141
13-Apr-88	-263	201	179	151	127	102	102	114	138	142
05-May-88	-241	201	179	151	127	103	101	113	137	141
26-May-88	-220	202	180	151	128	103	102	113	137	142
14-Jul-88	-171	204	180	152	128	103	101	113	136	141
14-Dec-88	-18	202	180	151	129	102	101	113	136	142
27-Jan-89	26	202	180	151	128	102	102	113	136	142
10-Feb-89	40	202	179	151	127	102	102	113	138	141
27-Feb-89	57	202	180	151	128	102	101	113	137	141
20-Mar-89	78	202	179	151	128	103	101	114	138	142
30-Mar-89	88	202	180	151	128	103	101	114	138	142
21-May-89	140	202	180	152	128	103	102	113	137	142
19-Jun-89	169	203	181	153	129	104	102	113	138	142
22-Jun-89	172	203	181	153	129	103	102	114	137	142
22-Jun-89	172	201	180	152	128	103	102	115	137	143
25-Jun-89	175	203	181	153	128	103	102	112	139	143
28-Jun-89	178	201	179	152	128	103	103	113	138	141
29-Jun-89	179	202	180	152	128	104	99	111	137	142
02-Jul-89	182	202	181	151	130	104	103	112	138	142
03-Jul-89	183	204	180	153	130	104	103	114	137	141
04-Jul-89	184	203	182	151	130	103	100	115	139	143
06-Jul-89	186	203	180	152	128	103	102	112	137	143
07-Jul-89	187	203	181	152	129	103	102	113	137	142
08-Jul-89	188	202	180	152	128	104	102	113	137	142
09-Jul-89	189	202	180	152	128	103	102	113	137	142
10-Jul-89	190	222	180	152	128	103	102	113	138	142
12-Jul-89	192	0	0	0	0	0	0	0	0	0
13-Jul-89	193	0	0	0	0	0	0	0	0	0
14-Jul-89	194	0	0	0	0	0	0	0	0	0

INCLINOMETER 05 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	m	
		13.5	14.0
07-Jan-88	-360	148	0
20-Jan-88	-347	150	0
03-Feb-88	-333	149	0
25-Feb-88	-311	149	0
29-Feb-88	-307	149	0
14-Mar-88	-293	148	0
13-Apr-88	-263	149	0
05-May-88	-241	149	0
26-May-88	-220	147	0
14-Jul-88	-171	146	0
14-Dec-88	-18	0	0
27-Jan-89	26	0	0
10-Feb-89	40	0	0
27-Feb-89	57	0	0
20-Mar-89	78	0	0
30-Mar-89	88	0	0
21-May-89	140	0	0
19-Jun-89	169	0	0
22-Jun-89	172	0	0
22-Jun-89	172	0	0
25-Jun-89	175	0	0
28-Jun-89	178	0	0
29-Jun-89	179	0	0
02-Jul-89	182	0	0
03-Jul-89	183	0	0
04-Jul-89	184	0	0
06-Jul-89	186	0	0
07-Jul-89	187	0	0
08-Jul-89	188	0	0
09-Jul-89	189	0	0
10-Jul-89	190	0	0
12-Jul-89	192	0	0
13-Jul-89	193	0	0
14-Jul-89	194	0	0

INCLINOMETER 06

Total Depth 14.5 metres

INCLINOMETER 06 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
26-Nov-87	-402	117	102	85	71	66	83	100	104	98
07-Jan-88	-360	126	111	84	70	65	84	100	105	99
18-Jan-88	-349	132	113	84	70	65	84	100	104	99
03-Feb-88	-333	140	117	84	71	65	84	99	106	98
25-Feb-88	-311	144	120	84	70	64	84	100	108	100
29-Feb-88	-307	144	120	84	71	64	84	103	106	101
14-Mar-88	-293	148	124	84	70	64	85	101	107	100
13-Apr-88	-263	151	129	89	69	65	86	101	106	99
05-May-88	-241	154	133	91	71	64	85	105	108	101
26-May-88	-220	45	35	13	2	-2	10	17	20	16
14-Jul-88	-171	164	139	95	72	65	87	102	110	101
15-Dec-88	-17	170	143	98	74	65	89	106	110	104
27-Jan-89	26	174	145	99	74	65	89	106	111	105
10-Feb-89	40	175	146	101	74	65	90	107	111	105
27-Feb-89	57	178	149	103	74	65	91	107	111	106
21-Mar-89	79	180	152	103	74	66	91	108	112	106
30-Mar-89	88	182	153	104	74	65	91	108	112	107
18-Apr-89	107	185	156	106	75	66	91	109	113	108
04-May-89	123	190	158	108	75	66	92	110	114	109
21-May-89	140	194	163	109	77	68	93	111	115	112
19-Jun-89	169	202	169	113	78	69	95	113	120	123
22-Jun-89	172	202	170	112	79	69	93	113	124	135
25-Jun-89	175	203	171	114	80	70	95	113	127	151
28-Jun-89	178	206	172	116	82	72	96	114	141	177
29-Jun-89	179	206	173	115	81	70	95	115	143	184
02-Jul-89	182	207	173	116	82	72	96	114	145	195
03-Jul-89	183	207	173	116	82	71	96	115	150	207
05-Jul-89	185	207	176	118	86	75	96	114	184	246
06-Jul-89	186	213	179	119	84	76	98	115	260	304
07-Jul-89	187	211	175	118	83	72	96	111	368	386
08-Jul-89	188	200	164	108	75	65	91	104	378	507
09-Jul-89	189	194	162	105	73	63	88	91	404	535
10-Jul-89	190	193	159	103	71	61	88	102	396	570
12-Jul-89	192	0	155	99	68	58	84	100	0	0
13-Jul-89	193	0	152	97	66	57	83	98	0	0

INCLINOMETER 06 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
26-Nov-87	-402	95	92	74	65	74	78	84	90	107
07-Jan-88	-360	97	92	75	66	74	78	84	90	107
18-Jan-88	-349	96	93	75	66	75	78	84	90	107
03-Feb-88	-333	97	95	75	66	75	79	84	90	107
25-Feb-88	-311	96	95	75	66	74	78	84	90	107
29-Feb-88	-307	98	93	75	66	74	80	84	90	107
14-Mar-88	-293	98	93	75	66	75	79	84	90	107
13-Apr-88	-263	100	93	74	66	75	80	86	90	107
05-May-88	-241	99	94	76	66	75	79	85	90	107
26-May-88	-220	16	13	4	0	4	5	8	11	20
14-Jul-88	-171	100	94	77	66	75	78	83	90	106
15-Dec-88	-17	104	97	80	69	76	79	84	90	107
27-Jan-89	26	105	97	80	69	76	79	84	91	107
10-Feb-89	40	105	98	79	69	76	79	84	90	108
27-Feb-89	57	107	98	79	69	76	79	84	91	108
21-Mar-89	79	108	98	80	70	77	79	84	91	108
30-Mar-89	88	108	99	80	70	77	80	84	91	108
18-Apr-89	107	110	100	81	71	77	80	84	91	108
04-May-89	123	113	102	82	71	77	80	84	91	108
21-May-89	140	121	103	83	71	77	80	84	92	108
19-Jun-89	169	143	105	83	71	77	80	84	92	108
22-Jun-89	172	147	105	83	72	77	79	84	92	106
25-Jun-89	175	152	104	83	71	77	80	84	91	108
28-Jun-89	178	158	104	81	70	76	78	84	90	107
29-Jun-89	179	159	103	82	72	78	81	85	91	109
02-Jul-89	182	163	104	82	72	76	79	83	91	107
03-Jul-89	183	164	104	82	72	77	79	84	91	108
05-Jul-89	185	171	103	83	73	77	79	84	91	109
06-Jul-89	186	182	104	82	72	76	78	83	90	108
07-Jul-89	187	223	103	81	72	76	79	84	91	108
08-Jul-89	188	298	103	81	71	76	79	83	90	107
09-Jul-89	189	306	103	65	71	76	79	83	91	107
10-Jul-89	190	333	103	81	71	76	79	84	91	107
12-Jul-89	192	0	0	0	0	0	0	0	0	0
13-Jul-89	193	0	0	0	0	0	0	0	0	0

INCLINOMETER 06 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
26-Nov-87	-402	123	117	128	166	169	169	173	165	158
07-Jan-88	-360	124	118	126	166	170	169	173	166	158
18-Jan-88	-349	124	118	126	167	170	169	174	166	158
03-Feb-88	-333	124	117	126	167	170	169	174	165	158
25-Feb-88	-311	124	116	126	167	171	169	174	166	158
29-Feb-88	-307	124	117	125	168	171	169	174	166	158
14-Mar-88	-293	124	117	126	168	171	169	174	166	158
13-Apr-88	-263	124	116	126	168	170	168	174	166	158
05-May-88	-241	126	117	126	168	171	169	174	166	159
26-May-88	-220	28	25	29	50	52	51	53	49	45
14-Jul-88	-171	124	117	124	167	170	170	174	166	159
15-Dec-88	-17	124	118	125	167	171	169	174	167	159
27-Jan-89	26	125	118	125	168	172	169	174	167	159
10-Feb-89	40	125	117	127	168	172	169	174	167	159
27-Feb-89	57	125	118	126	168	172	169	175	167	159
21-Mar-89	79	125	118	126	168	172	169	174	167	159
30-Mar-89	88	125	118	127	168	172	169	174	167	159
18-Apr-89	107	125	118	126	168	172	169	174	167	159
04-May-89	123	126	118	126	168	172	169	174	167	159
21-May-89	140	125	118	127	169	172	169	175	167	159
19-Jun-89	169	126	119	126	168	172	170	174	168	159
22-Jun-89	172	124	118	126	169	171	168	175	167	159
25-Jun-89	175	126	119	125	167	172	169	175	169	159
28-Jun-89	178	125	120	125	167	172	169	176	167	159
29-Jun-89	179	126	118	126	167	171	169	176	169	158
02-Jul-89	182	125	118	126	168	172	170	174	166	158
03-Jul-89	183	126	118	126	169	171	169	174	168	158
05-Jul-89	185	124	117	124	169	171	169	174	166	158
06-Jul-89	186	126	120	127	168	172	171	175	169	160
07-Jul-89	187	125	118	126	169	172	169	175	167	159
08-Jul-89	188	125	118	125	168	172	169	174	167	159
09-Jul-89	189	125	118	125	168	171	169	174	167	158
10-Jul-89	190	125	118	126	168	171	168	175	167	158
12-Jul-89	192	0	0	0	0	0	0	0	0	0
13-Jul-89	193	0	0	0	0	0	0	0	0	0

INCLINOMETER 06 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m		
		13.5	14.0	14.5
26-Nov-87	-402	155	158	0
07-Jan-88	-360	155	158	0
18-Jan-88	-349	94	159	0
03-Feb-88	-333	155	159	0
25-Feb-88	-311	142	160	0
29-Feb-88	-307	155	159	0
14-Mar-88	-293	155	159	0
13-Apr-88	-263	155	160	0
05-May-88	-241	155	160	0
26-May-88	-220	44	46	0
14-Jul-88	-171	153	159	0
15-Dec-88	-17	156	160	0
27-Jan-89	26	156	160	0
10-Feb-89	40	155	160	0
27-Feb-89	57	155	160	0
21-Mar-89	79	155	160	0
30-Mar-89	88	155	160	0
18-Apr-89	107	155	160	0
04-May-89	123	155	160	0
21-May-89	140	155	160	0
19-Jun-89	169	155	160	0
22-Jun-89	172	156	160	0
25-Jun-89	175	155	160	0
28-Jun-89	178	155	160	0
29-Jun-89	179	155	161	0
02-Jul-89	182	154	159	0
03-Jul-89	183	156	162	0
05-Jul-89	185	155	160	0
06-Jul-89	186	156	162	0
07-Jul-89	187	155	160	0
08-Jul-89	188	155	159	0
09-Jul-89	189	155	160	0
10-Jul-89	190	155	160	0
12-Jul-89	192	0	0	0
13-Jul-89	193	0	0	0

INCLINOMETER 07

Total Depth 10.0 metres

INCLINOMETER 07 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
26-Nov-87	-402	57	94	87	77	74	68	57	44	36
07-Jan-88	-360	43	87	102	88	82	72	58	45	37
18-Jan-88	-349	40	83	108	91	84	73	58	45	36
25-Feb-88	-311	34	68	123	100	94	76	58	44	36
03-Mar-88	-304	34	67	117	101	95	78	58	45	37
14-Mar-88	-293	30	65	125	103	97	77	57	44	36
13-Apr-88	-263	28	62	126	107	102	79	56	44	36
05-May-88	-241	29	62	128	111	107	82	58	45	38
26-May-88	-220	26	59	127	112	109	83	57	44	37
14-Jul-88	-171	28	59	126	114	112	86	59	45	37
19-Aug-88	-135	29	58	126	116	116	89	60	48	39
27-Jan-89	26	8	56	133	120	129	97	62	52	43
14-Feb-89	44	-2	53	136	120	132	97	61	52	43
27-Feb-89	57	-2	53	136	122	128	99	61	52	43
21-Mar-89	79	-4	52	136	124	144	101	61	52	43
07-Apr-89	96	-4	51	137	125	147	105	62	52	44
19-Apr-89	108	-5	50	137	127	150	108	62	53	44
05-May-89	124	-8	49	138	127	153	109	62	53	44
21-May-89	140	-6	48	138	129	159	114	63	54	44
20-Jun-89	170	-6	50	140	131	180	137	64	56	46
22-Jun-89	172	-6	50	139	132	188	143	63	55	45
25-Jun-89	175	-5	50	139	132	198	151	64	56	47
28-Jun-89	178	-7	50	137	130	214	163	63	56	46
29-Jun-89	179	-5	51	141	135	227	170	64	55	45
02-Jul-89	182	-4	51	139	132	230	177	64	56	46
04-Jul-89	184	-2	51	138	130	245	192	63	55	44
06-Jul-89	186	-1	51	137	128	329	281	63	55	45
07-Jul-89	187	-7	48	135	121	0	0	0	0	0
10-Jul-89	190	-15	37	120	104	0	0	0	0	0
12-Jul-89	192	-17	34	116	99	0	0	0	0	0
13-Jul-89	193	-24	31	112	95	0	0	0	0	0
14-Jul-89	194	-29	25	106	90	0	0	0	0	0

INCLINOMETER 07 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
26-Nov-87	-402	32	57	75	96	108	116	133	129	122
07-Jan-88	-360	32	58	75	97	108	116	133	129	122
18-Jan-88	-349	32	58	75	97	108	116	133	130	122
25-Feb-88	-311	32	58	76	97	108	117	133	129	122
03-Mar-88	-304	31	57	75	96	108	116	133	130	123
14-Mar-88	-293	33	57	76	96	107	117	134	130	122
13-Apr-88	-263	32	57	76	97	108	116	134	130	122
05-May-88	-241	32	57	76	96	108	117	134	130	122
26-May-88	-220	32	57	76	96	108	117	133	130	123
14-Jul-88	-171	32	57	75	95	108	117	133	129	122
19-Aug-88	-135	33	59	76	97	108	117	133	130	123
27-Jan-89	26	35	62	80	98	109	118	135	130	122
14-Feb-89	44	36	63	80	99	109	119	135	130	122
27-Feb-89	57	35	62	80	99	109	118	135	130	122
21-Mar-89	79	36	63	79	99	109	118	135	130	122
07-Apr-89	96	36	63	80	99	109	118	135	130	122
19-Apr-89	108	36	63	80	99	109	119	135	130	122
05-May-89	124	36	63	80	99	109	119	136	130	122
21-May-89	140	37	64	80	99	109	119	136	130	122
20-Jun-89	170	36	64	81	99	109	119	136	130	123
22-Jun-89	172	37	64	81	99	109	119	135	129	122
25-Jun-89	175	38	66	82	100	110	120	137	131	124
28-Jun-89	178	37	64	82	99	110	119	135	129	123
29-Jun-89	179	35	63	81	99	110	122	140	135	125
02-Jul-89	182	36	64	80	99	111	120	135	129	121
04-Jul-89	184	37	63	80	99	109	119	135	129	123
06-Jul-89	186	37	64	81	98	110	118	136	130	124
07-Jul-89	187	0	0	0	0	0	0	0	0	0
10-Jul-89	190	0	0	0	0	0	0	0	0	0
12-Jul-89	192	0	0	0	0	0	0	0	0	0
13-Jul-89	193	0	0	0	0	0	0	0	0	0
14-Jul-89	194	0	0	0	0	0	0	0	0	0

INCLINOMETER 07 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m		
		9.0	9.5	10.0
26-Nov-87	-402	114	98	0
07-Jan-88	-360	114	98	0
18-Jan-88	-349	114	98	0
25-Feb-88	-311	114	98	0
03-Mar-88	-304	115	99	0
14-Mar-88	-293	114	98	0
13-Apr-88	-263	114	98	0
05-May-88	-241	115	99	0
26-May-88	-220	115	98	0
14-Jul-88	-171	114	99	0
19-Aug-88	-135	115	98	0
27-Jan-89	26	114	98	0
14-Feb-89	44	115	99	0
27-Feb-89	57	114	98	0
21-Mar-89	79	114	98	0
07-Apr-89	96	115	98	0
19-Apr-89	108	114	97	0
05-May-89	124	114	98	0
21-May-89	140	114	99	0
20-Jun-89	170	115	98	0
22-Jun-89	172	114	99	0
25-Jun-89	175	115	98	0
28-Jun-89	178	113	96	0
29-Jun-89	179	117	101	0
02-Jul-89	182	115	96	0
04-Jul-89	184	114	98	0
06-Jul-89	186	115	99	0
07-Jul-89	187	0	0	0
10-Jul-89	190	0	0	0
12-Jul-89	192	0	0	0
13-Jul-89	193	0	0	0
14-Jul-89	194	0	0	0

INCLINOMETER 08

Total Depth 8.0 metres

INCLINOMETER 08 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
26-Nov-87	-402	-145	-131	-100	-50	-32	-28	-31	-20	-8
07-Jan-88	-360	-136	-130	-100	-29	-32	-27	-31	-20	-8
18-Jan-88	-349	-134	-127	-100	-24	-31	-27	-30	-20	-9
25-Feb-88	-311	-120	-123	-94	-10	-29	-26	-30	-20	-9
03-Mar-88	-304	-124	-127	-97	-10	-30	-27	-30	-20	-9
14-Mar-88	-293	-123	-126	-97	-6	-29	-26	-31	-20	-9
13-Apr-88	-263	-118	-127	-96	1	-27	-26	-31	-20	-9
05-May-88	-241	-115	-126	-96	5	-25	-26	-31	-20	-9
26-May-88	-220	-112	-126	-95	8	-25	-27	-31	-20	-8
14-Jul-88	-171	-107	-127	-97	6	-20	-25	-30	-20	-8
27-Jan-89	26	-94	-129	-90	58	-4	-18	-27	-18	-7
14-Feb-89	44	-96	-130	-88	68	-3	-19	-27	-18	-7
27-Feb-89	57	-94	-130	-86	76	-2	-18	-27	-18	-7
21-Mar-89	79	-92	-130	-84	84	1	-18	-27	-18	-7
07-Apr-89	96	-90	-131	-84	92	3	-18	-27	-18	-7
19-Apr-89	108	-90	-131	-85	99	4	-18	-28	-18	-7
05-May-89	124	-88	-130	-84	109	7	-17	-27	-18	-7
21-May-89	140	-87	-131	-85	119	10	-18	-28	-19	-8
20-Jun-89	170	-83	-129	-80	170	17	-16	-27	-18	-7
23-Jun-89	173	-88	-137	-84	197	18	-18	-28	-19	-7
25-Jun-89	175	-79	-129	-78	196	18	-17	-27	-18	-7
28-Jun-89	178	-74	-129	-76	225	19	-17	-26	-19	-7
29-Jun-89	179	-73	-130	-74	234	18	-17	-26	-18	-8
02-Jul-89	182	-74	-129	-74	247	18	-16	-27	-17	-7
03-Jul-89	183	-122	-129	-72	262	20	-16	-26	-18	-6
05-Jul-89	185	-50	-126	-66	309	32	-17	-26	-19	-6
06-Jul-89	186	44	-119	-66	0	0	0	0	0	0
07-Jul-89	187	254	-60	-63	0	0	0	0	0	0
10-Jul-89	190	369	53	-50	0	0	ACC	TUB	SHE	0
12-Jul-89	192	385	69	-44	0	0	0	0	0	0
13-Jul-89	193	393	82	-36	0	0	0	0	0	0
14-Jul-89	194	417	101	-24	0	0	0	0	0	0

INCLINOMETER 08 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m							
		4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
26-Nov-87	-402	7	24	33	30	61	81	110	0
07-Jan-88	-360	8	24	33	29	61	82	110	0
18-Jan-88	-349	8	24	33	29	61	82	111	0
25-Feb-88	-311	6	23	31	28	59	80	108	0
03-Mar-88	-304	7	23	33	30	59	80	109	0
14-Mar-88	-293	7	24	33	29	61	81	111	0
13-Apr-88	-263	7	24	33	29	61	81	111	0
05-May-88	-241	8	24	33	30	61	81	10	0
26-May-88	-220	7	28	33	30	61	81	110	0
14-Jul-88	-171	7	23	33	30	59	80	110	0
27-Jan-89	26	8	24	34	31	61	81	110	0
14-Feb-89	44	8	24	35	31	61	80	109	0
27-Feb-89	57	8	24	34	31	61	80	109	0
21-Mar-89	79	8	24	34	31	61	80	110	0
07-Apr-89	96	8	24	34	31	61	80	110	0
19-Apr-89	108	7	24	34	31	61	80	109	0
05-May-89	124	7	24	35	31	62	81	109	0
21-May-89	140	7	24	34	31	61	80	109	0
20-Jun-89	170	8	24	35	31	61	81	109	0
23-Jun-89	173	8	26	38	35	66	90	120	0
25-Jun-89	175	7	24	35	32	62	80	109	0
28-Jun-89	178	6	24	36	32	60	80	111	0
29-Jun-89	179	8	25	35	31	62	82	108	0
02-Jul-89	182	8	24	34	31	60	81	111	0
03-Jul-89	183	8	24	34	32	61	80	110	0
05-Jul-89	185	10	24	35	32	63	82	109	0
06-Jul-89	186	0	0	0	0	0	0	0	0
07-Jul-89	187	0	0	0	0	0	0	0	0
10-Jul-89	190	0	0	0	0	0	0	0	0
12-Jul-89	192	0	0	0	0	0	0	0	0
13-Jul-89	193	0	0	0	0	0	0	0	0
14-Jul-89	194	0	0	0	0	0	0	0	0

INCLINOMETER 09

Total Depth 7.5 metres

INCLINOMETER 09 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth m								
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
26-Nov-87	-402	97	82	61	61	50	36	12	-12	-32
07-Jan-88	-360	135	138	60	61	51	35	12	-12	-32
18-Jan-88	-349	140	150	60	61	51	35	12	-12	-32
17-Feb-88	-319	161	183	63	61	51	36	12	-12	-32
25-Feb-88	-311	160	185	64	61	51	36	13	-12	-31
03-Mar-88	-304	166	188	65	61	51	36	13	-12	-32
14-Mar-88	-293	166	196	66	60	51	36	12	-12	-32
13-Apr-88	-263	171	216	69	60	51	36	12	-12	-32
05-May-88	-241	176	232	73	60	51	37	12	-12	-32
26-May-88	-220	183	240	76	62	52	37	12	-12	-32
14-Jul-88	-171	189	250	82	63	53	38	13	-12	-32
03-Jan-89	-364	199	284	103	66	54	41	14	-11	-31
27-Jan-89	26	203	296	109	67	54	41	14	-11	-30
14-Feb-89	44	200	301	114	67	54	41	14	-11	-30
27-Feb-89	57	200	305	119	68	54	41	15	-11	-30
21-Mar-89	79	199	314	125	70	55	41	15	-11	-30
07-Apr-89	96	202	318	128	71	55	41	15	-11	-30
19-Apr-89	108	203	321	132	72	55	41	15	-11	-30
05-May-89	124	202	326	137	73	55	42	15	-11	-31
21-May-89	140	203	329	144	74	55	42	15	-11	-31
20-Jun-89	170	210	356	164	80	58	44	17	-9	-29
23-Jun-89	173	209	364	168	79	56	43	16	-9	-31
25-Jun-89	175	211	371	171	81	57	44	17	-9	-29
28-Jun-89	178	214	386	178	80	57	43	16	-9	-30
29-Jun-89	179	216	388	180	80	56	44	16	-11	-29
02-Jul-89	182	218	395	184	80	55	42	14	-12	-32
03-Jul-89	183	222	404	188	81	57	44	15	-10	-30
04-Jul-89	184	225	410	191	81	56	44	14	-12	-30
06-Jul-89	186	233	451	206	83	57	44	15	-10	-30
07-Jul-89	187	241	480	219	82	57	44	16	-10	-30
10-Jul-89	190	254	516	246	82	57	44	15	-11	-30
12-Jul-89	192	259	526	247	82	57	44	16	-10	-30
13-Jul-89	193	262	532	254	82	56	44	15	-10	-30
14-Jul-89	194	267	539	258	82	57	43	15	-10	-30

INCLINOMETER 09 : Face A/B Mean Deviations (0.1 mm)

DATE	DAY No.	depth m						
		4.5	5.0	5.5	6.0	6.5	7.0	7.5
26-Nov-87	-402	-29	-9	8	31	54	78	0
07-Jan-88	-360	-29	-9	8	31	54	77	0
18-Jan-88	-349	-29	-9	8	31	54	77	0
17-Feb-88	-319	-29	-9	8	31	54	76	0
25-Feb-88	-311	-30	-9	8	31	53	77	0
03-Mar-88	-304	-30	-10	7	30	53	76	0
14-Mar-88	-293	-29	-9	8	32	54	77	0
13-Apr-88	-263	-29	-9	8	31	53	77	0
05-May-88	-241	-30	-9	7	31	54	77	0
26-May-88	-220	-29	-9	8	31	54	77	0
14-Jul-88	-171	-30	-10	8	30	53	76	0
03-Jan-89	-364	-29	-9	7	30	53	76	0
27-Jan-89	26	-28	-8	7	31	53	76	0
14-Feb-89	44	-28	-8	7	30	53	77	0
27-Feb-89	57	-28	-8	7	30	53	76	0
21-Mar-89	79	-28	-8	7	31	53	76	0
07-Apr-89	96	-28	-8	7	31	53	76	0
19-Apr-89	108	-28	-8	7	30	53	76	0
05-May-89	124	-28	-8	7	31	53	77	0
21-May-89	140	-28	-8	7	30	54	77	0
20-Jun-89	170	-27	-7	8	32	55	78	0
23-Jun-89	173	-28	-8	8	30	54	76	0
25-Jun-89	175	-28	-8	8	32	55	76	0
28-Jun-89	178	-29	-7	7	30	52	77	0
29-Jun-89	179	-28	-8	8	31	55	78	0
02-Jul-89	182	-30	-9	6	29	53	76	0
03-Jul-89	183	-28	-8	7	31	54	76	0
04-Jul-89	184	-27	-9	7	31	53	75	0
06-Jul-89	186	-28	-8	8	31	54	76	0
07-Jul-89	187	-28	-7	8	31	54	78	0
10-Jul-89	190	-29	-8	7	30	52	79	0
12-Jul-89	192	-29	-9	7	30	53	77	0
13-Jul-89	193	-29	-8	7	30	53	77	0
14-Jul-89	194	-28	-8	7	31	53	76	0

INCLINOMETER 10

Total Depth 6.5 metres

INCLINOMETER 10 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth								
		0	0.5	1	1.5	2	2.5	3	3.5	4
30-Nov-87	-398	155	154	131	120	100	88	73	75	67
12-Jan-88	-355	128	165	131	120	100	87	74	74	67
18-Jan-88	-349	126	164	132	120	101	88	74	73	67
17-Feb-88	-319	114	163	132	121	101	88	74	72	67
25-Feb-88	-311	107	163	133	121	101	88	73	72	67
03-Mar-88	-304	105	162	133	122	101	88	72	73	67
14-Mar-88	-293	103	163	134	121	103	88	73	73	67
13-Apr-88	-263	95	165	136	122	101	89	74	73	67
05-May-88	-241	88	168	114	111	101	88	74	73	67
26-May-88	-220	88	169	144	121	101	89	74	72	67
14-Jul-88	-171	79	165	155	122	102	88	74	72	67
19-Aug-88	-135	75	162	166	122	102	89	75	72	67
03-Jan-88	-364	61	154	195	123	102	90	78	74	67
01-Feb-89	31	103	153	201	124	102	90	78	74	67
14-Feb-89	44	59	154	203	124	102	91	78	74	68
21-Mar-89	79	56	153	208	124	102	90	78	74	67
07-Apr-89	96	56	152	212	125	103	91	78	74	68
19-Apr-89	108	55	151	214	125	102	90	78	74	67
05-May-89	124	54	152	217	126	103	91	78	75	68
21-May-89	140	54	152	219	127	103	91	78	74	68
20-Jun-89	170	52	148	226	129	103	91	80	74	68
23-Jun-89	173	53	149	227	130	103	92	79	75	68
25-Jun-89	175	50	147	227	130	103	91	80	74	68
28-Jun-89	178	49	147	226	129	101	89	79	75	67
30-Jun-89	180	51	149	229	131	104	92	80	76	69
02-Jul-89	182	49	147	228	130	103	90	78	75	70
04-Jul-89	184	49	146	229	131	103	91	80	75	67
05-Jul-89	185	49	146	228	132	102	91	81	75	67
06-Jul-89	186	49	147	229	131	104	91	80	75	68
07-Jul-89	187	46	147	229	130	103	91	80	75	68
10-Jul-89	190	48	146	229	131	103	91	79	75	68
12-Jul-89	192	48	145	229	130	103	91	80	75	68
14-Jul-89	194	48	146	230	130	103	91	79	75	67

INCLINOMETER 10 : Face A/B Mean Deviations (0.1mm)

DATE	DAY					
	No.	4.5	5	5.5	6	6.5
30-Nov-87	-398	56	24	-7	-29	0
12-Jan-88	-355	56	24	-7	-30	0
18-Jan-88	-349	57	25	-6	-30	0
17-Feb-88	-319	56	25	-7	-29	0
25-Feb-88	-311	57	26	-6	-29	0
03-Mar-88	-304	57	27	-6	-28	0
14-Mar-88	-293	56	24	-7	-30	0
13-Apr-88	-263	56	25	-8	-30	0
05-May-88	-241	57	26	-7	-30	0
26-May-88	-220	58	26	-6	-39	0
14-Jul-88	-171	58	27	-5	-28	0
19-Aug-88	-135	58	29	-5	-27	0
03-Jan-88	-364	58	27	-6	-28	0
01-Feb-89	31	58	28	-5	-28	0
14-Feb-89	44	58	28	-5	-28	0
21-Mar-89	79	57	28	-6	-28	0
07-Apr-89	96	58	28	-4	-28	0
19-Apr-89	108	58	28	-5	-28	0
05-May-89	124	59	28	-5	-28	0
21-May-89	140	58	29	-5	-28	0
20-Jun-89	170	58	29	-5	-27	0
23-Jun-89	173	57	27	-6	-28	0
25-Jun-89	175	58	28	-5	-27	0
28-Jun-89	178	59	28	-6	-28	0
30-Jun-89	180	58	28	-6	-28	0
02-Jul-89	182	59	29	-4	-28	0
04-Jul-89	184	58	27	-6	-29	0
05-Jul-89	185	59	28	-4	-28	0
06-Jul-89	186	58	31	-3	-26	0
07-Jul-89	187	58	28	-6	-28	0
10-Jul-89	190	59	29	-4	-27	0
12-Jul-89	192	59	30	-4	-27	0
14-Jul-89	194	57	28	-5	-28	0

INCLINOMETER 11

Total Depth 6.5 metres

INCLINOMETER 11 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth								
		0	0.5	1	1.5	2	2.5	3	3.5	4
30-Nov-87	-398	-155	-122	-48	-18	1	15	29	39	54
12-Jan-88	-355	-152	-105	-49	-18	1	15	29	38	53
18-Jan-88	-349	-156	-97	-48	-18	1	15	29	38	53
17-Feb-88	-319	-161	-100	-47	-19	1	15	29	38	54
25-Feb-88	-311	-160	-96	-47	-18	1	15	29	38	53
03-Mar-88	-304	-160	-92	-47	-18	1	15	29	38	53
14-Mar-88	-293	-159	-92	-46	-18	1	15	29	39	54
13-Apr-88	-263	-144	-83	-44	-19	1	15	29	39	53
05-May-88	-241	-152	-92	-41	-16	1	14	28	39	53
26-May-88	-220	-144	-95	-39	-18	1	14	29	38	53
14-Jul-88	-171	-155	-92	-36	-15	2	14	29	37	53
13-Jan-88	-354	-157	-91	-40	-17	-1	13	28	37	52
01-Feb-89	31	-155	-95	-39	-16	-1	13	28	38	53
07-Apr-89	96	331	-101	-39	-16	-1	14	28	38	53
19-Apr-89	108	-164	-90	-39	-16	-1	14	29	38	53
08-May-89	127	-147	-92	-39	-17	-2	13	28	37	53
20-Jun-89	170	-170	-90	-41	-17	-2	14	29	39	54
25-Jun-89	175	-158	-90	-40	-17	-2	12	28	37	53
28-Jun-89	178	-153	-90	-38	-15	0	14	29	37	54
30-Jun-89	180	-156	-89	-39	-16	-1	14	29	37	51
04-Jul-89	184	-147	-88	-39	-16	-1	14	28	37	52
06-Jul-89	186	-145	-95	-39	-18	-1	14	28	39	54
10-Jul-89	190	-177	-84	-39	-16	-1	14	29	38	53
12-Jul-89	192	-127	-84	-39	-16	-2	13	28	37	52
14-Jul-89	194	-155	-88	-38	-16	-2	13	29	37	53
18-Jul-89	198	-156	-90	-38	-16	-2	13	28	38	53
24-Jul-89	204	-153	-88	-38	-16	-1	13	29	38	53
27-Jul-89	207	-146	-88	-38	-15	-1	14	29	38	53

INCLINOMETER 11 : Face A/B Mean Deviations (0.1mm)

DATE	DAY		4.5	5	5.5	6	6.5
	No.						
30-Nov-87	-398		63	65	75	81	0
12-Jan-88	-355		63	65	76	80	0
18-Jan-88	-349		62	65	75	81	0
17-Feb-88	-319		63	65	76	81	0
25-Feb-88	-311		63	65	74	81	0
03-Mar-88	-304		63	65	75	81	0
14-Mar-88	-293		64	65	76	81	0
13-Apr-88	-263		63	65	76	82	0
05-May-88	-241		63	65	75	81	0
26-May-88	-220		62	65	75	81	0
14-Jul-88	-171		61	65	75	81	0
13-Jan-88	-354		62	65	75	82	0
01-Feb-89	31		62	65	76	82	0
07-Apr-89	96		62	65	75	82	0
19-Apr-89	108		63	66	75	82	0
08-May-89	127		62	65	75	82	0
20-Jun-89	170		63	66	76	83	0
25-Jun-89	175		62	64	75	81	0
28-Jun-89	178		62	65	75	82	0
30-Jun-89	180		62	65	75	82	0
04-Jul-89	184		62	65	76	83	0
06-Jul-89	186		63	65	77	83	0
10-Jul-89	190		63	65	76	82	0
12-Jul-89	192		62	65	75	82	0
14-Jul-89	194		62	65	76	82	0
18-Jul-89	198		62	65	76	82	0
24-Jul-89	204		62	65	76	82	0
27-Jul-89	207		62	65	75	83	0

INCLINOMETER 12

Total Depth 6.5 metres

INCLINOMETER 12 : Face A/B Mean Deviations (0.1mm)

DATE	DAY No.	depth								
		0	0.5	1	1.5	2	2.5	3	3.5	4
30-Nov-87	-398	83	106	136	135	129	125	114	111	114
12-Jan-88	-355	80	99	131	135	129	125	113	110	113
18-Jan-88	-349	80	97	130	135	129	124	113	110	113
17-Feb-88	-319	92	97	122	134	129	124	114	110	113
25-Feb-88	-311	92	97	118	134	129	124	113	110	113
03-Mar-88	-304	97	98	117	134	129	124	113	110	113
14-Mar-88	-293	99	100	111	135	129	125	114	110	114
13-Apr-88	-263	103	102	101	133	128	124	113	110	113
26-May-88	-220	108	103	94	132	128	123	113	109	114
14-Jul-88	-171	109	102	88	131	125	122	113	109	112
13-Jan-88	-354	111	96	80	118	121	122	111	109	113
01-Feb-89	31	111	99	81	117	119	121	112	109	112
07-Apr-89	96	116	101	82	117	116	120	111	108	112
19-Apr-89	108	114	103	82	117	115	120	112	109	113
08-May-89	127	116	102	82	118	114	119	111	109	112
20-Jun-89	170	116	103	82	118	111	118	111	109	112
25-Jun-89	175	117	103	82	119	111	119	111	109	113
28-Jun-89	178	117	102	82	118	111	118	110	108	112
30-Jun-89	180	118	102	82	119	111	117	110	109	112
04-Jul-89	184	119	102	82	119	110	118	110	108	114
06-Jul-89	186	118	103	83	120	111	118	111	106	112
10-Jul-89	190	116	102	83	119	110	118	111	108	113
12-Jul-89	192	117	102	82	119	110	118	111	108	111
14-Jul-89	194	116	103	83	119	110	117	111	108	112
18-Jul-89	198	120	103	83	120	109	117	111	108	112
24-Jul-89	204	117	103	84	120	110	117	111	109	112
27-Jul-89	207	116	104	83	120	109	118	111	108	112

INCLINOMETER 12 : Face A/B Mean Deviations (0.1mm)

DATE	DAY					
	No.	4.5	5	5.5	6	6.5
30-Nov-87	-398	110	106	100	94	0
12-Jan-88	-355	110	105	99	94	0
18-Jan-88	-349	110	105	101	95	0
17-Feb-88	-319	110	106	101	94	0
25-Feb-88	-311	110	105	100	94	0
03-Mar-88	-304	110	105	101	94	0
14-Mar-88	-293	110	106	102	95	0
13-Apr-88	-263	111	106	101	94	0
26-May-88	-220	112	105	100	94	0
14-Jul-88	-171	111	106	101	94	0
13-Jan-88	-354	111	105	97	94	0
01-Feb-89	31	111	105	101	94	0
07-Apr-89	96	111	105	101	94	0
19-Apr-89	108	112	106	106	94	0
08-May-89	127	111	106	101	95	0
20-Jun-89	170	111	105	101	93	0
25-Jun-89	175	112	105	101	93	0
28-Jun-89	178	112	106	99	94	0
30-Jun-89	180	110	105	99	93	0
04-Jul-89	184	111	105	100	94	0
06-Jul-89	186	111	106	102	95	0
10-Jul-89	190	111	106	101	94	0
12-Jul-89	192	112	105	101	94	0
14-Jul-89	194	111	105	101	94	0
18-Jul-89	198	111	105	101	94	0
24-Jul-89	204	111	106	101	94	0
27-Jul-89	207	112	105	101	94	0

STRING INCLINOMETER 01

Total Depth 12.0 metres

STRING INCLINOMETER 01 1988 : Deviations (metres)

LOGGER 0001

Elements 201 to 111

DATE	DAY No.	101	102	103	104	105	106
03-Feb-88	-333	-0.001	-0.006	0.000	-0.004	-0.009	0.004
01-Mar-88	-306	-0.001	-0.006	-0.001	-0.004	-0.009	0.004
08-Apr-88	-268	0.000	-0.006	-0.001	-0.004	-0.009	0.001
06-May-88	-240	0.000	-0.006	-0.001	-0.004	-0.009	0.001
03-Jun-88	-212	0.000	-0.006	-0.001	-0.004	-0.009	0.001
01-Jul-88	-184	0.000	-0.006	-0.001	-0.004	-0.009	0.001
05-Aug-88	-149	0.000	-0.007	-0.001	-0.005	-0.009	0.001
29-Nov-88	-33	-0.002	-0.007	-0.005	-0.016	-0.010	0.001
30-Dec-88	-2	-0.002	-0.006	-0.004	-0.015	-0.009	0.000

STRING INCLINOMETER 01 1988 : Deviations (metres)

LOGGER 0001

DATE	DAY No.	107	108	109	110	111	112
03-Feb-88	-333	-0.018	0.010	0.019	0.000	-0.015	0.012
01-Mar-88	-306	-0.018	0.010	0.019	0.000	-0.015	0.012
08-Apr-88	-268	-0.018	0.012	0.020	-0.001	-0.015	0.012
06-May-88	-240	-0.018	0.012	0.020	-0.001	-0.015	0.012
03-Jun-88	-212	-0.018	0.012	0.020	-0.001	-0.015	0.012
01-Jul-88	-184	-0.018	0.012	0.020	-0.004	-0.015	0.012
05-Aug-88	-149	-0.018	0.010	0.018	-0.004	-0.015	0.012
29-Nov-88	-33	-0.021	0.009	-0.001	0.000	0.018	lost
30-Dec-88	-2	-0.020	0.009	0.000	0.000	0.018	

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

Elements 101 to 111

TIME/DATE	DAY No.	101	102	103	104	105	106
16:25.00 25/02/89	55	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
18:01.00 27/02/89	57	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:02.00 28/02/89	58	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
18:01.00 28/02/89	58	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 01/03/89	59	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 02/03/89	60	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
17:58.00 02/03/89	60	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 06/03/89	64	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 07/03/89	65	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 07/03/89	65	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 08/03/89	66	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 09/03/89	67	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
08:00.00 10/03/89	68	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 13/03/89	71	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 14/03/89	72	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 14/03/89	72	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:15.00 15/03/89	73	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
05:59.00 16/03/89	74	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 16/03/89	74	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 17/03/89	75	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
17:57.00 19/03/89	77	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 20/03/89	78	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:01.00 20/03/89	78	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 21/03/89	79	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 21/03/89	79	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
06:00.00 22/03/89	80	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
18:00.00 22/03/89	80	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
06:00.00 23/03/89	81	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
18:00.00 23/03/89	81	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
06:00.00 24/03/89	82	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
17:57.00 04/04/89	93	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
18:23.00 05/04/89	94	-0.005	-0.007	-0.005	-0.016	-0.010	0.000
05:59.00 06/04/89	95	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
18:00.00 13/04/89	102	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

TIME/DATE	DAY No.	107	108	109	110	111
16:25.00 25/02/89	55	-0.022	0.009	-0.001	-0.001	0.018
18:01.00 27/02/89	57	-0.022	0.009	-0.001	-0.001	0.018
06:02.00 28/02/89	58	-0.022	0.009	-0.001	-0.001	0.018
18:01.00 28/02/89	58	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 01/03/89	59	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 02/03/89	60	-0.022	0.009	-0.001	-0.001	0.018
17:58.00 02/03/89	60	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 06/03/89	64	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 07/03/89	65	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 07/03/89	65	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 08/03/89	66	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 09/03/89	67	-0.022	0.009	-0.001	-0.001	0.018
08:00.00 10/03/89	68	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 13/03/89	71	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 14/03/89	72	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 14/03/89	72	-0.022	0.009	-0.001	-0.001	0.018
18:15.00 15/03/89	73	-0.022	0.009	-0.001	-0.001	0.018
05:59.00 16/03/89	74	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 16/03/89	74	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 17/03/89	75	-0.022	0.009	-0.001	-0.001	0.018
17:57.00 19/03/89	77	-0.021	0.009	-0.001	-0.001	0.018
06:00.00 20/03/89	78	-0.021	0.009	-0.001	-0.001	0.018
18:01.00 20/03/89	78	-0.021	0.009	-0.001	-0.001	0.018
06:00.00 21/03/89	79	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 21/03/89	79	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 22/03/89	80	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 22/03/89	80	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 23/03/89	81	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 23/03/89	81	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 24/03/89	82	-0.022	0.009	-0.001	-0.001	0.018
17:57.00 04/04/89	93	-0.022	0.009	-0.001	-0.001	0.018
18:23.00 05/04/89	94	-0.022	0.009	-0.001	-0.001	0.018
05:59.00 06/04/89	95	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 13/04/89	102	-0.022	0.009	-0.001	-0.001	0.018

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

Elements 101 to 111

TIME/DATE	DAY No.	101	102	103	104	105	106
06:00.00 14/04/89	103	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 14/04/89	103	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 15/04/89	104	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 17/04/89	106	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
06:00.00 18/04/89	107	-0.005	-0.007	-0.005	-0.016	-0.010	-0.001
18:00.00 18/04/89	107	-0.005	-0.007	-0.005	-0.016	-0.010	0.000
06:00.00 19/04/89	108	-0.005	-0.007	-0.005	-0.016	-0.010	0.000
18:00.00 19/04/89	108	-0.005	-0.008	-0.005	-0.016	-0.011	-0.001
06:00.00 20/04/89	109	-0.005	-0.007	-0.005	-0.016	-0.010	0.000
18:00.00 20/04/89	109	-0.005	-0.007	-0.004	-0.016	-0.010	0.000
06:00.00 21/04/89	110	-0.005	-0.008	-0.005	-0.016	-0.010	-0.001
18:00.00 24/04/89	113	-0.005	-0.007	-0.005	-0.016	-0.010	0.000
18:00.00 24/04/89	113	-0.005	-0.007	-0.005	-0.016	-0.010	0.000
18:00.00 25/04/89	114	-0.005	-0.007	-0.005	-0.016	-0.010	0.000
18:00.00 26/04/89	115	-0.005	-0.008	-0.005	-0.016	-0.011	-0.001
06:00.00 27/04/89	116	-0.005	-0.008	-0.005	-0.016	-0.011	-0.001
18:00.00 27/04/89	116	-0.005	-0.008	-0.005	-0.017	-0.011	-0.001
06:00.00 28/04/89	117	-0.005	-0.008	-0.005	-0.016	-0.011	-0.001
18:00.00 02/05/89	121	-0.005	-0.008	-0.005	-0.017	-0.011	-0.001
18:00.00 03/05/89	122	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.00 04/05/89	123	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 04/05/89	123	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.00 05/05/89	124	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 05/05/89	124	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.00 06/05/89	125	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:27.53 06/05/89	125	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.08 07/05/89	126	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.33 07/05/89	126	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.41 08/05/89	127	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
06:31.26 09/05/89	128	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.15 09/05/89	128	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.40 10/05/89	129	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:01.29 10/05/89	129	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.49 11/05/89	130	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

TIME/DATE	DAY No.	107	108	109	110	111
06:00.00 14/04/89	103	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 14/04/89	103	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 15/04/89	104	-0.022	0.009	-0.001	-0.001	0.018
18:00.00 17/04/89	106	-0.022	0.009	-0.001	-0.001	0.018
06:00.00 18/04/89	107	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 18/04/89	107	-0.022	0.009	-0.001	-0.001	0.021
06:00.00 19/04/89	108	-0.021	0.009	-0.001	-0.001	0.020
18:00.00 19/04/89	108	-0.022	0.009	-0.001	-0.001	0.019
06:00.00 20/04/89	109	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 20/04/89	109	-0.021	0.009	-0.001	-0.001	0.021
06:00.00 21/04/89	110	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 24/04/89	113	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 24/04/89	113	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 25/04/89	114	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 26/04/89	115	-0.022	0.009	-0.001	-0.001	0.020
06:00.00 27/04/89	116	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 27/04/89	116	-0.022	0.009	-0.001	-0.001	0.020
06:00.00 28/04/89	117	-0.022	0.009	-0.001	-0.001	0.020
18:00.00 02/05/89	121	-0.021	0.009	-0.001	-0.001	0.021
18:00.00 03/05/89	122	-0.024	0.006	-0.001	-0.001	0.021
06:00.00 04/05/89	123	-0.024	0.006	-0.001	-0.001	0.021
18:00.00 04/05/89	123	-0.024	0.006	-0.001	-0.001	0.021
06:00.00 05/05/89	124	-0.024	0.006	-0.001	-0.001	0.021
18:00.00 05/05/89	124	-0.024	0.006	0.012	-0.011	-0.022
06:00.00 06/05/89	125	-0.024	0.006	0.012	-0.011	-0.022
18:27.53 06/05/89	125	-0.024	0.006	0.012	-0.011	-0.022
06:00.08 07/05/89	126	-0.024	0.006	0.012	-0.011	-0.022
18:00.33 07/05/89	126	-0.024	-0.160	0.012	-0.011	-0.022
18:00.41 08/05/89	127	-0.024	-0.149	0.012	-0.011	-0.022
06:31.26 09/05/89	128	0.555	0.006	0.012	-0.011	-0.022
18:00.15 09/05/89	128	-0.024	-0.157	0.012	-0.011	-0.022
06:00.40 10/05/89	129	-0.024	-0.204	0.012	-0.011	-0.022
18:01.29 10/05/89	129	-0.024	-0.167	0.012	-0.011	-0.022
06:00.49 11/05/89	130	-0.024	-0.218	0.012	-0.011	-0.022

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

Elements 101 to 111

TIME/DATE	DAY No.	101	102	103	104	105	106
18:04.32 11/05/89	130	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
17:54.00 13/05/89	132	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.45 15/05/89	134	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.44 15/05/89	134	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.04 16/05/89	135	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.28 16/05/89	135	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.53 17/05/89	136	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.08 17/05/89	136	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.33 18/05/89	137	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 18/05/89	137	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.00 19/05/89	138	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 19/05/89	138	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.00 20/05/89	139	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 21/05/89	140	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.00 22/05/89	141	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 22/05/89	141	-0.005	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.00 23/05/89	142	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 23/05/89	142	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.00 24/05/89	143	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 24/05/89	143	-0.005	-0.009	-0.004	-0.016	-0.015	-0.004
06:00.00 25/05/89	144	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 25/05/89	144	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.00 26/05/89	145	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:01.00 31/05/89	150	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
06:02.00 01/06/89	151	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
17:58.00 01/06/89	151	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.00 02/06/89	152	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:01.00 02/06/89	152	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
05:45.00 03/06/89	153	-0.005	-0.009	-0.004	-0.016	-0.015	-0.005
18:00.00 03/06/89	153	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
05:56.00 04/06/89	154	-0.005	-0.009	-0.004	-0.016	-0.015	-0.004
18:00.00 04/06/89	154	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:12.00 05/06/89	155	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
17:58.00 05/06/89	155	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

TIME/DATE	DAY No.	107	108	109	110	111
18:04.32 11/05/89	130	-0.024	0.006	0.012	-0.011	-0.022
17:54.00 13/05/89	132	-0.024	0.006	0.012	-0.011	-0.022
06:00.45 15/05/89	134	-0.024	-0.230	0.012	-0.011	-0.022
18:00.44 15/05/89	134	-0.024	-0.212	0.012	-0.011	-0.022
06:00.04 16/05/89	135	-0.024	-0.179	0.012	-0.011	-0.022
18:00.28 16/05/89	135	-0.024	-0.149	0.012	-0.011	-0.022
06:00.53 17/05/89	136	-0.024	-0.226	0.012	-0.011	-0.022
18:00.08 17/05/89	136	-0.024	-0.181	0.012	-0.011	-0.022
06:00.33 18/05/89	137	-0.024	-0.088	0.012	-0.011	-0.022
18:00.00 18/05/89	137	-0.024	-0.111	0.012	-0.011	-0.022
06:00.00 19/05/89	138	-0.024	-0.025	0.012	-0.011	-0.022
18:00.00 19/05/89	138	-0.024	-0.045	0.012	-0.011	-0.022
06:00.00 20/05/89	139	-0.024	0.070	0.012	-0.011	-0.022
18:00.00 21/05/89	140	-0.024	-0.043	0.012	-0.011	-0.022
06:00.00 22/05/89	141	-0.024	0.006	0.012	-0.011	-0.022
18:00.00 22/05/89	141	-0.024	-0.104	0.012	-0.011	-0.022
06:00.00 23/05/89	142	-0.024	0.006	0.012	-0.011	-0.022
18:00.00 23/05/89	142	-0.024	-0.076	0.012	-0.011	-0.022
06:00.00 24/05/89	143	-0.024	0.055	0.012	-0.011	-0.022
18:00.00 24/05/89	143	-0.023	0.021	0.013	-0.011	-0.022
06:00.00 25/05/89	144	-0.024	-0.044	0.012	-0.011	-0.022
18:00.00 25/05/89	144	-0.024	0.066	0.012	-0.011	-0.022
06:00.00 26/05/89	145	-0.024	-0.039	0.012	-0.011	-0.022
18:01.00 31/05/89	150	-0.024	-0.176	0.012	-0.011	-0.022
06:02.00 01/06/89	151	-0.024	-0.234	0.012	-0.011	-0.022
17:58.00 01/06/89	151	-0.024	-0.191	0.012	-0.011	-0.022
06:00.00 02/06/89	152	-0.024	-0.226	0.012	-0.011	-0.022
18:01.00 02/06/89	152	-0.024	-0.156	0.012	-0.011	-0.022
05:45.00 03/06/89	153	-0.023	-0.190	0.012	-0.011	-0.022
18:00.00 03/06/89	153	-0.024	-0.136	0.012	-0.011	-0.022
05:56.00 04/06/89	154	-0.023	-0.212	0.013	-0.011	-0.022
18:00.00 04/06/89	154	-0.024	-0.129	0.012	-0.011	-0.022
06:12.00 05/06/89	155	-0.024	-0.205	0.012	-0.011	-0.022
17:58.00 05/06/89	155	-0.024	-0.169	0.012	-0.011	-0.022

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

Elements 101 to 111

TIME/DATE	DAY No.	101	102	103	104	105	106
06:00.00 06/06/89	156	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:04.00 06/06/89	156	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
06:00.00 07/06/89	157	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 07/06/89	157	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.00 08/06/89	158	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 08/06/89	158	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
05:59.00 09/06/89	159	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 09/06/89	159	-0.005	-0.009	-0.004	-0.016	-0.015	-0.004
06:01.00 10/06/89	160	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:02.00 10/06/89	160	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.00 11/06/89	161	-0.005	-0.009	-0.004	-0.016	-0.015	-0.004
18:02.00 11/06/89	161	-0.005	-0.009	-0.004	-0.016	-0.015	-0.004
06:00.00 12/06/89	162	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
17:59.00 12/06/89	162	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
05:48.00 13/06/89	163	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 13/06/89	163	-0.005	-0.010	-0.004	-0.016	-0.015	-0.005
06:00.00 14/06/89	164	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 14/06/89	164	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:00.00 15/06/89	165	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 15/06/89	165	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
06:03.00 16/06/89	166	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:01.00 19/06/89	169	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:02.00 20/06/89	170	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
17:59.00 20/06/89	170	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:01.00 21/06/89	171	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 21/06/89	171	-0.006	-0.010	-0.005	-0.017	-0.016	-0.005
06:01.00 22/06/89	172	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005
18:00.00 22/06/89	172	-0.006	-0.010	-0.006	-0.016	-0.016	-0.005
05:50.00 23/06/89	173	-0.005	-0.010	-0.005	-0.016	-0.015	-0.005
18:03.00 23/06/89	173	-0.006	-0.010	-0.006	-0.016	-0.016	-0.005
06:00.00 24/06/89	174	-0.006	-0.010	-0.006	-0.016	-0.016	-0.005
18:01.00 24/06/89	174	-0.006	-0.010	-0.006	-0.017	-0.016	-0.005
06:00.00 25/06/89	175	-0.006	-0.010	-0.006	-0.016	-0.016	-0.005
17:58.00 25/06/89	175	-0.006	-0.010	-0.005	-0.016	-0.016	-0.005

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

TIME/DATE	DAY No.	107	108	109	110	111
06:00.00 06/06/89	156	-0.024	-0.208	0.012	-0.011	-0.022
18:04.00 06/06/89	156	-0.024	-0.233	0.012	-0.011	-0.022
06:00.00 07/06/89	157	-0.024	-0.223	0.012	-0.011	-0.022
18:00.00 07/06/89	157	-0.024	-0.192	0.012	-0.011	-0.022
06:00.00 08/06/89	158	-0.024	-0.226	0.012	-0.011	-0.022
18:00.00 08/06/89	158	-0.024	-0.192	0.012	-0.011	-0.022
05:59.00 09/06/89	159	-0.024	-0.228	0.012	-0.011	-0.022
18:00.00 09/06/89	159	-0.023	-0.177	0.013	-0.010	-0.021
06:01.00 10/06/89	160	-0.024	-0.209	0.012	-0.011	-0.022
18:02.00 10/06/89	160	-0.024	-0.184	0.012	-0.011	-0.022
06:00.00 11/06/89	161	-0.023	-0.212	0.013	-0.010	-0.021
18:02.00 11/06/89	161	-0.023	-0.132	0.013	-0.010	-0.021
06:00.00 12/06/89	162	-0.024	-0.160	0.012	-0.011	-0.022
17:59.00 12/06/89	162	-0.024	-0.137	0.012	-0.011	-0.022
05:48.00 13/06/89	163	-0.024	0.015	0.012	-0.011	-0.022
18:00.00 13/06/89	163	-0.023	0.044	0.012	-0.011	-0.022
06:00.00 14/06/89	164	-0.024	-0.162	0.012	-0.011	-0.022
18:00.00 14/06/89	164	-0.024	-0.158	0.012	-0.011	-0.022
06:00.00 15/06/89	165	-0.024	-0.164	0.012	-0.011	-0.022
18:00.00 15/06/89	165	-0.024	-0.030	0.012	-0.011	-0.022
06:03.00 16/06/89	166	-0.024	-0.092	0.012	-0.011	-0.022
18:01.00 19/06/89	169	-0.024	-0.135	0.012	-0.011	-0.022
06:02.00 20/06/89	170	-0.024	-0.109	0.012	-0.011	-0.022
17:59.00 20/06/89	170	-0.024	0.008	0.012	-0.011	-0.022
06:01.00 21/06/89	171	-0.024	-0.012	0.012	-0.011	-0.022
18:00.00 21/06/89	171	-0.024	-0.167	0.012	-0.011	-0.022
06:01.00 22/06/89	172	-0.024	-0.213	0.012	-0.011	-0.022
18:00.00 22/06/89	172	-0.024	-0.186	0.012	-0.011	-0.022
05:50.00 23/06/89	173	-0.023	-0.220	0.012	-0.011	-0.022
18:03.00 23/06/89	173	-0.024	-0.123	0.012	-0.011	-0.022
06:00.00 24/06/89	174	-0.024	0.012	0.012	-0.011	-0.022
18:01.00 24/06/89	174	-0.024	-0.163	0.012	-0.011	-0.022
06:00.00 25/06/89	175	-0.024	-0.136	0.012	-0.011	-0.022
17:58.00 25/06/89	175	-0.024	-0.196	0.012	-0.011	-0.022

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

Elements 101 to 111

TIME/DATE	DAY No.	101	102	103	104	105	106
06:00.00 26/06/89	176	-0.005	-0.010	-0.005	-0.016	-0.016	-0.005
18:06.00 26/06/89	176	-0.006	-0.010	-0.006	-0.017	-0.016	-0.005
06:01.00 27/06/89	177	-0.006	-0.010	-0.006	-0.016	-0.016	-0.005
17:59.00 27/06/89	177	-0.006	-0.010	-0.008	-0.017	-0.016	-0.005
05:59.00 28/06/89	178	-0.006	-0.010	-0.008	-0.016	-0.016	-0.005
18:00.00 28/06/89	178	-0.005	-0.009	-0.008	-0.016	-0.016	-0.005
06:00.00 29/06/89	179	-0.005	-0.009	-0.008	-0.016	-0.016	-0.005
18:01.00 29/06/89	179	-0.006	-0.009	-0.008	-0.017	-0.016	-0.005
05:59.00 30/06/89	180	-0.005	-0.009	-0.007	-0.016	-0.015	-0.005
18:01.00 30/06/89	180	-0.006	-0.009	-0.008	-0.016	-0.016	-0.005
06:00.00 01/07/89	181	-0.006	-0.009	-0.007	-0.017	-0.016	-0.005
18:01.00 01/07/89	181	-0.006	-0.009	-0.008	-0.017	-0.016	-0.005
06:00.00 02/07/89	182	-0.006	-0.009	-0.007	-0.016	-0.016	-0.005
18:01.00 03/07/89	183	-0.006	-0.009	-0.007	-0.017	-0.016	-0.005
06:00.00 04/07/89	184	-0.006	-0.009	-0.006	-0.016	-0.016	-0.005
18:00.00 04/07/89	184	-0.005	-0.009	-0.005	-0.016	-0.015	-0.005
06:00.00 05/07/89	185	-0.006	-0.009	-0.006	-0.016	-0.016	-0.005
18:00.00 05/07/89	185	-0.005	-0.007	-0.007	-0.016	-0.015	-0.004
06:00.00 06/07/89	186	-0.005	-0.008	-0.013	-0.016	-0.016	-0.005
18:00.00 06/07/89	186	-0.005	-0.008	-0.013	-0.016	-0.016	-0.005
06:00.00 07/07/89	187	-0.005	-0.008	-0.013	-0.017	-0.016	-0.005
18:00.00 07/07/89	187	-0.005	-0.008	-0.016	-0.016	-0.016	-0.005
06:02.00 08/07/89	188	-0.005	-0.008	-0.024	-0.016	-0.016	-0.005
18:00.00 08/07/89	188	-0.004	-0.008	-0.025	-0.016	-0.016	-0.005
06:00.00 09/07/89	189	-0.004	-0.007	-0.024	-0.016	-0.015	-0.004
18:00.00 09/07/89	189	-0.004	-0.008	-0.025	-0.016	-0.016	-0.005
06:00.00 10/07/89	190	-0.004	-0.008	-0.030	-0.016	-0.016	-0.005
18:01.00 10/07/89	190	-0.004	-0.008	-0.030	-0.016	-0.016	-0.005
06:00.00 11/07/89	191	-0.004	-0.008	-0.030	-0.016	-0.016	-0.005
18:00.00 11/07/89	191	-0.005	-0.008	-0.030	-0.016	-0.016	-0.005
06:00.00 12/07/89	192	-0.004	-0.008	-0.031	-0.016	-0.016	-0.005
18:00.00 12/07/89	192	-0.005	-0.008	-0.031	-0.016	-0.016	-0.005
06:00.00 13/07/89	193	-0.005	-0.008	-0.031	-0.016	-0.016	-0.005
18:00.00 13/07/89	193	-0.003	-0.007	-0.035	-0.019	-0.016	-0.005

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

TIME/DATE	DAY No.	107	108	109	110	111
06:00.00 26/06/89	176	-0.024	0.066	0.012	-0.011	-0.022
18:06.00 26/06/89	176	-0.024	-0.180	0.012	-0.011	-0.022
06:01.00 27/06/89	177	-0.024	-0.160	0.012	-0.011	-0.022
17:59.00 27/06/89	177	-0.024	-0.201	0.012	-0.011	-0.022
05:59.00 28/06/89	178	-0.024	-0.219	0.012	-0.011	-0.022
18:00.00 28/06/89	178	-0.024	-0.260	0.012	-0.011	-0.022
06:00.00 29/06/89	179	-0.024	-0.256	0.012	-0.011	-0.022
18:01.00 29/06/89	179	-0.024	-0.251	0.012	-0.011	-0.022
05:59.00 30/06/89	180	-0.023	-0.249	0.012	-0.011	-0.022
18:01.00 30/06/89	180	-0.024	-0.144	0.012	-0.011	-0.022
06:00.00 01/07/89	181	-0.024	-0.224	0.012	-0.011	-0.022
18:01.00 01/07/89	181	-0.024	-0.224	0.012	-0.011	-0.022
06:00.00 02/07/89	182	-0.023	-0.213	0.012	-0.011	-0.022
18:01.00 03/07/89	183	-0.028	-0.202	0.012	-0.011	-0.022
06:00.00 04/07/89	184	-0.028	-0.226	0.012	-0.011	-0.022
18:00.00 04/07/89	184	-0.027	-0.202	0.012	-0.011	-0.022
06:00.00 05/07/89	185	-0.028	-0.194	0.012	-0.011	-0.022
18:00.00 05/07/89	185	-0.027	-0.139	0.013	-0.011	-0.022
06:00.00 06/07/89	186	-0.028	-0.109	0.012	-0.011	-0.022
18:00.00 06/07/89	186	-0.028	-0.164	0.012	-0.011	-0.022
06:00.00 07/07/89	187	-0.028	-0.136	0.012	-0.011	-0.022
18:00.00 07/07/89	187	-0.028	-0.168	0.012	-0.011	-0.022
06:02.00 08/07/89	188	-0.028	-0.096	0.012	-0.011	-0.022
18:00.00 08/07/89	188	-0.028	-0.150	0.012	-0.011	-0.022
06:00.00 09/07/89	189	-0.027	-0.018	0.013	-0.011	-0.021
18:00.00 09/07/89	189	-0.028	-0.055	0.012	-0.011	-0.022
06:00.00 10/07/89	190	-0.028	-0.098	0.012	-0.011	-0.022
18:01.00 10/07/89	190	-0.027	-0.087	0.013	-0.011	-0.022
06:00.00 11/07/89	191	-0.028	0.075	0.012	-0.011	-0.022
18:00.00 11/07/89	191	-0.028	0.006	0.013	-0.011	-0.022
06:00.00 12/07/89	192	-0.027	-0.071	0.013	-0.011	-0.022
18:00.00 12/07/89	192	-0.028	-0.130	0.012	-0.011	-0.022
06:00.00 13/07/89	193	-0.027	-0.095	0.013	-0.011	-0.022
18:00.00 13/07/89	193	-0.027	-0.012	0.014	-0.012	-0.024

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

Elements 101 to 111

TIME/DATE	DAY No.	101	102	103	104	105	106
06:00.00 14/07/89	194	-0.003	-0.007	-0.035	-0.019	-0.016	-0.005
18:00.00 14/07/89	194	-0.001	-0.008	-0.041	-0.019	-0.016	-0.005
06:00.00 15/07/89	195	-0.001	-0.007	-0.044	-0.019	-0.016	-0.005
18:00.00 15/07/89	195	0.000	-0.007	-0.049	-0.019	-0.015	-0.005
06:00.00 16/07/89	196	0.024	-0.028	-0.071	-0.018	-0.015	-0.004
19:00.00 16/07/89	196	-0.611	-0.063	-0.161	-0.072	-0.022	-0.120
12:00.00 18/07/89	198	-0.598	-0.066	-0.155	-0.074	-0.077	-0.134
12:10.00 19/07/89	199	-0.035	-0.034	-0.035	-0.034	-0.035	-0.035
11:56.00 20/07/89	200	-0.031	-0.031	-0.030	-0.030	-0.033	-0.031
12:00.00 21/07/89	201	-0.028	-0.029	-0.029	-0.028	-0.029	-0.029
12:01.00 22/07/89	202	-0.019	-0.019	-0.020	-0.020	-0.020	-0.020
12:00.00 23/07/89	203	-0.020	-0.020	-0.020	-0.019	-0.020	-0.020
12:00.00 24/07/89	204	-0.021	-0.021	-0.021	-0.020	-0.020	-0.020

STRING INCLINOMETER 01 1989 : Deviations (metres)

LOGGER 0001

TIME/DATE	DAY No.	107	108	109	110	111
06:00.00 14/07/89	194	-0.027	-0.064	0.014	-0.012	-0.024
18:00.00 14/07/89	194	-0.027	-0.064	0.014	-0.012	-0.024
06:00.00 15/07/89	195	-0.027	-0.062	0.014	-0.011	-0.024
18:00.00 15/07/89	195	-0.027	0.029	0.015	-0.011	-0.024
06:00.00 16/07/89	196	-0.027	0.022	0.015	-0.011	-0.024
19:00.00 16/07/89	196	0.166	-1.212	-1.414	-0.145	-0.084
12:00.00 18/07/89	198	0.204	-1.197	-1.414	-0.147	-0.071
12:10.00 19/07/89	199	-0.035	-0.034	-0.034	-0.034	-0.036
11:56.00 20/07/89	200	-0.032	-0.031	-0.030	-0.030	-0.032
12:00.00 21/07/89	201	-0.028	-0.028	-0.028	-0.028	-0.029
12:01.00 22/07/89	202	-0.020	-0.019	-0.018	-0.018	-0.019
12:00.00 23/07/89	203	-0.020	-0.020	-0.020	-0.019	-0.020
12:00.00 24/07/89	204	-0.021	-0.021	-0.599	-0.020	-0.021

STRING INCLINOMETER 02

Total Depth 8.0 metres

STRING INCLINOMETER 02 : Deviations (metres)

LOGGER 0002

Elements 201 to 208

DATE	DAY No.	201	202	203	204	205
03-Feb-88	-333	-0.012	-0.025	-0.026	-0.015	-0.028
01-Mar-88	-306	-0.014	-0.028	-0.029	-0.015	-0.028
08-Apr-88	-268	-0.014	-0.034	-0.029	-0.016	-0.028
06-May-88	-240	-0.015	-0.040	-0.029	-0.016	-0.030
03-Jun-88	-212	-0.017	-0.420	-0.029	-0.015	-0.031
01-Jul-88	-184	-0.017	-0.043	-0.029	-0.015	-0.031
05-Aug-88	-149	-0.017	-0.045	-0.029	-0.015	-0.031
29-Nov-88	-33	-0.020	-0.052	-0.035	-0.017	-0.034
30-Dec-88	-2	-0.020	-0.054	-0.035	-0.017	-0.037
03-Jan-89	2	-0.020	-0.054	-0.035	-0.017	-0.037
30-Jan-89	29	-0.020	-0.054	-0.035	-0.016	-0.037
19-Feb-89	49	-0.020	-0.055	-0.035	-0.017	-0.037
06-Mar-89	64	-0.020	-0.057	-0.035	-0.017	-0.037
20-Mar-89	78	-0.020	-0.059	-0.035	-0.016	-0.036
05-Apr-89	94	-0.020	-0.062	-0.035	-0.017	-0.037
17-Apr-89	106	-0.020	-0.062	-0.035	-0.018	-0.037
03-May-89	122	-0.020	-0.062	-0.035	-0.018	-0.037
12-May-89	131	-0.020	-0.065	-0.035	-0.017	-0.037
19-May-89	138	-0.020	-0.065	-0.035	-0.017	-0.037
25-May-89	144	-0.020	-0.068	-0.035	-0.017	-0.037
01-Jun-89	151	-0.020	-0.068	-0.035	-0.017	-0.037
08-Jun-89	158	-0.020	-0.070	-0.035	-0.017	-0.037
15-Jun-89	165	-0.020	-0.073	-0.035	-0.017	-0.037
20-Jun-89	170	-0.020	-0.075	-0.035	-0.017	-0.037
23-Jun-89	173	-0.017	-0.082	-0.037	-0.017	-0.037
26-Jun-89	176	-0.017	-0.086	-0.037	-0.017	-0.037
29-Jun-89	179	-0.016	-0.093	-0.037	-0.017	-0.037
02-Jul-89	182	-0.016	-0.097	-0.037	-0.017	-0.037
05-Jul-89	185	-0.016	-0.109	-0.037	-0.016	-0.037
08-Jul-89	188	-0.015	-0.192	-0.037	-0.016	-0.037
11-Jul-89	191	-0.015	-0.219	-0.037	-0.016	-0.037
13-Jul-89	193	-0.015	-0.239	-0.037	-0.016	-0.037
16-Jul-89	196	-0.130	-0.707	-0.046	-0.016	-0.042
18-Jul-89	198	-0.400	-0.707	-0.043	-0.010	-0.050

STRING INCLINOMETER 02 : Deviations (metres)

LOGGER 0002

DATE	DAY No.	206	207	208
03-Feb-88	-333	0.003	0.000	-0.010
01-Mar-88	-306	0.003	-0.001	-0.010
08-Apr-88	-268	0.003	-0.001	-0.010
06-May-88	-240	0.003	-0.001	-0.010
03-Jun-88	-212	0.002	-0.001	-0.016
01-Jul-88	-184	-0.002	-0.001	-0.018
05-Aug-88	-149	-0.002	-0.001	-0.018
29-Nov-88	-33	0.000	-0.002	-0.018
30-Dec-88	-2	0.000	-0.002	-0.019
03-Jan-89	2	0.000	-0.002	-0.020
30-Jan-89	29	0.000	-0.002	-0.021
19-Feb-89	49	0.000	-0.003	-0.021
06-Mar-89	64	0.000	-0.003	-0.021
20-Mar-89	78	0.000	-0.003	-0.021
05-Apr-89	94	0.000	-0.003	-0.021
17-Apr-89	106	0.000	-0.003	-0.021
03-May-89	122	0.000	-0.003	-0.021
12-May-89	131	0.000	-0.003	-0.021
19-May-89	138	0.000	-0.003	-0.021
25-May-89	144	0.000	-0.003	-0.021
01-Jun-89	151	0.000	-0.003	-0.021
08-Jun-89	158	0.000	-0.003	-0.021
15-Jun-89	165	0.000	-0.003	-0.021
20-Jun-89	170	0.000	-0.003	-0.021
23-Jun-89	173	0.000	-0.003	-0.021
26-Jun-89	176	0.000	-0.003	-0.021
29-Jun-89	179	0.000	-0.003	-0.021
02-Jul-89	182	0.000	-0.003	-0.021
05-Jul-89	185	0.000	-0.003	-0.021
08-Jul-89	188	0.000	-0.003	-0.021
11-Jul-89	191	0.000	-0.003	-0.021
13-Jul-89	193	0.000	-0.003	-0.021
16-Jul-89	196	0.000	-0.004	-0.024
18-Jul-89	198	0.000	-0.006	-0.032

APPENDIX C

PNEUMATIC PIEZOMETER DATA

Pneumatic Piezometer Data 1988

Pneumatic Piezometer Data 1989

PNEUMATIC PIEZOMETER DATA 1988

P1 to P32

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
18-Feb-88	-318	1.4	3.4	2.8	2.4	2.9	2.4	2.3	2.5	1.2	2.4
23-Feb-88	-313	1.4	3.5	2.8	2.4	3.0	2.5	2.4	2.5	1.3	2.4
25-Feb-88	-311	1.4	3.5	2.8	2.4	3.0	2.5	2.4	2.5	1.2	2.4
01-Mar-88	-306	1.3	3.5	2.9	2.4	3.0	2.6	2.5	2.2	1.2	2.5
04-Mar-88	-303	1.3	3.5	2.9	2.4	3.1	2.6	2.5	2.2	1.1	2.5
08-Mar-88	-299	1.2	3.4	2.8	2.4	3.0	2.4	2.3	2.0	1.0	2.4
11-Mar-88	-296	1.2	3.4	2.8	2.4	2.9	2.4	2.3	2.0	1.0	2.4
15-Mar-88	-292	1.3	3.6	3.1	2.4	3.3	2.8	2.7	2.4	1.2	2.6
18-Mar-88	-289	1.3	3.4	2.8	2.3	3.0	2.5	2.4	2.1	0.9	2.4
22-Mar-88	-285	1.4	3.4	2.8	2.3	3.0	2.5	2.4	2.1	1.1	2.4
25-Mar-88	-282	1.5	3.5	2.9	2.4	3.2	2.6	2.5	2.2	1.3	2.5
29-Mar-88	-278	1.4	3.5	2.8	2.4	3.1	2.5	2.4	2.2	1.3	2.5
06-Apr-88	-270	1.4	3.4	2.8	2.4	3.0	2.4	2.4	2.1	1.3	2.4
08-Apr-88	-268	1.4	3.4	2.8	2.4	3.0	2.5	2.4	2.1	1.2	2.4
12-Apr-88	-264	1.3	3.4	2.8	2.4	3.0	2.5	2.4	2.1	1.1	2.4
15-Apr-88	-261	1.3	3.4	2.8	2.4	3.0	2.5	2.4	2.1	1.3	2.4
19-Apr-88	-257	1.4	3.4	2.8	2.5	3.0	2.5	2.5	2.1	1.3	2.4
22-Apr-88	-254	1.4	3.4	2.7	2.5	2.9	2.4	2.4	2.0	1.2	2.4
26-Apr-88	-250	1.4	3.4	2.6	2.5	2.8	2.4	2.4	2.0	1.3	2.4
29-Apr-88	-247	1.4	3.4	2.8	2.5	2.9	2.4	2.5	2.1	1.3	2.4
03-May-88	-243	1.4	3.4	2.8	2.5	3.1	2.5	2.5	2.2	1.3	2.4
06-May-88	-240	1.5	3.3	2.6	2.5	2.9	2.3	2.3	2.0	1.2	2.2
10-May-88	-236	1.5	3.3	2.7	2.5	2.8	2.3	2.4	2.0	1.3	2.3
13-May-88	-233	1.4	3.4	2.7	2.5	2.9	2.4	2.5	2.0	1.3	2.4
17-May-88	-229	1.5	3.4	2.8	2.6	2.9	2.5	2.6	2.1	1.3	2.4
20-May-88	-226	1.5	3.4	2.7	2.6	2.8	2.4	2.5	2.0	1.5	2.4
24-May-88	-222	1.4	3.4	2.7	2.6	2.9	2.4	2.6	2.0	1.5	2.4
27-May-88	-219	1.4	3.4	2.8	2.6	2.9	2.5	2.6	2.1	1.5	2.4
31-May-88	-215	1.4	3.4	2.8	2.6	2.9	2.4	2.6	2.1	1.4	2.4
03-Jun-88	-212	1.4	3.4	2.7	2.6	2.9	2.4	2.6	2.1	1.4	2.4
07-Jun-88	-208	1.2	3.3	2.7	2.6	2.8	2.4	2.5	2.1	1.4	2.4
10-Jun-88	-205	1.3	3.4	2.7	2.7	2.8	2.4	2.6	2.1	1.5	2.5
14-Jun-88	-201	1.3	3.4	2.8	2.8	2.8	2.4	2.6	2.1	1.4	2.5
17-Jun-88	-198	1.3	3.4	2.7	2.7	2.8	2.4	2.6	2.1	1.4	2.5
20-Jun-88	-195										

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
21-Jun-88	-194	1.2	3.4	2.6	2.6	2.7	2.4	2.5	2.0	1.4	2.5
24-Jun-88	-191	1.2	3.4	2.6	2.6	2.7	2.4	2.4	2.0	1.3	2.4
28-Jun-88	-187	1.2	3.4	2.7	2.6	2.9	2.5	2.6	2.1	1.3	2.5
01-Jul-88	-184	1.2	3.4	2.8	2.6	3.0	2.6	2.7	2.2	1.4	2.6
05-Jul-88	-180	1.2	3.3	2.8	2.6	3.0	2.6	2.6	2.2	1.3	2.6
08-Jul-88	-177	1.2	3.2	2.7	2.6	2.8	2.6	2.5	2.0	1.3	2.5
12-Jul-88	-173	1.2	3.2	2.7	2.6	2.8	2.5	2.5	2.0	1.3	2.5
15-Jul-88	-170	1.2	3.2	2.6	2.6	2.7	2.4	2.4	2.0	1.4	2.5
19-Jul-88	-166	1.2	3.2	2.7	2.6	2.8	2.5	2.4	2.0	1.3	2.5
21-Jul-88	-164	1.1	3.2	2.7	2.6	2.8	2.5	2.4	2.0	1.3	2.5
26-Jul-88	-159	1.1	3.2	2.7	2.6	2.8	2.5	2.5	2.0	1.5	2.6
26-Jul-88	-159	0.4	2.9	2.4	2.3	2.5	2.2	2.1	1.7	1.5	2.2
29-Jul-88	-156	0.8	2.9	2.4	2.3	2.5	2.2	2.1	1.7	1.8	2.2
02-Aug-88	-152	0.7	2.9	2.4	2.3	2.5	2.2	2.1	1.7	1.4	2.2
05-Aug-88	-149	0.4	2.9	2.4	2.3	2.1	2.2	2.1	1.6	1.3	2.2
10-Aug-88	-144	0.5	2.9	2.5	2.2	2.5	2.2	2.2	1.7	1.3	2.2
16-Aug-88	-138	0.5	2.9	2.4	2.2	2.5	2.3	2.2	1.7	1.3	2.3
19-Aug-88	-135	0.5	3.0	2.5	2.2	2.6	2.4	2.2	1.8	1.3	2.4
30-Aug-88	-124	0.4	2.9	2.5	2.2	2.5	2.4	2.1	1.8	1.1	2.4
05-Sep-88	-118	0.5	2.9	2.4	2.2	2.5	2.4	2.1	1.7	1.3	2.2
09-Sep-88	-114	0.5	2.9	2.4	2.1	2.5	2.4	2.1	1.7	1.2	2.2
11-Sep-88	-112										
20-Sep-88	-103	0.1	2.9	2.4	2.1	2.4	2.3	2.0	1.6	1.1	2.1
23-Sep-88	-100	0.5	3.1	2.6	2.1	2.7	2.6	2.2	1.9	1.1	2.3
27-Sep-88	-96	0.4	3.2	2.7	2.4	2.8	2.7	2.4	2.0	1.3	2.5
30-Sep-88	-93	0.5	3.1	2.6	2.3	2.7	2.6	2.1	1.8	1.1	2.4
04-Oct-88	-89	0.4	3.3	2.8	2.3	2.7	2.8	2.4	2.0	1.5	2.6
07-Oct-88	-86	0.3	3.3	2.9	2.3	3.0	2.9	2.4	2.1	1.5	2.6
12-Oct-88	-81	0.3	3.3	2.8	2.3	2.8	2.8	2.4	2.1	1.5	2.5
14-Oct-88	-79	0.3	3.2	2.7	2.2	2.8	2.7	2.1	1.9	1.5	2.4
18-Oct-88	-75	0.4	3.3	2.8	2.3	2.4	2.8	2.3	2.1	1.8	2.5
27-Oct-88	-66	0.9	3.3	2.8	2.2	2.9	2.8	2.3	2.1	1.5	2.5
01-Nov-88	-61	0.4	3.3	2.7	2.2	2.8	2.7	2.2	1.9	1.8	2.4
04-Nov-88	-58	0.4	3.2	2.6	2.1	2.7	2.6	2.0	1.9	1.7	2.3
09-Nov-88	-53	0.5	3.4	2.8	2.1	2.7	2.8	2.3	2.1	1.7	2.5

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
11-Nov-88	-51	0.3	3.3	2.7	2.1	2.8	2.7	2.2	2.0	1.5	2.4
15-Nov-88	-47	0.2	3.2	2.5	2.0	2.7	2.6	2.0	1.8	1.4	2.3
18-Nov-88	-44	0.3	3.3	2.7	2.0	2.7	2.7	2.2	2.0	1.5	2.4
22-Nov-88	-40	0.5	3.2	2.6	2.0	2.6	2.5	2.0	1.8	1.4	2.2
25-Nov-88	-37	0.6	3.2	2.6	2.0	2.4	2.6	2.0	1.8	1.5	2.3
28-Nov-88	-34	0.7	3.3	2.6	2.0	2.8	2.7	2.1	2.0	1.6	2.3
29-Nov-88	-33	0.5	3.4	2.7	2.0	2.4	2.8	2.1	2.0	1.6	2.4
01-Dec-88	-31	0.6	3.4	2.8	2.0	2.9	2.8	2.2	2.1	1.5	2.4
02-Dec-88	-30	0.9	3.4	2.7	2.0	2.9	2.7	2.1	2.0	1.5	2.4
05-Dec-88	-27	0.7	3.3	2.7	2.0	2.9	2.7	2.1	2.0	1.6	2.4
06-Dec-88	-26	0.7	3.2	2.6	1.9	2.7	2.6	2.0	1.9	1.5	2.2
07-Dec-88	-25	1.0	3.1	2.5	1.9	2.6	2.5	1.8	1.7	1.4	2.1
08-Dec-88	-24	1.0	3.1	2.5	1.9	2.6	2.5	1.8	1.8	1.5	2.1
09-Dec-88	-23	0.9	3.1	2.5	1.9	2.7	2.5	1.8	1.8	1.6	2.1
10-Dec-88	-22	0.8	3.1	2.5	1.9	2.7	2.5	1.8	1.8	1.5	2.1
11-Dec-88	-21	1.1	3.1	2.5	1.9	2.6	2.5	1.9	1.8	1.6	2.1
12-Dec-88	-20	0.7	3.1	2.5	1.8	2.7	2.5	1.9	1.8	1.7	2.1
13-Dec-88	-19	1.1	3.1	2.5	1.8	2.6	2.5	1.9	1.7	1.7	2.1
14-Dec-88	-18	1.1	3.1	2.5	1.8	2.6	2.4	1.9	1.7	1.6	2.1
15-Dec-88	-17	0.7	3.1	2.5	1.8	2.7	2.5	1.9	1.8	1.7	2.1
21-Dec-88	-11	1.2	3.3	2.6	1.9	2.7	2.5	1.7	1.8	1.7	2.1
22-Dec-88	-10	1.2	3.3	2.6	1.9	2.8	2.6	1.9	1.9	1.7	2.2
30-Dec-88	-2	1.1	3.4	2.5	1.9	2.6	2.4	1.7	1.7	1.6	2.0

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
18-Feb-88	-318	1.4	2.3	-ve	-ve	-ve	-ve	-ve	-ve	-ve	-ve
23-Feb-88	-313	1.5	2.4								
25-Feb-88	-311	1.4	2.4								
01-Mar-88	-306	1.6	2.4								
04-Mar-88	-303	1.6	2.4								
08-Mar-88	-299	1.4	2.3								
11-Mar-88	-296	1.4	2.3								
15-Mar-88	-292	1.8	2.5								
18-Mar-88	-289	1.5	2.3								
22-Mar-88	-285	1.5	2.3								
25-Mar-88	-282	1.6	2.4								
29-Mar-88	-278	1.4	2.4								
06-Apr-88	-270	1.4	2.4	-3.5	-3.4	-4.3	-0.8	-3.9	-1.9	-2.5	-2.1
08-Apr-88	-268	1.5	2.5								
12-Apr-88	-264	1.5	2.5								
15-Apr-88	-261	1.5	2.5								
19-Apr-88	-257	1.6	2.5								
22-Apr-88	-254	1.4	2.4								
26-Apr-88	-250	1.4	2.4								
29-Apr-88	-247	1.5	2.5								
03-May-88	-243	1.6	2.5								
06-May-88	-240	1.4	2.3								
10-May-88	-236	1.4	2.4								
13-May-88	-233	1.5	2.5								
17-May-88	-229	1.5	2.6	-3.3	-3.4	-4.1	-0.2	-3.9	-2.1	-2.6	-2.1
20-May-88	-226	1.5	2.5								
24-May-88	-222	1.5	2.6								
27-May-88	-219	1.5	2.5								
31-May-88	-215	1.6	2.6								
03-Jun-88	-212	1.5	2.6								
07-Jun-88	-208	1.5	2.6								
10-Jun-88	-205	1.5	2.6								
14-Jun-88	-201	1.5	2.6								
17-Jun-88	-198	1.5	2.6								
20-Jun-88	-195										

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
21-Jun-88	-194	1.5	2.6	-ve	-ve	-ve	-ve	-ve	-ve	-ve	-ve
24-Jun-88	-191	1.4	2.5								
28-Jun-88	-187	1.6	2.6								
01-Jul-88	-184	1.7	2.6								
05-Jul-88	-180	1.7	2.5								
08-Jul-88	-177	1.5	2.4								
12-Jul-88	-173	1.5	2.4								
15-Jul-88	-170	1.5	2.4								
19-Jul-88	-166	1.5	2.4								
21-Jul-88	-164	1.4	2.4								
26-Jul-88	-159	1.5	2.4								
26-Jul-88	-159	1.1	2.0								
29-Jul-88	-156	1.2	2.1								
02-Aug-88	-152	1.2	2.1								
05-Aug-88	-149	1.1	2.0								
10-Aug-88	-144	1.1	1.6								
16-Aug-88	-138	1.2	2.0								
19-Aug-88	-135	1.3	2.1								
30-Aug-88	-124	1.3	2.1								
05-Sep-88	-118	1.2	1.9								0.0
09-Sep-88	-114	1.2	1.8								
11-Sep-88	-112			-2.9	-3.5	-4.2	-0.6	-4.3	-2.6	-2.8	-2.4
20-Sep-88	-103	1.1	1.7								
23-Sep-88	-100	1.4	1.8								
27-Sep-88	-96	1.5	2.0								
30-Sep-88	-93	1.4	1.9								
04-Oct-88	-89	1.6	2.1								
07-Oct-88	-86	1.7	1.9								
12-Oct-88	-81	1.7	1.9								
14-Oct-88	-79	1.5	1.8								
18-Oct-88	-75	1.6	1.9								
27-Oct-88	-66	1.6	1.9								
01-Nov-88	-61	1.5	1.8								
04-Nov-88	-58	1.4	1.8								
09-Nov-88	-53	1.6	1.9								

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
11-Nov-88	-51	1.6	1.8	-ve	-ve	-ve	-ve	-ve	-ve	-ve	-ve
15-Nov-88	-47	1.4	1.7								
18-Nov-88	-44	1.5	1.8								
22-Nov-88	-40	1.4	1.7								
25-Nov-88	-37	1.4	1.7								
28-Nov-88	-34	1.5	1.7								
29-Nov-88	-33	1.6	1.8								
01-Dec-88	-31	1.6	1.7								
02-Dec-88	-30	1.6	1.7								
05-Dec-88	-27	1.6	1.7								
06-Dec-88	-26	1.5	1.5								
07-Dec-88	-25	1.3	1.4								
08-Dec-88	-24	1.3	1.5								
09-Dec-88	-23	1.3	1.5								
10-Dec-88	-22	1.3	1.5								
11-Dec-88	-21	1.3	1.5								
12-Dec-88	-20	1.3	1.5								
13-Dec-88	-19	1.3	1.5								
14-Dec-88	-18	1.3	1.5								
15-Dec-88	-17	1.3	1.5								
21-Dec-88	-11	1.3	1.5								
22-Dec-88	-10	1.4	1.6								
30-Dec-88	-2	1.2	1.5								

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
18-Feb-88	-318	1.0	-ve	-ve	**	**	not	yet	insta	lled	**
23-Feb-88	-313	1.0									
25-Feb-88	-311	0.8			**	**	not	yet	insta	lled	**
01-Mar-88	-306	0.8									
04-Mar-88	-303	0.9			**	**	not	yet	insta	lled	**
08-Mar-88	-299	0.8									
11-Mar-88	-296	0.8			**	**	not	yet	insta	lled	**
15-Mar-88	-292	1.1									
18-Mar-88	-289	0.8			**	**	not	yet	insta	lled	**
22-Mar-88	-285	0.8									
25-Mar-88	-282	0.9			**	**	not	yet	insta	lled	**
29-Mar-88	-278	0.8									
06-Apr-88	-270	0.8	-4.9	-2.2	**	**	not	yet	insta	lled	**
08-Apr-88	-268	0.8									
12-Apr-88	-264	0.8			**	**	not	yet	insta	lled	**
15-Apr-88	-261	0.8									
19-Apr-88	-257	0.9			**	**	not	yet	insta	lled	**
22-Apr-88	-254	0.8									
26-Apr-88	-250	0.8			**	**	not	yet	insta	lled	**
29-Apr-88	-247	0.8									
03-May-88	-243	0.9			**	**	not	yet	insta	lled	**
06-May-88	-240	0.7									
10-May-88	-236	0.7			**	**	not	yet	insta	lled	**
13-May-88	-233	0.8									
17-May-88	-229	0.9	-5.1	-2.1	**	**	not	yet	insta	lled	**
20-May-88	-226	0.8									
24-May-88	-222	0.8			**	**	not	yet	insta	lled	**
27-May-88	-219	0.8									
31-May-88	-215	0.8			**	**	not	yet	insta	lled	**
03-Jun-88	-212	0.8									
07-Jun-88	-208	0.8			**	**	not	yet	insta	lled	**
10-Jun-88	-205	0.8									
14-Jun-88	-201	0.8			**	**	not	yet	insta	lled	**
17-Jun-88	-198	0.8									
20-Jun-88	-195				3.4	0.0	0.8	3.4	0.0	0.0	0.0

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
21-Jun-88	-194	0.8			3.5	0.0	1.1	3.7	0.0	0.0	0.0
24-Jun-88	-191	0.6			3.7	0.0	1.7	4.2	0.6	0.0	0.0
28-Jun-88	-187	0.7			3.8	2.8	2.7	4.6	1.3	0.8	0.0
01-Jul-88	-184	0.9			3.9	3.2	3.3	4.7	1.8	1.3	0.0
05-Jul-88	-180	0.8			4.0	3.6	3.9	4.8	2.4	1.8	0.0
08-Jul-88	-177	0.7			4.0	3.8	4.3	4.8	2.5	1.9	0.0
12-Jul-88	-173	0.7			4.0	4.1	4.9	5.0	3.0	2.4	0.0
15-Jul-88	-170	0.7			4.0	4.2	5.2	5.0	3.2	2.6	0.0
19-Jul-88	-166	0.7			4.0	4.4	5.8	5.1	3.6	3.0	0.0
21-Jul-88	-164	0.5			4.0	4.5	6.1	5.0	3.8	3.2	0.0
26-Jul-88	-159				4.1	4.6	6.6	5.1	4.1	3.6	0.0
26-Jul-88	-159	-0.4			3.0	4.3	6.4	4.0	3.9	3.4	0.0
29-Jul-88	-156	0.3			3.7	4.3	6.5	4.8	3.9	3.5	0.0
02-Aug-88	-152	0.3			3.8	4.4	6.8	4.9	4.1	3.7	3.6
05-Aug-88	-149	0.0			3.7	4.3	6.9	3.8	4.1	3.8	3.7
10-Aug-88	-144	0.0			3.7	4.4	7.2	4.4	4.6	4.2	4.1
16-Aug-88	-138	0.1			3.8	4.4	7.2	4.8	4.8	4.4	4.3
19-Aug-88	-135	0.2			3.7	4.5	7.2	4.1	5.0	4.7	4.6
30-Aug-88	-124	0.2			3.8	4.7	6.2	4.3	5.5	5.0	4.9
05-Sep-88	-118	0.1			4.1	4.7	6.3	4.6	5.6	5.1	5.0
09-Sep-88	-114	0.1			3.9	4.6	6.3	4.7	5.6	5.2	5.0
11-Sep-88	-112		-6.1	-1.0							
20-Sep-88	-103	0.1			3.8	4.6	6.3	4.6	5.8	5.3	5.0
23-Sep-88	-100	0.1			3.8	4.6	6.4	4.5	6.0	5.5	5.2
27-Sep-88	-96	0.2			4.0	4.9	6.8	4.6	6.1	5.7	5.4
30-Sep-88	-93	0.1			4.1	4.9	6.6	4.3	5.8	5.5	5.2
04-Oct-88	-89	0.2			4.1	4.9	6.6	3.8	6.0	5.7	5.4
07-Oct-88	-86	0.3			4.4	4.9	6.6	3.7	6.0	5.8	5.5
12-Oct-88	-81	0.3			5.0	5.0	6.9	4.7	5.9	5.7	5.4
14-Oct-88	-79	0.3			5.0	5.0	6.6	5.1	5.7	5.6	5.3
18-Oct-88	-75	0.2			4.5	5.1	6.6	3.9	5.8	5.6	5.3
27-Oct-88	-66	0.2			4.5	5.2	6.3	4.3	5.9	5.6	5.3
01-Nov-88	-61	0.1			4.4	5.2	6.5	4.5	5.8	5.4	5.1
04-Nov-88	-58	0.0			4.3	5.1	6.5	4.2	5.6	5.3	5.0
09-Nov-88	-53	0.3			4.4	5.1	6.5	4.2	5.6	5.3	5.0

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
11-Nov-88	-51	0.2			4.4	5.1	6.4	4.5	5.6	5.4	5.0
15-Nov-88	-47	0.1			4.3	5.1	6.1	4.1	5.4	5.2	4.8
18-Nov-88	-44	0.2			4.4	5.1	6.2	4.4	5.5	5.4	5.0
22-Nov-88	-40	0.1			4.3	5.1	6.0	4.3	5.3	5.3	4.8
25-Nov-88	-37	0.1			4.3	5.0	6.0	4.2	5.4	5.2	4.8
28-Nov-88	-34	0.2			4.3	5.0	6.0	4.3	5.4	5.3	4.8
29-Nov-88	-33	0.3			4.4	5.0	6.1	4.2	5.3	5.4	4.9
01-Dec-88	-31	0.4			4.5	5.0	6.1	4.2	5.3	5.4	5.0
02-Dec-88	-30	0.4			4.4	5.0	6.0	4.2	5.0	5.4	4.9
05-Dec-88	-27	0.4			4.4	5.0	6.0	4.3	5.0	5.4	4.9
06-Dec-88	-26	0.2			5.0	5.0	5.8	4.2	4.8	5.3	4.7
07-Dec-88	-25				5.4	5.0	5.6	4.2	4.4	5.0	4.5
08-Dec-88	-24				5.7	5.1	5.7	4.0	4.4	5.1	4.5
09-Dec-88	-23				5.9	5.1	5.7	4.3	4.3	5.1	4.6
10-Dec-88	-22				6.0	5.2	5.7	4.0	4.2	5.1	4.6
11-Dec-88	-21				6.1	5.2	5.7	4.2	4.1	5.1	4.6
12-Dec-88	-20				6.2	5.2	5.6	4.3	4.1	5.1	4.6
13-Dec-88	-19				6.3	5.2	5.6	4.2	4.0	5.1	4.6
14-Dec-88	-18				6.2	5.2	5.6	4.1	3.9	5.1	4.5
15-Dec-88	-17				6.3	5.2	5.6	4.3	3.8	5.0	4.5
21-Dec-88	-11				6.4	5.2	5.6	4.3	4.3	5.0	4.5
22-Dec-88	-10				6.5	5.3	5.7	4.2	4.3	5.2	4.6
30-Dec-88	-2				5.7	5.2	5.5	4.2	4.6	5.0	4.4

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
18-Feb-88	-318	**	**
23-Feb-88	-313		
25-Feb-88	-311	**	**
01-Mar-88	-306		
04-Mar-88	-303	**	**
08-Mar-88	-299		
11-Mar-88	-296	N	**
15-Mar-88	-292	O	
18-Mar-88	-289	T	**
22-Mar-88	-285		
25-Mar-88	-282	I	**
29-Mar-88	-278	N	
06-Apr-88	-270	S	**
08-Apr-88	-268	T	
12-Apr-88	-264	A	N
15-Apr-88	-261	L	O
19-Apr-88	-257	L	T
22-Apr-88	-254	E	
26-Apr-88	-250	D	I
29-Apr-88	-247		N
03-May-88	-243	**	S
06-May-88	-240		T
10-May-88	-236	**	A
13-May-88	-233		L
17-May-88	-229	**	L
20-May-88	-226		E
24-May-88	-222	**	D
27-May-88	-219		
31-May-88	-215	**	**
03-Jun-88	-212		
07-Jun-88	-208	**	**
10-Jun-88	-205		
14-Jun-88	-201	**	**
17-Jun-88	-198		
20-Jun-88	-195	0.0	1.2

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
21-Jun-88	-194	0.5	1.5
24-Jun-88	-191	1.1	2.1
28-Jun-88	-187		
01-Jul-88	-184	2.5	3.5
05-Jul-88	-180	2.8	4.0
08-Jul-88	-177	3.0	4.3
12-Jul-88	-173	3.4	4.8
15-Jul-88	-170	3.6	5.1
19-Jul-88	-166	4.0	5.6
21-Jul-88	-164	4.2	5.8
26-Jul-88	-159	4.5	5.8
26-Jul-88	-159	4.3	5.6
29-Jul-88	-156	4.4	5.3
02-Aug-88	-152	4.6	5.1
05-Aug-88	-149	4.7	4.7
10-Aug-88	-144	5.0	4.6
16-Aug-88	-138	5.1	4.4
19-Aug-88	-135	5.3	4.4
30-Aug-88	-124	5.3	4.4
05-Sep-88	-118	5.4	4.3
09-Sep-88	-114	5.4	4.2
11-Sep-88	-112		
20-Sep-88	-103	5.2	4.0
23-Sep-88	-100	5.4	4.2
27-Sep-88	-96	5.5	4.4
30-Sep-88	-93	5.3	4.3
04-Oct-88	-89	5.5	4.5
07-Oct-88	-86	5.5	4.6
12-Oct-88	-81	5.4	4.5
14-Oct-88	-79	5.3	4.4
18-Oct-88	-75	5.3	4.6
27-Oct-88	-66	5.3	4.6
01-Nov-88	-61	5.1	4.5
04-Nov-88	-58	5.0	4.5
09-Nov-88	-53	5.0	4.5

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
11-Nov-88	-51	5.0	4.6
15-Nov-88	-47	4.8	4.5
18-Nov-88	-44	4.9	4.6
22-Nov-88	-40	4.8	4.5
25-Nov-88	-37	4.8	4.6
28-Nov-88	-34	4.8	4.7
29-Nov-88	-33	4.9	4.7
01-Dec-88	-31	4.9	4.8
02-Dec-88	-30	4.9	4.7
05-Dec-88	-27	4.9	4.7
06-Dec-88	-26	4.7	4.6
07-Dec-88	-25	4.5	4.4
08-Dec-88	-24	4.5	4.4
09-Dec-88	-23	4.6	4.5
10-Dec-88	-22	4.6	4.5
11-Dec-88	-21	4.6	4.5
12-Dec-88	-20	4.6	4.5
13-Dec-88	-19	4.6	4.5
14-Dec-88	-18	4.6	4.5
15-Dec-88	-17	4.6	4.5
21-Dec-88	-11	4.6	4.6
22-Dec-88	-10	4.7	4.7
30-Dec-88	-2	4.5	4.5

PNEUMATIC PIEZOMETER DATA 1989

P1 to P32

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
03-Jan-89	2	0.7	3.5	2.5	1.9	2.7	2.5	1.9	1.8	1.7	2.1
05-Jan-89	4	1.0	3.6	2.5	1.9	2.7	2.5	1.9	1.9	1.6	2.1
07-Jan-89	6	0.7	3.6	2.6	2.0	2.8	2.5	1.9	1.9	1.7	2.2
08-Jan-89	7		3.6	2.6	2.0	2.7	2.5	1.9	1.9	1.7	2.1
11-Jan-89	10	1.1	3.6	2.6	1.9	2.7	2.4	1.9	1.9	1.7	2.1
12-Jan-89	11	0.6	3.7	2.7	2.0	2.9	2.6	2.0	2.1	1.9	2.2
13-Jan-89	12	1.2	3.6	2.6	2.0	2.8	2.5	1.9	1.9	1.7	2.1
16-Jan-89	15	1.2	3.5	2.5	2.0	2.7	2.4	1.9	1.8	1.8	2.0
17-Jan-89	16	1.2	3.5	2.5	2.0	2.7	2.4	1.9	1.8	1.8	2.0
19-Jan-89	18	1.2	3.5	2.5	1.9	2.6	2.3	1.8	1.8	1.8	2.0
20-Jan-89	19	1.2	3.6	2.5	2.0	2.7	2.4	1.9	1.9	1.9	2.0
23-Jan-89	22	1.2	3.6	2.5	2.0	2.7	2.3	1.8	1.8	1.8	2.0
24-Jan-89	23	1.2	3.6	2.5	2.0	2.7	2.4	1.9	1.9	1.9	2.0
25-Jan-89	24	1.2	3.6	2.5	2.0	2.7	2.4	1.9	1.9	1.8	2.0
26-Jan-89	25	1.1	3.6	2.5	2.0	2.7	2.4	1.9	1.9	1.8	2.0
30-Jan-89	29	1.2	3.6	2.4	2.0	2.6	2.2	1.8	1.7	1.7	1.9
31-Jan-89	30	1.0	3.7	2.4	2.0	2.6	2.3	1.7	1.8	1.8	1.9
01-Feb-89	31	1.2	3.7	2.4	2.0	2.7	2.3	1.9	1.8	1.9	2.0
02-Feb-89	32	1.2	3.7	2.5	2.0	2.7	2.3	1.9	1.8	1.9	2.0
04-Feb-89	34	1.3	3.8	2.6	2.0	2.8	2.4	2.0	2.0	2.0	2.0
06-Feb-89	36	1.2	3.8	2.5	2.0	2.7	2.3	1.9	1.9	1.9	2.0
07-Feb-89	37	1.2	3.8	2.5	2.0	2.7	2.4	2.0	1.9	1.9	1.9
08-Feb-89	38	1.2	3.8	2.5	2.0	2.7	2.4	2.0	1.9	1.9	2.0
09-Feb-89	39	1.2	3.9	2.6	2.1	2.9	2.5	2.1	2.0	2.0	2.1
10-Feb-89	40		3.8	2.5	2.0	2.7	2.3	2.0	1.9	1.8	2.0
13-Feb-89	43	0.9	3.9	2.5	2.1	2.7	2.4	2.0	1.9	2.0	2.0
14-Feb-89	44	1.2	3.8	2.4	2.1	2.6	2.2	1.9	1.8	1.9	1.9
15-Feb-89	45	1.2	4.0	2.6	2.1	2.8	2.4	2.1	2.0	2.1	2.1
16-Feb-89	46	0.9	3.9	2.5	2.1	2.7	2.3	1.9	1.9	2.0	2.0
19-Feb-89	49	1.0	3.9	2.6	2.1	2.8	2.4	2.0	2.0	1.9	2.0
20-Feb-89	50	1.2	3.9	2.5	2.1	2.7	2.3	1.9	1.9	1.9	2.0
21-Feb-89	51	1.0	3.9	2.5	2.1	2.7	2.3	2.0	2.0	2.0	2.0
23-Feb-89	53	1.2	4.1	2.7	2.1	2.9	2.5	2.1	2.1	2.1	2.1
24-Feb-89	54	0.8	4.3	2.9	2.2	3.1	2.7	2.3	2.4	2.4	2.3
25-Feb-89	55	1.4	4.4	3.2	2.2	3.4	2.9	2.6	2.6	2.5	2.5

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
27-Feb-89	57	1.2	4.0	2.8	2.1	3.1	2.6	2.2	2.3	2.0	2.2
01-Mar-89	59	1.2	4.0	2.7	2.1	3.0	2.5	2.1	2.2	1.9	2.1
03-Mar-89	61	0.9	4.0	2.7	2.1	2.8	2.3	2.0	2.1	1.8	2.0
06-Mar-89	64	1.3	4.1	2.6	2.2	2.8	2.3	2.0	2.1	2.0	2.0
08-Mar-89	66	1.3	4.1	2.6	2.2	2.7	2.2	1.9	2.0	1.9	1.9
09-Mar-89	67	1.0	4.1	2.6	2.2	2.8	2.3	2.0	2.0	2.0	2.0
13-Mar-89	71	0.8	3.8	2.6	2.1	2.8	2.3	1.9	2.0	1.9	1.9
14-Mar-89	72	1.3	3.9	2.6	2.2	2.9	2.3	2.0	2.1	2.0	2.0
15-Mar-89	73	1.3	4.0	2.7	2.1	2.9	2.4	2.1	2.2	2.1	2.0
16-Mar-89	74	1.3	4.1	2.8	2.2	3.0	2.5	2.2	2.3	2.2	2.1
19-Mar-89	77	1.1	4.0	2.6	2.2	2.9	2.3	2.0	2.1	2.0	1.9
20-Mar-89	78	1.3	4.1	2.7	2.2	2.9	2.4	2.0	2.2	2.1	2.0
21-Mar-89	79	1.3	4.1	2.7	2.1	2.9	2.4	2.0	2.2	2.0	2.0
22-Mar-89	80	1.3	4.1	2.7	2.2	2.9	2.4	2.1	2.2	2.0	2.0
23-Mar-89	81	1.3	4.1	2.6	2.2	2.8	2.2	1.9	2.0	1.9	1.9
24-Mar-89	82	1.3	4.2	2.7	2.2	3.0	2.4	2.1	2.2	2.1	2.0
25-Mar-89	83	1.3	4.1	2.6	2.2	2.8	2.2	1.9	2.1	1.9	1.9
26-Mar-89	84	1.3	4.2	2.6	2.2	2.9	2.3	2.0	2.1	1.9	1.9
27-Mar-89	85	1.2	4.3	2.7	2.1	2.9	2.3	2.0	2.1	1.9	1.9
28-Mar-89	86	1.2	4.2	2.6	2.1	2.8	2.2	1.9	2.1	1.8	1.9
29-Mar-89	87	1.3	4.3	2.6	2.2	2.9	2.3	2.0	2.1	1.9	1.9
30-Mar-89	88	1.3	4.4	2.6	2.2	2.9	2.3	2.0	2.1	1.9	1.9
31-Mar-89	89	1.2	4.3	2.6	2.1	2.9	2.2	1.9	2.1	1.8	1.9
03-Apr-89	92	1.3	4.6	2.7	2.1	2.9	2.2	2.0	2.2	1.8	1.9
04-Apr-89	93	1.1	4.7	2.7	2.1	2.9	2.3	2.0	2.3	1.9	2.0
05-Apr-89	94	1.2	4.7	2.7	2.1	3.0	2.3	2.1	2.3	1.9	2.0
06-Apr-89	95	1.1	4.6	2.7	2.1	3.0	2.3	2.1	2.3	1.9	2.0
07-Apr-89	96	1.1	4.6	2.7	2.1	3.0	2.3	2.0	2.2	1.8	1.9
11-Apr-89	100	1.3	4.7	2.9	2.2	3.1	2.4	2.2	2.5	2.1	2.1
12-Apr-89	101	1.3	4.6	2.8	2.2	3.1	2.4	2.1	2.4	1.9	2.0
13-Apr-89	102	1.3	4.6	2.8	2.2	3.0	2.3	2.0	2.4	1.9	2.0
14-Apr-89	103	1.3	4.6	2.7	2.2	2.9	2.2	2.0	2.3	1.8	1.9
15-Apr-89	104	1.1	4.7	2.7	2.2	2.9	2.2	1.9	2.4	1.9	1.9
17-Apr-89	106	1.2	4.7	2.7	2.2	2.9	2.2	1.9	2.3	1.8	1.9
18-Apr-89	107	1.1	4.6	2.6	2.1	2.8	2.1	1.9	2.3	1.5	1.8

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
19-Apr-89	108	1.2	4.7	2.7	2.2	2.9	2.2	1.9	2.3	1.8	1.8
20-Apr-89	109	1.2	4.8	2.7	2.2	2.9	2.2	2.0	2.3	1.9	1.9
21-Apr-89	110	1.2	4.7	2.6	2.2	2.9	2.2	1.9	2.3	1.9	1.8
24-Apr-89	113	1.2	4.8	2.7	2.2	3.0	2.2	2.0	2.4	1.9	1.9
25-Apr-89	114	1.2	4.9	2.8	2.2	3.0	2.2	2.0	2.4	1.7	1.9
26-Apr-89	115	1.1	4.9	2.7	2.0	2.9	2.2	2.0	2.4	1.7	1.8
27-Apr-89	116	1.2	5.0	2.8	2.1	3.0	2.2	2.0	2.5	1.7	1.9
28-Apr-89	117	1.2	4.9	2.6	2.1	2.9	2.1	1.9	2.3	1.6	1.7
02-May-89	121	1.2	4.9	2.6	2.1	2.9	2.1	1.9	2.3	1.8	1.7
03-May-89	122	1.2	4.9	2.6	2.1	2.9	2.1	1.8	2.4	1.7	1.7
04-May-89	123	1.2	5.0	2.7	2.1	2.9	2.1	1.8	2.4	1.8	1.8
05-May-89	124	1.2	5.0	2.7	2.2	2.9	2.1	1.9	2.4	1.8	1.8
08-May-89	127	1.2	5.1	2.7	2.1	3.0	2.1	2.0	2.5	1.8	1.8
09-May-89	128	1.2	5.2	2.9	2.2	3.1	2.2	2.1	2.6	1.9	1.9
10-May-89	129	1.1	5.1	2.8	2.1	3.1	2.2	2.0	2.6	1.7	1.9
11-May-89	130	1.2	5.2	3.0	2.2	3.2	2.3	2.2	2.8	1.8	2.0
12-May-89	131	1.1	5.1	2.9	2.1	3.1	2.2	2.0	2.7	1.6	1.9
13-May-89	132	1.1	5.0	2.8	2.1	3.0	2.1	1.9	2.6	1.5	1.9
15-May-89	134	1.0	4.9	2.7	2.1	2.9	2.0	1.8	2.5	1.4	1.7
16-May-89	135	1.0	5.0	2.7	2.1	2.9	2.0	1.8	2.5	1.4	1.7
17-May-89	136	1.0	5.1	2.7	2.1	2.9	2.0	1.8	2.5	1.5	1.7
18-May-89	137	1.0	5.2	2.7	2.1	3.0	2.0	1.9	2.6	1.5	1.7
19-May-89	138	1.0	5.2	2.8	2.1	3.0	2.0	1.9	2.6	1.4	1.8
21-May-89	140	1.0	5.1	2.8	2.2	3.1	2.1	2.0	2.7	1.4	1.8
22-May-89	141	1.0	5.1	2.8	2.2	3.1	2.1	2.0	2.7	1.4	1.8
23-May-89	142	1.0	5.2	2.8	2.1	3.1	2.1	1.9	2.7	1.4	1.8
24-May-89	143	1.0	5.2	2.8	2.1	3.1	2.0	2.0	2.7	1.4	1.8
25-May-89	144	1.0	5.3	2.8	2.1	3.0	2.0	1.9	2.7	1.3	1.7
26-May-89	145	0.8	5.3	2.8	2.2	3.0	2.0	1.9	2.7	1.3	1.7
28-May-89	147	1.0	5.3	2.8	2.2	3.0	2.0	1.9	2.8	1.5	1.8
30-May-89	149	1.1	5.4	3.0	2.2	3.2	2.1	2.1	2.9	1.5	1.9
01-Jun-89	151	1.1	5.4	3.0	2.3	3.3	2.2	2.1	3.0	1.6	2.0
02-Jun-89	152	1.0	5.2	2.9	2.2	3.1	2.1	2.0	2.9	1.4	1.8
03-Jun-89	153	0.9	5.1	2.9	2.2	3.1	2.0	2.0	2.9	1.4	1.8
05-Jun-89	155	0.9	4.9	2.9	2.2	3.2	2.1	2.0	2.9	1.4	1.8

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
07-Jun-89	157	1.0	4.9	3.0	2.2	3.2	2.1	2.0	2.9	1.3	1.8
08-Jun-89	158	0.9	5.0	3.0	2.2	3.3	2.1	2.0	2.9	1.4	1.8
09-Jun-89	159	0.8	5.0	3.0	2.2	3.3	2.1	1.9	2.9	1.4	1.8
12-Jun-89	162	0.9	5.0	3.0	2.2	3.2	2.0	1.9	2.9	1.3	1.8
14-Jun-89	164	0.9	5.4	3.0	2.3	3.3	2.1	2.0	2.9	1.4	1.8
15-Jun-89	165	0.9	5.3	3.0	2.2	3.2	2.0	2.0	2.9	1.4	1.8
15-Jun-89	165	0.9	5.4	3.0	2.2	3.2	2.0	2.0	2.9	1.4	1.8
16-Jun-89	166	0.9	5.3	3.0	2.2	3.3	2.0	2.0	2.9	1.3	1.8
19-Jun-89	169	0.9	5.3	3.0	2.2	3.3	2.0	1.9	3.0	1.3	1.8
20-Jun-89	170	0.9	5.2	3.0	2.2	3.3	2.0	1.9	2.9	1.3	1.8
21-Jun-89	171	0.9	5.2	3.0	2.2	3.3	2.0	1.9	2.9	1.2	1.8
22-Jun-89	172	0.9	5.0	3.1	2.1	3.4	2.0	1.9	2.9	1.1	1.8
23-Jun-89	173	0.8	5.0	3.1	2.1	3.4	2.0	1.9	2.9	1.2	1.8
24-Jun-89	174	0.8	5.0	3.1	2.1	3.4	2.1	1.9	3.0	1.3	1.9
25-Jun-89	175	0.8	5.1	3.2	2.1	3.5	2.1	1.9	3.0	1.3	1.8
26-Jun-89	176	0.7	5.1	3.2	2.0	3.5	2.1	2.0	3.0	1.3	1.9
27-Jun-89	177	0.7	5.1	3.2	2.0	3.6	2.2	2.0	3.1	1.3	1.9
28-Jun-89	178	0.8	5.0	3.1	2.0	3.5	2.1	1.9	3.0	1.1	1.8
29-Jun-89	179	0.8	5.1	3.2	2.0	3.5	2.1	1.9	3.0	1.2	1.8
30-Jun-89	180	0.8	5.2	3.1	2.0	3.5	2.1	1.9	3.0	1.2	1.8
02-Jul-89	182	0.7	5.3	3.1	2.0	3.4	2.0	1.8	2.9	1.1	1.7
03-Jul-89	183	0.7	5.3	3.1	2.0	3.4	2.0	1.8	2.9	1.1	1.7
04-Jul-89	184	0.7	5.3	3.1	2.0	3.4	2.0	1.8	2.9	1.1	1.7
05-Jul-89	185	0.6	5.3	3.1	2.0	3.5	2.0	1.8	2.9	1.0	1.8
06-Jul-89	186	0.6	5.3	3.2	2.0	3.6	2.1	1.8	3.0	1.0	1.8
07-Jul-89	187	0.7	5.3	3.3	2.0	3.5	2.1	1.9	3.0	0.8	1.8
08-Jul-89	188	0.1	5.3	2.6	1.8	3.6	2.1	1.9	2.9	0.6	1.5
09-Jul-89	189	0.0	5.2	3.2	2.0	3.5	2.0	1.7	2.9	0.4	1.6
10-Jul-89	190	0.0	5.2	3.1	1.6	3.5	1.9	1.7	2.8	0.5	1.6
11-Jul-89	191	0.0	5.3	3.1	2.0	3.5	2.0	1.7	2.8	0.5	1.6
12-Jul-89	192	0.0	5.3	3.2	2.0	3.5	1.9	1.7	2.9	0.6	1.7
13-Jul-89	193	0.0	5.4	3.2	2.0	3.6	2.0	1.7	2.9	0.7	1.7
14-Jul-89	194	0.1	5.3	3.2	2.0	3.5	2.0	1.6	2.9	0.6	1.6
16-Jul-89	196	0.0	5.3	3.2	2.0	3.6	2.0	1.6	2.9	0.5	1.6
17-Jul-89	197	0.2	5.4	3.2	2.0	3.6	2.0	1.6	2.9	0.4	1.6

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10
18-Jul-89	198	0.1	5.6	3.3	2.0	3.6	2.0	1.7	3.0	0.5	1.7
19-Jul-89	199	0.1	5.7	3.3	2.0	3.6	2.0	1.6	3.0	0.5	1.6
21-Jul-89	201	0.0	5.8	3.3	2.0	3.6	2.0	1.6	3.1	0.6	1.7
25-Jul-89	205	0.0	5.8	3.4	2.0	3.6	2.0	1.6	3.1	0.6	1.7
27-Jul-89	207	0.0	5.7	3.3	2.0	3.6	2.0	1.6	3.1	0.6	1.6
28-Jul-89	208	0.0	5.7	3.4	2.1	3.7	2.0	1.6	3.2	0.6	1.7
31-Jul-89	211	0.0	5.7	3.5	2.1	3.7	2.0	1.7	3.3	0.7	1.7
01-Aug-89	212	0.0	4.6	3.4	2.1	3.7	2.0	1.7	3.3	0.8	1.7

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
03-Jan-89	2	1.3	1.6	-ve	-ve	-ve	-ve	-ve	-ve	-ve	-ve
05-Jan-89	4	1.3	1.6								
07-Jan-89	6	1.4	1.6								
08-Jan-89	7	1.4	1.6								
11-Jan-89	10	1.4	1.6								
12-Jan-89	11	1.5	1.7								
13-Jan-89	12	1.4	1.7								
16-Jan-89	15	1.3	1.6								
17-Jan-89	16	1.3	1.6								
19-Jan-89	18	1.2	1.6								
20-Jan-89	19	1.3	1.6								
23-Jan-89	22	1.3	1.6								
24-Jan-89	23	1.3	1.7								
25-Jan-89	24	1.3	1.7								
26-Jan-89	25	1.3	1.7								
30-Jan-89	29	1.2	1.6								
31-Jan-89	30	1.2	1.7								
01-Feb-89	31	1.2	1.7								
02-Feb-89	32	1.2	1.7								
04-Feb-89	34	1.3	1.8								
06-Feb-89	36	1.3	1.8								
07-Feb-89	37	1.3	1.8								
08-Feb-89	38	1.3	1.8								
09-Feb-89	39	1.4	1.9								
10-Feb-89	40	1.2	1.8								
13-Feb-89	43	1.3	1.8								
14-Feb-89	44	1.2	1.7								
15-Feb-89	45	1.4	1.9								
16-Feb-89	46	1.3	1.8								
19-Feb-89	49	1.3	1.8								
20-Feb-89	50	1.3	1.8								
21-Feb-89	51	1.3	1.8								
23-Feb-89	53	1.5	1.9								
24-Feb-89	54	1.7	2.1								
25-Feb-89	55	2.0	2.2								

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
27-Feb-89	57	1.7	1.9								
01-Mar-89	59	1.5	1.9								
03-Mar-89	61	1.4	1.8								
06-Mar-89	64	1.3	1.9								
08-Mar-89	66	1.2	1.9								
09-Mar-89	67	1.3	1.9								
13-Mar-89	71	1.3	1.9								
14-Mar-89	72	1.3	1.9								
15-Mar-89	73	1.4	2.0								
16-Mar-89	74	1.6	2.0								
19-Mar-89	77	1.4	1.9								
20-Mar-89	78	1.4	2.0								
21-Mar-89	79	1.4	2.0								
22-Mar-89	80	1.4	2.0								
23-Mar-89	81	1.2	1.9								
24-Mar-89	82	1.5	2.0								
25-Mar-89	83	2.0	1.9								
26-Mar-89	84	2.0	1.9								
27-Mar-89	85	2.0	2.0								
28-Mar-89	86	1.9	1.9								
29-Mar-89	87	1.9	2.0								
30-Mar-89	88	1.9	2.0								
31-Mar-89	89	1.9	1.9								
03-Apr-89	92	1.9	2.0								
04-Apr-89	93	1.9	2.0								
05-Apr-89	94	2.0	2.0								
06-Apr-89	95	2.0	2.0								
07-Apr-89	96	1.9	2.0								
11-Apr-89	100	2.0	2.1								
12-Apr-89	101	2.0	2.0								
13-Apr-89	102	1.9	2.0								
14-Apr-89	103	1.8	1.9								
15-Apr-89	104	1.8	1.9								
17-Apr-89	106	1.7	1.9								
18-Apr-89	107	1.7	1.9								

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
19-Apr-89	108	1.7	1.9								
20-Apr-89	109	1.7	2.0								
21-Apr-89	110	1.7	2.0								
24-Apr-89	113	1.8	2.0								
25-Apr-89	114	1.8	2.0								
26-Apr-89	115	1.7	1.9								
27-Apr-89	116	1.8	2.0								
28-Apr-89	117	1.6	1.8								
02-May-89	121	1.6	1.9								
03-May-89	122	1.6	1.9								
04-May-89	123	1.6	1.9								
05-May-89	124	1.7	1.9								
08-May-89	127	1.7	2.0								
09-May-89	128	1.9	2.1								
10-May-89	129	1.9	2.0								
11-May-89	130	2.0	2.1								
12-May-89	131	1.9	2.0								
13-May-89	132	1.9	1.9								
15-May-89	134	1.7	1.8								
16-May-89	135	1.8	1.8								
17-May-89	136	1.9	1.9								
18-May-89	137	1.9	1.9								
19-May-89	138	2.0	1.9								
21-May-89	140	2.1	1.9								
22-May-89	141	2.1	1.9								
23-May-89	142	2.2	1.9								
24-May-89	143	2.2	1.9								
25-May-89	144	2.2	1.8								
26-May-89	145	2.3	1.9								
28-May-89	147	2.4	1.9								
30-May-89	149	2.5	2.0								
01-Jun-89	151	2.7	2.1								
02-Jun-89	152	2.6	2.0								
03-Jun-89	153	2.6	1.9								
05-Jun-89	155	2.6	1.9								

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
07-Jun-89	157	2.7	1.8								
08-Jun-89	158	2.7	1.8								
09-Jun-89	159	2.7	1.8								
12-Jun-89	162	2.8	1.8								
14-Jun-89	164	3.0	1.8								
15-Jun-89	165	3.0	1.8								
15-Jun-89	165	3.0	1.8								
16-Jun-89	166	3.0	1.8								
19-Jun-89	169	3.2	1.9								
20-Jun-89	170	3.2	1.9								
21-Jun-89	171	3.2	1.9								
22-Jun-89	172	3.2	1.7								
23-Jun-89	173	3.3	1.7								
24-Jun-89	174	3.4	1.7								
25-Jun-89	175	3.5	1.7								
26-Jun-89	176	3.5	1.7								
27-Jun-89	177	3.7	1.7								
28-Jun-89	178	3.6	1.6								
29-Jun-89	179	3.7	1.6								
30-Jun-89	180	3.8	1.5								
02-Jul-89	182	3.9	1.5								
03-Jul-89	183	3.9	1.5								
04-Jul-89	184	4.0	1.5								
05-Jul-89	185	4.1	1.6								
06-Jul-89	186	4.3	1.6								
07-Jul-89	187	4.5	1.6								
08-Jul-89	188	4.5	1.4								
09-Jul-89	189	4.4	1.3								
10-Jul-89	190	4.3	1.3								
11-Jul-89	191	4.3	1.3								
12-Jul-89	192	4.3	1.3								
13-Jul-89	193	4.3	1.3								
14-Jul-89	194	4.1	1.3								
16-Jul-89	196	4.0	1.2								
17-Jul-89	197	3.8	1.0								

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 11	P 12	P 13	P 14	P 15	P 16	P 17	P 18	P 19	P 20
18-Jul-89	198	3.7	1.0								
19-Jul-89	199	3.5	1.0								
21-Jul-89	201	3.4	1.0								
25-Jul-89	205	3.1	1.0								
27-Jul-89	207	2.9	1.0								
28-Jul-89	208	2.8	1.1								
31-Jul-89	211	2.7	1.0								
01-Aug-89	212	2.7	1.0								

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
03-Jan-89	2	0.1	-ve	-ve	5.6	5.2	5.6	4.1	4.9	5.1	4.5
05-Jan-89	4	0.1			5.5	5.2	5.6	4.7	4.8	5.1	4.4
07-Jan-89	6	0.2			5.5	5.2	5.6	4.8	4.9	5.2	4.4
08-Jan-89	7	0.3			5.4	5.1	5.6	4.7	4.7	5.1	4.4
11-Jan-89	10	0.3			5.3	5.1	5.6	4.7	4.7	5.2	4.4
12-Jan-89	11	0.4			6.0	5.3	5.7	4.9	4.8	5.3	4.5
13-Jan-89	12	0.4			6.3	5.3	5.6	5.1	4.5	5.2	4.4
16-Jan-89	15	0.2			6.5	5.2	5.5	5.1	4.5	5.0	4.3
17-Jan-89	16	0.2			6.5	5.3	5.5	5.1	4.5	5.1	4.4
19-Jan-89	18	0.2			6.5	5.2	5.4	5.0	4.4	5.0	4.2
20-Jan-89	19	0.2			6.6	5.2	5.5	4.9	4.4	5.1	4.3
23-Jan-89	22	0.3			6.6	5.3	5.5	5.0	4.5	5.0	4.2
24-Jan-89	23	0.3			6.7	5.2	5.5	5.0	4.4	5.1	4.3
25-Jan-89	24	0.2			6.7	5.3	5.5	4.8	4.4	5.1	4.3
26-Jan-89	25	0.1			6.7	5.3	5.6	4.9	4.3	5.1	4.3
30-Jan-89	29	0.1			6.7	5.3	5.4	4.9	4.4	5.0	4.1
31-Jan-89	30	0.2			6.7	5.2	5.4	5.1	4.4	5.0	4.1
01-Feb-89	31	0.2			6.7	5.3	5.5	5.2	4.3	5.0	4.1
02-Feb-89	32	0.2			6.7	5.2	5.4	5.2	4.2	5.0	4.1
04-Feb-89	34	0.2			6.7	5.2	5.6	5.2	4.4	5.1	4.2
06-Feb-89	36	0.3			6.8	5.2	5.5	5.4	4.4	5.1	4.2
07-Feb-89	37	0.2			6.7	5.3	5.5	5.4	4.4	5.1	4.2
08-Feb-89	38	0.5			6.7	5.3	5.6	5.3	4.4	5.1	4.2
09-Feb-89	39	0.0			6.8	5.2	5.7	5.4	4.4	5.3	4.3
10-Feb-89	40	0.0			6.8	5.3	5.5	5.0	4.3	5.1	4.2
13-Feb-89	43	0.0			6.8	5.2	5.5	4.8	4.8	5.1	4.1
14-Feb-89	44	0.0			6.8	5.2	5.4	4.9	4.8	5.0	4.0
15-Feb-89	45	0.0			6.8	5.3	5.7	5.0	5.2	5.2	4.3
16-Feb-89	46	0.0			6.8	5.3	5.6	4.8	5.2	5.2	4.2
19-Feb-89	49	0.0			6.8	5.3	5.6	5.0	5.6	5.2	4.2
20-Feb-89	50	0.0			6.8	5.3	5.5	5.0	5.6	5.1	4.1
21-Feb-89	51				6.8	5.3	5.5	4.9	5.8	5.1	4.1
23-Feb-89	53	0.0			6.8	5.3	5.7	5.0	6.1	5.3	4.3
24-Feb-89	54	0.0			6.8	5.3	5.9	5.0	6.4	5.6	4.5
25-Feb-89	55	0.4			6.8	5.4	6.2	5.1	6.5	5.8	4.8

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
27-Feb-89	57	0.0			6.8	5.4	5.9	5.1	6.5	5.5	4.4
01-Mar-89	59	0.2			6.8	5.3	5.7	5.0	6.4	5.4	4.3
03-Mar-89	61	0.1			6.6	5.2	5.6	4.9	6.4	5.3	4.2
06-Mar-89	64	0.0			6.5	5.2	5.5	5.0	6.6	5.2	4.1
08-Mar-89	66	0.0			6.4	5.2	5.5	4.9	6.6	5.1	4.0
09-Mar-89	67	0.0			8.1	5.3	5.5	4.9	6.7	5.2	4.0
13-Mar-89	71	0.0			9.0	5.6	5.5	4.9	6.8	5.2	4.0
14-Mar-89	72	0.0			9.0	5.6	5.6	4.8	6.9	5.2	4.1
15-Mar-89	73	0.0			7.7	5.4	5.7	4.9	7.0	5.3	4.2
16-Mar-89	74	0.0			7.5	5.4	5.7	4.9	7.1	5.4	4.3
19-Mar-89	77	0.0			9.2	5.7	5.7	4.8	6.9	5.2	4.0
20-Mar-89	78	0.1			9.3	5.6	5.6	5.1	7.0	5.3	4.1
21-Mar-89	79	0.1			9.3	5.6	5.6	5.2	7.0	5.2	4.0
22-Mar-89	80	0.3			8.6	5.6	5.6	5.2	7.0	5.3	4.1
23-Mar-89	81	0.2			9.2	5.6	5.5	5.4	6.9	5.2	3.9
24-Mar-89	82	0.2			9.2	5.6	5.6	5.5	7.1	5.3	4.1
25-Mar-89	83	0.6			9.2	5.6	5.5	5.6	6.9	5.1	3.2
26-Mar-89	84	0.3			9.3	5.6	5.5	5.5	7.0	5.1	3.9
27-Mar-89	85	0.5			9.4	5.6	5.5	5.8	7.0	5.2	4.0
28-Mar-89	86	0.3			9.4	5.6	5.5	5.6	7.0	5.1	3.9
29-Mar-89	87	0.5			9.5	5.6	5.5	6.1	7.0	5.2	3.9
30-Mar-89	88	0.7			9.6	5.7	5.5	6.2	7.1	5.2	4.0
31-Mar-89	89	0.2			9.5	5.6	5.5	5.3	7.1	5.2	3.9
03-Apr-89	92	0.2			7.6	5.4	5.5	5.4	7.1	5.2	4.0
04-Apr-89	93	0.3			7.6	5.4	5.6	5.4	7.2	5.3	4.0
05-Apr-89	94	0.3			8.8	5.5	5.7	5.5	7.3	5.3	4.1
06-Apr-89	95	0.3			9.1	5.5	5.7	5.5	7.3	5.3	4.1
07-Apr-89	96	0.3			9.2	5.5	5.7	5.7	7.3	5.3	4.0
11-Apr-89	100	0.6			9.5	5.7	5.8	5.7	7.5	5.4	4.2
12-Apr-89	101	0.5			9.5	5.7	5.7	5.7	7.4	5.4	4.1
13-Apr-89	102	0.4			8.4	5.6	5.7	5.7	7.4	5.3	4.1
14-Apr-89	103	0.3			9.3	5.7	5.6	5.7	7.3	5.2	4.0
15-Apr-89	104	0.4			9.4	5.7	5.5	5.8	7.3	5.2	4.0
17-Apr-89	106	0.3			9.5	5.6	5.5	5.7	7.3	5.2	4.0
18-Apr-89	107	0.2			9.6	5.6	5.5	5.6	7.3	5.2	3.9

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
19-Apr-89	108	0.4			9.6	5.7	5.5	5.7	7.3	5.2	3.9
20-Apr-89	109	0.3			9.6	5.7	5.6	5.8	7.4	5.2	4.0
21-Apr-89	110	0.4			9.6	5.6	5.5	5.7	7.4	5.2	3.9
24-Apr-89	113	0.4			9.6	5.7	5.6	5.7	7.5	5.2	4.0
25-Apr-89	114	0.5			9.4	5.6	5.6	5.7	7.5	5.3	4.0
26-Apr-89	115	0.5			8.2	5.5	5.6	5.7	7.5	5.2	3.9
27-Apr-89	116	0.6			9.2	5.5	5.6	5.8	7.5	5.3	4.0
28-Apr-89	117	0.4			9.4	5.6	5.5	5.8	7.4	5.1	3.8
02-May-89	121	0.4			9.5	5.6	5.5	5.8	7.5	5.1	3.9
03-May-89	122	0.4			8.8	5.5	5.5	5.9	7.5	5.1	3.9
04-May-89	123	0.4			9.5	5.6	5.5	5.9	7.5	5.1	3.9
05-May-89	124	0.4			9.6	5.6	5.5	5.9	7.6	5.1	3.9
08-May-89	127	0.4			8.5	5.4	5.6	5.8	7.6	5.2	4.0
09-May-89	128	0.6			9.3	5.6	5.7	5.8	7.8	5.3	4.1
10-May-89	129	0.6			9.5	5.5	5.6	5.8	7.7	5.2	4.1
11-May-89	130	0.4			9.5	5.6	5.7	6.0	7.8	5.3	4.2
12-May-89	131	0.7			9.4	5.5	5.7	5.9	7.8	5.3	4.1
13-May-89	132	0.4			9.6	5.5	5.6	5.9	7.7	5.3	4.0
15-May-89	134	0.3			9.7	5.5	5.5	5.9	7.6	5.1	3.9
16-May-89	135	0.3			9.7	5.6	5.5	5.9	7.6	5.1	3.9
17-May-89	136	0.6			8.4	5.4	5.5	5.9	7.6	5.1	3.9
18-May-89	137	0.7			8.1	5.4	5.5	5.9	7.7	5.1	3.9
19-May-89	138	0.7			9.6	5.5	5.6	6.1	7.7	5.2	4.0
21-May-89	140	0.7			9.4	5.5	5.6	5.9	7.8	5.2	4.0
22-May-89	141	0.7			8.7	5.5	5.6	6.1	7.8	5.2	4.0
23-May-89	142	0.8			8.0	5.4	5.6	5.9	7.8	5.2	4.0
24-May-89	143	0.7			7.8	5.3	5.6	5.9	7.8	5.2	4.0
25-May-89	144	0.6			7.7	5.3	5.6	5.9	7.8	5.2	3.9
26-May-89	145	0.6			7.6	5.3	5.5	6.0	7.8	5.1	3.9
28-May-89	147	0.7			7.4	5.2	5.6	6.2	7.8	5.2	4.0
30-May-89	149	0.8			7.4	5.3	5.7	6.3	8.0	5.2	4.1
01-Jun-89	151	0.9			7.7	5.4	5.8	6.4	8.1	5.3	4.2
02-Jun-89	152	0.8			7.7	5.3	5.7	5.4	8.0	5.3	4.1
03-Jun-89	153	0.8			7.6	5.3	5.7	5.8	8.0	5.3	4.0
05-Jun-89	155	0.8			8.9	5.5	5.7	5.8	8.0	5.3	4.0

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
07-Jun-89	157	0.8			8.5	5.5	5.7	5.8	8.0	5.3	4.1
08-Jun-89	158	0.8			8.4	5.4	5.7	5.9	8.0	5.3	4.1
09-Jun-89	159	0.8			10.5	5.7	5.7	6.0	8.0	5.3	4.1
12-Jun-89	162	0.8			8.2	5.5	5.6	6.2	8.0	5.2	4.0
14-Jun-89	164	0.8			7.7	5.4	5.7	6.3	8.0	5.3	4.1
15-Jun-89	165	0.8			7.9	5.4	5.6	6.0	8.0	5.2	4.0
15-Jun-89	165	0.7			9.2	5.5	5.6	6.1	8.0	5.2	4.0
16-Jun-89	166	0.8			10.6	5.7	5.6	6.5	8.0	5.2	4.0
19-Jun-89	169	0.7			8.8	5.5	5.6	5.9	8.1	5.2	4.0
20-Jun-89	170	0.8			10.6	5.7	5.6	6.3	8.1	5.3	4.0
21-Jun-89	171	0.8			10.6	5.7	5.6	6.3	8.1	5.3	4.0
22-Jun-89	172	0.7			10.7	5.7	5.6	6.2	8.1	5.3	4.1
23-Jun-89	173	0.8			11.1	5.8	5.6	6.3	8.2	5.3	4.1
24-Jun-89	174	0.8			10.3	5.7	5.7	6.2	8.2	5.3	4.2
25-Jun-89	175	0.9			9.9	5.7	5.7	6.4	8.3	5.4	4.2
26-Jun-89	176	0.9			11.0	5.8	5.7	6.5	8.3	5.4	4.3
27-Jun-89	177	1.0			10.9	5.8	5.8	6.7	8.4	5.5	4.4
28-Jun-89	178	0.8			10.8	5.8	5.7	6.7	8.4	5.4	4.3
29-Jun-89	179	0.8			10.4	5.8	5.7	6.6	8.4	5.4	4.3
30-Jun-89	180	0.8			10.1	5.7	5.7	6.7	8.4	5.4	4.2
02-Jul-89	182	0.8			9.3	5.6	5.6	6.9	8.4	5.3	4.2
03-Jul-89	183	0.7			10.9	5.8	5.6	7.1	8.5	5.3	4.2
04-Jul-89	184	0.7			10.7	5.8	5.6	6.5	8.5	5.3	4.2
05-Jul-89	185	0.8			11.1	5.9	5.6	6.9	8.6	5.4	4.3
06-Jul-89	186	0.8			11.1	6.0	5.6	7.1	8.7	5.4	4.3
07-Jul-89	187	0.9			11.0	6.0	5.7	6.8	8.9	5.4	4.4
08-Jul-89	188	0.4			11.0	5.9	5.7	6.2	8.9	5.4	4.4
09-Jul-89	189	0.5			11.0	6.0	5.6	5.5	8.9	5.4	4.3
10-Jul-89	190	0.4			11.1	6.0	5.6	6.1	8.9	5.4	4.3
11-Jul-89	191	0.5			11.1	6.0	5.6	6.1	8.9	5.4	4.3
12-Jul-89	192	0.5			11.1	6.0	5.6	6.0	9.0	5.4	4.4
13-Jul-89	193	0.6			11.1	6.0	5.6	6.1	9.0	5.4	4.4
14-Jul-89	194	0.5			11.7	6.1	5.5	6.2	9.0	5.4	4.4
16-Jul-89	196	0.5			11.6	6.2	5.6	6.2	9.1	5.4	4.4
17-Jul-89	197	0.5			9.9	6.0	5.6	6.1	9.1	5.4	4.4

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 21	P 22	P 23	P 24	P 25	P 26	P 27	P 28	P 29	P 30
18-Jul-89	198	0.6			9.3	5.9	5.6	6.0	9.1	5.4	4.4
19-Jul-89	199	0.6			8.9	5.8	5.6	6.0	9.0	5.4	4.4
21-Jul-89	201	0.6			8.5	5.8	5.6	5.9	9.0	5.4	4.4
25-Jul-89	205	0.6			8.2	5.8	5.6	5.8	8.9	5.4	4.5
27-Jul-89	207	0.5			8.1	5.8	5.6	5.5	8.9	5.4	4.4
28-Jul-89	208	0.0			8.1	5.8	5.7	6.1	8.9	0.0	0.0
31-Jul-89	211	0.0			8.0	5.8	5.7	5.9	8.9	0.0	0.0
01-Aug-89	212	0.0			7.9	5.7	5.7	5.9	8.8	0.0	0.0

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
03-Jan-89	2	4.6	4.7
05-Jan-89	4	4.6	4.5
07-Jan-89	6	4.6	4.7
08-Jan-89	7	4.6	4.7
11-Jan-89	10	4.6	4.7
12-Jan-89	11	4.7	4.8
13-Jan-89	12	4.6	4.7
16-Jan-89	15	4.4	4.5
17-Jan-89	16	4.5	4.6
19-Jan-89	18	4.4	4.6
20-Jan-89	19	4.5	4.7
23-Jan-89	22	4.4	4.6
24-Jan-89	23	4.5	4.7
25-Jan-89	24	4.5	4.7
26-Jan-89	25	4.5	4.7
30-Jan-89	29	4.4	4.6
31-Jan-89	30	4.4	4.6
01-Feb-89	31	4.4	4.6
02-Feb-89	32	4.4	4.6
04-Feb-89	34	4.5	4.7
06-Feb-89	36	4.5	4.7
07-Feb-89	37	4.5	4.7
08-Feb-89	38	4.5	4.7
09-Feb-89	39	4.6	4.9
10-Feb-89	40	4.5	4.7
13-Feb-89	43	4.5	4.7
14-Feb-89	44	4.4	4.7
15-Feb-89	45	4.6	4.9
16-Feb-89	46	4.5	4.8
19-Feb-89	49	4.5	4.8
20-Feb-89	50	4.5	4.7
21-Feb-89	51	4.5	4.8
23-Feb-89	53	4.7	4.9
24-Feb-89	54	4.9	5.2
25-Feb-89	55	5.1	5.4

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
27-Feb-89	57	4.8	5.0
01-Mar-89	59	4.6	4.9
03-Mar-89	61	4.5	4.8
06-Mar-89	64	4.4	4.7
08-Mar-89	66	4.4	4.7
09-Mar-89	67	4.5	4.7
13-Mar-89	71	4.4	4.7
14-Mar-89	72	4.5	4.8
15-Mar-89	73	4.6	4.9
16-Mar-89	74	4.7	5.0
19-Mar-89	77	4.4	4.7
20-Mar-89	78	4.6	4.9
21-Mar-89	79	4.5	4.8
22-Mar-89	80	4.5	4.8
23-Mar-89	81	4.4	4.7
24-Mar-89	82	4.5	4.8
25-Mar-89	83	4.3	4.6
26-Mar-89	84	4.4	4.7
27-Mar-89	85	4.5	4.8
28-Mar-89	86	4.4	4.7
29-Mar-89	87	4.4	4.7
30-Mar-89	88	4.5	4.8
31-Mar-89	89	4.4	4.7
03-Apr-89	92	4.5	4.8
04-Apr-89	93	4.5	4.8
05-Apr-89	94	4.6	4.9
06-Apr-89	95	4.6	4.9
07-Apr-89	96	4.5	4.8
11-Apr-89	100	4.7	5.0
12-Apr-89	101	4.6	4.9
13-Apr-89	102	4.5	4.9
14-Apr-89	103	4.5	4.8
15-Apr-89	104	4.4	4.8
17-Apr-89	106	4.4	4.7
18-Apr-89	107	4.3	4.7

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
19-Apr-89	108	4.4	4.7
20-Apr-89	109	4.4	4.7
21-Apr-89	110	4.4	4.7
24-Apr-89	113	4.5	4.8
25-Apr-89	114	4.5	4.8
26-Apr-89	115	4.4	4.8
27-Apr-89	116	4.5	4.8
28-Apr-89	117	4.3	4.7
02-May-89	121	4.3	4.7
03-May-89	122	4.3	4.7
04-May-89	123	4.3	4.7
05-May-89	124	4.3	4.7
08-May-89	127	4.4	4.7
09-May-89	128	4.5	4.8
10-May-89	129	4.5	4.8
11-May-89	130	4.5	4.9
12-May-89	131	4.5	4.9
13-May-89	132	4.4	4.8
15-May-89	134	4.3	4.6
16-May-89	135	4.3	4.6
17-May-89	136	4.3	4.6
18-May-89	137	4.3	4.7
19-May-89	138	4.3	4.7
21-May-89	140	4.4	4.7
22-May-89	141	4.4	4.7
23-May-89	142	4.4	4.7
24-May-89	143	4.4	4.7
25-May-89	144	4.3	4.7
26-May-89	145	4.3	4.7
28-May-89	147	4.3	4.7
30-May-89	149	4.4	4.7
01-Jun-89	151	4.5	4.8
02-Jun-89	152	4.4	4.5
03-Jun-89	153	4.4	4.7
05-Jun-89	155	4.4	4.7

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
07-Jun-89	157	4.4	4.8
08-Jun-89	158	4.4	4.8
09-Jun-89	159	4.4	4.7
12-Jun-89	162	4.3	4.7
14-Jun-89	164	4.4	4.7
15-Jun-89	165	4.3	4.7
15-Jun-89	165	4.3	4.7
16-Jun-89	166	4.3	4.7
19-Jun-89	169	4.3	4.7
20-Jun-89	170	4.3	4.7
21-Jun-89	171	4.3	4.7
22-Jun-89	172	4.3	4.7
23-Jun-89	173	4.3	4.7
24-Jun-89	174	4.4	4.7
25-Jun-89	175	4.4	4.7
26-Jun-89	176	4.4	4.8
27-Jun-89	177	4.5	4.8
28-Jun-89	178	4.4	4.7
29-Jun-89	179	4.4	4.7
30-Jun-89	180	4.4	4.7
02-Jul-89	182	4.3	4.6
03-Jul-89	183	4.2	4.6
04-Jul-89	184	4.2	4.6
05-Jul-89	185	4.3	4.6
06-Jul-89	186	4.3	4.7
07-Jul-89	187	4.4	4.7
08-Jul-89	188	4.3	4.7
09-Jul-89	189	4.3	4.6
10-Jul-89	190	4.2	4.6
11-Jul-89	191	4.3	4.6
12-Jul-89	192	4.2	4.6
13-Jul-89	193	4.3	4.6
14-Jul-89	194	4.3	4.6
16-Jul-89	196	4.2	4.6
17-Jul-89	197	4.2	4.6

PNEUMATIC PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
18-Jul-89	198	4.2	4.6
19-Jul-89	199	4.2	4.6
21-Jul-89	201	4.2	4.6
25-Jul-89	205	4.2	4.6
27-Jul-89	207	4.2	4.5
28-Jul-89	208	4.3	4.6
31-Jul-89	211	4.3	4.6
01-Aug-89	212	4.3	4.6

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
21-Jun-88	-194	0.5	1.5
24-Jun-88	-191	1.1	2.1
28-Jun-88	-187		
01-Jul-88	-184	2.5	3.5
05-Jul-88	-180	2.8	4.0
08-Jul-88	-177	3.0	4.3
12-Jul-88	-173	3.4	4.8
15-Jul-88	-170	3.6	5.1
19-Jul-88	-166	4.0	5.6
21-Jul-88	-164	4.2	5.8
26-Jul-88	-159	4.5	5.8
26-Jul-88	-159	4.3	5.6
29-Jul-88	-156	4.4	5.3
02-Aug-88	-152	4.6	5.1
05-Aug-88	-149	4.7	4.7
10-Aug-88	-144	5.0	4.6
16-Aug-88	-138	5.1	4.4
19-Aug-88	-135	5.3	4.4
30-Aug-88	-124	5.3	4.4
05-Sep-88	-118	5.4	4.3
09-Sep-88	-114	5.4	4.2
11-Sep-88	-112		
20-Sep-88	-103	5.2	4.0
23-Sep-88	-100	5.4	4.2
27-Sep-88	-96	5.5	4.4
30-Sep-88	-93	5.3	4.3
04-Oct-88	-89	5.5	4.5
07-Oct-88	-86	5.5	4.6
12-Oct-88	-81	5.4	4.5
14-Oct-88	-79	5.3	4.4
18-Oct-88	-75	5.3	4.6
27-Oct-88	-66	5.3	4.6
01-Nov-88	-61	5.1	4.5
04-Nov-88	-58	5.0	4.5
09-Nov-88	-53	5.0	4.5

PNEUMATIC PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	P 31	P 32
11-Nov-88	-51	5.0	4.6
15-Nov-88	-47	4.8	4.5
18-Nov-88	-44	4.9	4.6
22-Nov-88	-40	4.8	4.5
25-Nov-88	-37	4.8	4.6
28-Nov-88	-34	4.8	4.7
29-Nov-88	-33	4.9	4.7
01-Dec-88	-31	4.9	4.8
02-Dec-88	-30	4.9	4.7
05-Dec-88	-27	4.9	4.7
06-Dec-88	-26	4.7	4.6
07-Dec-88	-25	4.5	4.4
08-Dec-88	-24	4.5	4.4
09-Dec-88	-23	4.6	4.5
10-Dec-88	-22	4.6	4.5
11-Dec-88	-21	4.6	4.5
12-Dec-88	-20	4.6	4.5
13-Dec-88	-19	4.6	4.5
14-Dec-88	-18	4.6	4.5
15-Dec-88	-17	4.6	4.5
21-Dec-88	-11	4.6	4.6
22-Dec-88	-10	4.7	4.7
30-Dec-88	-2	4.5	4.5

APPENDIX D

VIBRATING WIRE PIEZOMETER DATA

Vibrating Wire Piezometer Data 1988

Vibrating Wire Piezometer Data 1989, Data Logger 0001 (V1 to V16)

Vibrating Wire Piezometer Data 1989, Data Logger 0002 (V17 to V30)

VIBRATING WIRE PIEZOMETER DATA

1988

V1 to V30

VIBRATING WIRE PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9
01-Feb-88	-335	0.6	3.7	2.0	2.1	1.3	2.0	4.9	3.0	0.6
01-Mar-88	-306	0.7	3.9	2.0	2.3	1.4	2.2	4.8	3.3	0.8
29-Mar-88	-278	0.7	3.9	2.0	2.3	1.3	2.1	4.6	3.3	0.8
03-May-88	-243	0.6	3.8	2.0	2.2	1.3	2.1	4.6	3.2	0.6
03-Jun-88	-212	0.6	3.8	2.0	2.3	1.4	2.0	4.6	3.3	0.7
01-Jul-88	-184	0.4	3.7	2.1	2.0	1.4	1.9	4.6	3.2	0.5
02-Aug-88	-152	0.4	3.6	2.2	2.1	1.4	1.8	4.6	3.2	0.7
05-Sep-88	-118	0.1	3.6	2.2	2.1	1.4	1.8	4.5	3.1	0.3
04-Oct-88	-89	0.4	3.6	2.3	2.2	1.2	1.8	4.4	3.4	0.3
01-Nov-88	-61	0.5	3.7	2.3	2.4	1.2	1.9	4.4	3.4	0.9
02-Dec-88	-30	0.4	3.8	2.1	2.3	1.1	2.0	4.4	3.4	0.5
30-Dec-88	-2	0.6	4.2	2.1	3.0	1.2	2.7	4.3	3.4	0.9

VIBRATING WIRE PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	V 10	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18
01-Feb-88	-335	1.6	1.8	2.8	1.7	0.4	-0.3	1.8	-0.1	1.6
01-Mar-88	-306	1.8	1.8	2.9	1.9	0.5	-0.3	-1.8	0.0	1.8
29-Mar-88	-278	1.8	1.7	2.8	1.9	0.4	-0.3	1.8	0.0	1.8
03-May-88	-243	1.8	1.6	2.8	1.8	0.5	-0.1	1.8	-0.1	2.0
03-Jun-88	-212	1.8	1.6	2.8	1.9	0.8	0.1	1.7	0.0	1.9
01-Jul-88	-184	1.4	1.8	2.8	1.8	0.8	0.3	1.8	0.1	1.8
02-Aug-88	-152	1.6	2.0		1.9	1.0	0.4	1.8	0.3	2.0
05-Sep-88	-118	1.6	2.1	L	1.8	1.0	0.6	1.6	0.2	1.9
04-Oct-88	-89	1.6	2.0	O	1.5	0.5	-0.4	1.5	0.0	1.7
01-Nov-88	-61	1.6	2.1	S	1.6	0.4	0.3	1.4	0.0	1.8
02-Dec-88	-30	1.6	1.9	T	1.6	0.0	0.1	1.4	-0.1	1.7
30-Dec-88	-2	1.8	1.9		1.8	0.1	0.2	1.5	0.0	1.9

VIBRATING WIRE PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	V 19	V 20	V 21	V 22	V 23	V 24	V 25	V 26	V 27
01-Feb-88	-335	0.7	1.1	5.3	-0.1	-0.6	-2.7	-1.9	-0.8	-1.5
01-Mar-88	-306	0.9	1.1	4.7	0.0	-0.4	-2.5	-1.9	-0.7	-1.9
29-Mar-88	-278	1.0	1.0	4.3	0.0	-0.4	-2.4	-1.9	-0.6	-2.1
03-May-88	-243	1.0	1.0	3.8	0.0	-0.6	-2.3	-1.8	-0.6	-2.3
03-Jun-88	-212	1.1	0.8	3.1	0.0	-0.6	-2.3	-1.8	-0.6	-2.4
01-Jul-88	-184	1.1	0.8	1.9	0.1	-0.7	-2.3	-1.6	-0.5	-2.5
02-Aug-88	-152	1.3	0.8	1.6	0.3	-0.4	-2.1	-1.4	-0.4	-2.5
05-Sep-88	-118	1.3	0.8	2.1	0.3	-0.4	-2.3	-2.2	-0.3	-2.5
04-Oct-88	-89	0.8	0.6	2.1	0.2	-0.6	-2.3	-2.4	-0.5	-2.5
01-Nov-88	-61	1.0	0.5	2.2	0.3	-0.5	-2.3	-2.7	-0.6	-2.6
02-Dec-88	-30	0.7	0.5	2.1	0.4	-0.8	-2.3	-2.8	-0.6	-2.6
30-Dec-88	-2	1.3	0.6	2.3	0.6	-0.3	-2.3	-2.9	-0.6	-2.7

VIBRATING WIRE PIEZOMETER DATA 1988 : Pressure Heads (mH₂O)

DATE	DAY No.	V 28	V 29	V 30
01-Feb-88	-335	-2.8	**	**
01-Mar-88	-306	-2.8	**	**
29-Mar-88	-278		**	**
03-May-88	-243		**	**
03-Jun-88	-212		**	**
01-Jul-88	-184	-4.3	**	**
02-Aug-88	-152	0.4	3.9	3.8
05-Sep-88	-118	0.1	4.1	4.3
04-Oct-88	-89	0.0	4.6	4.3
01-Nov-88	-61	0.4	5.0	4.6
02-Dec-88	-30	-0.1	5.1	4.5
30-Dec-88	-2	0.8	5.2	6.0

** :- instrument not yet installed

VIBRATING WIRE PIEZOMETER DATA

1989

Data Logger 0001

V1 to V16

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001 Piezometers 1 to 16

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9	V 10
03-Jan-89	2	0.7	4.2	2.1	2.9	1.3	2.8	4.3	3.6	0.9	1.9
05-Jan-89	4	0.7	4.2	2.1	2.9	1.3	2.8	4.3	3.6	0.9	1.9
07-Jan-89	6	0.6	4.2	2.1	2.9	1.2	2.8	4.3	3.6	0.8	1.8
08-Jan-89	7	0.6	4.2	2.1	2.9	1.2	2.8	4.3	3.6	0.8	1.8
11-Jan-89	10	0.6	4.2	2.0	2.9	1.2	2.8	4.3	3.6	0.8	1.8
12-Jan-89	11	0.6	4.2	2.0	2.7	1.2	2.8	4.3	3.5	0.8	1.8
13-Jan-89	12	0.7	4.2	2.1	2.8	1.2	2.8	4.3	3.4	0.8	1.8
16-Jan-89	15	0.7	4.3	2.1	2.8	1.3	2.8	4.3	3.5	1.0	1.8
17-Jan-89	16	0.7	4.3	2.1	2.8	1.3	2.8	4.3	3.5	1.0	1.8
19-Jan-89	18	0.7	4.4	2.1	2.9	1.3	2.9	4.3	3.6	1.0	1.8
20-Jan-89	19	0.7	4.4	2.1	2.9	1.3	3.0	4.3	3.6	1.0	1.9
23-Jan-89	22	0.7	4.4	2.0	3.0	1.3	3.0	4.3	3.6	1.0	1.8
24-Jan-89	23	0.7	4.4	2.0	3.0	1.3	3.0	4.3	3.6	1.0	1.9
25-Jan-89	24	0.7	4.4	2.0	3.0	1.3	3.1	4.3	3.6	1.0	1.9
26-Jan-89	25	0.7	4.4	2.0	3.0	1.3	3.1	4.3	3.6	1.0	2.0
27-Jan-89	26	0.7	4.4	2.0	3.1	1.3	3.1	4.3	3.6	1.0	2.0
30-Jan-89	29	0.7	4.6	2.0	3.3	1.3	3.2	4.3	3.7	1.1	2.1
31-Jan-89	30	0.8	4.6	2.0	3.3	1.3	3.2	4.3	3.7	1.1	2.1
01-Feb-89	31	0.8	4.6	2.0	3.2	1.3	3.3	4.3	3.7	1.1	2.1
02-Feb-89	32	0.8	4.6	2.1	3.2	1.3	3.3	4.3	3.6	1.1	2.1
04-Feb-89	34	0.8	4.6	2.0	3.1	1.3	3.3	4.3	3.6	1.0	2.1
06-Feb-89	36	0.8	4.6	2.0	3.3	1.3	3.3	4.3	3.6	1.0	2.1
07-Feb-89	37	0.7	4.6	2.0	3.3	1.3	3.3	4.3	3.6	1.0	2.1
08-Feb-89	38	0.7	4.7	2.0	3.3	1.3	3.4	4.3	3.6	1.0	2.1
09-Feb-89	39	0.7	4.7	2.0	3.2	1.3	3.3	4.3	3.6	1.0	2.1
10-Feb-89	40	0.7	4.7	2.0	3.3	1.3	3.4	4.3	3.6	1.0	2.1
13-Feb-89	43	0.7	4.8	2.0	3.4	1.3	3.4	4.3	3.8	1.0	2.2
14-Feb-89	44	0.7	4.8	2.0	3.5	1.3	3.5	4.3	3.8	1.0	2.2
15-Feb-89	45	0.7	4.8	2.0	3.3	1.3	3.5	4.3	3.8	1.0	2.2
16-Feb-89	46	0.7	4.8	2.0	3.4	1.3	3.5	4.3	3.8	1.0	2.1
19-Feb-89	49	0.7	4.8	2.0	3.4	1.3	3.5	4.3	3.7	1.0	2.1
20-Feb-89	50	0.7	4.8	2.0	3.5	1.3	3.5	4.3	3.8	0.9	2.1
21-Feb-89	51	0.7	4.8	1.9	3.5	1.3	3.5	4.3	3.8	1.0	2.2

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

Piezometers 1 to 16

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9	V 10
23-Feb-89	53	0.7	4.8	2.0	3.3	1.3	3.5	4.3	3.8	0.9	2.1
25-Feb-89	55	0.6	4.8	1.8	2.8	1.1	3.5	4.2	3.6	18.8	2.0
27-Feb-89	57	0.5	4.7	1.8	3.2	1.1	3.4	4.2	3.6	15.3	2.0
28-Feb-89	58	0.5	4.7	1.7	3.2	1.0	3.4	4.2	3.6	22.1	2.0
28-Feb-89	58	0.5	4.8	1.8	3.2	1.1	3.5	4.3	3.6	17.8	2.0
01-Mar-89	59	0.5	4.8	1.8	3.4	1.1	3.5	4.3	3.6	16.2	2.0
02-Mar-89	60	0.5	4.8	1.8	3.5	1.1	3.5	4.2	3.6	22.2	2.1
02-Mar-89	60	0.5	4.8	1.8	3.5	1.1	3.5	4.2	3.6	14.6	2.1
06-Mar-89	64	0.6	4.9	1.9	3.6	1.2	3.5	4.2	3.9	15.3	2.3
08-Mar-89	66	0.6	4.9	1.9	3.7	1.2	3.6	4.3	4.0	21.6	2.3
09-Mar-89	67	0.6	4.9	1.9	3.3	1.2	3.5	4.3	4.0	12.3	2.3
10-Mar-89	68	0.6	4.9	1.9	3.2	1.3	3.5	4.2	4.0	13.3	2.3
13-Mar-89	71	0.6	5.0	1.8	3.4	1.3	3.6	4.3	3.8	17.1	2.2
14-Mar-89	72	0.6	5.0	1.9	3.3	1.3	3.6	4.2	3.8	19.6	2.2
14-Mar-89	72	0.6	5.1	1.8	3.3	1.2	3.6	4.1	3.7	18.1	2.3
15-Mar-89	73	0.6	5.1	1.8	3.6	1.3	3.7	4.3	3.7	11.9	2.2
16-Mar-89	74	0.6	5.1	1.8	3.5	1.2	3.8	4.2	3.7	17.3	2.1
16-Mar-89	74	0.6	5.1	1.8	3.5	1.2	3.8	4.2	3.7	14.5	2.1
17-Mar-89	75	0.6	5.1	1.8	3.6	1.2	3.8	4.2	3.7	19.5	2.1
19-Mar-89	77	0.6	5.2	1.8	3.6	1.2	3.9	4.2	3.7	14.8	2.2
20-Mar-89	78	0.6	5.2	1.8	3.6	1.2	3.9	4.2	3.8	16.6	2.2
20-Mar-89	78	0.6	5.2	1.8	3.6	1.1	3.9	4.2	3.7	13.5	2.2
21-Mar-89	79	0.6	5.2	1.8	3.6	1.2	4.0	4.2	3.7	20.3	2.2
21-Mar-89	79	0.6	5.2	1.8	3.7	1.2	4.0	4.1	3.7	10.1	2.2
22-Mar-89	80	0.6	5.2	1.8	3.7	1.2	4.0	4.2	3.7	15.0	2.2
22-Mar-89	80	0.6	5.2	1.8	3.8	1.1	4.0	4.3	3.7	16.9	2.2
23-Mar-89	81	0.6	5.3	1.8	3.8	1.2	4.1	4.2	3.7	24.7	2.1
23-Mar-89	81	0.6	5.2	1.8	3.8	1.2	4.0	4.1	3.6	17.9	2.2
24-Mar-89	82	0.6	5.3	1.8	3.6	1.2	4.1	4.3	3.6	19.4	2.1
04-Apr-89	93	0.6	5.6	1.8	4.5	1.2	4.8	4.3	4.1	31.5	2.6
05-Apr-89	94	0.6	5.5	1.8	4.2	1.2	4.6	4.2	4.1	35.3	2.6
06-Apr-89	95	0.6	5.5	1.8	4.1	1.2	4.6	4.2	4.1	33.5	2.5
13-Apr-89	102	0.5	5.6	1.8	4.6	1.1	4.9	4.3	4.1	30.7	2.6

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001 Piezometers 1 to 16

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9	V 10
13-Apr-89	102	0.5	5.6	1.8	4.6	1.1	4.9	4.3	4.1	37.7	2.7
14-Apr-89	103	0.5	5.6	1.8	4.5	1.1	4.9	4.2	4.2	40.8	2.7
14-Apr-89	103	0.5	5.6	1.8	4.6	1.1	4.9	4.3	4.2	12.7	2.7
15-Apr-89	104	0.5	5.7	1.8	4.6	1.1	5.0	4.3	4.2	22.3	2.8
15-Apr-89	104	0.6	5.7	1.7	4.6	1.1	5.0	4.3	4.2	13.0	2.8
17-Apr-89	106	0.6	5.8	1.7	4.6	1.1	5.0	4.3	4.3	14.6	2.8
18-Apr-89	107	0.6	5.8	1.7	4.7	1.1	5.1	4.2	4.3	22.0	2.9
18-Apr-89	107	0.6	5.8	1.8	4.6	1.1	5.1	4.2	4.3	11.5	3.0
19-Apr-89	108	0.6	5.8	1.8	4.7	1.1	5.1	4.2	4.3	23.8	2.9
19-Apr-89	108	0.6	5.8	1.8	4.8	1.1	5.1	4.3	4.3	13.2	3.0
20-Apr-89	109	0.6	5.8	1.7	4.8	1.2	5.1	4.3	4.4	19.3	3.0
20-Apr-89	109	0.6	5.8	1.8	4.8	1.2	5.2	4.3	4.5	20.2	3.0
21-Apr-89	110	0.6	5.9	1.8	4.8	1.2	5.2	4.3	4.5	18.8	3.0
21-Apr-89	110	0.6	5.9	1.8	4.9	1.2	5.3	4.3	4.5	20.6	3.0
25-Apr-89	114	0.6	6.0	1.8	5.0	1.2	5.4	4.3	4.6	18.8	3.1
26-Apr-89	115	0.6	5.9	1.8	5.2	1.2	5.4	4.3	4.6	25.6	3.1
26-Apr-89	115	0.5	6.0	1.8	5.3	1.2	5.5	4.3	4.7	18.0	3.2
27-Apr-89	116	0.6	5.9	1.8	5.0	1.1	5.5	4.3	4.7	22.8	3.2
27-Apr-89	116	0.5	5.9	1.7	5.0	1.2	5.5	4.3	4.7	16.1	3.1
28-Apr-89	117	0.6	6.0	1.7	5.1	1.2	5.5	4.3	4.7	23.3	3.1
02-May-89	121	0.6	6.1	1.8	5.1	1.3	5.5	4.3	5.0	4.6	3.3
22-May-89	141	0.6	6.3	1.8	5.5	1.2	5.9	4.3	5.6	46.8	3.8
23-May-89	142	0.6	6.3	1.8	5.7	1.3	5.9	4.4	5.6	56.5	4.0
23-May-89	142	0.6	6.3	1.8	5.8	1.3	5.9	4.5	5.8	50.8	4.0
24-May-89	143	0.6	6.3	1.7	5.9	1.3	6.0	4.4	5.8	56.1	4.1
24-May-89	143	0.6	6.3	1.7	5.9	1.2	5.9	4.4	5.8	53.5	4.1
25-May-89	144	0.6	6.3	1.8	5.9	1.3	6.0	4.4	5.9	58.5	4.2
25-May-89	144	0.6	6.3	1.8	6.0	1.2	5.9	4.5	6.0	54.6	4.2
26-May-89	145	0.6	6.3	1.8	5.9	1.3	6.0	4.4	6.1	62.0	4.3
31-May-89	150	0.6	6.3	1.8	5.5	1.3	5.7	4.5	6.2	58.4	4.2
01-Jun-89	151	0.6	6.3	1.8	5.5	1.3	5.6	4.5	6.2	61.0	4.2
01-Jun-89	151	0.6	6.3	1.8	5.2	1.2	5.6	4.5	6.1	59.8	4.1
02-Jun-89	152	0.6	6.3	1.8	5.3	1.3	5.6	4.4	6.1	61.3	4.1

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001 Piezometers 1 to 16

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9	V 10
02-Jun-89	152	0.6	6.3	1.7	5.1	1.3	5.5	4.4	6.0	55.1	4.0
03-Jun-89	153	0.6	6.3	1.8	5.2	1.3	5.5	4.5	6.0	63.1	4.0
03-Jun-89	153	0.6	6.3	1.8	4.9	1.3	5.5	4.4	5.8	56.8	3.9
04-Jun-89	154	0.6	6.3	1.8	4.5	1.3	5.4	4.5	5.7	62.6	3.8
04-Jun-89	154	0.6	6.3	1.8	4.6	1.3	5.4	4.4	5.6	58.3	3.8
05-Jun-89	155	0.6	6.3	1.8	5.0	1.3	5.4	4.5	5.7	62.6	3.8
05-Jun-89	155	0.6	6.3	1.8	4.8	1.3	5.4	4.4	5.6	56.0	3.8
06-Jun-89	156	0.6	6.3	1.8	4.5	1.2	5.4	4.4	5.5	60.2	3.8
06-Jun-89	156	0.6	6.3	1.7	4.4	1.2	5.4	4.5	5.5	60.6	3.7
07-Jun-89	157	0.6	6.3	1.8	4.9	1.2	5.4	4.5	5.6	61.6	3.8
07-Jun-89	157	0.5	6.3	1.7	4.9	1.2	5.5	4.4	5.5	57.3	3.9
08-Jun-89	158	0.5	6.3	1.7	5.3	1.3	5.5	4.5	5.6	58.9	4.0
08-Jun-89	158	0.5	6.3	1.8	5.3	1.2	5.6	4.5	5.6	57.5	4.1
09-Jun-89	159	0.5	6.3	1.8	4.9	1.2	5.5	4.4	5.6	62.4	4.1
09-Jun-89	159	0.5	6.3	1.8	4.8	1.2	5.6	4.5	5.5	51.3	4.1
10-Jun-89	160	0.5	6.4	1.7	4.6	1.2	5.5	4.4	5.5	61.3	4.0
10-Jun-89	160	0.5	6.4	1.8	4.7	1.2	5.6	4.5	5.5	52.3	4.0
11-Jun-89	161	0.5	6.4	1.8	4.8	1.2	5.6	4.4	5.5	64.0	4.0
11-Jun-89	161	0.5	6.5	1.8	5.4	1.2	5.6	4.5	5.6	50.5	4.2
12-Jun-89	162	0.5	6.5	1.8	5.8	1.2	5.8	4.5	5.8	59.7	4.4
12-Jun-89	162	0.5	6.5	1.8	6.0	1.2	5.8	4.5	5.9	51.8	4.6
13-Jun-89	163	0.5	6.5	1.8	6.0	1.3	5.9	4.4	6.0	60.3	4.6
13-Jun-89	163	0.5	6.5	1.8	6.0	1.3	6.0	4.5	6.1	50.3	4.8
14-Jun-89	164	0.5	6.5	1.8	6.1	1.2	6.0	4.5	6.2	56.3	4.8
14-Jun-89	164	0.5	6.5	1.8	6.1	1.3	6.0	4.5	6.2	48.3	4.8
15-Jun-89	165	0.6	6.5	1.8	6.1	1.2	6.0	4.5	6.3	56.0	4.8
15-Jun-89	165	0.5	6.5	1.8	5.6	1.2	6.0	4.5	6.2	47.0	4.8
16-Jun-89	166	0.5	6.5	1.8	5.1	1.3	5.9	4.5	6.1	63.2	4.6
19-Jun-89	169	0.6	6.5	1.8	5.6	1.3	6.0	4.5	6.3	49.3	4.8
20-Jun-89	170	0.6	6.5	1.8	5.2	1.3	5.9	4.5	6.1	61.4	4.7
20-Jun-89	170	0.6	6.6	1.8	5.0	1.2	5.9	4.5	6.1	49.0	4.6
21-Jun-89	171	0.5	6.5	1.8	5.0	1.2	5.8	4.5	6.0	55.7	4.5
21-Jun-89	171	0.6	6.6	1.8	5.0	1.2	5.8	4.5	5.9	52.0	4.5

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001 Piezometers 1 to 16

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9	V 10
22-Jun-89	172	0.6	6.6	1.8	5.0	1.2	5.9	4.5	6.0	61.6	4.5
22-Jun-89	172	0.6	6.6	1.8	5.1	1.2	5.9	4.5	6.0	51.6	4.6
23-Jun-89	173	0.6	6.6	1.8	5.0	1.1	5.9	4.5	6.0	60.3	4.6
23-Jun-89	173	0.6	6.6	1.8	5.1	1.1	5.9	4.5	6.0	51.3	4.6
24-Jun-89	174	0.5	6.6	1.8	5.3	1.2	6.0	4.5	6.1	61.9	4.7
24-Jun-89	174	0.6	6.6	1.8	5.4	1.1	6.0	4.5	6.1	48.7	4.8
25-Jun-89	175	0.6	6.6	1.8	5.6	1.1	6.1	4.5	6.1	60.0	4.8
25-Jun-89	175	0.6	6.6	1.8	5.4	1.1	6.1	4.5	6.1	53.0	4.9
26-Jun-89	176	0.5	6.6	1.8	5.3	1.1	6.1	4.6	6.1	66.0	4.9
26-Jun-89	176	0.5	6.6	1.8	5.2	1.1	6.0	4.5	6.2	52.2	4.9
27-Jun-89	177	0.5	6.6	1.8	5.2	1.0	6.1	4.5	6.2	59.1	4.9
27-Jun-89	177	0.5	6.6	1.8	5.3	1.1	6.1	4.5	6.2	56.6	5.0
28-Jun-89	178	0.5	6.6	1.8	5.5	1.0	6.1	4.5	6.3	61.5	5.1
28-Jun-89	178	0.5	6.6	1.8	5.5	1.0	6.3	4.5	6.3	58.4	5.1
29-Jun-89	179	0.5	6.6	1.8	5.5	1.0	6.3	4.5	6.3	56.5	5.2
29-Jun-89	179	0.5	6.6	1.7	5.7	1.0	6.4	4.6	6.3	55.9	5.3
30-Jun-89	180	0.5	6.6	1.7	5.9	1.0	6.5	4.5	6.4	60.2	5.3
30-Jun-89	180	0.5	6.7	1.8	5.9	1.0	6.5	4.6	6.5	49.7	5.4
01-Jul-89	181	0.5	6.7	1.7	5.9	1.0	6.5	4.6	6.5	60.9	5.4
01-Jul-89	181	0.5	6.7	1.7	6.0	1.0	6.5	4.6	6.5	52.3	5.5
03-Jul-89	183	0.5	6.7	1.7	5.6	1.1	6.6	4.6	6.8	53.3	5.5
04-Jul-89	184	0.5	6.7	1.7	5.7	1.0	6.8	4.6	6.8	60.3	5.6
05-Jul-89	185	0.5	6.8	1.7	5.6	1.0	6.8	4.6	7.0	60.1	5.6
05-Jul-89	185	0.5	6.8	1.8	5.6	1.0	6.8	4.5	7.1	49.7	5.6
06-Jul-89	186	0.5	6.8	1.7	5.7	1.0	6.9	4.6	7.3	58.2	5.8
06-Jul-89	186	0.5	6.8	1.7	5.8	1.0	7.0	4.5	7.3	46.8	5.9
07-Jul-89	187	0.5	6.8	1.7	5.7	1.0	7.0	4.5	7.3	56.8	6.0
07-Jul-89	187	0.4	6.8	1.8	5.8	0.9	7.1	4.5	7.5	55.0	6.1
08-Jul-89	188	0.5	6.8	1.7	5.8	1.0	7.1	4.6	7.5	60.3	6.1
08-Jul-89	188	0.4	6.8	1.8	5.8	1.0	7.1	4.6	7.5	53.6	6.1
09-Jul-89	189	0.4	6.8	1.7	5.9	0.9	7.1	4.6	7.5	62.3	6.1
09-Jul-89	189	0.4	6.8	1.7	6.0	0.9	7.1	4.6	7.6	55.5	6.1
10-Jul-89	190	0.4	6.8	1.6	6.0	0.9	7.2	4.6	7.6	57.9	6.1

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001 Piezometers 1 to 16

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9	V 10
10-Jul-89	190	0.4	6.9	1.7	6.0	0.9	7.2	4.6	7.6	52.8	6.1
11-Jul-89	191	0.4	6.9	1.7	6.0	0.9	7.2	4.6	7.6	57.9	6.0
11-Jul-89	191	0.4	6.9	1.7	6.1	0.9	7.3	4.5	7.6	50.7	6.0
12-Jul-89	192	0.4	6.9	1.7	6.1	0.8	7.3	4.6	7.6	58.0	6.0
12-Jul-89	192	0.4	6.9	1.7	6.1	0.8	7.3	4.6	7.5	51.5	6.0
13-Jul-89	193	0.4	6.9	1.7	6.1	0.9	7.3	4.6	7.6	59.2	6.0
13-Jul-89	193	0.4	6.9	1.7	6.0	0.8	7.4	4.6	7.6	50.8	6.0
14-Jul-89	194	0.4	7.0	1.6	6.0	0.8	7.4	4.6	7.5	59.9	5.9
14-Jul-89	194	0.4	7.0	1.7	6.0	0.8	7.5	4.6	7.5	48.8	5.9
15-Jul-89	195	0.4	7.0	1.7	6.0	0.8	7.5	4.6	7.5	62.2	5.9
15-Jul-89	195	0.4	7.0	1.7	6.0	0.8	7.5	4.6	7.5	48.0	5.9
16-Jul-89	196	0.4	7.0	1.7	6.0	0.8	7.6	4.6	7.5	58.5	6.0
16-Jul-89	196	0.4	7.0	1.7	6.2	0.8	7.5	4.6	7.5	50.0	5.8
17-Jul-89	197	0.3	7.0	1.6	6.5	0.8	7.5	4.6	7.5	63.3	5.5
18-Jul-89	198	0.2	7.0	1.7	6.6	0.8	7.3	4.6	7.3	52.4	5.1
19-Jul-89	199	0.3	7.0	1.6	6.7	0.6	7.3	4.6	7.3	64.9	5.1
19-Jul-89	199	0.3	7.0	1.6	6.7	0.7	7.2	4.6	7.3	57.0	5.1
20-Jul-89	200	0.3	7.0	1.7	6.6	0.8	7.1	4.6	7.3	54.8	4.8
21-Jul-89	201	0.4	6.9	1.7	6.5	0.7	6.9	4.6	7.1	51.7	4.6
22-Jul-89	202	0.4	6.9	1.6	6.4	0.7	6.8	4.6	7.1	48.5	4.5
23-Jul-89	203	0.3	6.9	1.7	6.4	0.6	6.6	4.6	7.0	49.8	4.4
24-Jul-89	204	0.3	6.8	1.7	6.4	0.6	6.5	4.6	6.9	55.3	4.3
25-Jul-89	205	0.3	6.8	1.6	6.3	0.6	6.5	4.6	6.8	52.9	4.2
26-Jul-89	206	0.2	6.8	1.6	6.3	0.6	6.4	4.6	6.8	56.3	4.1
27-Jul-89	207	0.3	6.8	1.6	6.3	0.6	6.3	4.6	6.7	54.6	4.0
28-Jul-89	208	0.2	6.8	1.6	6.3	0.6	6.1	4.6	6.6	58.6	4.0
29-Jul-89	209	0.3	6.9	1.6	6.1	0.7	6.1	4.6	6.6	63.5	3.9
30-Jul-89	210	0.3	6.8	1.7	6.0	0.6	6.0	4.6	6.5	66.3	3.8
31-Jul-89	211	0.2	6.8	1.6	6.1	0.6	6.0	4.6	6.3	63.1	3.7
02-Aug-89	213	0.2	6.8	1.6	6.0	0.6	5.8	4.6	6.3	60.3	3.6
03-Aug-89	214	0.2	6.8	1.6	6.0	0.7	5.8	4.6	6.2	58.1	3.6
04-Aug-89	215	0.2	6.8	1.6	6.0	0.6	5.8	4.6	6.2	59.0	3.5
05-Aug-89	216	0.2	6.8	1.7	5.8	0.6	5.6	4.6	6.1	54.8	3.4

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001 Piezometers 1 to 16

DATE	DAY No.	V 1	V 2	V 3	V 4	V 5	V 6	V 7	V 8	V 9	V 10
06-Aug-89	217	0.2	6.8	1.6	5.8	0.6	5.5	4.6	6.0	53.1	3.3
07-Aug-89	218	0.2	6.7	1.6	5.8	0.6	5.5	4.6	5.9	54.3	3.3
08-Aug-89	219	0.2	6.8	1.6	5.8	0.6	5.4	4.6	5.9	55.3	3.2
09-Aug-89	220	0.2	6.7	1.6	5.8	0.6	5.4	4.6	5.9	59.9	3.2
10-Aug-89	221	0.1	6.7	1.6	5.6	0.7	5.3	4.6	5.8	60.4	3.1

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

DATE	DAY No.	V 11	V 12	V 13	V 14	V 15	V 16
03-Jan-89	2	1.9	I	1.8	0.1	0.1	1.5
05-Jan-89	4	1.9	o	1.8	0.1	0.0	1.5
07-Jan-89	6	1.8	s	1.8	0.1	0.1	1.5
08-Jan-89	7	1.8	t	1.8	0.0	0.1	1.5
11-Jan-89	10	1.8		1.8	0.0	0.1	1.5
12-Jan-89	11	1.8		1.8	0.0	0.0	1.5
13-Jan-89	12	1.8		1.8	0.0	0.2	1.5
16-Jan-89	15	1.8		1.8	0.1	0.4	1.5
17-Jan-89	16	1.8		1.8	0.1	0.3	1.5
19-Jan-89	18	1.8		1.9	0.1	0.3	1.5
20-Jan-89	19	1.8		1.9	0.1	0.3	1.5
23-Jan-89	22	1.7		1.9	0.1	0.4	1.5
24-Jan-89	23	1.7		1.9	0.1	0.4	1.5
25-Jan-89	24	1.7		1.9	0.1	0.3	1.5
26-Jan-89	25	1.7		1.8	0.1	0.3	1.5
27-Jan-89	26	1.7		1.8	0.1	0.3	1.5
30-Jan-89	29	1.7		2.0	0.1	0.6	1.5
31-Jan-89	30	1.7		2.0	0.1	0.7	1.5
01-Feb-89	31	1.7		2.0	0.1	0.6	1.6
02-Feb-89	32	1.7		2.0	0.1	0.6	1.6
04-Feb-89	34	1.6		1.9	0.1	0.5	1.6
06-Feb-89	36	1.6	I	1.9	0.1	0.6	1.6
07-Feb-89	37	1.6	o	1.8	0.1	0.6	1.6
08-Feb-89	38	1.6	s	1.9	0.1	0.4	1.6
09-Feb-89	39	1.6	t	1.8	0.1	0.4	1.6
10-Feb-89	40	1.6		1.8	0.1	0.4	1.6
13-Feb-89	43	1.6		2.0	0.1	0.6	1.6
14-Feb-89	44	1.6		2.0	0.1	0.6	1.6
15-Feb-89	45	1.6		2.0	0.1	0.4	1.6
16-Feb-89	46	1.6		2.0	0.1	0.4	1.6
19-Feb-89	49	1.5		2.0	0.1	0.4	1.5
20-Feb-89	50	1.6		2.0	0.1	0.4	1.5
21-Feb-89	51	1.6		2.0	0.1	0.4	1.5

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VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

DATE	DAY No.	V 11	V 12	V 13	V 14	V 15	V 16
23-Feb-89	53	1.5		2.0	0.1	0.2	1.5
25-Feb-89	55	1.3		1.6	0.0	0.0	1.5
27-Feb-89	57	1.3		1.6	0.0	0.0	1.4
28-Feb-89	58	1.3		1.6	0.0	0.0	1.5
28-Feb-89	58	1.3		1.6	0.0	0.0	1.5
01-Mar-89	59	1.3		1.6	0.0	0.0	1.5
02-Mar-89	60	1.4		1.8	0.0	0.1	1.5
02-Mar-89	60	1.4		1.7	0.0	0.1	1.5
06-Mar-89	64	1.5		2.0	0.1	0.2	1.5
08-Mar-89	66	1.5		2.0	0.1	0.3	1.5
09-Mar-89	67	1.5		2.0	0.1	0.2	1.5
10-Mar-89	68	1.5		2.0	0.1	0.2	1.5
13-Mar-89	71	1.5		2.0	0.1	0.2	1.5
14-Mar-89	72	1.5		2.0	0.2	0.3	1.5
14-Mar-89	72	1.5		2.0	0.2	0.2	1.4
15-Mar-89	73	1.5		2.0	0.1	0.1	1.5
16-Mar-89	74	1.5		1.9	0.1	0.1	1.5
16-Mar-89	74	1.4		1.8	0.1	0.1	1.5
17-Mar-89	75	1.4		2.0	0.1	0.2	1.5
19-Mar-89	77	1.5		2.0	0.3	0.2	1.5
20-Mar-89	78	1.5		2.0	0.1	0.2	1.5
20-Mar-89	78	1.4		2.0	0.1	0.1	1.5
21-Mar-89	79	1.5		2.0	0.1	0.2	1.5
21-Mar-89	79	1.5		2.0	0.2	0.1	1.5
22-Mar-89	80	1.5		1.9	0.2	0.1	1.5
22-Mar-89	80	1.5		2.5	0.1	0.1	1.5
23-Mar-89	81	1.5		3.1	0.1	0.2	1.4
23-Mar-89	81	1.5		3.3	0.3	0.2	1.5
24-Mar-89	82	1.5		3.3	0.2	0.1	1.4
04-Apr-89	93	1.5		3.3	0.3	0.0	1.4
05-Apr-89	94	1.4		3.7	0.3	0.0	1.4
06-Apr-89	95	1.5		3.8	0.3	0.0	1.4
13-Apr-89	102	1.3		4.0	0.2	0.0	1.4

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

DATE	DAY No.	V 11	V 12	V 13	V 14	V 15	V 16
13-Apr-89	102	1.3		4.2	0.3	0.0	1.4
14-Apr-89	103	1.3		5.4	0.2	0.0	1.3
14-Apr-89	103	1.4		5.8	0.3	0.0	1.3
15-Apr-89	104	1.3		5.9	0.3	0.1	1.4
15-Apr-89	104	1.4		5.9	0.3	0.1	1.4
17-Apr-89	106	1.3		6.0	0.3	0.1	1.4
18-Apr-89	107	1.4		6.0	0.3	0.1	1.4
18-Apr-89	107	1.5		6.1	0.3	0.1	1.4
19-Apr-89	108	1.5		6.1	0.3	0.1	1.4
19-Apr-89	108	1.5		6.1	0.3	0.1	1.4
20-Apr-89	109	1.5		6.0	0.3	0.1	1.4
20-Apr-89	109	1.5		6.1	0.3	0.1	1.4
21-Apr-89	110	1.5		6.2	0.3	0.1	1.4
21-Apr-89	110	1.5		6.1	0.4	0.1	1.4
25-Apr-89	114	1.5		5.8	0.3	0.1	1.4
26-Apr-89	115	1.5		5.3	0.4	0.1	1.4
26-Apr-89	115	1.5		5.5	0.3	0.1	1.4
27-Apr-89	116	1.5		5.9	0.3	0.1	1.4
27-Apr-89	116	1.5		6.1	0.3	0.0	1.4
28-Apr-89	117	1.5		6.3	0.3	0.1	1.4
02-May-89	121	1.5		6.8	0.4	0.2	1.4
22-May-89	141	1.5		6.4	0.4	0.1	1.4
23-May-89	142	1.5		6.1	0.4	0.1	1.4
23-May-89	142	1.5		6.0	0.3	0.1	1.4
24-May-89	143	1.5		5.8	0.4	0.1	1.4
24-May-89	143	1.5		5.6	0.4	0.0	1.4
25-May-89	144	1.5		5.4	0.4	0.1	1.5
25-May-89	144	1.5		5.2	0.5	0.1	1.4
26-May-89	145	1.5		5.1	0.4	0.1	1.5
31-May-89	150	1.5		4.2	0.5	0.0	1.5
01-Jun-89	151	1.5		4.1	0.5	0.0	1.5
01-Jun-89	151	1.5		5.5	0.5	0.0	1.5
02-Jun-89	152	1.5		5.4	0.5	0.0	1.4

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

DATE	DAY No.	V 11	V 12	V 13	V 14	V 15	V 16
02-Jun-89	152	1.5		6.1	0.5	0.0	1.5
03-Jun-89	153	1.5		5.8	0.5	0.0	1.5
03-Jun-89	153	1.5		7.1	0.5	0.0	1.5
04-Jun-89	154	1.5		7.9	0.5	0.0	1.5
04-Jun-89	154	1.5		7.1	0.5	0.0	1.5
05-Jun-89	155	1.5		6.5	0.5	0.1	1.5
05-Jun-89	155	1.5		7.5	0.4	0.0	1.5
06-Jun-89	156	1.5		8.1	0.5	0.0	1.5
06-Jun-89	156	1.5		8.3	0.4	0.0	1.5
07-Jun-89	157	1.5		6.6	0.4	0.1	1.5
07-Jun-89	157	1.5		7.8	0.4	0.2	1.5
08-Jun-89	158	1.5		6.5	0.4	0.1	1.5
08-Jun-89	158	1.5		7.1	0.4	0.2	1.5
09-Jun-89	159	1.5		8.3	0.5	0.2	1.5
09-Jun-89	159	1.5		8.6	0.5	0.2	1.5
10-Jun-89	160	1.5		8.8	0.4	0.1	1.5
10-Jun-89	160	1.5		9.0	0.5	0.1	1.5
11-Jun-89	161	1.5		9.0	0.4	0.1	1.5
11-Jun-89	161	1.5		7.1	0.4	0.2	1.5
12-Jun-89	162	1.5		6.6	0.4	0.2	1.5
12-Jun-89	162	1.5		6.5	0.4	0.2	1.5
13-Jun-89	163	1.5		6.3	0.5	0.1	1.5
13-Jun-89	163	1.5		6.3	0.4	0.1	1.5
14-Jun-89	164	1.5		5.8	0.5	0.2	1.5
14-Jun-89	164	1.5		5.6	0.5	0.1	1.6
15-Jun-89	165	1.6		5.4	0.5	0.1	1.5
15-Jun-89	165	1.5		7.5	0.5	0.1	1.5
16-Jun-89	166	1.5		8.8	0.5	0.1	1.6
19-Jun-89	169	1.6		8.3	0.5	0.1	1.6
20-Jun-89	170	1.6		9.1	0.5	0.1	1.6
20-Jun-89	170	1.5		9.3	0.5	0.1	1.6
21-Jun-89	171	1.5		9.2	0.5	0.1	1.6
21-Jun-89	171	1.5		9.1	0.5	0.2	1.6

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

DATE	DAY No.	V 11	V 12	V 13	V 14	V 15	V 16
22-Jun-89	172	1.5		9.1	0.4	0.2	1.6
22-Jun-89	172	1.6		9.1	0.4	0.2	1.6
23-Jun-89	173	1.5		9.6	0.4	0.2	1.6
23-Jun-89	173	1.5		9.2	0.3	0.1	1.6
24-Jun-89	174	1.5		9.0	0.3	0.2	1.6
24-Jun-89	174	1.5		8.6	0.4	0.1	1.6
25-Jun-89	175	1.5		8.2	0.4	0.1	1.6
25-Jun-89	175	1.5		9.1	0.3	0.1	1.6
26-Jun-89	176	1.5		9.4	0.3	0.1	1.6
26-Jun-89	176	1.5		9.3	0.3	0.1	1.6
27-Jun-89	177	1.5		9.2	0.2	0.1	1.6
27-Jun-89	177	1.5		9.1	0.2	0.0	1.6
28-Jun-89	178	1.5		9.1	0.3	0.1	1.6
28-Jun-89	178	1.5		9.0	0.3	0.1	1.7
29-Jun-89	179	1.5		8.8	0.2	0.1	1.6
29-Jun-89	179	1.5		8.6	0.1	0.1	1.6
30-Jun-89	180	1.5		8.4	0.2	0.1	1.6
30-Jun-89	180	1.5		8.2	0.2	0.1	1.6
01-Jul-89	181	1.5		8.0	0.1	0.1	1.6
01-Jul-89	181	1.5		7.8	0.2	0.1	1.6
03-Jul-89	183	1.5		9.3	0.2	0.1	1.8
04-Jul-89	184	1.6		9.1	0.1	0.2	1.8
05-Jul-89	185	1.6		9.3	0.1	0.2	1.7
05-Jul-89	185	1.6		9.2	0.0	0.2	1.7
06-Jul-89	186	1.6		8.3	0.1	0.3	1.8
06-Jul-89	186	1.6		7.9	0.4	0.3	1.8
07-Jul-89	187	1.5		7.5	0.6	0.5	1.8
07-Jul-89	187	1.5		7.1	1.1	0.6	1.8
08-Jul-89	188	1.5		7.0	0.8	0.6	1.8
08-Jul-89	188	1.5		7.0	0.5	0.6	1.9
09-Jul-89	189	1.5		7.1	0.6	0.5	1.8
09-Jul-89	189	1.5		7.1	0.6	0.5	1.8
10-Jul-89	190	1.5		7.1	0.6	0.5	1.9

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

DATE	DAY No.	V 11	V 12	V 13	V 14	V 15	V 16
10-Jul-89	190	1.5		7.1	0.6	0.5	2.0
11-Jul-89	191	1.5		7.2	0.5	0.5	1.9
11-Jul-89	191	1.5		7.2	0.5	0.5	1.8
12-Jul-89	192	1.5		7.2	0.5	0.5	1.9
12-Jul-89	192	1.5		7.2	0.5	0.5	1.9
13-Jul-89	193	1.5		7.2	0.3	0.5	1.9
13-Jul-89	193	1.6		7.6	0.4	0.5	2.0
14-Jul-89	194	1.5		7.6	0.2	0.5	2.0
14-Jul-89	194	1.6		7.5	0.0	0.4	1.9
15-Jul-89	195	1.6		7.5	-0.1	0.3	2.0
15-Jul-89	195	1.5		6.8	-0.3	0.3	2.0
16-Jul-89	196	1.6		6.6	-0.1	0.1	2.0
16-Jul-89	196	1.5		##	##	-0.5	##
17-Jul-89	197	1.5		##	##	-0.4	##
18-Jul-89	198	1.5		##	##	-0.4	##
19-Jul-89	199	1.5		##	##	-0.4	##
19-Jul-89	199	1.5		##	##	-0.4	##
20-Jul-89	200	1.5		##	##	-0.4	##
21-Jul-89	201	1.5		##	##	-0.4	##
22-Jul-89	202	1.3		##	##	-0.5	##
23-Jul-89	203	1.3		##	##	-0.5	##
24-Jul-89	204	1.5		##	##	-0.5	##
25-Jul-89	205	1.5		##	##	-0.5	##
26-Jul-89	206	1.4		##	##	-0.4	##
27-Jul-89	207	1.4		##	##	-0.4	##
28-Jul-89	208	1.4		##	##	10.0	##
29-Jul-89	209	1.3		##	##	##	##
30-Jul-89	210	1.3		##	##	##	##
31-Jul-89	211	1.3		##	##	##	##
02-Aug-89	213	1.3		##	##	##	##
03-Aug-89	214	1.3		##	##	##	##
04-Aug-89	215	1.3		##	##	##	##
05-Aug-89	216	1.3		##	##	##	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0001

DATE	DAY No.	V 11	V 12	V 13	V 14	V 15	V 16
06-Aug-89	217	1.3	l	##	##	##	##
07-Aug-89	218	1.3	o	##	##	##	##
08-Aug-89	219	1.3	s	##	##	##	##
09-Aug-89	220	1.3	t	##	##	##	##
10-Aug-89	221	1.3		##	##	##	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA

1989

Data Logger 0002

V17 to V30

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
03-Jan-89	2	0.0	2.0	1.3	0.6	2.4	0.6	-0.3	-2.3	-2.9
05-Jan-89	4	-0.1	1.9	1.1	0.6	2.3	0.6	-0.3	-2.3	-2.9
07-Jan-89	6	-0.1	1.8	1.1	0.6	2.3	0.6	-0.4	-2.3	-2.9
08-Jan-89	7	-0.1	1.8	1.1	0.6	2.3	0.6	-0.4	-2.3	-2.9
11-Jan-89	10	-0.1	1.8	1.1	0.6	2.3	0.6	-0.4	-2.3	-2.9
12-Jan-89	11	-0.1	1.8	1.1	0.6	2.3	0.6	-0.4	-2.3	-2.9
13-Jan-89	12	-0.1	1.8	1.1	0.6	2.3	0.6	-0.4	-2.3	-2.9
16-Jan-89	15	-0.1	1.9	1.3	0.6	2.4	0.6	-0.3	-2.3	-2.9
17-Jan-89	16	-0.1	1.9	1.3	0.6	2.4	0.7	-0.3	-2.3	-2.9
19-Jan-89	18	-0.1	2.0	1.4	0.6	2.4	0.7	-0.2	-2.3	-2.9
20-Jan-89	19	-0.1	1.9	1.4	0.6	2.4	0.7	-0.3	-2.3	-2.9
23-Jan-89	22	-0.1	1.8	1.4	0.6	2.4	0.7	-0.3	-2.3	-2.9
24-Jan-89	23	-0.1	1.8	1.4	0.6	2.4	0.7	-0.3	-2.3	-2.9
25-Jan-89	24	-0.1	1.9	1.4	0.6	2.4	0.7	-0.3	-2.3	-2.9
26-Jan-89	25	-0.1	1.8	1.3	0.6	2.4	0.7	-0.3	-2.3	-3.0
27-Jan-89	26	-0.1	1.9	1.4	0.6	2.4	0.7	-0.3	-2.3	-2.9
30-Jan-89	29	-0.1	2.0	1.5	0.6	2.4	0.8	-0.2	-2.3	-3.0
31-Jan-89	30	-0.1	2.0	1.5	0.6	2.4	0.8	-0.2	-2.3	-2.9
01-Feb-89	31	-0.1	2.0	1.5	0.6	2.4	0.8	-0.2	-2.3	-2.9
02-Feb-89	32	-0.1	2.0	1.5	0.6	2.4	0.8	-0.2	-2.3	-2.9
04-Feb-89	34	-0.1	2.0	1.4	0.6	2.4	0.8	-0.3	-2.3	-2.9
06-Feb-89	36	-0.1	2.0	1.4	0.6	2.4	0.8	-0.3	-2.3	-3.0
07-Feb-89	37	-0.1	1.9	1.4	0.6	2.4	0.8	-0.3	-2.3	-3.0
08-Feb-89	38	-0.1	1.9	1.4	0.6	2.4	0.8	-0.3	-2.3	-3.0
09-Feb-89	39	-0.1	1.9	1.4	0.6	2.3	0.8	-0.4	-2.3	-3.0
10-Feb-89	40	-0.1	1.9	1.4	0.6	2.3	0.8	-0.4	-2.3	-3.0
13-Feb-89	43	-0.1	2.0	1.5	0.6	2.4	0.8	-0.3	-2.3	-3.0
14-Feb-89	44	-0.1	2.0	1.5	0.6	2.4	0.8	-0.3	-2.3	-3.0
15-Feb-89	45	-0.1	2.0	1.4	0.6	2.4	0.8	-0.3	-2.3	-3.0
16-Feb-89	46	-0.1	1.9	1.4	0.6	2.4	0.8	-0.3	-2.3	-3.0
19-Feb-89	49	-0.1	1.8	1.4	0.6	2.3	0.8	-0.4	-2.3	-3.0
20-Feb-89	50	-0.1	1.8	1.4	0.6	2.4	0.7	-0.3	-2.3	-2.9
20-Feb-89	50	-0.1	1.8	1.5	0.6	2.4	0.8	-0.3	-2.3	-3.0

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
21-Feb-89	51	-0.1	1.8	1.5	0.6	2.3	0.8	-0.3	-2.3	-3.0
24-Feb-89	54	-0.3	1.8	1.2	0.6	2.1	0.6	-0.5	-2.3	-3.0
25-Feb-89	55	-0.3	1.6	1.1	0.6	2.1	0.7	-0.5	-2.3	-3.0
03-Mar-89	61	-0.4	1.7	1.3	0.6	2.3	0.6	-0.6	-2.3	-3.1
04-Mar-89	62	-0.3	1.8	1.4	0.6	2.3	0.5	-0.6	-2.3	-3.1
06-Mar-89	64	-0.3	1.8	1.5	0.6	2.3	0.6	-0.5	-2.3	-3.1
08-Mar-89	66	-0.3	1.8	1.5	0.6	2.3	0.6	-0.5	-2.5	-3.0
08-Mar-89	66	-0.2	1.8	1.5	0.6	2.3	0.6	-0.4	-2.3	-3.0
09-Mar-89	67	-0.2	1.8	1.5	0.6	2.3	0.6	-0.5	-2.3	-3.0
09-Mar-89	67	-0.2	1.9	1.5	0.5	2.3	0.6	-0.4	-2.3	-3.0
10-Mar-89	68	-0.3	2.0	1.5	0.6	2.3	0.6	-0.4	-2.3	-3.0
10-Mar-89	68	-0.3	2.0	1.5	0.5	2.3	0.6	-0.4	-2.5	-3.0
11-Mar-89	69	-0.2	1.8	1.5	0.5	2.3	0.6	-0.4	-2.3	-3.0
11-Mar-89	69	-0.1	2.0	1.5	0.6	2.3	0.6	-0.4	-2.3	-3.0
12-Mar-89	70	-0.3	2.0	1.5	0.6	2.4	0.6	-0.4	-2.5	-3.0
12-Mar-89	70	-0.2	1.9	1.5	0.5	2.3	0.7	-0.4	-2.5	-3.0
13-Mar-89	71	-0.2	1.9	1.5	0.5	2.3	0.6	-0.4	-2.5	-3.0
14-Mar-89	72	-0.2	2.0	1.5	0.6	2.4	0.6	-0.3	-2.3	-3.0
15-Mar-89	73	-0.3	1.9	1.3	0.6	2.3	0.7	-0.4	-2.5	-3.1
15-Mar-89	73	-0.3	2.0	1.3	0.6	2.2	0.6	-0.4	-2.5	-3.0
16-Mar-89	74	-0.2	1.8	1.3	0.6	2.2	0.6	-0.5	-2.3	-3.0
13-Mar-89	71	-0.3	2.0	1.5	0.6	2.3	0.6	-0.4	-2.3	-3.0
14-Mar-89	72	-0.1	2.0	1.5	0.6	2.3	0.7	-0.3	-2.5	-3.1
16-Mar-89	74	-0.3	1.9	1.3	0.5	2.2	0.6	-0.5	-2.5	-3.1
17-Mar-89	75	-0.3	1.9	1.3	0.6	2.2	0.6	-0.4	-2.5	-3.0
17-Mar-89	75	-0.3	1.8	1.4	0.5	2.3	0.6	-0.5	-2.5	-3.1
18-Mar-89	76	-0.2	1.9	1.5	0.6	2.3	0.6	-0.4	-2.5	-3.1
18-Mar-89	76	-0.2	1.8	1.5	0.6	2.3	0.6	-0.4	-2.5	-3.0
19-Mar-89	77	-0.2	2.0	1.5	0.5	2.4	0.6	-0.4	-2.5	-3.0
19-Mar-89	77	-0.2	2.0	1.5	0.5	2.3	0.6	-0.3	-2.3	-3.0
20-Mar-89	78	-0.3	2.0	1.5	0.6	2.3	0.6	-0.5	-2.5	-3.0
20-Mar-89	78	-0.3	2.0	1.3	0.5	2.3	0.6	-0.4	-2.3	-3.0
21-Mar-89	79	-0.3	2.0	1.4	0.6	2.3	0.6	-0.4	-2.5	-3.0

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
21-Mar-89	79	-0.2	1.9	1.4	0.5	2.3	0.6	-0.4	-2.5	-3.0
22-Mar-89	80	-0.3	2.0	1.4	0.5	2.3	0.6	-0.5	-2.5	-3.1
22-Mar-89	80	-0.2	2.0	1.5	0.6	2.3	0.6	-0.4	-2.3	-3.0
23-Mar-89	81	-0.1	2.0	1.5	0.5	2.3	0.7	-0.4	-2.5	-3.1
23-Mar-89	81	-0.1	2.0	1.5	0.6	2.5	0.7	-0.4	-2.3	-3.0
24-Mar-89	82	-0.1	2.0	1.4	0.5	2.3	0.7	-0.4	-2.5	-3.0
24-Mar-89	82	-0.1	1.9	1.4	0.5	2.3	0.6	-0.4	-2.5	-3.0
25-Mar-89	83	-0.1	2.0	1.5	0.6	2.3	0.7	-0.4	-2.5	-3.0
26-Mar-89	84	-0.1	2.0	1.5	0.6	2.5	0.6	-0.4	-2.5	-3.0
28-Mar-89	86	-0.1	2.0	1.4	0.5	2.4	0.7	-0.4	-2.5	-3.0
29-Mar-89	87	-0.1	2.0	1.5	0.5	2.3	0.6	-0.4	-2.5	-3.0
29-Mar-89	87	-0.1	2.0	1.5	0.6	2.3	0.7	-0.4	-2.5	-3.0
30-Mar-89	88	-0.1	2.0	1.5	0.6	2.5	0.7	-0.4	-2.5	-3.0
30-Mar-89	88	-0.1	2.1	1.5	0.6	2.3	0.7	-0.5	-2.5	-3.0
31-Mar-89	89	-0.1	2.0	1.5	0.6	2.3	0.7	-0.4	-2.3	-3.0
31-Mar-89	89	-0.1	2.0	1.5	0.6	2.4	0.7	-0.5	-2.5	-3.0
01-Apr-89	90	-0.1	2.1	1.4	0.6	2.3	0.7	-0.5	-2.5	-3.1
01-Apr-89	90	-0.2	2.0	1.5	0.6	2.3	0.6	-0.5	-2.5	-3.0
02-Apr-89	91	-0.1	2.0	1.4	0.5	2.3	0.6	-0.4	-2.5	-3.0
02-Apr-89	91	-0.2	2.1	1.4	0.6	2.3	0.7	-0.5	-2.5	-3.1
03-Apr-89	92	-0.3	2.0	1.4	0.6	2.3	0.7	-0.4	-2.3	-3.0
04-Apr-89	93	-0.3	2.0	1.4	0.6	2.3	0.7	-0.4	-2.5	-3.0
04-Apr-89	93	-0.3	2.0	1.3	0.5	2.3	0.6	-0.5	-2.5	-3.0
05-Apr-89	94	-0.3	2.0	1.3	0.6	2.2	0.6	-0.5	-2.5	-3.0
06-Apr-89	95	-0.3	2.0	1.3	0.6	2.2	0.7	-0.5	-2.5	-3.1
06-Apr-89	95	-0.3	2.0	1.3	0.5	2.2	0.7	-0.5	-2.5	-3.1
07-Apr-89	96	-0.3	2.0	1.3	0.5	2.3	0.7	-0.5	-2.5	-3.0
07-Apr-89	96	-0.3	2.0	1.3	0.6	2.2	0.6	-0.5	-2.5	-3.0
08-Apr-89	97	-0.3	2.0	1.3	0.6	2.3	0.7	-0.5	-2.5	-3.0
11-Apr-89	100	-0.3	2.0	1.3	0.5	2.2	0.6	-0.5	-2.5	-3.0
12-Apr-89	101	-0.3	2.0	1.3	0.5	2.2	0.6	-0.5	-2.5	-3.0
12-Apr-89	101	-0.3	1.9	1.3	0.5	2.1	0.6	-0.5	-2.5	-3.0
13-Apr-89	102	-0.3	1.9	1.3	0.5	2.1	0.6	-0.5	-2.5	-3.0

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
13-Apr-89	102	-0.3	2.0	1.3	0.6	2.2	0.6	-0.5	-2.5	-3.1
14-Apr-89	103	-0.3	2.0	1.4	0.5	2.2	0.7	-0.5	-2.5	-3.0
14-Apr-89	103	-0.3	2.0	1.4	0.5	2.3	0.6	-0.5	-2.5	-3.0
15-Apr-89	104	-0.3	2.0	1.4	0.6	2.3	0.6	-0.5	-2.5	-3.1
15-Apr-89	104	-0.3	2.0	1.5	0.5	2.3	0.7	-0.5	-2.5	-3.0
16-Apr-89	105	-0.3	2.0	1.4	0.5	2.3	0.6	-0.5	-2.5	-3.0
16-Apr-89	105	-0.3	2.0	1.4	0.5	2.2	0.6	-0.5	-2.5	-3.0
17-Apr-89	106	-0.3	2.0	1.4	0.5	2.3	0.6	-0.5	-2.5	-3.0
17-Apr-89	106	-0.3	2.1	1.4	0.5	2.3	0.6	-0.5	-2.3	-3.0
18-Apr-89	107	-0.3	2.1	1.5	0.5	2.3	0.7	-0.5	-2.5	-3.1
18-Apr-89	107	-0.3	2.1	1.5	0.5	2.3	0.6	-0.5	-2.5	-3.0
19-Apr-89	108	-0.3	2.1	1.5	0.6	2.3	0.6	-0.5	-2.5	-3.0
19-Apr-89	108	-0.2	2.1	1.5	0.5	2.3	0.6	-0.4	-2.5	-3.0
20-Apr-89	109	-0.3	2.2	1.5	0.5	2.3	0.7	-0.4	-2.5	-3.0
20-Apr-89	109	-0.2	2.2	1.5	0.5	2.3	0.6	-0.4	-2.5	-3.0
21-Apr-89	110	-0.2	2.1	1.5	0.5	2.3	0.6	-0.3	-2.5	-3.0
21-Apr-89	110	-0.1	2.1	1.5	0.5	2.3	0.6	-0.3	-2.5	-3.0
22-Apr-89	111	-0.1	2.2	1.5	0.5	2.3	0.6	-0.3	-2.5	-2.9
22-Apr-89	111	-0.1	2.1	1.6	0.5	2.3	0.6	-0.3	-2.5	-3.0
23-Apr-89	112	-0.1	2.1	1.6	0.5	2.3	0.6	-0.3	-2.5	-3.0
23-Apr-89	112	-0.1	2.1	1.5	0.5	2.3	0.6	-0.3	-2.5	-2.9
24-Apr-89	113	-0.1	2.1	1.5	0.5	2.2	0.7	-0.3	-2.5	-3.0
24-Apr-89	113	-0.1	2.2	1.5	0.5	2.3	0.6	-0.3	-2.5	-3.0
25-Apr-89	114	-0.1	2.2	1.5	0.5	2.3	0.6	-0.3	-2.5	-3.0
25-Apr-89	114	-0.1	2.2	1.5	0.5	2.3	0.6	-0.3	-2.5	-3.0
26-Apr-89	115	-0.1	2.2	1.5	0.5	2.3	0.7	-0.3	-2.5	-3.0
26-Apr-89	115	-0.1	2.1	1.5	0.5	2.3	0.6	-0.3	-2.5	-2.9
27-Apr-89	116	0.0	2.2	1.5	0.5	2.2	0.6	-0.3	-2.5	-3.0
27-Apr-89	116	0.0	2.1	1.5	0.5	2.2	0.7	-0.3	-2.5	-3.0
28-Apr-89	117	0.0	2.2	1.5	0.5	2.1	0.6	-0.4	-2.5	-3.0
28-Apr-89	117	0.0	2.3	1.6	0.5	2.2	0.6	-0.3	-2.5	-3.0
29-Apr-89	118	0.0	2.2	1.6	0.5	2.1	0.7	-0.3	-2.5	-3.0
29-Apr-89	118	0.1	2.2	1.6	0.5	2.2	0.7	-0.3	-2.5	-3.0

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
30-Apr-89	119	0.1	2.2	1.7	0.5	2.3	0.6	-0.3	-2.5	-2.9
30-Apr-89	119	0.1	2.2	1.7	0.5	2.1	0.6	-0.3	-2.5	-2.9
01-May-89	120	0.1	2.3	1.7	0.5	2.2	0.6	-0.2	-2.5	-3.0
01-May-89	120	0.2	2.3	1.7	0.5	2.2	0.6	-0.2	-2.5	-2.9
02-May-89	121	0.3	2.3	1.7	0.5	2.1	0.6	-0.3	-2.5	-2.8
02-May-89	121	0.3	2.3	1.7	0.5	2.2	0.7	-0.2	-2.5	-2.9
03-May-89	122	0.4	2.4	1.7	0.5	2.2	0.6	-0.2	-2.5	-2.9
04-May-89	123	0.4	2.3	1.7	0.5	2.1	0.6	-0.2	-2.5	-2.9
04-May-89	123	0.5	2.4	1.7	0.5	2.1	0.7	-0.2	-2.5	-2.9
05-May-89	124	0.5	2.3	1.7	0.5	2.1	0.7	-0.2	-2.5	-3.0
05-May-89	124	0.6	2.3	1.7	0.5	2.1	0.6	-0.2	-2.5	-2.9
05-May-89	124	0.6	2.5	1.8	0.4	2.2	0.7	-0.2	-2.5	-2.9
06-May-89	125	0.6	2.5	1.8	0.5	2.1	0.7	-0.2	-2.5	-2.9
06-May-89	125	0.7	2.5	1.8	0.5	2.2	0.7	-0.1	-2.5	-2.9
07-May-89	126	0.8	2.5	1.9	0.5	2.2	0.6	-0.1	-2.5	-2.8
07-May-89	126	0.8	2.5	1.9	0.4	2.1	0.7	-0.1	-2.5	-2.9
08-May-89	127	0.8	2.5	1.8	0.4	2.2	0.7	-0.1	-2.5	-2.9
09-May-89	128	0.8	2.5	1.7	0.5	2.1	0.7	-0.1	-2.5	-2.9
10-May-89	129	0.8	2.5	1.8	0.5	2.1	0.6	-0.2	-2.5	-2.8
11-May-89	130	0.9	2.5	1.8	0.5	2.0	0.6	-0.2	-2.5	-2.9
12-May-89	131	0.9	2.5	1.7	0.5	2.0	0.6	-0.2	-2.6	-2.8
12-May-89	131	1.0	2.5	1.7	0.5	2.0	0.6	-0.2	-2.6	-3.0
13-May-89	132	1.0	2.5	1.8	0.4	2.0	0.6	-0.2	-2.5	-2.8
13-May-89	132	1.1	2.5	1.9	0.4	2.0	0.5	-0.2	-2.5	-2.9
14-May-89	133	1.2	2.6	2.0	0.5	2.0	0.6	-0.2	-2.5	-2.9
15-May-89	134	1.3	2.7	2.1	0.4	2.1	0.6	-0.2	-2.5	-2.9
15-May-89	134	1.3	2.8	2.1	0.4	2.1	0.6	-0.1	-2.5	-2.9
16-May-89	135	1.3	3.0	2.1	0.4	2.1	0.5	-0.1	-2.5	-2.9
16-May-89	135	1.3	3.1	2.1	0.4	2.1	0.6	-0.1	-2.5	-2.9
17-May-89	136	1.5	3.2	2.2	0.5	2.1	0.6	-0.1	-2.5	-2.8
17-May-89	136	1.4	3.3	2.1	0.4	2.1	0.6	-0.1	-2.5	-2.9
18-May-89	137	1.4	3.3	2.1	0.4	2.1	0.6	-0.1	-2.5	-2.8
18-May-89	137	1.4	3.3	2.1	0.4	2.1	0.6	0.0	-2.5	-2.8

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
19-May-89	138	1.5	3.4	2.1	0.4	2.0	0.6	0.0	-2.5	-2.9
19-May-89	138	1.5	3.5	2.1	0.5	2.0	0.6	0.0	-2.6	-2.8
20-May-89	139	1.5	3.7	2.1	0.5	2.0	0.6	-0.1	-2.5	-2.8
20-May-89	139	1.5	3.8	2.0	0.4	2.0	0.6	0.0	-2.5	-2.8
21-May-89	140	1.6	3.9	2.1	0.4	2.0	0.6	-0.1	-2.5	-2.8
21-May-89	140	1.6	4.0	2.1	0.4	2.0	0.5	0.0	-2.5	-2.7
22-May-89	141	1.6	4.1	2.1	0.4	2.0	0.6	0.0	-2.6	-2.8
22-May-89	141	1.6	4.4	2.1	0.4	2.0	0.5	-0.1	-2.5	-2.8
23-May-89	142	1.6	4.3	2.1	0.4	2.0	0.5	0.0	-2.5	-2.8
23-May-89	142	1.6	4.3	2.1	0.5	2.0	0.5	-0.1	-2.6	-2.8
24-May-89	143	1.6	4.3	2.1	0.4	2.0	0.5	0.0	-2.5	-2.8
24-May-89	143	1.6	4.1	2.1	0.4	2.0	0.6	0.0	-2.6	-2.8
25-May-89	144	1.6	4.1	2.1	0.4	2.0	0.6	-0.1	-2.5	-2.7
26-May-89	145	1.6	4.1	2.1	0.4	2.1	0.5	0.0	-2.6	-2.7
27-May-89	146	1.5	4.0	2.1	0.4	2.1	0.6	0.0	-2.6	-2.8
27-May-89	146	1.5	4.0	2.1	0.4	2.1	0.5	0.0	-2.6	-2.7
28-May-89	147	1.5	4.0	2.1	0.4	2.1	0.5	0.0	-2.6	-2.8
28-May-89	147	1.5	4.0	2.1	0.5	2.1	0.5	0.0	-2.6	-2.7
29-May-89	148	1.5	3.8	2.1	0.4	2.1	0.6	0.0	-2.5	-2.8
29-May-89	148	1.4	3.9	2.0	0.3	2.1	0.5	0.0	-2.5	-2.8
30-May-89	149	1.4	3.8	2.0	0.4	2.1	0.5	0.0	-2.6	-2.7
30-May-89	149	1.3	3.6	2.0	0.4	2.1	0.5	0.0	-2.5	-2.8
31-May-89	150	1.4	3.7	2.0	0.4	2.1	0.5	0.0	-2.6	-2.7
31-May-89	150	1.4	3.6	2.0	0.4	2.1	0.5	0.0	-2.6	-2.7
01-Jun-89	151	1.3	3.6	1.9	0.4	2.1	0.5	-0.1	-2.6	-2.8
01-Jun-89	151	1.3	3.6	1.9	0.5	2.1	0.5	0.0	-2.5	-2.7
02-Jun-89	152	1.3	3.6	1.9	0.4	2.1	0.5	0.0	-2.6	-2.7
02-Jun-89	152	1.3	3.7	1.9	0.4	2.2	0.5	-0.1	-2.6	-2.8
03-Jun-89	153	1.4	4.0	1.9	0.4	2.1	0.5	0.0	-2.6	-2.8
03-Jun-89	153	1.5	4.0	1.9	0.4	2.1	0.5	-0.1	-2.5	-2.7
04-Jun-89	154	1.5	4.2	2.0	0.4	2.1	0.5	-0.1	-2.6	-2.7
04-Jun-89	154	1.6	4.5	2.0	0.4	2.1	0.5	-0.1	-2.5	-2.7
05-Jun-89	155	1.7	4.6	2.1	0.5	2.1	0.5	-0.1	-2.6	-2.7

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LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
05-Jun-89	155	1.7	4.8	2.0	0.4	2.1	0.5	-0.1	-2.6	-2.7
06-Jun-89	156	1.8	4.8	2.0	0.4	2.1	0.5	-0.1	-2.6	-2.7
06-Jun-89	156	1.8	4.9	2.0	0.4	2.1	0.5	-0.1	-2.6	-2.7
07-Jun-89	157	2.0	5.0	2.1	0.4	2.1	0.5	-0.1	-2.5	-2.7
07-Jun-89	157	2.0	5.1	2.1	0.4	2.1	0.5	-0.1	-2.6	-2.7
08-Jun-89	158	2.0	5.1	2.3	0.4	2.1	0.5	-0.1	-2.6	-2.6
08-Jun-89	158	2.0	5.0	2.2	0.4	2.0	0.5	-0.1	-2.6	-2.7
09-Jun-89	159	2.0	5.0	2.1	0.4	2.1	0.5	-0.1	-2.5	-2.7
09-Jun-89	159	2.2	5.1	2.1	0.4	2.1	0.5	-0.1	-2.6	-2.7
10-Jun-89	160	2.3	5.3	2.1	0.4	2.0	0.5	-0.1	-2.6	-2.7
10-Jun-89	160	2.5	5.3	2.1	0.4	2.1	0.5	-0.1	-2.6	-2.6
11-Jun-89	161	2.5	5.4	2.1	0.4	2.1	0.5	-0.1	-2.6	-2.7
11-Jun-89	161	2.6	5.5	2.2	0.4	2.1	0.5	-0.1	-2.6	-2.7
12-Jun-89	162	2.6	5.3	2.3	0.3	2.0	0.5	-0.1	-2.5	-2.6
12-Jun-89	162	2.6	5.3	2.3	0.4	2.1	0.5	-0.1	-2.6	-2.7
13-Jun-89	163	2.5	5.2	2.2	0.4	2.1	0.5	-0.1	-2.6	-2.7
13-Jun-89	163	2.5	5.1	2.3	0.3	2.1	0.5	-0.1	-2.6	-2.7
14-Jun-89	164	2.5	5.0	2.3	0.4	2.1	0.5	-0.1	-2.6	-2.6
14-Jun-89	164	2.5	5.0	2.3	0.3	2.2	0.5	-0.1	-2.6	-2.7
15-Jun-89	165	2.4	4.8	2.2	0.4	2.1	0.5	-0.1	-2.6	-2.7
15-Jun-89	165	2.3	4.8	2.1	0.4	2.1	0.5	-0.1	-2.6	-2.6
16-Jun-89	166	2.5	5.0	2.1	0.3	2.2	0.5	0.0	-2.6	-2.6
19-Jun-89	169	2.8	5.0	2.1	0.4	2.2	0.5	0.0	-2.6	-2.6
20-Jun-89	170	3.1	5.3	2.1	0.4	2.1	0.5	0.0	-2.6	-2.6
21-Jun-89	171	3.3	5.3	2.2	0.4	2.1	0.5	0.0	-2.6	-2.6
21-Jun-89	171	3.4	5.5	2.1	0.4	2.1	0.4	0.0	-2.6	-2.6
22-Jun-89	172	3.5	5.6	2.3	0.3	2.2	0.5	0.0	-2.6	-2.6
22-Jun-89	172	3.6	5.6	2.3	0.4	2.1	0.5	0.0	-2.7	-2.6
23-Jun-89	173	3.7	5.6	2.2	0.3	2.1	0.4	0.0	-2.6	-2.6
23-Jun-89	173	3.8	5.7	2.3	0.3	2.1	0.5	0.0	-2.6	-2.5
24-Jun-89	174	3.8	5.7	2.3	0.4	2.1	0.4	0.1	-2.6	-2.6
24-Jun-89	174	3.9	5.8	2.3	0.4	2.1	0.4	0.0	-2.6	-2.6
25-Jun-89	175	3.9	5.7	2.3	0.3	2.1	0.4	0.0	-2.6	-2.6

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
25-Jun-89	175	3.8	5.7	2.3	0.4	2.1	0.4	0.1	-2.7	-2.6
26-Jun-89	176	4.0	5.7	2.3	0.3	2.1	0.4	0.0	-2.8	-2.5
26-Jun-89	176	4.0	6.0	2.3	0.3	2.0	0.4	0.0	-2.6	-2.5
27-Jun-89	177	4.0	6.0	2.1	0.4	2.0	0.3	-0.3	-2.7	-2.6
27-Jun-89	177	4.1	6.1	2.3	0.4	2.0	0.4	-0.3	-2.7	-2.6
28-Jun-89	178	4.1	6.2	2.4	0.4	2.0	0.4	-0.3	-2.7	-2.6
28-Jun-89	178	4.2	6.3	2.4	0.4	2.1	0.4	-0.2	-2.8	-2.6
29-Jun-89	179	4.2	6.4	2.5	0.4	2.1	0.4	-0.2	-2.8	-2.6
29-Jun-89	179	4.2	6.3	2.5	0.4	2.1	0.4	-0.3	-2.7	-2.6
30-Jun-89	180	4.2	6.4	2.5	0.4	2.1	0.4	-0.2	-2.7	-2.6
30-Jun-89	180	4.2	6.4	2.4	0.4	2.1	0.3	-0.2	-2.7	-2.5
01-Jul-89	181	4.1	6.3	2.4	0.4	2.1	0.3	-0.3	-2.8	-2.6
01-Jul-89	181	4.1	6.3	2.4	0.3	2.1	0.3	-0.3	-2.8	-2.5
02-Jul-89	182	4.0	6.2	2.5	0.3	2.1	0.3	-0.3	-2.6	-2.6
02-Jul-89	182	4.1	6.2	2.5	0.3	2.1	0.3	-0.2	-2.8	-2.6
03-Jul-89	183	4.3	6.3	2.4	0.3	2.1	0.3	-0.2	-2.7	-2.5
03-Jul-89	183	4.4	6.5	2.4	0.4	2.2	0.3	-0.2	-2.7	-2.6
04-Jul-89	184	4.5	6.7	2.5	0.4	2.2	0.3	-0.1	-2.6	-2.5
04-Jul-89	184	4.6	7.0	2.5	0.4	2.2	0.3	-0.1	-2.7	-2.6
05-Jul-89	185	4.7	7.1	2.4	0.4	2.1	0.3	-0.1	-2.8	-2.6
05-Jul-89	185	4.8	7.3	2.3	0.4	2.1	0.2	-0.2	-2.8	-2.5
06-Jul-89	186	4.8	7.1	2.3	0.4	2.1	0.3	-0.2	-2.8	-2.5
06-Jul-89	186	4.8	6.9	2.3	0.4	2.2	0.3	-0.2	-2.8	-2.5
07-Jul-89	187	4.4	6.6	2.3	0.4	2.2	0.3	-0.3	-2.8	-2.7
08-Jul-89	188	3.8	6.5	2.3	0.4	2.2	0.2	-0.3	-2.8	-2.6
08-Jul-89	188	3.4	6.3	2.3	0.4	2.2	0.3	-0.4	-2.8	-2.7
09-Jul-89	189	3.3	6.2	2.3	0.3	2.3	0.2	-0.3	-2.8	-2.6
09-Jul-89	189	3.3	6.1	2.3	0.5	2.3	0.2	-0.2	-2.9	-2.6
10-Jul-89	190	3.3	6.1	2.4	0.4	2.3	0.2	-0.3	-2.8	-2.6
10-Jul-89	190	3.3	6.1	2.3	0.4	2.3	0.3	-0.2	-2.8	-2.6
11-Jul-89	191	3.2	5.9	2.3	0.5	2.3	0.3	-0.2	-2.7	-2.6
11-Jul-89	191	3.2	5.9	2.3	0.4	2.3	0.2	-0.2	-2.8	-2.6
12-Jul-89	192	3.2	5.9	2.3	0.4	2.3	0.3	-0.3	-2.8	-2.6

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002 Piezometers 17 to 30

DATE	DAY No.	V 17	V 18	V 19	V 20	V 21	V 22	V 23	V 24	V 25
12-Jul-89	192	3.2	5.9	2.3	0.5	2.3	0.3	-0.3	-2.9	-2.6
13-Jul-89	193	3.1	5.8	2.2	0.5	2.4	0.3	-0.3	-2.8	-2.7
13-Jul-89	193	3.1	5.8	2.1	0.5	2.4	0.3	-0.3	-2.8	-2.7
14-Jul-89	194	3.1	5.8	2.1	0.5	2.4	0.3	-0.3	-2.9	-2.7
14-Jul-89	194	3.0	5.7	2.0	0.5	2.5	0.3	-0.3	-2.8	-2.7
15-Jul-89	195	2.8	5.7	1.9	0.5	lost	0.3	-0.2	-2.8	-9.8
15-Jul-89	195	2.6	5.5	1.5	0.5	##	0.3	-0.3	-2.7	lost
16-Jul-89	196	2.0	5.4	0.0	lost	##	0.3	-0.3	lost	##
16-Jul-89	196	0.6	lost	lost	##	##	lost	-0.3	##	##
16-Jul-89	196	0.5	##	##	##	##	##	-0.2	##	##
16-Jul-89	196	0.5	##	##	##	##	##	-0.2	##	##
16-Jul-89	196	lost	##	##	##	##	##	-0.3	##	##
17-Jul-89	197	##	##	##	##	##	##	-0.2	##	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
03-Jan-89	2	-0.5	-2.7	0.6	5.3	6.0
05-Jan-89	4	-0.5	-2.7	0.6	5.3	5.9
07-Jan-89	6	-0.5	-2.7	0.6	5.3	5.8
08-Jan-89	7	-0.5	-2.7	0.6	5.3	5.8
11-Jan-89	10	-0.5	-2.7	0.6	5.3	5.8
12-Jan-89	11	-0.5	-2.7	0.5	5.3	5.6
13-Jan-89	12	-0.5	-2.7	0.6	5.3	5.8
16-Jan-89	15	-0.4	-2.7	0.8	5.3	6.2
17-Jan-89	16	-0.4	-2.7	0.8	5.3	6.3
19-Jan-89	18	-0.4	-2.7	0.8	5.3	6.4
20-Jan-89	19	-0.4	-2.7	0.7	5.3	6.4
23-Jan-89	22	-0.4	-2.7	0.7	5.3	6.6
24-Jan-89	23	-0.4	-2.7	0.7	5.3	6.6
25-Jan-89	24	-0.4	-2.7	0.6	5.3	6.5
26-Jan-89	25	-0.4	-2.7	0.6	5.3	6.6
27-Jan-89	26	-0.4	-2.7	0.7	5.3	6.6
30-Jan-89	29	-0.4	-2.7	1.0	5.3	7.0
31-Jan-89	30	-0.4	-2.7	1.0	5.3	7.0
01-Feb-89	31	-0.4	-2.7	0.8	5.3	7.0
02-Feb-89	32	-0.3	-2.8	0.8	5.3	6.9
04-Feb-89	34	-0.3	-2.8	0.6	5.3	6.8
06-Feb-89	36	-0.3	-2.8	0.7	5.3	7.0
07-Feb-89	37	-0.3	-2.8	0.7	5.3	7.0
08-Feb-89	38	-0.3	-2.8	0.7	5.3	7.0
09-Feb-89	39	-0.3	-2.8	0.6	5.3	6.9
10-Feb-89	40	-0.3	-2.8	0.6	5.3	7.0
13-Feb-89	43	-0.3	-2.8	0.8	5.3	7.1
14-Feb-89	44	-0.3	-2.8	0.9	5.3	7.3
15-Feb-89	45	-0.3	-2.8	0.7	5.3	7.1
16-Feb-89	46	-0.3	-2.8	0.7	5.3	7.1
19-Feb-89	49	-0.3	-2.8	0.7	5.3	7.1
20-Feb-89	50	-0.3	-2.8	0.8	5.2	7.3
20-Feb-89	50	-0.3	-2.8	0.8	5.3	7.2

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
21-Feb-89	51	-0.4	-2.8	0.8	5.1	7.3
24-Feb-89	54	-0.4	-2.8	0.2	5.1	6.6
25-Feb-89	55	-0.3	-2.8	0.1	5.2	6.5
03-Mar-89	61	-0.4	-2.9	0.6	5.1	7.1
04-Mar-89	62	-0.4	-2.9	0.6	5.1	7.2
06-Mar-89	64	-0.3	-2.9	0.7	5.1	7.1
08-Mar-89	66	-0.5	-2.9	0.7	5.1	7.3
08-Mar-89	66	-0.3	-2.9	0.8	5.0	7.2
09-Mar-89	67	-0.3	-2.9	0.7	5.1	7.1
09-Mar-89	67	-0.4	-2.9	0.7	5.0	7.0
10-Mar-89	68	-0.5	-2.9	0.7	5.1	6.9
10-Mar-89	68	-0.3	-3.0	0.6	5.0	6.9
11-Mar-89	69	-0.3	-2.9	0.8	5.1	7.1
11-Mar-89	69	-0.3	-2.9	0.8	5.1	7.2
12-Mar-89	70	-0.4	-2.9	0.8	5.1	7.3
12-Mar-89	70	-0.4	-2.8	0.6	5.1	7.1
13-Mar-89	71	-0.3	-2.9	0.6	5.0	7.1
14-Mar-89	72	-0.3	-2.9	0.6	5.0	7.3
15-Mar-89	73	-0.4	-2.9	0.6	5.1	7.3
15-Mar-89	73	-0.3	-3.0	0.6	5.0	7.6
16-Mar-89	74	-0.3	-3.0	0.5	5.0	7.5
13-Mar-89	71	-0.4	-3.0	0.8	5.1	7.3
14-Mar-89	72	-0.4	-2.9	0.8	5.1	7.5
16-Mar-89	74	-0.3	-3.0	0.5	5.0	7.4
17-Mar-89	75	-0.4	-3.0	0.6	5.0	7.5
17-Mar-89	75	-0.3	-2.9	0.7	5.0	7.6
18-Mar-89	76	-0.5	-3.0	0.8	5.0	7.6
18-Mar-89	76	-0.3	-3.0	0.7	5.1	7.6
19-Mar-89	77	-0.4	-3.0	0.7	5.1	7.6
19-Mar-89	77	-0.3	-3.0	0.7	5.1	7.6
20-Mar-89	78	-0.3	-3.0	0.6	5.1	7.5
20-Mar-89	78	-0.4	-3.0	0.6	5.0	7.6
21-Mar-89	79	-0.4	-3.0	0.6	5.1	7.6

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
21-Mar-89	79	-0.3	-3.0	0.6	5.0	7.6
22-Mar-89	80	-0.3	-3.0	0.8	5.0	7.8
22-Mar-89	80	-0.3	-3.0	0.7	5.0	8.0
23-Mar-89	81	-0.3	-3.0	0.8	5.0	8.1
23-Mar-89	81	-0.3	-3.0	0.8	5.0	8.3
24-Mar-89	82	-0.3	-3.0	0.6	5.0	8.3
24-Mar-89	82	-0.3	-3.0	0.7	5.0	8.3
25-Mar-89	83	-0.3	-3.0	0.7	5.0	8.4
26-Mar-89	84	-0.3	-3.0	0.8	5.0	8.5
28-Mar-89	86	-0.3	-3.0	0.6	5.0	8.7
29-Mar-89	87	-0.4	-3.0	0.8	5.0	8.9
29-Mar-89	87	-0.3	-3.0	0.8	5.0	8.9
30-Mar-89	88	-0.4	-3.0	0.8	5.0	8.9
30-Mar-89	88	-0.4	-3.0	0.8	4.9	9.1
31-Mar-89	89	-0.3	-3.0	0.8	4.9	lost
31-Mar-89	89	-0.4	-3.0	0.8	5.0	##
01-Apr-89	90	-0.3	-3.0	0.7	5.0	##
01-Apr-89	90	-0.3	-3.1	0.6	4.9	##
02-Apr-89	91	-0.3	-3.0	0.6	5.0	##
02-Apr-89	91	-0.3	-3.0	0.6	4.9	##
03-Apr-89	92	-0.3	-3.0	0.7	4.9	##
04-Apr-89	93	-0.4	-3.1	0.7	4.9	##
04-Apr-89	93	-0.4	-3.0	0.6	4.9	##
05-Apr-89	94	-0.3	-3.1	0.6	5.0	##
06-Apr-89	95	-0.3	-3.0	0.6	4.8	##
06-Apr-89	95	-0.3	-3.0	0.6	4.9	##
07-Apr-89	96	-0.3	-3.1	0.6	4.9	##
07-Apr-89	96	-0.3	-3.1	0.6	4.9	##
08-Apr-89	97	-0.4	-3.1	0.6	4.8	##
11-Apr-89	100	-0.3	-3.1	0.4	4.8	##
12-Apr-89	101	-0.3	-3.1	0.5	4.7	##
12-Apr-89	101	-0.3	-3.1	0.6	4.7	##
13-Apr-89	102	-0.3	-3.1	0.5	4.7	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
13-Apr-89	102	-0.3	-3.1	45.9	4.9	lost
14-Apr-89	103	-0.3	-3.1	20.9	4.8	##
14-Apr-89	103	-0.5	-3.1	0.6	4.7	##
15-Apr-89	104	-0.3	-3.1	0.7	4.6	##
15-Apr-89	104	-0.3	-3.1	0.8	4.8	##
16-Apr-89	105	-0.3	-3.1	0.6	4.8	##
16-Apr-89	105	-0.3	-3.1	0.6	4.8	##
17-Apr-89	106	-0.3	-3.1	0.6	4.7	##
17-Apr-89	106	-0.3	-3.1	0.7	4.8	##
18-Apr-89	107	-0.3	-3.1	0.8	4.7	##
18-Apr-89	107	-0.3	-3.1	0.8	4.8	##
19-Apr-89	108	-0.3	-3.1	0.8	4.7	##
19-Apr-89	108	-0.3	-3.1	0.8	4.6	##
20-Apr-89	109	-0.3	-3.1	0.8	4.6	##
20-Apr-89	109	-0.4	-3.1	0.8	4.7	##
21-Apr-89	110	-0.3	-3.1	0.8	4.6	##
21-Apr-89	110	-0.4	-3.1	0.8	4.7	##
22-Apr-89	111	-0.3	-3.1	0.8	4.8	##
22-Apr-89	111	-0.3	-3.1	0.8	4.7	##
23-Apr-89	112	-0.3	-3.1	0.8	4.8	##
23-Apr-89	112	-0.3	-3.1	0.6	4.6	##
24-Apr-89	113	-0.5	-3.1	0.7	4.6	##
24-Apr-89	113	-0.3	-3.1	0.6	4.6	##
25-Apr-89	114	-0.3	-3.1	0.6	4.8	##
25-Apr-89	114	-0.3	-3.1	0.8	4.7	##
26-Apr-89	115	-0.3	-3.1	0.6	4.7	##
26-Apr-89	115	-0.3	-3.1	0.7	4.7	##
27-Apr-89	116	-0.3	-3.1	0.7	4.7	##
27-Apr-89	116	-0.3	-3.1	0.6	4.7	##
28-Apr-89	117	-0.4	-3.1	0.8	4.6	##
28-Apr-89	117	-0.4	-3.1	1.0	4.6	##
29-Apr-89	118	-0.3	-3.1	0.9	4.7	##
29-Apr-89	118	-0.3	-3.1	1.0	4.7	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
30-Apr-89	119	-0.3	-3.1	0.9	4.8	lost
30-Apr-89	119	-0.3	-3.1	1.0	4.7	##
01-May-89	120	-0.3	-3.1	0.9	4.6	##
01-May-89	120	-0.3	-3.1	0.8	4.7	##
02-May-89	121	-0.3	-3.1	0.9	4.8	##
02-May-89	121	-0.3	-3.1	1.0	4.6	##
03-May-89	122	-0.3	-3.1	1.0	4.6	##
04-May-89	123	-0.3	-3.1	0.9	4.8	##
04-May-89	123	-0.3	-3.1	1.0	4.7	##
05-May-89	124	-0.3	-3.1	1.0	4.8	##
05-May-89	124	-0.3	-3.1	0.9	4.6	##
05-May-89	124	-0.3	-3.1	1.0	4.7	##
06-May-89	125	-0.3	-3.1	1.0	4.6	##
06-May-89	125	-0.3	-3.1	1.0	4.7	##
07-May-89	126	-0.3	-3.1	1.0	4.6	##
07-May-89	126	-0.3	-3.1	1.0	4.8	##
08-May-89	127	-0.3	-3.1	1.0	4.7	##
09-May-89	128	-0.3	-3.1	0.8	4.8	##
10-May-89	129	-0.3	-3.1	0.7	4.6	##
11-May-89	130	-0.3	-3.1	0.7	4.6	##
12-May-89	131	-0.3	-3.1	0.6	4.6	##
12-May-89	131	-0.3	-3.1	0.6	4.6	##
13-May-89	132	-0.3	-3.1	0.6	4.7	##
13-May-89	132	-0.3	-3.1	0.8	4.7	##
14-May-89	133	-0.3	-3.1	1.0	4.7	##
15-May-89	134	-0.3	-3.1	1.0	4.8	##
15-May-89	134	-0.3	-3.1	1.0	4.6	##
16-May-89	135	-0.3	-3.1	1.0	4.8	##
16-May-89	135	-0.3	-3.1	1.0	4.6	##
17-May-89	136	-0.3	-3.1	1.0	4.7	##
17-May-89	136	-0.3	-3.1	1.0	4.6	##
18-May-89	137	-0.3	-3.1	1.0	4.8	##
18-May-89	137	-0.3	-3.1	1.1	4.7	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
19-May-89	138	-0.3	-3.1	1.0	4.6	lost
19-May-89	138	-0.3	-3.1	1.0	4.9	##
20-May-89	139	-0.3	-3.1	1.0	4.9	##
20-May-89	139	-0.3	-3.1	1.0	4.6	##
21-May-89	140	-0.3	-3.1	1.0	4.8	##
21-May-89	140	-0.3	-3.1	1.0	5.0	##
22-May-89	141	-0.3	-3.1	1.0	4.8	##
22-May-89	141	-0.3	-3.1	1.0	4.9	##
23-May-89	142	-0.3	-3.1	1.0	4.9	##
23-May-89	142	-0.3	-3.1	1.0	4.9	##
24-May-89	143	-0.3	-3.1	0.9	4.6	##
24-May-89	143	-0.4	-3.1	1.0	5.0	##
25-May-89	144	-0.3	-3.1	1.0	4.9	##
26-May-89	145	-0.3	-3.1	1.1	4.9	##
27-May-89	146	-0.2	-3.1	1.1	4.9	##
27-May-89	146	-0.3	-3.1	1.1	5.0	##
28-May-89	147	-0.3	-3.1	1.1	5.0	##
28-May-89	147	-0.3	-3.1	1.0	4.9	##
29-May-89	148	-0.3	-3.1	1.0	5.0	##
29-May-89	148	-0.3	-3.1	1.0	4.9	##
30-May-89	149	-0.3	-3.1	1.0	5.0	##
30-May-89	149	-0.2	-3.1	0.9	5.0	##
31-May-89	150	-0.3	-3.1	1.0	5.0	##
31-May-89	150	-0.3	-3.1	1.0	5.0	##
01-Jun-89	151	-0.3	-3.1	0.9	5.0	##
01-Jun-89	151	-0.3	-3.1	1.0	4.8	##
02-Jun-89	152	-0.3	-3.1	1.0	5.0	##
02-Jun-89	152	-0.2	-3.1	1.0	4.8	##
03-Jun-89	153	-0.3	-3.1	0.9	5.0	##
03-Jun-89	153	-0.3	-3.1	0.9	5.0	##
04-Jun-89	154	-0.3	-3.1	1.0	5.0	##
04-Jun-89	154	-0.3	-3.1	1.0	4.9	##
05-Jun-89	155	-0.3	-3.1	0.9	4.8	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
05-Jun-89	155	-0.3	-3.1	0.9	4.9	lost
06-Jun-89	156	-0.2	-3.1	0.8	5.0	##
06-Jun-89	156	-0.3	-3.1	0.8	4.9	##
07-Jun-89	157	-0.3	-3.1	0.8	5.0	##
07-Jun-89	157	-0.3	-3.1	0.9	5.0	##
08-Jun-89	158	-0.3	-3.1	0.9	5.0	##
08-Jun-89	158	-0.2	-3.1	0.9	5.0	##
09-Jun-89	159	-0.3	-3.1	1.0	5.0	##
09-Jun-89	159	-0.3	-3.1	0.8	5.0	##
10-Jun-89	160	-0.3	-3.1	1.0	5.0	##
10-Jun-89	160	-0.3	-3.1	0.9	5.0	##
11-Jun-89	161	-0.3	-3.1	0.9	5.0	##
11-Jun-89	161	-0.3	-3.1	1.0	5.0	##
12-Jun-89	162	-0.3	-3.1	1.0	5.1	##
12-Jun-89	162	-0.3	-3.1	1.0	5.1	##
13-Jun-89	163	-0.3	-3.1	1.0	5.0	##
13-Jun-89	163	-0.2	-3.1	1.0	5.1	##
14-Jun-89	164	-0.3	-3.1	1.0	5.0	##
14-Jun-89	164	-0.3	-3.1	1.0	5.0	##
15-Jun-89	165	-0.3	-3.1	1.0	5.1	##
15-Jun-89	165	-0.3	-3.1	1.1	5.0	##
16-Jun-89	166	-0.3	-3.1	1.0	5.1	##
19-Jun-89	169	-0.3	-3.0	1.2	5.1	##
20-Jun-89	170	-0.2	-3.1	1.0	5.1	##
21-Jun-89	171	-0.3	-3.0	1.0	5.0	##
21-Jun-89	171	-0.3	-3.1	1.0	5.2	##
22-Jun-89	172	-0.3	-3.1	1.0	5.1	##
22-Jun-89	172	-0.3	-3.1	1.1	5.1	##
23-Jun-89	173	-0.3	-3.1	1.0	5.3	##
23-Jun-89	173	-0.3	-3.0	1.0	5.1	##
24-Jun-89	174	-0.3	-3.0	1.0	5.1	##
24-Jun-89	174	-0.3	-3.1	1.0	5.1	##
25-Jun-89	175	-0.2	-3.1	0.9	5.1	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
25-Jun-89	175	-0.3	-3.0	0.9	5.0	lost
26-Jun-89	176	-0.2	-3.1	0.9	5.1	##
26-Jun-89	176	-0.2	-3.1	0.8	5.3	##
27-Jun-89	177	-0.3	-3.1	0.7	5.1	##
27-Jun-89	177	-0.2	-3.1	0.8	5.1	##
28-Jun-89	178	-0.2	-3.1	1.0	5.2	##
28-Jun-89	178	-0.3	-3.1	0.9	5.1	##
29-Jun-89	179	-0.3	-3.1	0.8	5.3	##
29-Jun-89	179	-0.3	-3.0	0.9	5.1	##
30-Jun-89	180	-0.3	-3.1	1.0	5.2	##
30-Jun-89	180	-0.3	-3.1	0.9	5.3	##
01-Jul-89	181	-0.3	-3.1	0.9	5.1	##
01-Jul-89	181	-0.3	-3.1	0.8	5.3	##
02-Jul-89	182	-0.3	-3.0	0.9	5.2	##
02-Jul-89	182	-0.3	-3.1	1.0	5.3	##
03-Jul-89	183	-0.3	-3.0	1.0	5.3	##
03-Jul-89	183	-0.2	-3.0	1.0	5.4	##
04-Jul-89	184	-0.3	-3.0	1.0	5.3	##
04-Jul-89	184	-0.3	-3.0	1.0	5.5	##
05-Jul-89	185	-0.3	-3.1	0.9	5.4	##
05-Jul-89	185	-0.3	-3.0	0.9	5.4	##
06-Jul-89	186	-0.3	-3.1	0.8	5.5	##
06-Jul-89	186	-0.3	-3.0	0.8	5.5	##
07-Jul-89	187	-0.3	-3.0	0.8	5.5	##
08-Jul-89	188	-0.2	-3.0	0.6	5.5	##
08-Jul-89	188	-0.3	-3.0	0.6	5.5	##
09-Jul-89	189	-0.2	-3.0	0.6	5.5	##
09-Jul-89	189	-0.1	-3.0	0.6	5.5	##
10-Jul-89	190	-0.2	-3.0	0.6	5.6	##
10-Jul-89	190	-0.3	-3.0	0.6	5.5	##
11-Jul-89	191	-0.3	-3.0	0.6	5.6	##
11-Jul-89	191	-0.3	-3.1	0.6	5.6	##
12-Jul-89	192	-0.2	-3.1	0.6	5.5	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

VIBRATING WIRE PIEZOMETER DATA 1989 : Pressure Heads (mH₂O)

LOGGER 0002

DATE	DAY No.	V 26	V 27	V 28	V 29	V 30
12-Jul-89	192	-0.3	-3.0	0.6	5.6	lost
13-Jul-89	193	-0.3	-3.0	0.5	5.6	##
13-Jul-89	193	-0.3	-3.0	0.4	5.6	##
14-Jul-89	194	-0.3	lost	0.5	5.6	##
14-Jul-89	194	-0.3	##	0.6	5.6	##
15-Jul-89	195	-0.3	##	0.6	5.7	##
15-Jul-89	195	-0.3	##	0.6	5.8	##
16-Jul-89	196	lost	##	lost	5.7	##
16-Jul-89	196	##	##	##	5.8	##
16-Jul-89	196	##	##	##	5.8	##
16-Jul-89	196	##	##	##	5.8	##
16-Jul-89	196	##	##	##	5.8	##
17-Jul-89	197	##	##	##	5.7	##

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

APPENDIX E

WIRE EXTENSOMETER DATA

WIRE EXTENSOMETER DATA

1989

Data Logger 0001

WE 056 to WE 060

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
20-Feb-89	50	0.116	1.323	0.425	0.182	1.221
20-Feb-89	50	0.116	1.323	0.425	0.182	1.22
21-Feb-89	51	0.116	1.324	0.425	0.182	1.221
24-Feb-89	54	0.116	1.323	0.421	0.182	1.221
25-Feb-89	55	0.116	1.324	0.421	0.182	1.222
03-Mar-89	61	0.117	1.324	0.423	0.181	1.201
04-Mar-89	62	0.117	1.324	0.423	0.181	1.202
06-Mar-89	64	0.117	1.324	0.423	0.182	1.201
08-Mar-89	66	0.117	1.324	0.423	0.182	1.201
08-Mar-89	66	0.117	1.324	0.423	0.182	1.209
09-Mar-89	67	0.117	1.324	0.423	0.182	1.21
09-Mar-89	67	0.117	1.324	0.423	0.182	1.209
10-Mar-89	68	0.117	1.324	0.423	0.182	1.21
10-Mar-89	68	0.117	1.324	0.423	0.182	1.21
11-Mar-89	69	0.117	1.324	0.423	0.182	1.21
11-Mar-89	69	0.117	1.324	0.423	0.182	1.21
12-Mar-89	70	0.117	1.324	0.423	0.182	1.21
12-Mar-89	70	0.117	1.324	0.423	0.182	1.21
13-Mar-89	71	0.117	1.324	0.423	0.182	1.21
14-Mar-89	72	0.117	1.325	0.423	0.182	1.21
14-Mar-89	72	0.117	1.324	0.423	0.182	1.209
15-Mar-89	73	0.117	1.324	0.423	0.182	1.209
15-Mar-89	73	0.117	1.324	0.423	0.182	1.209
16-Mar-89	74	0.117	1.325	0.423	0.182	1.21
19-Mar-89	77	0.116	1.324	0.423	0.182	1.209
19-Mar-89	77	0.116	1.324	0.423	0.182	1.21
20-Mar-89	78	0.116	1.325	0.423	0.182	1.21
21-Mar-89	79	0.116	1.323	0.423	0.183	1.211
22-Mar-89	80	0.116	1.324	0.423	0.183	1.211
22-Mar-89	80	0.116	1.324	0.423	0.183	1.212

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
23-Mar-89	81	0.117	1.325	0.423	0.183	1.212
23-Mar-89	81	0.053	1.324	0.423	0.183	1.212
24-Mar-89	82	0.053	1.324	0.423	0.183	1.212
24-Mar-89	82	0.053	1.324	0.423	0.183	1.212
25-Mar-89	83	0.053	1.324	0.423	0.183	1.212
26-Mar-89	84	0.053	1.324	0.423	0.183	1.211
28-Mar-89	86	0.053	1.323	0.423	0.183	1.211
29-Mar-89	87	0.053	1.324	0.423	0.183	1.211
29-Mar-89	87	0.053	1.323	0.423	0.183	1.212
30-Mar-89	88	0.053	1.324	0.423	0.183	1.212
30-Mar-89	88	0.053	1.321	0.423	0.183	1.211
31-Mar-89	89	0.053	1.322	0.423	0.183	1.212
31-Mar-89	89	0.171	1.321	0.423	0.183	1.211
01-Apr-89	90	0.053	1.322	0.423	0.183	1.211
01-Apr-89	90	-0.064	1.321	0.423	0.183	1.211
02-Apr-89	91	0.053	1.322	0.423	0.183	1.211
02-Apr-89	91	0.053	1.321	0.423	0.183	1.211
03-Apr-89	92	0.053	1.322	0.423	0.183	1.212
03-Apr-89	92	0.053	1.322	0.423	0.179	1.211
04-Apr-89	93	0.053	1.322	0.424	0.179	1.212
04-Apr-89	93	0.054	1.323	0.405	0.179	1.212
05-Apr-89	94	0.054	1.323	0.405	0.179	-0.375
05-Apr-89	94	0.054	1.323	0.405	0.179	1.212
06-Apr-89	95	0.054	1.323	0.405	0.179	1.212
06-Apr-89	95	0.054	1.323	0.405	0.179	1.212
07-Apr-89	96	0.054	1.323	0.405	0.179	1.212
07-Apr-89	96	0.054	1.322	0.405	0.18	1.212
08-Apr-89	97	0.054	1.323	0.405	0.18	1.212
11-Apr-89	100	0.054	1.325	0.405	0.18	1.212
11-Apr-89	100	0.054	1.325	0.405	0.18	1.212

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
12-Apr-89	101	0.054	1.325	0.405	0.18	1.212
12-Apr-89	101	0.054	1.325	0.405	0.18	1.212
13-Apr-89	102	0.054	1.325	0.405	0.18	1.212
13-Apr-89	102	0.054	1.321	0.436	0.183	1.211
14-Apr-89	103	0.054	1.321	0.437	0.183	1.212
14-Apr-89	103	0.11	1.32	0.436	0.183	1.211
15-Apr-89	104	0.11	1.321	0.437	0.183	1.213
15-Apr-89	104	0.11	1.321	0.436	0.183	1.212
17-Apr-89	106	0.11	1.321	0.436	0.183	1.212
17-Apr-89	106	0.11	1.321	0.437	0.183	1.212
18-Apr-89	107	0.11	1.322	0.437	0.183	1.213
18-Apr-89	107	0.11	1.324	0.429	0.183	1.211
19-Apr-89	108	0.11	1.324	0.429	0.183	1.213
19-Apr-89	108	0.11	1.324	0.429	0.183	1.211
20-Apr-89	109	0.11	1.325	0.429	0.183	1.213
20-Apr-89	109	0.11	1.324	0.429	0.183	1.212
21-Apr-89	110	0.11	1.325	0.43	0.183	1.213
21-Apr-89	110	0.227	1.324	0.429	0.183	1.212
22-Apr-89	111	0.11	1.325	0.43	0.183	1.213
22-Apr-89	111	0.11	1.324	0.429	0.183	1.212
23-Apr-89	112	0.11	1.325	0.429	0.183	1.212
23-Apr-89	112	0.228	1.324	0.429	0.183	1.212
24-Apr-89	113	0.11	1.324	0.429	0.183	1.213
24-Apr-89	113	0.264	1.324	0.429	0.183	1.212
25-Apr-89	114	0.264	1.324	0.429	0.183	1.213
25-Apr-89	114	0.263	1.321	0.418	0.181	1.204
26-Apr-89	115	0.263	1.322	0.418	0.181	1.205
26-Apr-89	115	0.263	1.321	0.418	0.181	1.204
27-Apr-89	116	0.263	1.322	0.418	0.181	1.205
27-Apr-89	116	0.263	1.321	0.418	0.184	1.204

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
28-Apr-89	117	0.263	1.322	0.418	0.184	1.205
28-Apr-89	117	0.263	1.32	0.418	0.184	1.204
29-Apr-89	118	0.263	1.321	0.418	0.184	1.204
29-Apr-89	118	0.263	1.32	0.418	0.184	1.204
30-Apr-89	119	0.263	1.321	0.418	0.184	1.205
30-Apr-89	119	0.263	1.32	0.418	0.184	1.204
01-May-89	120	0.263	1.32	0.418	0.184	1.204
01-May-89	120	0.263	1.32	0.418	0.184	1.204
02-May-89	121	0.263	1.32	0.418	0.184	1.204
02-May-89	121	0.263	1.319	0.418	0.183	1.203
03-May-89	122	0.263	1.321	0.418	0.184	1.204
03-May-89	122	0.287	1.32	0.418	0.183	1.21
04-May-89	123	0.287	1.322	0.418	0.184	1.212
04-May-89	123	0.238	1.321	0.418	0.183	1.214
05-May-89	124	0.239	1.322	0.418	0.183	1.215
05-May-89	124	0.238	1.321	0.418	0.183	1.213
06-May-89	125	0.239	1.322	0.418	0.183	1.214
06-May-89	125	0.238	1.321	0.418	0.183	1.213
07-May-89	126	0.239	1.322	0.418	0.183	1.215
07-May-89	126	0.238	1.321	0.418	0.183	1.214
08-May-89	127	0.239	1.322	0.418	0.183	1.215
09-May-89	128	0.136	1.321	0.418	0.183	1.214
10-May-89	129	0.137	1.322	0.418	0.183	1.215
11-May-89	130	0.21	1.322	0.418	0.182	1.216
12-May-89	131	0.21	1.322	0.418	0.182	1.216
12-May-89	131	0.21	1.322	0.418	0.182	1.216
13-May-89	132	0.21	1.322	0.418	0.182	1.216
13-May-89	132	0.212	1.322	0.418	0.182	1.215
14-May-89	133	0.212	1.322	0.418	0.182	1.215
14-May-89	133	0.212	1.322	0.418	0.182	1.216

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
15-May-89	134	0.212	1.322	0.418	0.182	1.215
15-May-89	134	0.212	1.321	0.418	0.182	1.215
16-May-89	135	0.212	1.322	0.418	0.182	1.216
16-May-89	135	0.212	1.322	0.418	0.182	1.215
17-May-89	136	0.212	1.322	0.418	0.182	1.216
17-May-89	136	0.212	1.322	0.418	0.182	1.215
18-May-89	137	0.212	1.322	0.418	0.182	1.216
18-May-89	137	0.212	1.32	0.418	0.182	1.215
19-May-89	138	0.212	1.322	0.418	0.182	1.216
19-May-89	138	0.213	1.32	0.418	0.182	1.214
20-May-89	139	0.213	1.321	0.418	0.182	1.215
20-May-89	139	0.213	1.32	0.418	0.181	1.214
21-May-89	140	0.213	1.321	0.418	0.181	1.216
21-May-89	140	0.213	1.322	0.419	0.178	1.213
22-May-89	141	0.213	1.323	0.419	0.178	1.215
22-May-89	141	0.213	1.322	0.419	0.181	1.21
23-May-89	142	0.213	1.323	0.419	0.181	1.212
23-May-89	142	0.213	1.322	0.418	0.177	1.21
24-May-89	143	0.213	1.323	0.419	0.177	1.211
24-May-89	143	0.213	1.323	0.419	0.177	1.211
25-May-89	144	0.213	1.323	0.419	0.177	1.212
26-May-89	145	0.213	1.322	0.419	0.178	1.214
27-May-89	146	0.213	1.324	0.419	0.178	1.216
27-May-89	146	0.213	1.323	0.419	0.178	1.214
28-May-89	147	0.213	1.323	0.419	0.178	1.215
28-May-89	147	0.213	1.322	0.419	0.178	1.214
29-May-89	148	0.213	1.323	0.419	0.178	1.215
29-May-89	148	0.213	1.322	0.419	0.178	1.213
30-May-89	149	0.213	1.324	0.419	0.178	1.215
30-May-89	149	0.213	1.322	0.419	0.178	1.214

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
31-May-89	150	0.213	1.324	0.419	0.178	1.215
31-May-89	150	0.213	1.322	0.419	0.177	1.214
01-Jun-89	151	0.213	1.323	0.419	0.177	1.215
01-Jun-89	151	0.214	1.323	0.419	0.177	1.214
02-Jun-89	152	0.214	1.324	0.419	0.177	1.215
02-Jun-89	152	0.214	1.32	0.419	0.177	1.214
03-Jun-89	153	0.214	1.322	0.419	0.177	1.216
03-Jun-89	153	0.214	1.322	0.419	0.178	1.215
04-Jun-89	154	0.214	1.323	0.419	0.178	1.216
04-Jun-89	154	0.214	1.322	0.419	0.177	1.214
05-Jun-89	155	0.214	1.323	0.419	0.178	1.215
05-Jun-89	155	0.214	1.322	0.419	0.177	1.215
06-Jun-89	156	0.214	1.322	0.419	0.177	1.215
06-Jun-89	156	0.214	1.322	0.419	0.178	1.215
07-Jun-89	157	0.214	1.322	0.419	0.178	1.215
07-Jun-89	157	0.214	1.322	0.419	0.179	1.214
08-Jun-89	158	0.214	1.323	0.419	0.179	1.215
08-Jun-89	158	0.214	1.322	0.419	0.179	1.214
09-Jun-89	159	0.214	1.323	0.419	0.179	1.215
09-Jun-89	159	0.214	1.322	0.419	0.183	1.211
10-Jun-89	160	0.214	1.323	0.419	0.183	1.212
10-Jun-89	160	0.214	1.322	0.419	0.183	1.211
11-Jun-89	161	0.214	1.323	0.419	0.183	1.269
11-Jun-89	161	0.214	1.321	0.419	0.183	1.267
12-Jun-89	162	0.214	1.322	0.419	0.183	1.269
12-Jun-89	162	0.214	1.317	0.419	0.183	1.169
13-Jun-89	163	0.214	1.319	0.419	0.183	1.17
13-Jun-89	163	0.214	1.321	0.417	0.177	1.168
14-Jun-89	164	0.214	1.322	0.417	0.177	1.169
14-Jun-89	164	0.215	1.321	0.417	0.178	1.168

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
15-Jun-89	165	0.215	1.322	0.417	0.179	1.169
15-Jun-89	165	0.215	1.318	0.417	0.178	1.164
16-Jun-89	166	0.215	1.32	0.417	0.178	1.166
19-Jun-89	169	0.216	1.319	0.426	0.177	1.167
20-Jun-89	170	0.216	1.319	0.426	0.177	1.167
21-Jun-89	171	0.216	1.32	0.426	0.177	1.168
21-Jun-89	171	0.216	1.319	0.426	0.178	1.167
22-Jun-89	172	0.216	1.32	0.427	0.179	1.168
22-Jun-89	172	0.216	1.319	0.415	0.181	1.17
23-Jun-89	173	0.216	1.32	0.415	0.181	1.17
23-Jun-89	173	0.216	1.318	0.416	0.181	1.17
24-Jun-89	174	0.217	1.319	0.416	0.181	1.17
24-Jun-89	174	0.216	1.318	0.416	0.184	1.17
25-Jun-89	175	0.217	1.319	0.417	0.184	1.171
25-Jun-89	175	0.218	1.321	0.416	0.184	1.169
26-Jun-89	176	0.218	1.321	0.417	0.184	1.171
26-Jun-89	176	0.082	2.914	0.979	0.079	0.293
27-Jun-89	177	0.083	2.914	0.979	0.079	0.293
27-Jun-89	177	0.084	2.911	1.018	0.079	0.293
28-Jun-89	178	0.084	2.911	1.018	0.079	0.294
28-Jun-89	178	0.084	2.911	0.978	0.08	0.293
29-Jun-89	179	0.084	2.911	0.978	0.08	0.293
29-Jun-89	179	0.084	2.91	0.981	0.08	0.293
30-Jun-89	180	0.084	2.911	0.981	0.08	0.294
30-Jun-89	180	0.084	2.911	0.981	0.08	0.293
01-Jul-89	181	0.084	2.911	0.981	0.08	0.294
01-Jul-89	181	0.084	2.91	0.981	0.08	0.293
02-Jul-89	182	0.084	2.911	0.981	0.08	0.294
02-Jul-89	182	0.084	2.907	0.981	0.08	0.301
03-Jul-89	183	0.084	2.908	0.981	0.08	0.302

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
03-Jul-89	183	0.085	2.907	0.98	0.08	0.3
04-Jul-89	184	0.086	2.908	0.981	0.08	0.301
04-Jul-89	184	0.099	2.912	1.09	0.078	0.3
05-Jul-89	185	0.099	2.913	1.091	0.078	0.3
05-Jul-89	185	0.007	2.906	1	0.082	0.3
06-Jul-89	186	0.007	2.907	1	0.083	0.301
06-Jul-89	186	0.255	2.9	0.988	0.088	0.3
07-Jul-89	187	0.254	2.9	0.989	0.095	0.304
08-Jul-89	188	0.253	2.874	0.966	0.111	0.326
08-Jul-89	188	0.252	2.861	0.948	0.115	0.335
09-Jul-89	189	0.252	2.861	0.948	0.115	0.335
09-Jul-89	189	0.251	2.861	0.951	0.117	0.336
10-Jul-89	190	0.251	2.861	0.951	0.117	0.335
10-Jul-89	190	0.251	2.856	0.948	0.12	0.335
11-Jul-89	191	0.251	2.856	0.949	0.12	0.335
11-Jul-89	191	0.251	2.852	0.941	0.12	0.334
12-Jul-89	192	0.251	2.852	0.942	0.121	0.336
12-Jul-89	192	0.251	2.852	0.941	0.123	0.334
13-Jul-89	193	0.251	2.852	0.942	0.123	0.336
13-Jul-89	193	0.253	2.846	0.934	0.123	0.335
14-Jul-89	194	0.253	2.846	0.935	0.123	0.336
14-Jul-89	*194	0.253	2.846	0.935	0.124	0.336
14-Jul-89	194	0.256	2.841	0.928	0.126	0.336
14-Jul-89	194	0.257	2.841	0.928	0.126	0.334
15-Jul-89	*195	0.258	2.841	0.928	0.126	0.336
15-Jul-89	195	0.26	2.842	0.928	0.127	0.337
15-Jul-89	195	0.262	2.836	0.928	0.127	0.336
15-Jul-89	195	0.268	2.831	0.906	0.13	0.34
16-Jul-89	*196	0.277	2.821	0.899	0.133	0.344
16-Jul-89	196	0	2.797	0.876	0.143	0.35

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0001

Wire Extensometers 056 to 060

DATE	DAY No.	WE 056	WE 057	WE 058	WE 059	WE 060
16-Jul-89	196	0.165	2.653	0.813	0.207	0.414
16-Jul-89	196	0.212	2.225	0.043	0.112	0.647

* For 14,15,16 July readings given for Midnight, 6:00am, Midday and 6:00pm.

Where two readings shown for one day, upper is for 6:00am and lower 6:00pm.

WIRE EXTENSOMETER DATA

1989

Data Logger 0002

WE 051 to WE 055

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0002

Wire Extensometers 051 to 055

DATE	DAY No.	WE 051	WE 052	WE 053	WE 054	WE 055
25-Feb-89	55	0.195	3.157	0.44	0.254	0.384
27-Feb-89	57	0.147	3.155	0.439	0.254	0.384
28-Feb-89	58	0.147	3.154	0.439	0.254	0.385
28-Feb-89	58	0.147	3.154	0.439	0.254	0.387
01-Mar-89	59	0.147	3.155	0.439	0.254	0.385
02-Mar-89	60	0.147	3.154	0.439	0.254	0.385
02-Mar-89	60	0.147	3.155	0.439	0.254	0.385
06-Mar-89	64	0.148	3.154	0.438	0.254	0.384
07-Mar-89	65	0.148	3.154	0.438	0.254	0.383
07-Mar-89	65	0.148	3.154	0.438	0.254	0.385
08-Mar-89	66	0.148	3.155	0.438	0.254	0.386
08-Mar-89	66	0.148	3.155	0.438	0.254	0.385
09-Mar-89	67	0.148	3.154	0.437	0.254	0.385
09-Mar-89	67	0.148	3.155	0.437	0.254	0.384
10-Mar-89	68	0.148	3.155	0.437	0.254	0.384
13-Mar-89	71	0.148	3.155	0.437	0.254	0.386
14-Mar-89	72	0.148	3.154	0.437	0.254	0.386
14-Mar-89	72	0.148	3.154	0.437	0.254	0.386
16-Mar-89	74	0.148	3.155	0.438	0.254	0.386
16-Mar-89	74	0.148	3.154	0.437	0.254	0.386
17-Mar-89	75	0.148	3.154	0.437	0.254	0.385
19-Mar-89	77	0.147	3.154	0.437	0.254	0.386
20-Mar-89	78	0.147	3.154	0.437	0.254	0.385
20-Mar-89	78	0.147	3.155	0.437	0.255	0.386
21-Mar-89	79	0.147	3.154	0.438	0.255	0.386
21-Mar-89	79	0.187	3.155	0.437	0.255	0.386
22-Mar-89	80	0.187	3.154	0.437	0.255	0.386
22-Mar-89	80	0.186	3.155	0.437	0.255	0.388
23-Mar-89	81	0.186	3.154	0.437	0.255	0.389
23-Mar-89	81	0.186	3.154	0.437	0.255	0.389
24-Mar-89	82	0.186	3.154	0.437	0.255	0.389

Where two readings shown for one day, upper is for 6:00am and lower 600pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0002

Wire Extensometers 051 to 055

DATE	DAY No.	WE 051	WE 052	WE 053	WE 054	WE 055
04-Apr-89	93	0.079	1.474	0.58	0.116	0.387
05-Apr-89	94	0.079	1.474	0.58	0.113	0.389
06-Apr-89	95	0.079	1.474	0.58	0.111	0.388
07-Apr-89	96	0.028	1.473	0.578	0.116	0.387
13-Apr-89	102	0.029	1.473	0.576	0.264	0.387
13-Apr-89	102	0.028	1.473	0.579	0.264	0.39
14-Apr-89	103	0.028	1.473	0.579	0.264	0.387
15-Apr-89	104	0.028	1.474	0.579	0.264	0.388
15-Apr-89	104	0.028	1.473	0.579	0.264	0.387
18-Apr-89	107	0.028	1.474	0.58	0.263	0.389
19-Apr-89	108	0.028	1.475	0.581	0.263	0.389
19-Apr-89	108	0.028	1.473	0.58	0.263	0.388
20-Apr-89	109	0.028	1.474	0.581	0.263	0.389
20-Apr-89	109	0.029	1.475	0.579	0.263	0.389
21-Apr-89	110	0.029	1.474	0.579	0.263	0.389
21-Apr-89	110	0.029	1.474	0.578	0.263	0.388
24-Apr-89	113	0.137	1.474	0.576	0.263	0.389
25-Apr-89	114	0.053	1.474	0.58	0.263	0.389
26-Apr-89	115	0.053	1.474	0.58	0.263	0.389
26-Apr-89	115	0.053	1.473	0.574	0.263	0.386
27-Apr-89	116	0.053	1.474	0.577	0.263	0.386
27-Apr-89	116	0.053	1.473	0.579	0.263	0.386
28-Apr-89	117	0.053	1.474	0.579	0.263	0.387
02-May-89	121	0.053	1.477	0.575	0.263	0.389
03-May-89	122	0.053	1.474	0.578	0.263	0.39
04-May-89	123	0.053	1.474	0.578	0.263	0.391
04-May-89	123	0.053	1.473	0.578	0.263	0.384
05-May-89	124	0.053	1.474	0.579	0.263	0.384
05-May-89	124	0.053	1.473	0.578	0.262	0.383
06-May-89	125	0.052	1.473	0.578	0.262	0.383
07-May-89	126	0.052	1.473	0.578	0.262	0.383

Where two readings shown for one day, upper is for 6:00am and lower 600pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0002

Wire Extensometers 051 to 055

DATE	DAY No.	WE 051	WE 052	WE 053	WE 054	WE 055
07-May-89	126	0.052	1.473	0.578	0.262	0.383
08-May-89	127	0.052	1.473	0.578	0.262	0.383
09-May-89	128	0.052	1.473	0.578	0.262	0.383
09-May-89	128	0.052	1.473	0.578	0.262	0.383
10-May-89	129	0.052	1.473	0.578	0.262	0.383
10-May-89	129	0.052	1.473	0.578	0.262	0.383
11-May-89	130	0.052	1.473	0.578	0.262	0.383
11-May-89	130	0.052	1.473	0.578	0.262	0.383
12-May-89	131	0.052	1.473	0.578	0.262	0.383
15-May-89	134	0.055	1.473	0.578	0.262	0.383
16-May-89	135	0.055	1.473	0.578	0.262	0.383
16-May-89	135	0.054	1.473	0.578	0.262	0.383
17-May-89	136	0.054	1.473	0.578	0.262	0.383
17-May-89	136	0.054	1.473	0.578	0.262	0.383
18-May-89	137	0.054	1.473	0.578	0.262	0.383
18-May-89	137	0.199	1.468	0.581	0.262	0.385
19-May-89	138	0.199	1.469	0.581	0.262	0.385
19-May-89	138	0.138	1.469	0.581	0.262	0.385
20-May-89	139	0.138	1.47	0.581	0.262	0.385
21-May-89	140	0.138	1.47	0.58	0.262	0.384
22-May-89	141	0.138	1.47	0.58	0.262	0.384
22-May-89	141	0.138	1.47	0.581	0.262	0.384
23-May-89	142	0.138	1.471	0.581	0.262	0.385
23-May-89	142	0.138	1.471	0.581	0.262	0.384
24-May-89	143	0.138	1.471	0.581	0.262	0.384
24-May-89	143	0.138	1.472	0.58	0.262	0.384
25-May-89	144	0.138	1.47	0.58	0.262	0.383
25-May-89	144	0.138	1.47	0.58	0.262	0.383
26-May-89	145	0.138	1.47	0.58	0.262	0.384
31-May-89	150	0.138	1.47	0.581	0.262	0.383
01-Jun-89	151	0.138	1.47	0.581	0.262	0.382

Where two readings shown for one day, upper is for 6:00am and lower 600pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0002

Wire Extensometers 051 to 055

DATE	DAY No.	WE 051	WE 052	WE 053	WE 054	WE 055
01-Jun-89	151	0.138	1.47	0.581	0.262	0.383
02-Jun-89	152	0.138	1.47	0.581	0.261	0.384
02-Jun-89	152	0.138	1.469	0.581	0.262	0.383
03-Jun-89	153	0.138	1.472	0.581	0.262	0.384
03-Jun-89	153	0.138	1.47	0.58	0.263	0.383
04-Jun-89	154	0.138	1.472	0.581	0.263	0.384
04-Jun-89	154	0.138	1.47	0.58	0.263	0.382
05-Jun-89	155	0.138	1.47	0.58	0.263	0.382
05-Jun-89	155	0.139	1.47	0.581	0.263	0.382
06-Jun-89	156	0.139	1.47	0.581	0.263	0.382
07-Jun-89	157	0.139	1.47	0.581	0.263	0.383
07-Jun-89	157	0.139	1.469	0.581	0.263	0.384
08-Jun-89	158	0.139	1.471	0.581	0.263	0.385
08-Jun-89	158	0.139	1.469	0.579	0.264	0.384
09-Jun-89	159	0.139	1.47	0.58	0.264	0.385
09-Jun-89	159	0.139	1.472	0.58	0.264	0.385
10-Jun-89	160	0.139	1.47	0.58	0.264	0.383
10-Jun-89	160	0.139	1.469	0.58	0.264	0.383
11-Jun-89	161	0.139	1.472	0.581	0.264	0.386
11-Jun-89	161	0.141	1.472	0.581	0.264	0.345
12-Jun-89	162	0.141	1.47	0.58	0.264	0.342
12-Jun-89	162	0.141	1.471	0.581	0.264	0.2
13-Jun-89	163	0.141	1.47	0.581	0.263	0.198
13-Jun-89	163	0.14	1.471	0.58	0.263	0.198
14-Jun-89	164	0.14	1.47	0.58	0.263	0.197
14-Jun-89	164	0.14	1.469	0.581	0.263	0.199
15-Jun-89	165	0.14	1.47	0.581	0.263	0.199
15-Jun-89	165	0.14	1.469	0.577	0.263	0.198
16-Jun-89	166	0.14	1.47	0.577	0.263	0.198
19-Jun-89	169	0.141	1.469	0.58	0.261	-0.003
20-Jun-89	170	0.141	1.47	0.58	0.261	-0.003

Where two readings shown for one day, upper is for 6:00am and lower 600pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0002

Wire Extensometers 051 to 055

DATE	DAY No.	WE 051	WE 052	WE 053	WE 054	WE 055
20-Jun-89	170	0.14	1.469	0.581	0.262	-0.003
21-Jun-89	171	0.141	1.471	0.582	0.264	-0.002
21-Jun-89	171	0.14	1.469	0.575	0.266	-0.003
22-Jun-89	172	0.14	1.47	0.576	0.266	-0.002
22-Jun-89	172	0.141	1.472	0.576	0.266	-0.002
23-Jun-89	173	0.141	1.474	0.577	0.266	-0.002
23-Jun-89	173	0.142	1.472	0.766	0.266	-0.003
24-Jun-89	174	0.142	1.473	0.767	0.266	-0.002
24-Jun-89	174	0.142	1.472	0.766	0.266	-0.003
25-Jun-89	175	0.142	1.473	0.767	0.266	-0.003
25-Jun-89	175	0.142	1.472	0.58	0.266	-0.003
26-Jun-89	176	0.142	1.473	0.58	0.266	-0.002
26-Jun-89	176	0.229	2.977	1.001	0.233	0.411
27-Jun-89	177	0.229	2.977	1.001	0.233	0.411
27-Jun-89	177	0.231	3.003	1.002	0.234	0.411
28-Jun-89	178	0.231	3.002	1.002	0.234	0.411
28-Jun-89	178	0.231	3.003	0.997	0.234	0.412
29-Jun-89	179	0.231	3.003	0.996	0.234	0.411
29-Jun-89	179	0.231	3.003	0.998	0.235	0.41
30-Jun-89	180	0.231	3.004	0.998	0.235	0.412
30-Jun-89	180	0.231	3.003	0.998	0.235	0.411
01-Jul-89	181	0.231	3.003	0.998	0.235	0.411
01-Jul-89	181	0.231	3.003	0.996	0.235	0.411
02-Jul-89	182	0.231	3.003	0.996	0.235	0.412
03-Jul-89	183	0.231	2.973	0.997	0.235	0.412
04-Jul-89	184	0.231	2.973	0.997	0.235	0.413
04-Jul-89	184	0.232	2.974	0.997	0.235	0.413
05-Jul-89	185	0.232	2.973	0.995	0.235	0.411
05-Jul-89	185	0.234	2.974	0.995	0.236	0.418
06-Jul-89	186	0.234	2.973	0.991	0.242	0.417
06-Jul-89	186	0.234	2.965	0.985	0.246	0.42

Where two readings shown for one day, upper is for 6:00am and lower 600pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0002

Wire Extensometers 051 to 055

DATE	DAY No.	WE 051	WE 052	WE 053	WE 054	WE 055
07-Jul-89	187	0.234	2.965	0.98	0.25	0.424
07-Jul-89	187	0.235	2.958	0.968	0.256	0.431
08-Jul-89	188	0.235	2.949	0.961	0.261	0.436
08-Jul-89	188	0.235	2.938	0.956	0.264	0.446
09-Jul-89	189	0.235	2.939	0.952	0.266	0.448
09-Jul-89	189	0.235	2.938	0.949	0.267	0.451
10-Jul-89	190	0.235	2.938	0.949	0.268	0.45
10-Jul-89	190	0.237	2.928	0.943	0.269	0.455
11-Jul-89	191	0.237	2.928	0.943	0.27	0.455
11-Jul-89	191	0.237	2.928	0.94	0.271	0.455
12-Jul-89	192	0.237	2.928	0.94	0.272	0.455
12-Jul-89	192	0.273	2.925	0.936	0.272	0.455
13-Jul-89	193	0.273	2.925	0.936	0.273	0.455
13-Jul-89	193	0.241	2.916	0.931	0.275	0.462
14-Jul-89	194	0.242	2.916	0.926	0.278	0.462
14-Jul-89	194	0.242	2.907	0.916	0.282	0.462
15-Jul-89	195	0.244	2.899	0.905	0.286	0.467
15-Jul-89	195	0.25	2.881	0.881	0	0.479
16-Jul-89	196	0.265	2.815	0.807	0.026	0.517
16-Jul-89	196	0.191	2.506	0.01	0.064	0.763
17-Jul-89	197	0.185	2.495	0.01	0.064	0.756
18-Jul-89	198	0.125	2.481	0.022	0.077	0.754
19-Jul-89	199	0.125	2.483	0.022	0.077	0.756
20-Jul-89	200	0.125	2.484	0.023	0.077	0.756
20-Jul-89	200	0.125	2.483	0.022	0.077	0.756
21-Jul-89	201	0.125	2.484	0.022	0.077	0.756
21-Jul-89	201	0.107	1.35	0.445	0.086	1.801
22-Jul-89	202	0.101	1.261	0.45	0.089	1.482
22-Jul-89	202	0.127	1.618	0.537	0.108	1.892
23-Jul-89	203	0.063	0.706	0.296	0.046	1.416
23-Jul-89	203	0.127	1.629	0.551	0.108	1.848

Where two readings shown for one day, upper is for 6:00am and lower 600pm.

WIRE EXTENSOMETER DATA 1989 : Raw Data (metres)

LOGGER 0002

Wire Extensometers 051 to 055

DATE	DAY No.	WE 051	WE 052	WE 053	WE 054	WE 055
24-Jul-89	204	0.063	0.711	0.252	0.047	1.566
24-Jul-89	204	0.114	1.484	0.514	0.095	1.829
25-Jul-89	205	0.328	4.426	1.479	0.328	4.441
26-Jul-89	206	0.327	4.413	1.472	0.327	4.418
27-Jul-89	207	0.32	4.321	1.442	0.32	4.326
28-Jul-89	208	0.32	4.342	1.444	0.32	4.343
29-Jul-89	209	0.322	4.354	1.449	0.322	4.347
30-Jul-89	210	0.325	4.4	1.465	0.325	4.398
31-Jul-89	211	0.315	4.269	1.421	0.315	4.259
01-Aug-89	212	0.314	4.248	1.414	0.315	4.254

Where two readings shown for one day, upper is for 6:00am and lower 600pm.

APPENDIX F

DIARY OF RECHARGE EVENTS

DIARY OF RECHARGE EVENTS

date	time	
05/12/88	16:30	Grid line D only. 40 gallon header tank on gauge house roof filled
- NO MAINS CONNECTION -		
06/12/88	10:30	Header tank drained down when inspected
	14:30	Header tank refilled
07/12/88		Header tank drained down by early morning Permanent mains connection fitted to header tank
07/12/88	14:00	Recharge switched ON, grid line D to GROUND LEVEL *
21/12/88	10:15	Recharge switched OFF - Christmas break
11/01/89	11:00	Recharge ON
31/01/89	14:00	Recharge grid line F switched ON to GROUND LEVEL
21/02/89	12:10	Recharge OFF temporarily for fitting gauze over header tank outlet to prevent the escape of undissolved lumps of gypsum plaster into the recharge network. **
28/02/89		Recharge OFF mending of leak ?
14/03/89	12:15	Recharge switched OFF for repair of leak ON again before left site
21/03/89	14:00	Recharge OFF - for connection of next line and raising of header tanks
22/03/89	12:15	Recharge switched ON, grid lines D and F to 3.0m head grid line H to GROUND LEVEL
03/04/89	12:00	Burst on hosepipe from mains sometime over weekend therefore recharge switched OFF

DIARY OF RECHARGE EVENTS

04/04/89		Hosepipe repaired, recharge back ON mid-afternoon
12/04/89	13:00	Recharge OFF - preparatory work for raising recharge head on grid line H
13/04/89	15:30	Recharge switched ON, grid lines D,F and H to 3.0m head
14/04/89		Hosepipe burst - quickly repaired
25/04/89	10:50	Recharge OFF - preparation for connection in of grid line K
26/04/89	15:00	Recharge switched ON, grid lines D,H & F to 3.0m head grid line K to GROUND LEVEL i.e 3.0m above bench level
03/05/89	12:30	Leak early am. - mended and running by 12:30 hrs
05/05/89		Hosepipe burst
08/05/89		Leak in system mended v.quickly
12/05/89	14:00	Grid line K up to full head 3.0m above ground level
15/05/89		Scaffold tower ordered to raise recharge head
16/05/89	13:45	Recharge switched OFF - for raising of head
17/05/89	15:15	Recharge head raised to 4.23m a.g.l.
17/05/89	15:45	Recharge OFF - break in joint along grid line H
	16:00	Recharge ON
	16:15	Recharge OFF - break in another joint, system left off overnight
18/05/89	11:30	Recharge ON
	13:00	ON again after repair of small leak
19/05/89		Leak
20/05/89		Leak
21/05/89		Leak !

DIARY OF RECHARGE EVENTS

25/05/89		all connections on grid line D fibre glassed
31/05/89		all connections on grid lines F,H and K fibre glassed
01/06/89		Recharge ON still to 4.23m head Still some leaking on fibreglassed connections
02/06/89	14:00	Recharge head raised to 5.35m a.g.l. "Flexible" connection fitted from header tank to recharge system
03/06/89		Leak !
8 & 9/06/89		leaks everywhere on system, joints bursting at regular intervals therefore :-
12/06/89		Recharge switched OFF - system rebuilt using 12.5mm dia. reinforced hosepipe
14/06/89		Grid lines D,F & H to 5.35m as trial of new system
15/06/89	12:00	Recharge switched ON all rows to 5.35m head
20/06/89		- Sprinkler on area in front of gauge house
21/06/89		- Sprinkler moved to RHS of gauge house
22/06/89		- Slump of top bench
5/06/89		Airlock in flexible connection
06/07/89		recharge noticed to be running "as if there were a leak in the system" - no leak found therefore a well may have split at depth.
13/07/89	14:40	Recharge head raised to 7.00m a.g.l.
16/07/89		COLLAPSE OF SLOPE - recharge switched off at 14:30 hrs.

Footnote to Diary of Recharge Events

- * Ground level is taken as the height of the ground outside the gauge house which

was situated 7.5m back from the crest of the slope.

** A gypsum based plaster was mixed and placed as lumps in the header tank to try and "shrink" away any clay smearing around the active length of the recharge wells which may have occurred during installation.

APPENDIX G

SURVEY DATA

22 POINT SURVEY

POINT	POSITION
01	Inclinometer 01, (back of tube)
02	" 02
03	" 03
04	" 04
05	(South) Wire Extensometer Frame *
06	String Inclinometer 01
07	(North) Wire Extensometer Frame *
08	Inclinometer 05
09	Wire Extensometer Anchor 051
10	Inclinometer 06
11	Inclinometer 07
12	Wire Extensometer Anchor 056
13	Inclinometer 08
14	String Inclinometer 02
15	Inclinometer 09
16	Wire Extensometer Anchor 053
17	Wire Extensometer Anchor 058
18	Inclinometer 10
19	Inclinometer 11
20	Inclinometer 12
21	Wire Extensometer Anchor 057
22	Wire Extensometer Anchor 052

* North-west holding down bolt.

SELBORNE SLOPE STUDY file:SUR_ALL
 SURVEY DATA nb Angles only used in analysis

"22 POINT SURVEY"

DATE	27/09/88	06/03/89	05/07/89	11/07/89	13/07/89	17/17/89
DAY NO.	-96	64	185	191	193	197
	EASTNG	EASTNG	EASTNG	EASTNG	EASTNG	EASTNG
1	91.111	91.154	91.132	91.108	91.104	91.104
2	93.734	93.706	93.688	93.675	93.668	93.661
3	96.872	96.823	96.862	96.824	96.820	96.826
4	100.452	100.459	100.569	100.692	100.716	103.508
5	99.448	99.473	99.465	99.522	99.520	101.456
6		99.122	99.118	99.156	99.163	102.155
7	99.446	99.443	99.442	99.488	99.490	100.038
8	102.632	102.590	102.629	102.658	102.648	103.446
9	105.851	106.275	106.302	106.372	106.376	108.020
10	105.953	105.908	105.937	105.985	105.981	107.880
11	109.298	109.256	109.259	109.305	109.317	112.737
12	109.603	109.560	109.579	109.656	109.665	113.107
13	111.697	111.658	111.688	111.751	111.749	113.687
14	112.204	112.163	112.184	112.269	112.279	116.122
15	114.999	114.976	114.936	114.945	114.940	****
16	115.586	115.527	115.540	115.543	115.532	117.225
17	117.750	117.717	117.703	117.709	117.709	****
18	118.248	118.209	118.178	118.161	118.168	****
19	120.788	120.732	120.726	120.761	120.750	120.735
20	124.046	123.991	****	123.997	123.995	123.976
21	127.617	127.575	****	127.563	127.567	127.573
22	124.540	124.499	124.479	124.498	124.482	124.484

SELBORNE SLOPE STUDY file:SUR_ALL
 SURVEY DATA nb Angles only used in analysis

"22 POINT SURVEY"

DATE 27/09/88 06/03/89 05/07/89 11/07/89 13/07/89 17/17/89

DAY NO. -96 64 185 191 193 197
 NRTHNG NRTHNG NRTHNG NRTHNG NRTHNG NRTHNG

1	95.629	95.619	95.620	95.605	95.615	95.609
2	114.766	114.809	114.783	114.793	114.805	114.785
3	107.847	107.871	107.865	107.881	107.884	107.869
4	96.937	96.933	96.908	96.888	96.863	96.784
5	101.087	101.030	101.021	101.012	101.005	100.114
6		103.079	103.057	103.054	103.054	101.959
7	114.215	114.155	114.162	114.162	114.165	113.826
8	115.090	115.120	115.132	115.135	115.131	114.941
9	117.234	113.302	113.307	113.307	113.308	113.237
10	108.057	108.076	108.063	108.065	108.080	108.008
11	97.157	97.164	97.165	97.140	97.140	97.075
12	100.003	100.019	100.011	100.001	100.005	100.164
13	114.312	114.359	114.313	114.349	114.359	114.917
14	102.388	102.398	102.388	102.386	102.388	102.976
15	108.325	108.347	108.340	108.356	108.362	****
16	114.160	114.159	114.176	114.180	114.194	114.659
17	100.456	100.473	100.465	100.473	100.473	****
18	97.253	97.285	97.249	97.282	97.277	****
19	115.489	115.503	115.506	115.507	115.514	115.512
20	108.535	108.544	****	108.534	108.511	108.518
21	100.103	100.114	****	100.102	100.109	100.106
22	114.265	114.297	114.298	114.283	114.299	114.285

SELBORNE SLOPE STUDY file: SUR_ALL
 SURVEY DATA nb Angles only used in analysis

"22 POINT SURVEY"

DATE	27/09/88	06/03/89	05/07/89	11/07/89	13/07/89	17/17/89
DAY NO.	-96	64	185	191	193	197
	HEIGHT	HEIGHT	HEIGHT	HEIGHT	HEIGHT	HEIGHT
1	86.631	87.204	87.172	87.171	87.166	87.168
2	87.029	86.841	86.925	86.920	86.917	86.916
3	87.134	87.062	87.032	87.020	87.015	87.013
4	87.572	87.487	87.445	87.424	87.414	83.993
5	86.906	86.924	86.858	86.804	86.788	84.513
6		87.218	87.156	87.146	87.141	84.751
7	86.722	86.747	86.680	86.622	86.614	85.605
8	85.528	85.524	85.501	85.476	85.473	84.979
9	83.841	84.381	84.318	84.318	84.316	83.806
10	84.058	83.969	83.956	83.948	83.941	83.368
11	82.243	82.147	82.141	82.140	82.129	81.980
12	82.588	82.588	82.523	82.525	82.520	82.324
13	80.938	80.796	80.840	80.850	80.850	80.842
14	81.244	81.421	81.353	81.345	81.336	80.451
15	79.627	79.535	79.529	79.526	79.523	****
16	79.723	79.728	79.660	79.658	79.651	79.193
17	78.893	78.903	78.838	78.835	78.830	****
18	78.594	78.483	78.501	78.496	78.494	****
19	78.429	78.314	78.356	78.362	78.350	78.353
20	78.669	78.577	****	78.582	78.573	78.582
21	78.839	78.844	****	78.759	78.761	78.763
22	78.696	78.693	78.625	78.620	78.615	78.617

SLIP SURFACE

trench1		
EASTIN	NORTH1	HEIGHT
91.128	95.608	87.158
93.685	114.786	86.911
96.866	107.861	86.996
99.635	95.935	86.731
100.038	96.218	84.979
100.414	95.883	83.963
100.616	95.901	83.924
100.986	95.957	83.756
101.513	95.947	83.637
101.416	95.607	83.391
101.709	95.633	83.001
101.909	95.608	82.903
102.310	95.616	82.628
102.525	95.647	82.510
102.810	95.688	82.308
103.108	95.822	82.168
103.283	95.972	82.083
103.442	95.934	82.021
103.776	95.842	81.891
104.162	95.779	81.692
104.536	95.668	81.531
104.753	95.708	81.384
104.995	95.764	81.219
105.415	95.752	80.887
105.903	95.725	80.239
105.846	95.858	80.685
106.020	95.909	80.590
106.101	95.984	80.499

trench 2		
EASTIN	NORTH1	HEIGHT
98.882	106.765	86.646
98.985	106.907	85.672
99.753	107.034	84.102
100.756	106.507	83.236
101.149	106.523	82.488
102.016	107.268	81.471
102.960	107.694	80.880
103.347	107.563	80.618
104.945	107.875	79.959
106.431	108.066	79.530
107.810	108.272	79.330
108.604	108.112	80.053
108.559	108.213	79.261
109.915	108.530	79.137
110.736	108.525	79.137
111.467	108.549	79.096
112.158	108.623	79.137
112.473	107.647	79.152
113.534	107.937	79.168
114.458	108.167	79.104
115.237	108.306	79.040
114.875	108.438	78.556
115.307	108.439	78.841
115.952	108.627	78.873
106.167	111.509	79.623
107.893	111.576	79.729
109.858	111.835	80.178
110.407	112.094	80.304

SLIP SURFACE

trench1		
EASTIN	NORTH1	HEIGHT
107.219	96.707	80.063
107.249	96.345	80.051
107.338	96.303	80.047
107.538	96.267	80.019
107.770	96.297	79.945
107.941	96.302	79.911
108.091	96.385	79.872
108.278	96.548	79.800
109.153	97.094	79.536
109.246	97.066	79.508
110.014	97.043	79.577
110.683	97.127	79.599
111.737	97.313	79.554
112.241	97.431	79.553
112.880	97.253	79.539
113.326	97.198	79.512
113.841	97.307	79.514
114.348	97.251	79.466
115.021	97.059	79.303
115.517	96.873	79.181
115.800	96.818	79.073
116.051	96.754	78.943
115.448	97.136	79.222
116.825	96.740	78.687
117.125	96.668	78.753
117.205	96.651	78.517
105.815	92.762	81.237
107.245	92.579	81.153

trench 2		
EASTIN	NORTH1	HEIGHT
110.807	112.096	80.372
111.293	111.975	80.416
111.629	112.018	80.425
112.303	112.091	80.480
113.046	112.342	80.527
113.864	112.721	80.515

SLIP SURFACE

trench1		
EASTIN	NORTH1	HEIGHT
108.575	92.475	81.146
111.418	97.914	80.832
110.638	97.188	80.620
108.744	97.141	80.197
108.016	96.379	79.948

APPENDIX H

HVORSLEV CALCULATIONS TO GIVE TYPICAL PIEZOMETER RESPONSE TIMES

Response Times can be considered as

- ① Piezometer response time to unit rise in pressure head. i.e. time for flow of a compliance volume, where compliance volume is that amount of water required to register a change in the instrument reading equivalent to a unit change in pressure. This is essentially a reaction phenomenon
- ② Piezometer response to maximum pressure change. i.e. response to installation pressure change when reading changes from zero (atmospheric pressure) to that currently present in the ground. This can be referred to as a Lag Time. (not to be confused with Basic Lag Time which is defined by Hvorslev and described later.)
- ③ Response time of a point at greatest distance from a recharge well.

① and ② are considered in this Appendix

Basic Information

1. From Feasibility Study

$$\text{Permeability } k = 4 \times 10^{-9} \text{ m/s}$$

2. Vibrating wire and pneumatic piezometers were installed in a filter pocket of:

$$\text{diameter } D = 0.150 \text{ m}$$

$$\text{length } L = 0.260 \text{ m}$$

3. Recharge Wells / Standpipes were installed with a new gravel filter length of 6.0 m.

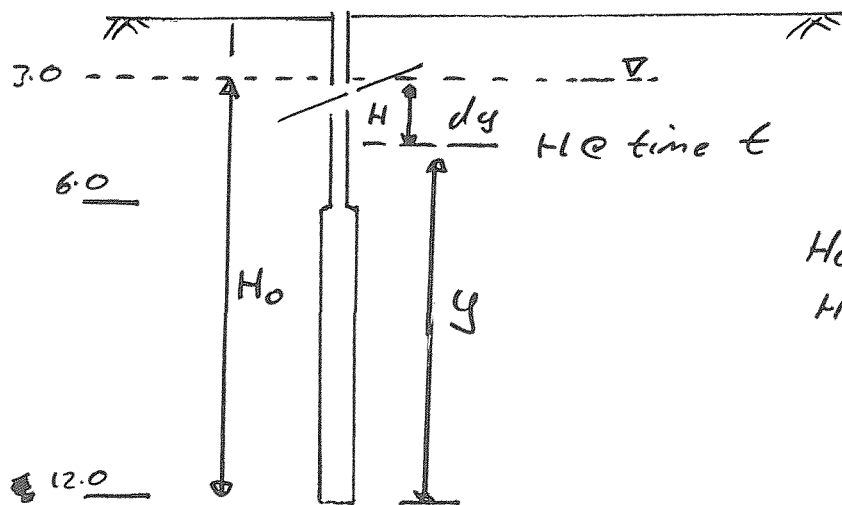
4. Mitchel (1983) gives the typical compliance volume (V) for a diaphragm type piezometer as:

$$V = 10^{-6} \text{ cm}^3 \text{ per m H}_2\text{O rise in applied head}$$

(Note Geotechnical Instruments do not seem to know the exact compliance volumes of their own instruments.)

CASE A :

RESPONSE TIME FOR A RECHARGE WELL /
STANDPIPE PIEZOMETER



$$H = dy$$

$$H_0 = 9.0 \text{ m H}_2\text{O}$$

$$H = 0.1 \text{ m H}_2\text{O}$$

i.e. accuracy of
gw readings

Hvorslev gives

$$T = \frac{A}{FK}$$

Where T = Basic Time Lag which is the time that would be taken to establish equilibrium if the initial flow rate were maintained.

and F is an intake factor for the piezometer

In this case

$$F = \frac{2\pi L}{\log_e \left[\frac{L}{D} + \sqrt{1 + \left(\frac{L}{D} \right)^2} \right]}$$

where L = length of filter socket
and

D = diameter of filter socket

$$F = \frac{2\pi \times 6.0}{\log_e \left[\frac{6.0}{0.15} + \sqrt{1 + \left(\frac{6.0}{0.15} \right)^2} \right]}$$

$$= 8.6 \text{ metres}$$

$$\text{So } T = \frac{1/4 (0.019^2) \pi}{8.6 \times 4 \times 10^{-9}} \quad \text{for a 19mm standpipe}$$

$$= 8239 \text{ seconds}$$

$$\equiv \underline{\underline{2.28 \text{ Hours}}}$$

To achieve a reading of within 0.1 m H₂O
of H₀

$$\frac{t}{T} = \log_e \left(\frac{H_0}{H} \right)$$

From the general
approach given by
Hvorslev

$$t = \log_e \left(\frac{9.0}{0.1} \right) 2.28$$

$$= \underline{\underline{10.25 \text{ hours}}}$$

CASE B:

RESPONSE TIME FOR A DIAPHRAGM
TYPE PIEZOMETER

Compliance volume for a diaphragm piezometer is typically

10^{-6} cm^3 per mH_2O applied pressure.

This is equivalent to a standpipe of cross sectional area

$$10^{-8} \text{ cm}^2 \\ \text{or } 10^{-12} \text{ m}^2.$$

Hvorslev gives

$$T = \frac{A}{FK} \quad \text{as in Case A}$$

$$F = \frac{2\pi \times 0.26}{\log_e \frac{0.26}{0.15} + \sqrt{1 + \left(\frac{0.26}{0.15}\right)^2}}$$

$$= 1.24 \text{ metres}$$

So

$$T = \frac{10^{-12}}{1.24 \times (4 \times 10^{-9})}$$

$$= 2.0 \times 10^{-4} \text{ Seconds}$$

and to achieve a 0.1 m H₂O reading accuracy on a 9.0 m H₂O change in head

$$\frac{t}{T} = \log_e \frac{H_0}{H}$$

$$t = \log_e \left(\frac{9.0}{0.1} \right) (2.0 \times 10^{-4})$$

$$= \underline{\underline{9 \times 10^{-4} \text{ Seconds} !}}$$

But, as shown by Figures 14-2, 14-3 and 14-6 (shown on next pages) the typical "log time" following installation was typically 55-60 days, i.e. for greater than the response time, shown here.

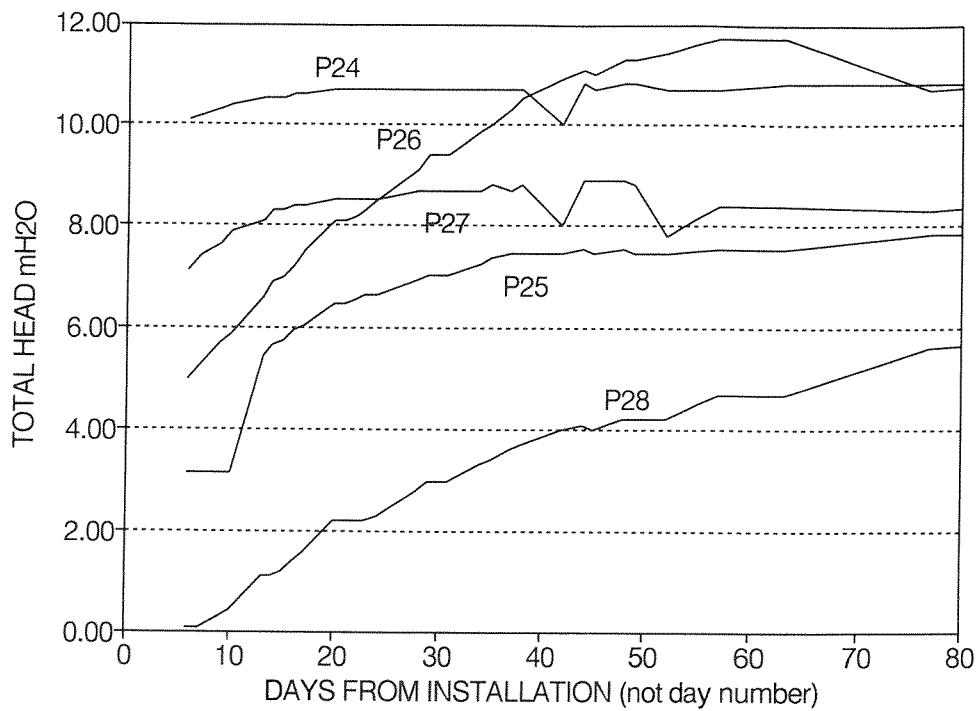


Figure 14-2 Installation lag times, total heads.

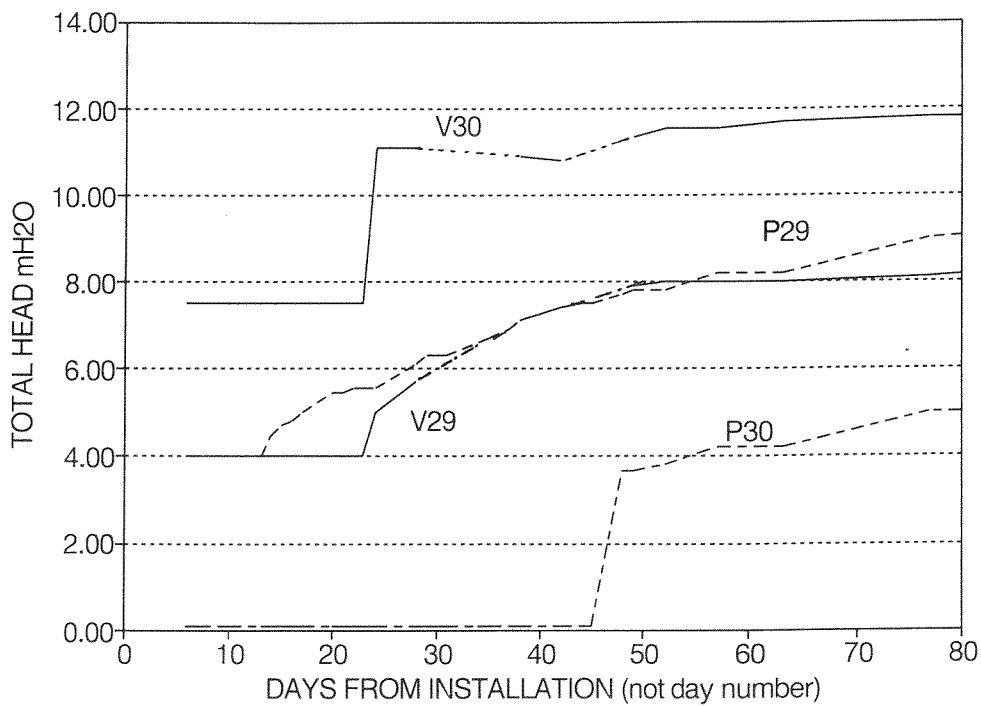


Figure 14-3 Installation lag times, total heads.

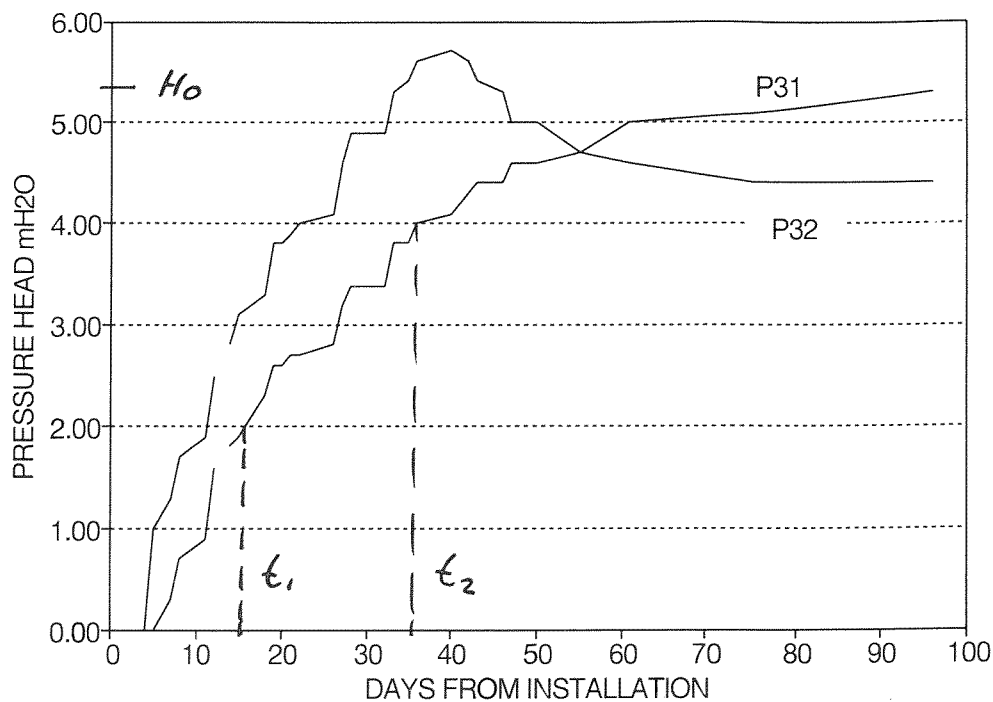


Figure 14-6 Lag times - Recharge test bed

Figure 14-6 can be used to "back calculate" a permeability applicable to installation for P31.

Using the general formula for Hvorslev

$$u = \frac{A}{F(\tau_2 - \tau_1)} \log_e \left(\frac{H_1}{H_2} \right)$$

Where $H_1 = H_0 - H$ @ time τ_1

and $H_2 = H_0 - H$ @ time τ_2

$$k = \frac{10^{-12}}{1.24 ((35-15) \times 60^2 \times 24)} \log_e \left(\frac{5.4-2.0}{5.4-4.0} \right)$$

$$= \underline{\underline{4 \times 10^{-19} \text{ m/s}}}$$

The mass permeability of the Gault Clay at Selborne was measured as $4 \times 10^{-9} \text{ m/s}$. The high-air entry ceramic piezometer filters typically had a permeability of $2 \times 10^{-8} \text{ m/s}$.

The above "back calculated" permeability therefore indicates that the lag times were more to do with stress conditions than instrumentation characteristics. It seems likely that the instrumentation was measuring the reequilibration of stress conditions in the ground following the unloading effects caused by borehole formation. Hence the lag time of typically 55 days was relatively independent of final porewater pressure or depth of installation.

References:

Hvorslev, M. J. (1951). 'Time Lag and soil permeability in ground water observations'. Bull. No 36, Waterways Experimental Station, Vicksburg, USA.

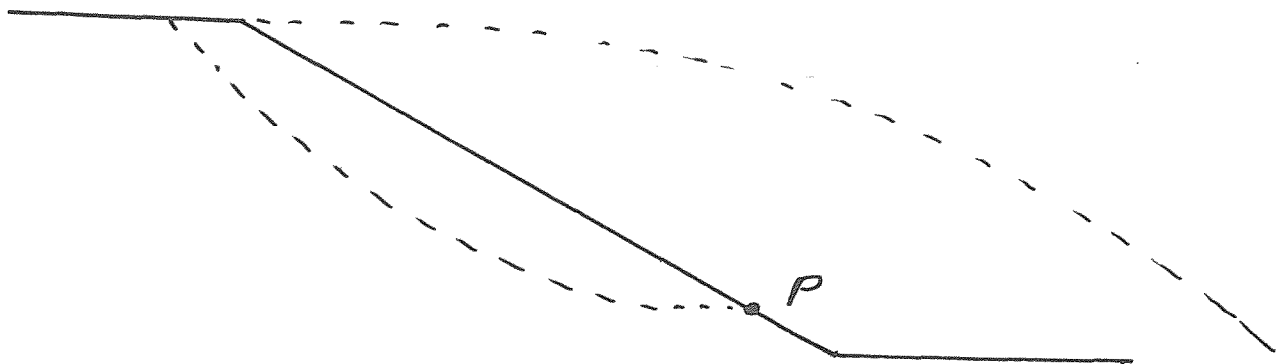
Mitchell, J K; Guzickowski, F; Villet W.C; (1978). The measurement of soil properties in-situ, Present Methods - Their applicability and potential. US Dept. Energy Report. Dept Civil Eng. Univ. California, Berkeley.

APPENDIX J
STRESS RELIEF ANALYSIS

Aim :

To establish the likely value of lateral movement due to the unloading affects of slope formation.

Worst case will be point P, where the eventual slip surface emerged at cut slope face.

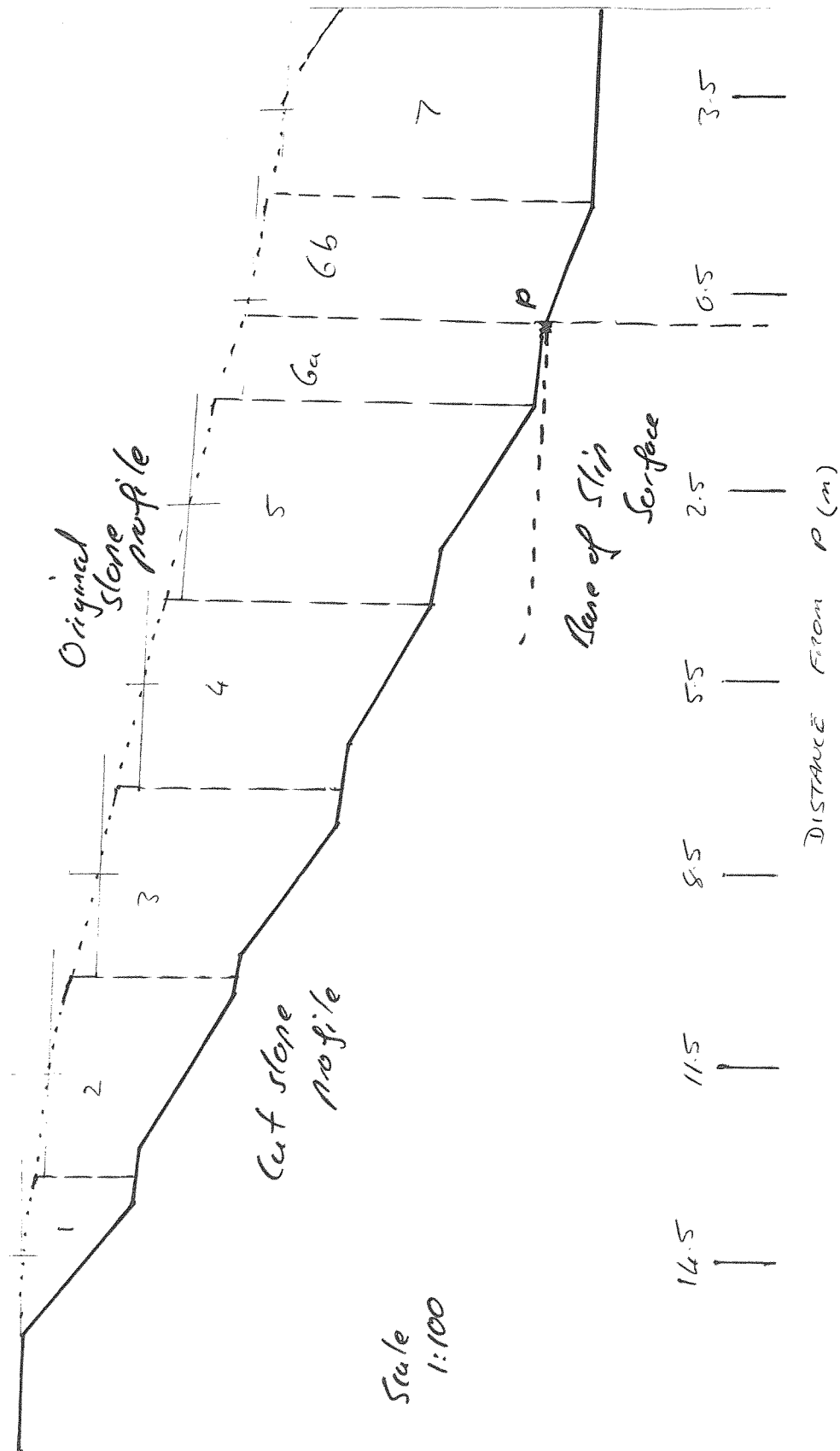


Need to establish "inverted embankment" to represent cutting stress relief.

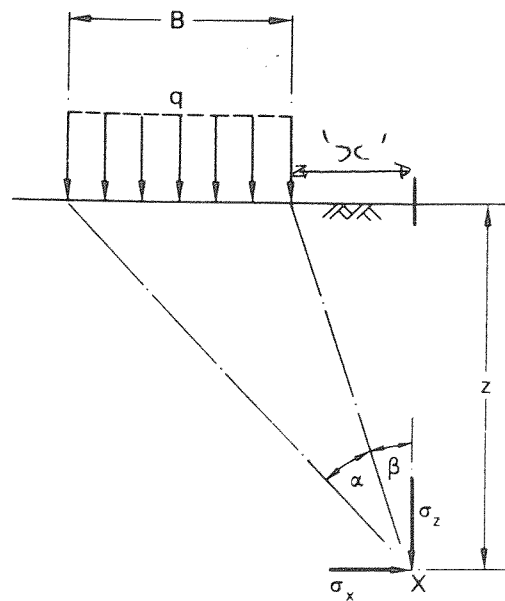
Also need a value of m_v for Gault Clay, where m_v is the Coefficient of Volume Compressibility due to lateral loading.

A highway scheme nearby gave and m_v for Gault Clay of

$$m_v = 0.15 \text{ m}^2/\text{MN}$$



Segment	Cutting "Volume" per m width (m^2)	Equivalent block height (m)
1	$\frac{1}{2} \times 3.0 \times 1.5$	0.75
2	$(2.0 \times 1.4) + (\frac{1}{2} \times 1.5 \times 3.0)$	2.15
3	$(2.2 \times 3.0) + (\frac{1}{2} \times 1.5 \times 3.0)$	2.80
4	$3.1 \times 3.0 + (\frac{1}{2} \times 1.2 \times 3.0)$	3.70
5	$3.2 \times 3.0 + (\frac{1}{2} \times 1.4 \times 3.0)$	3.90
6a	$4.5 \times 3.0 + (\frac{1}{2} \times 1.3 \times 2.0)$	$\frac{1}{3}$ 1.63
6b		$\frac{2}{3}$ 3.27
7	4.5×3.0	4.5



Using the Boussinesq solution quoted by Craig

$$\sigma_x = \frac{q}{\pi} [\alpha - \sin \alpha \cos(\alpha + 2\beta)]$$

Note that elements 6b and 7 will give rise to stresses acting in a different direction to elements 1 to 5.

Attached spreadsheet calculates the horizontal stress distribution and horizontal displacements.

ELEMENT	Dist P to centre Element	B	'x'	Z	(p J3)	q=HTx20	Alpha (rad)	Beta (rad)	Sig X (kN)
1	14.5	3	13	8	0.75	15	0.0880	1.0191	0.642
2	11.5	3	10	7.6	2.15	43	0.1208	0.9209	2.284
3	8.5	3	7	6.9	2.8	56	0.1742	0.7926	3.685
4	5.5	3	4	6.2	3.7	74	0.2730	0.5730	5.469
5	2.5	3	1	5.5	3.9	78	0.4489	0.1799	3.706
6a	1.0	1	0.5	5	1.63	32.6	0.1918	0.0997	0.162
6b	1.5	2	0.5	4.4	3.27	65.4	0.4035	0.1132	-1.795
7	3.5	3	2	4.1	4.5	90	0.4301	0.4538	-9.564

1D Settle (assume $M_h=M_v$)

ELEMENT	Mh (m2/MN)	Sig X	B=d	Sc
1	0.15	0.642	3	0.29
2	0.15	2.284	3	1.03
3	0.15	3.685	3	1.66
4	0.15	5.469	3	2.46
5	0.15	3.706	3	1.67
6a	0.15	0.162	1	0.02
6b	0.15	-1.795	2	-0.54
7	0.15	-9.564	3	-4.30
total				2.3 mm

Example hand calculation for Element I to check spreadsheet

Data $B = 3.0$ ' x ' = 13
 $z = 8.0$

Equivalent block height from
 sheet SS = 0.75m

$$q = 0.75\text{m} \times 20 \quad \text{Assuming soil weight} \\ = 20\text{ kN/m}^3$$

Calculation

$$\alpha = (\alpha + \beta) - \beta$$

$$\tan(\alpha + \beta) = \frac{'x' + B}{z} = \frac{3 + 13}{8.0}$$

$$(\alpha + \beta) = 1.1071$$

$$\tan \beta = \frac{'x'}{z} = \frac{13}{8}$$

$$\underline{\underline{\beta = 1.0191}} \quad \text{Agrees with spreadsheet}$$

$$\text{So } \alpha = 1.1071 - 1.0191$$

$$\underline{\underline{\alpha = 0.0880}} \quad \text{Agrees with spreadsheet}$$

Using Boussinesq's solution:

$$\begin{aligned}\sigma_x &= \frac{q}{\pi} \left[\alpha - \sin \alpha \cos (\alpha + 2\beta) \right] \\ &= \frac{0.75 \times 20}{\pi} \left[0.0880 - \sin (0.0880) \cos (0.0880 + (2 \times 1.0191)) \right] \\ &= \underline{0.642 \text{ kN/m}^2} \quad \text{Agrees with spreadsheet}\end{aligned}$$

Settlement is derived from 1-D consolidation theory where

$$S_c = m_v \Delta \sigma' H$$

Where S_c = settlement due to consolidation:

$\Delta \sigma' = \sigma_x$ = change in stress

H = layer thickness = d

m_v = coefficient of volume compressibility
which in this case is being assumed similar to m_H

$$S_c = 0.15 \times 0.642 \times 3 = \underline{0.29} \quad \text{Agrees with spreadsheet}$$

References :

Craig, R.F. (1994) . *Soil Mechanics* .
Chapman and Hall , London .

APPENDIX K
THE INTERLOCK PROBLEM

THE INTERLOCK PROBLEM

In any slope analysis a variety of force distributions will satisfy the conditions of equilibrium (Bishop 1955). The assumption of horizontal or parallel inclined interslice forces will usually lead to sensible results. A situation (Figure K-1) exists whereby the assumption of horizontal or parallel inclined interslice forces is no longer reasonable. At the toe of the slope shown in Figure K-1 the deep slip surface emerges at a steep angle Θ and has a high mobilized angle of friction ϕ_m where :

$$\tan \phi_m = \frac{\tan \phi}{F}$$

Hence the direction of the resultant force R on the base of the slice is almost horizontal and may even possibly be pointing downwards. For vertical equilibrium the interslice force X on this slice must point upwards, Figure K-2, which contravenes the assumption of either horizontal or parallel inclined interslice forces. This phenomenon is known as *the interlock problem*.

The contribution to stability of a frictional soil at the base of a deep seated slip is very small. Therefore for practical analysis a numerical device can be employed whereby the frictional property of this material is replaced with a small equivalent cohesion, without any major affect on the calculated factor of safety.

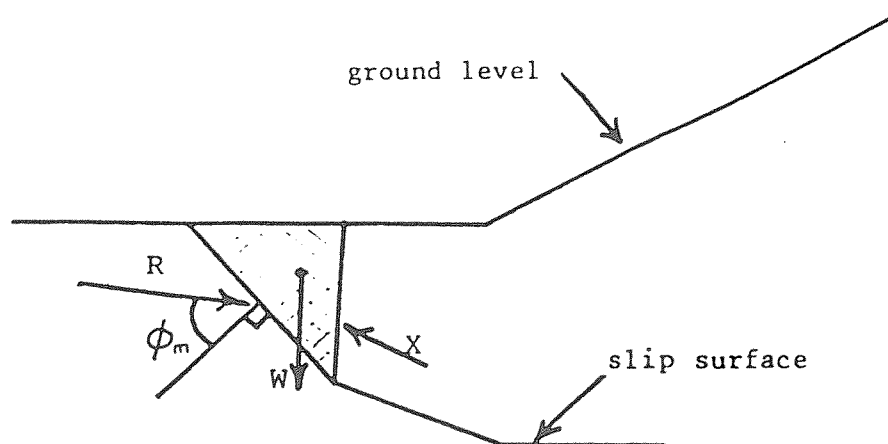


Figure K-1. The interlock problem at the toe of a slope

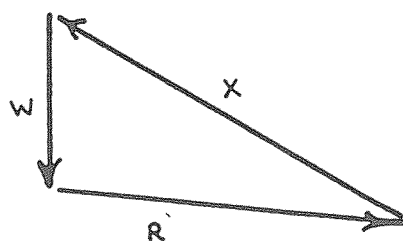


Figure K-2. Force diagram for interlock problem.

APPENDIX L

SUMMARY OUTPUT FOR "SLOPE" ANALYSIS

Key to Run Numbers :-

Prefix **DIG** indicates a *piezometric grid* used to represent pore pressure information.

Prefix **PHR** indicates analysis carried out using a *phreatic surface* to represent pore water pressures.

Suffix **number** represents *Day number* for analysis, N indicating a *negative* day number.

R represents an analysis carried out using *residual* soil parameters.

The following analyses were carried out:

	"SLOPE" Run No.	
Day Number	Phreatic Surface analysis	Grid of Piezometric Pressures analysis
-118	PHR_N118	DIG_N118
-61	PHR_N061	DIG_N061
-30	PHR_N030	DIG_N030
2	PHR_002	DIG_002
31	PHR_031	DIG_031
59	PHR_059	DIG_059
89	PHR_089	DIG_089
121	PHR_121	DIG_121
151	PHR_151	DIG_151
180	PHR_180	DIG_180
194	PHR_194	DIG_194
194 (Residual parameters)	PHR_R194	DIG_R194

SLOPE ANALYSIS : PIEZOMETRIC GRID

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	Datum for C
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	84.33	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.53	83.53	83.13	82.53	82.53	82.53	82.53
81.03	82.23	82.23	81.33	81.63	81.03	81.03	81.03
79.58	81.58	81.38	80.78	80.88	79.18	79.58	79.58
77.98	81.08	80.38	79.78	79.18	76.28	78.08	75.98

Analysis using Piezometric Grid : Day -118.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

Program SLOPE - Copyright (C) 1992 by DL Borin, distributed by GEOSOLVE
 69 Rodenhurst Road, London SW4, UK. Tel: 081-674-7251

Analysis using Piezometric Grid : Day -118.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.232

Slipped mass = 985 kN/m

Delta = 19.4deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6451 kN.m/m

Out of balance vertical force = -0 kN/m

Out of balance horizontal force = 1 kN/m

Restoring moment= 7946 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		vertical Q kN/m
No.	X	Y		----- horizontal ----- E(total) kN/m	E'(effective) kN/m	
1	99.00	86.65	84.19	0	0	0
2	99.50	85.30	84.14	4	12	2
3	100.00	83.96	84.08	20	19	7
4	100.64	83.23	83.76	39	30	14
5	101.00	82.81	83.57	52	38	18
6	102.00	81.51	82.24	97	81	34
7	103.00	80.92	81.33	115	106	40
8	104.00	80.53	81.20	120	106	42
9	105.00	80.11	81.09	127	107	45
10	105.96	79.75	80.96	132	109	46
11	106.00	79.74	80.95	132	109	46
12	107.00	79.52	80.35	124	112	44
13	108.00	79.38	79.54	109	108	38
14	108.83	79.31	78.87	93	96	32
15	109.00	79.29	78.74	90	93	31
16	110.00	79.21	78.71	71	74	25
17	111.00	79.22	78.95	49	51	17
18	112.00	79.22	79.17	32	32	11
19	113.00	79.24	79.16	17	17	6
20	114.00	79.21	78.97	8	8	3
21	115.00	79.10	79.02	4	4	1
22	116.00	78.90	78.76	2	2	0
23	116.50	78.90	78.63	1	1	-0

Slice No.	Cohesion		Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		slice shear S kN/m
	(avge) kN/m2	(avge)				--- normal --- P kN/m	--- P' kN/m	
1	1.00	0.3839		0.00	6	6	6	3
2	1.00	0.3852		0.05	19	20	20	7
3	1.00	0.4040		3.21	37	34	31	11
4	1.00	0.4040		6.40	25	23	20	7
5	1.00	0.4220		7.35	79	74	62	23
6	1.00	0.4245		5.60	89	80	74	26
7	1.00	0.4245		5.35	89	83	78	28
8	1.00	0.4245		8.11	88	82	73	26
9	1.00	0.4245		10.70	84	79	68	24
10	1.00	0.4245		11.88	3	3	2	1
11	1.00	0.4245		9.99	83	82	72	26
12	1.00	0.4245		4.77	77	79	75	27

Analysis using Piezometric Grid : Day -118.

13	1.00	0.4245	0.19	58	62	62	2
14	1.00	0.4245	0.00	11	12	12	
15	1.00	0.4245	0.00	61	66	66	2
16	1.00	0.4245	0.00	52	60	60	2
17	1.00	0.4245	0.00	43	49	49	1
18	1.00	0.4245	0.00	33	38	38	1
19	1.00	0.4245	0.00	23	26	26	1
20	1.00	0.4245	0.00	15	16	16	
21	1.00	0.4245	0.00	8	8	8	
22	1.00	0.4245	0.00	1	2	2	

Analysis using Piezometric Grid : Day -118.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.30	78.30	78.30	78.30	78.30	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			Datum for C
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	84.93	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.43	83.23	83.23	82.53	82.53	82.53	82.53
81.03	82.53	82.83	81.43	81.33	81.03	81.03	81.03
79.58	81.68	81.38	80.48	80.58	79.08	79.58	79.58
77.98	81.38	80.58	79.68	78.78	75.78	78.38	75.98

Analysis using Piezometric Grid : Day -61.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day -61.

GIFFORD AND PARTNERS, Southampton

Program: SLOPE version 8.2X licensed from GEOSOLVE

SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No.DIG_N061
Job No.
Made by : DIG
Date: 13-Jun-93
Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.238

Slipped mass = 985 kN/m

Delta = 20.0deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6455 kN.m/m

Out of balance vertical force = 0 kN/m

Out of balance horizontal force = 0 kN/m

Restoring moment= 7989 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	84.52	0	0	0
2	99.50	85.30	84.37	6	12	2
3	100.00	83.96	84.19	23	20	8
4	100.64	83.23	83.60	41	35	15
5	101.00	82.81	83.38	54	43	20
6	102.00	81.51	82.44	98	79	36
7	103.00	80.92	81.43	117	106	43
8	104.00	80.53	81.09	122	110	44
9	105.00	80.11	80.85	129	114	47
10	105.96	79.75	80.66	133	115	48
11	106.00	79.74	80.66	133	116	48
12	107.00	79.52	80.09	124	116	45
13	108.00	79.38	79.32	109	109	39
14	108.83	79.31	78.69	92	96	34
15	109.00	79.29	78.56	89	94	32
16	110.00	79.21	78.59	71	74	26
17	111.00	79.22	78.91	49	50	18
18	112.00	79.22	79.22	31	31	11
19	113.00	79.24	79.21	17	17	6
20	114.00	79.21	79.00	8	8	3
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	0	0	0

Slice No.	Cohesion (avge) kN/m2	Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		
					--- normal --- P kN/m	P' kN/m	shear S kN/m
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.22	19	20	20	6
3	1.00	0.4040	2.95	37	34	31	11
4	1.00	0.4040	4.64	25	23	20	7
5	1.00	0.4220	7.34	79	74	62	22
6	1.00	0.4245	7.02	89	80	72	26
7	1.00	0.4245	5.25	89	83	78	27
8	1.00	0.4245	6.36	88	82	75	27
9	1.00	0.4245	8.06	84	78	70	25
10	1.00	0.4245	8.97	3	3	2	1
11	1.00	0.4245	7.29	83	82	75	27
12	1.00	0.4245	2.53	77	80	77	27

Analysis using Piezometric Grid : Day -61.

13	1.00	0.4245	0.00	58	62	62	22
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	66	66	24
16	1.00	0.4245	0.00	52	61	61	22
17	1.00	0.4245	0.00	43	49	49	18
18	1.00	0.4245	0.00	33	38	38	14
19	1.00	0.4245	0.00	23	26	26	10
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day -61.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1 (GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	28.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	Datum for C
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	84.53	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.33	82.53	82.63	82.53	82.53	82.53	82.53
81.03	82.63	82.63	81.03	81.13	81.03	81.03	81.03
79.58	81.68	80.98	80.38	80.38	78.88	79.58	79.58
77.98	81.38	80.58	79.58	78.68	75.68	77.88	75.98

Analysis using Piezometric Grid : Day -30.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day -30.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.272

Slipped mass = 985 kN/m

Out of balance vertical force = 0 kN/m

Delta = 20.1deg.

Out of balance horizontal force = 0 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6453 kN.m/m

Restoring moment= 8208 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		vertical Q kN/m
No.	X	Y		----- horizontal ----- E(total) E'(effective) kN/m kN/m		
1	99.00	86.65	84.30	0	0	0
2	99.50	85.30	84.22	6	13	2
3	100.00	83.96	84.08	23	21	8
4	100.64	83.23	83.23	41	41	15
5	101.00	82.81	82.82	53	53	19
6	102.00	81.51	82.02	96	85	35
7	103.00	80.92	81.06	114	111	42
8	104.00	80.53	80.82	118	112	43
9	105.00	80.11	80.64	125	114	46
10	105.96	79.75	80.47	129	115	47
11	106.00	79.74	80.46	129	115	47
12	107.00	79.52	79.90	121	115	44
13	108.00	79.38	79.14	105	108	38
14	108.83	79.31	78.51	89	95	33
15	109.00	79.29	78.38	86	92	31
16	110.00	79.21	78.43	69	73	25
17	111.00	79.22	78.77	47	49	17
18	112.00	79.22	79.10	30	31	11
19	113.00	79.24	79.13	16	16	6
20	114.00	79.21	78.95	8	8	3
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	0	0	0

Slice No.	Cohesion (avge) kN/m2	Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		shear S kN/m
					--- normal --- P kN/m	P' kN/m	
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.06	19	20	20	6
3	1.00	0.4040	0.58	37	34	33	11
4	1.00	0.4040	0.06	25	23	22	8
5	1.00	0.4220	2.55	79	73	69	24
6	1.00	0.4245	3.16	89	80	76	26
7	1.00	0.4245	2.12	89	83	81	28
8	1.00	0.4245	4.04	88	82	77	27
9	1.00	0.4245	6.10	84	78	72	25
10	1.00	0.4245	7.05	3	3	3	1
11	1.00	0.4245	5.37	83	82	77	26
12	1.00	0.4245	1.10	77	80	79	27

Analysis using Piezometric Grid : Day -30.

13	1.00	0.4245	0.00	58	62	62	21
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	66	66	23
16	1.00	0.4245	0.00	52	60	60	21
17	1.00	0.4245	0.00	43	49	49	17
18	1.00	0.4245	0.00	33	38	38	13
19	1.00	0.4245	0.00	23	26	26	9
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	3
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day -30.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. DIG_002
Job No.
Made by : DIG
Date: 13-Jun-93
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			Datum for C
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Ground water level							
	86.65	86.55	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	84.93	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.33	82.63	82.63	82.53	82.53	82.53	82.53
81.03	82.33	82.33	81.13	81.13	81.03	81.03	81.03
79.58	81.88	81.28	81.58	80.88	79.28	79.58	79.58
77.98	81.58	80.28	79.88	79.08	75.78	78.58	75.98

Analysis using Piezometric Grid : Day 2.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 2.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.241

Slipped mass = 985 kN/m Out of balance vertical force = 0 kN/m

Delta = 19.9deg. Out of balance horizontal force = 0 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6451 kN.m/m Restoring moment = 8006 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		vertical Q kN/m
No.	X	Y		----- horizontal ----- E(total) E'(effective) kN/m kN/m		
1	99.00	86.65	84.52	0	0	0
2	99.50	85.30	84.37	6	12	2
3	100.00	83.96	84.16	23	20	8
4	100.64	83.23	83.23	41	40	15
5	101.00	82.81	82.89	53	51	19
6	102.00	81.51	81.98	95	85	34
7	103.00	80.92	81.22	113	106	41
8	104.00	80.53	81.22	118	103	43
9	105.00	80.11	81.14	125	104	45
10	105.96	79.75	80.96	130	107	47
11	106.00	79.74	80.95	130	107	47
12	107.00	79.52	80.36	123	110	45
13	108.00	79.38	79.55	108	106	39
14	108.83	79.31	78.87	92	95	33
15	109.00	79.29	78.73	89	92	32
16	110.00	79.21	78.71	71	73	25
17	111.00	79.22	79.00	49	50	18
18	112.00	79.22	79.27	31	31	11
19	113.00	79.24	79.25	17	17	6
20	114.00	79.21	79.03	8	8	3
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	0	0	0

Slice No.	Cohesion (avge) kN/m2	Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		
					--- normal --- P kN/m	P' kN/m	shear S kN/m
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.18	19	20	20	6
3	1.00	0.4040	1.26	37	34	33	11
4	1.00	0.4040	0.66	25	23	22	8
5	1.00	0.4220	2.69	79	73	68	25
6	1.00	0.4245	3.75	89	80	76	27
7	1.00	0.4245	4.85	89	83	78	28
8	1.00	0.4245	8.45	88	82	73	26
9	1.00	0.4245	10.96	84	78	67	24
10	1.00	0.4245	11.84	3	3	2	1
11	1.00	0.4245	10.05	83	82	72	25
12	1.00	0.4245	4.92	77	79	75	26

Analysis using Piezometric Grid : Day 2.

13	1.00	0.4245	0.22	58	62	62	22
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	66	66	24
16	1.00	0.4245	0.00	52	61	61	21
17	1.00	0.4245	0.05	43	49	49	18
18	1.00	0.4245	0.29	33	38	38	14
19	1.00	0.4245	0.00	23	26	26	10
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 2.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below	above	C	Phi	dC/dY	Datum
		GWL	GWL	kN/m2	(deg)	kN/m2/m	for C
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	85.13	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.23	82.63	83.13	82.53	82.53	82.53	82.53
81.03	82.23	82.23	81.13	81.63	81.03	81.03	81.03
79.58	82.08	81.38	80.58	81.08	79.58	79.58	79.58
77.98	81.68	80.48	79.88	79.18	75.78	78.78	75.98

Analysis using Piezometric Grid : Day 31.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 31.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.234

Slipped mass = 985 kN/m

Delta = 19.9deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6452 kN.m/m

Out of balance vertical force = 0 kN/m

Out of balance horizontal force = 0 kN/m

Restoring moment = 7960 kN.m/m

Slip surface coordinates			Piezometric	Interslice forces		
No.	X	Y	elevation Y(w)	horizontal E(total)	vertical E'(effective)	vertical Q
				kN/m	kN/m	kN/m
1	99.00	86.65	84.63	0	0	0
2	99.50	85.30	84.45	6	11	2
3	100.00	83.96	84.20	23	19	8
4	100.64	83.23	83.28	41	40	15
5	101.00	82.81	82.95	53	50	19
6	102.00	81.51	82.04	95	84	35
7	103.00	80.92	81.14	113	108	41
8	104.00	80.53	81.08	117	106	42
9	105.00	80.11	81.09	124	105	45
10	105.96	79.75	81.11	129	103	47
11	106.00	79.74	81.11	129	103	47
12	107.00	79.52	80.55	122	107	44
13	108.00	79.38	79.78	108	104	39
14	108.83	79.31	79.11	92	93	33
15	109.00	79.29	78.97	89	91	32
16	110.00	79.21	78.89	71	73	26
17	111.00	79.22	79.12	49	49	18
18	112.00	79.22	79.33	31	31	11
19	113.00	79.24	79.28	17	17	6
20	114.00	79.21	79.05	8	8	3
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	0	0	0

Slice No.	Cohesion (avge) kN/m2	Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice --- normal ---			shear S kN/m
					P kN/m	P' kN/m		
1	0.00	0.3839	0.00	6	7	7		2
2	0.07	0.3852	0.26	19	20	20		6
3	1.00	0.4040	1.45	37	34	32		11
4	1.00	0.4040	0.96	25	23	22		8
5	1.00	0.4220	3.27	79	73	67		24
6	1.00	0.4245	3.66	89	80	76		27
7	1.00	0.4245	3.81	89	83	79		28
8	1.00	0.4245	7.50	88	82	74		26
9	1.00	0.4245	11.41	84	78	67		24
10	1.00	0.4245	13.35	3	3	2		1
11	1.00	0.4245	11.92	83	82	70		25
12	1.00	0.4245	7.16	77	79	72		26

Analysis using Piezometric Grid : Day 31.

13	1.00	0.4245	1.31	58	62	61	22
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	66	66	24
16	1.00	0.4245	0.00	52	61	61	22
17	1.00	0.4245	0.31	43	49	49	18
18	1.00	0.4245	0.77	33	38	37	14
19	1.00	0.4245	0.04	23	26	26	10
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 59.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SCIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	85.03	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.23	82.53	82.73	82.53	82.53	82.53	82.53
81.03	82.53	82.53	81.33	81.23	81.03	81.03	81.03
79.58	82.08	81.28	80.38	80.88	79.18	79.58	79.58
77.98	81.68	80.38	79.68	79.08	75.58	78.28	75.98

Analysis using Piezometric Grid : Day 59.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces

Factors of safety calculated on Soil Strength

Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 59.

Units: kN,mMethod of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.247

Slipped mass = 985 kN/m

Delta = 20.0deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6452 kN.m/m Restoring moment = 8042 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	84.58	0	0	0
2	99.50	85.30	84.41	6	12	2
3	100.00	83.96	84.18	23	20	8
4	100.64	83.23	83.23	41	41	15
5	101.00	82.81	82.83	53	52	19
6	102.00	81.51	82.12	95	82	35
7	103.00	80.92	81.32	114	105	41
8	104.00	80.53	81.03	118	108	43
9	105.00	80.11	80.90	125	109	45
10	105.96	79.75	80.89	130	108	47
11	106.00	79.74	80.89	130	108	47
12	107.00	79.52	80.34	123	110	44
13	108.00	79.38	79.48	107	107	39
14	108.83	79.31	78.77	91	95	33
15	109.00	79.29	78.62	88	93	32
16	110.00	79.21	78.61	70	74	25
17	111.00	79.22	78.91	49	50	18
18	112.00	79.22	79.20	31	31	11
19	113.00	79.24	79.19	17	17	6
20	114.00	79.21	78.99	8	8	3
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	0	0	0

Slice No.	Cohesion (avge) kN/m2	Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		shear S kN/m
					--- normal --- P kN/m	P' kN/m	
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.21	19	20	20	6
3	1.00	0.4040	1.07	37	34	33	11
4	1.00	0.4040	0.12	25	22	22	8
5	1.00	0.4220	3.09	79	73	68	24
6	1.00	0.4245	4.92	89	80	74	26
7	1.00	0.4245	4.42	89	83	79	28
8	1.00	0.4245	6.33	88	82	75	26
9	1.00	0.4245	9.42	84	78	69	24
10	1.00	0.4245	11.21	3	3	2	1
11	1.00	0.4245	9.62	83	82	72	26
12	1.00	0.4245	4.44	77	79	75	26

Analysis using Piezometric Grid : Day 59.

13	1.00	0.4245	0.07	58	62	62	22
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	66	66	23
16	1.00	0.4245	0.00	52	60	60	21
17	1.00	0.4245	0.00	43	49	49	17
18	1.00	0.4245	0.00	33	38	38	14
19	1.00	0.4245	0.00	23	26	26	10
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 59.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Stratum	Y-Coordinates						
1 (GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord	84.03	85.03	84.03	84.03	84.03	84.03	84.03
	82.53	84.23	82.83	82.73	82.53	82.53	82.53
	81.03	82.93	82.93	81.03	81.23	81.03	81.03
	79.58	82.38	82.58	80.58	80.98	79.18	79.58
	77.98	81.78	81.78	79.88	79.18	75.78	75.98

Analysis using Piezometric Grid : Day 89.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 89.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.242

Slipped mass = 985 kN/m

Delta = 20.0deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6454 kN.m/m Restoring moment= 8012 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		vertical Q kN/m
No.	X	Y		----- horizontal ----- E(total) E'(effective) kN/m kN/m		
1	99.00	86.65	84.58	0	0	0
2	99.50	85.30	84.41	6	12	2
3	100.00	83.96	84.19	23	20	8
4	100.64	83.23	83.39	41	38	15
5	101.00	82.81	83.04	53	49	19
6	102.00	81.51	82.17	96	82	35
7	103.00	80.92	81.09	114	110	42
8	104.00	80.53	80.95	118	110	43
9	105.00	80.11	80.94	125	108	45
10	105.96	79.75	80.98	130	106	47
11	106.00	79.74	80.98	130	106	47
12	107.00	79.52	80.41	123	109	45
13	108.00	79.38	79.53	108	106	39
14	108.83	79.31	78.81	92	95	33
15	109.00	79.29	78.65	89	93	32
16	110.00	79.21	78.67	70	73	26
17	111.00	79.22	78.99	48	49	18
18	112.00	79.22	79.31	31	31	11
19	113.00	79.24	79.28	17	17	6
20	114.00	79.21	79.05	8	8	3
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	0	0	0

Slice No.	Cohesion		Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		slice shear S kN/m
	(avge) kN/m2	(avge)				--- normal --- P kN/m	P' kN/m	
1	0.00	0.3839		0.00	6	7	7	2
2	0.07	0.3852		0.23	19	20	20	6
3	1.00	0.4040		1.92	37	34	32	11
4	1.00	0.4040		1.93	25	23	22	7
5	1.00	0.4220		4.38	79	73	66	24
6	1.00	0.4245		4.08	89	80	75	27
7	1.00	0.4245		2.92	89	83	80	28
8	1.00	0.4245		6.16	88	82	75	27
9	1.00	0.4245		10.10	84	78	68	24
10	1.00	0.4245		12.12	3	3	2	1
11	1.00	0.4245		10.44	83	82	72	25
12	1.00	0.4245		5.07	77	79	74	26

Analysis using Piezometric Grid : Day 89.

13	1.00	0.4245	0.16	58	62	62	22
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	66	66	23
16	1.00	0.4245	0.00	52	61	61	21
17	1.00	0.4245	0.12	43	49	49	18
18	1.00	0.4245	0.62	33	38	37	14
19	1.00	0.4245	0.04	23	26	26	10
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 89.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	Datum for C
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Ground water level

86.65	86.65	83.65	80.65	78.38	78.30	78.30
-------	-------	-------	-------	-------	-------	-------

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	85.03	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.23	82.93	82.73	82.53	82.53	82.53	82.53
81.03	82.63	82.63	81.33	81.23	81.03	81.03	81.03
79.58	83.28	85.08	80.88	81.28	79.38	79.58	79.58
77.98	82.98	84.08	80.08	79.28	75.98	78.98	75.98

Analysis using Piezometric Grid : Day 121.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 121.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.219

Slipped mass = 985 kN/m

Delta = 19.9deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6452 kN.m/m Restoring moment = 7864 kN.m/m

Slip surface coordinates			Piezometric	----- Interslice forces -----		
-----			elevation	----- horizontal -----		vertical
No.	X	Y	Y(w)	E(total)	E'(effective)	Q
				kN/m	kN/m	kN/m
1	99.00	86.65	84.58	0	0	0
2	99.50	85.30	84.41	6	12	2
3	100.00	83.96	84.19	22	19	8
4	100.64	83.23	83.44	41	37	15
5	101.00	82.81	83.11	53	47	19
6	102.00	81.51	82.21	96	81	35
7	103.00	80.92	81.37	114	104	41
8	104.00	80.53	81.19	119	105	43
9	105.00	80.11	81.18	126	104	45
10	105.96	79.75	81.25	131	102	47
11	106.00	79.74	81.25	131	102	47
12	107.00	79.52	80.68	124	107	45
13	108.00	79.38	79.76	110	106	40
14	108.83	79.31	79.01	93	95	34
15	109.00	79.29	78.86	90	93	33
16	110.00	79.21	78.83	72	74	26
17	111.00	79.22	79.10	49	50	18
18	112.00	79.22	79.37	31	31	11
19	113.00	79.24	79.31	17	17	6
20	114.00	79.21	79.07	8	8	3
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	0	0	0

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		slice shear
	(avge)	(avge)	(avge)	W	--- normal ---	---	S
	kN/m2		kN/m2	kN/m	P	P'	kN/m
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.24	19	20	20	6
3	1.00	0.4040	2.20	37	34	32	11
4	1.00	0.4040	2.54	25	23	21	7
5	1.00	0.4220	4.89	79	73	65	24
6	1.00	0.4245	5.62	89	80	73	27
7	1.00	0.4245	5.49	89	83	77	28
8	1.00	0.4245	8.49	88	82	73	26
9	1.00	0.4245	12.55	84	78	66	24
10	1.00	0.4245	14.75	3	3	2	1
11	1.00	0.4245	13.08	83	82	69	25
12	1.00	0.4245	7.51	77	79	72	26

Analysis using Piezometric Grid : Day 121.

13	1.00	0.4245	1.04	58	62	62	22
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	66	66	24
16	1.00	0.4245	0.00	52	61	61	22
17	1.00	0.4245	0.40	43	49	49	18
18	1.00	0.4245	1.08	33	38	37	14
19	1.00	0.4245	0.13	23	26	26	10
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 121.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. DIG_151
Job No.
Made by : DIG
Date: 13-Jun-91
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1 (GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			Datum for C
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	85.13	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.33	83.03	82.53	82.53	82.53	82.53	82.53
81.03	83.73	83.73	81.93	81.03	81.03	81.03	81.03
79.58	84.28	83.38	81.98	81.48	79.58	79.58	79.58
77.98	84.18	82.18	80.38	79.38	75.88	78.88	75.98

Analysis using Piezometric Grid : Day 151.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 151.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.180

Slipped mass = 985 kN/m

Delta = 19.4deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6455 kN.m/m Restoring moment= 7614 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		vertical Q kN/m
No.	X	Y		----- horizontal ----- E(total) kN/m	E'(effective) kN/m	
1	99.00	86.65	84.63	0	0	0
2	99.50	85.30	84.45	6	11	2
3	100.00	83.96	84.22	22	19	8
4	100.64	83.23	83.49	40	36	14
5	101.00	82.81	83.15	52	46	18
6	102.00	81.51	82.75	97	70	34
7	103.00	80.92	82.02	116	92	41
8	104.00	80.53	81.73	122	97	43
9	105.00	80.11	81.57	130	101	46
10	105.96	79.75	81.47	135	103	47
11	106.00	79.74	81.47	136	103	48
12	107.00	79.52	80.87	129	108	45
13	108.00	79.38	79.93	114	108	40
14	108.83	79.31	79.17	97	98	34
15	109.00	79.29	79.00	94	96	33
16	110.00	79.21	78.92	74	76	26
17	111.00	79.22	79.14	51	52	18
18	112.00	79.22	79.36	33	33	11
19	113.00	79.24	79.30	18	18	6
20	114.00	79.21	79.06	9	9	3
21	115.00	79.10	79.02	4	4	1
22	116.00	78.90	78.76	2	2	0
23	116.50	78.90	78.63	1	1	-0

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		shear S kN/m
	(avge) kN/m ²	(avge)	(avge) kN/m ²	W kN/m	--- normal --- P kN/m	P' kN/m	
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.29	19	20	20	7
3	1.00	0.4040	2.58	37	34	31	12
4	1.00	0.4040	3.02	25	23	21	8
5	1.00	0.4220	7.76	79	74	61	23
6	1.00	0.4245	11.45	89	80	67	25
7	1.00	0.4245	11.31	89	83	71	27
8	1.00	0.4245	13.04	88	82	68	25
9	1.00	0.4245	15.54	84	79	63	23
10	1.00	0.4245	16.88	3	3	2	1
11	1.00	0.4245	15.08	83	82	67	25
12	1.00	0.4245	9.31	77	79	70	26

Analysis using Piezometric Grid : Day 151.

13	1.00	0.4245	2.14	58	62	61	23
14	1.00	0.4245	0.00	11	12	12	4
15	1.00	0.4245	0.00	61	67	67	25
16	1.00	0.4245	0.00	52	61	61	23
17	1.00	0.4245	0.44	43	49	49	18
18	1.00	0.4245	0.96	33	38	37	14
19	1.00	0.4245	0.08	23	26	26	10
20	1.00	0.4245	0.00	15	16	16	6
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 151.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. DIG_180
Job No.
Made by : DIG
Date: 13-Jun-93
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	Datum for C
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	85.03	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.03	82.73	82.63	82.53	82.53	82.53	82.53
81.03	84.83	84.83	84.23	81.13	81.03	81.03	81.03
79.58	85.28	86.78	84.88	81.98	79.38	79.58	79.58
77.98	84.38	85.38	83.18	79.78	75.98	78.98	75.98

Analysis using Piezometric Grid : Day 180.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 180.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.081
 Slipped mass = 985 kN/m
 Delta = 18.9deg.
 Moments taken about: X = 114.46 , Y = 97.93
 Overturning moment = 6442 kN.m/m Restoring moment = 6961 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	Interslice forces		
No.	X	Y		horizontal		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	84.58	0	0	0
2	99.50	85.30	84.41	5	11	2
3	100.00	83.96	84.18	22	19	7
4	100.64	83.23	83.31	39	37	13
5	101.00	82.81	82.96	50	47	17
6	102.00	81.51	83.91	95	44	32
7	103.00	80.92	84.31	119	46	41
8	104.00	80.53	83.59	131	67	45
9	105.00	80.11	82.83	143	88	49
10	105.96	79.75	82.10	150	105	51
11	106.00	79.74	82.08	150	105	51
12	107.00	79.52	81.18	142	118	49
13	108.00	79.38	80.02	126	119	43
14	108.83	79.31	79.08	107	109	37
15	109.00	79.29	78.89	104	106	35
16	110.00	79.21	78.83	82	84	28
17	111.00	79.22	79.10	56	57	19
18	112.00	79.22	79.37	36	36	12
19	113.00	79.24	79.31	20	20	7
20	114.00	79.21	79.07	9	9	3
21	115.00	79.10	79.02	4	4	1
22	116.00	78.90	78.76	2	2	0
23	116.50	78.90	78.63	0	0	-0

Slice No.	Cohesion (avge) kN/m ²	Tan(phi) (avge)	Pore pressure (avge) kN/m ²	Weight of slice W kN/m	Forces on base of slice		
					--- normal --- P kN/m	P' kN/m	shear S kN/m
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.22	19	20	20	7
3	1.00	0.4040	1.63	37	33	32	13
4	1.00	0.4040	1.27	25	22	22	9
5	1.00	0.4220	12.51	79	75	54	23
6	1.00	0.4245	28.42	89	82	49	20
7	1.00	0.4245	31.69	89	84	50	21
8	1.00	0.4245	28.36	88	82	52	21
9	1.00	0.4245	24.85	84	79	53	22
10	1.00	0.4245	23.01	3	3	2	1
11	1.00	0.4245	19.60	83	82	62	25
12	1.00	0.4245	11.26	77	79	68	28

Analysis using Piezometric Grid : Day 180.

13	1.00	0.4245	2.30	58	63	61	25
14	1.00	0.4245	0.00	11	12	12	5
15	1.00	0.4245	0.00	61	67	67	27
16	1.00	0.4245	0.00	52	61	61	25
17	1.00	0.4245	0.40	43	49	49	20
18	1.00	0.4245	1.08	33	38	37	16
19	1.00	0.4245	0.13	23	26	26	11
20	1.00	0.4245	0.00	15	16	16	7
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 180.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Stratum	Y-Coordinates						
1(GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	Datum for C
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00
Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	84.63	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.13	83.03	82.93	82.53	82.53	82.53	82.53
81.03	85.13	85.13	83.43	81.43	81.03	81.03	81.03
79.58	85.88	86.58	83.98	81.68	79.28	79.58	79.58
77.98	85.38	85.58	82.78	79.48	75.88	78.58	77.98

Analysis using Piezometric Grid : Day 194.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 194.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.110

Slipped mass = 985 kN/m

Delta = 19.0deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6447 kN.m/m Restoring moment = 7158 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal ----- E(total) E'(effective)	vertical Q	
				kN/m	kN/m	kN/m
1	99.00	86.65	84.36	0	0	0
2	99.50	85.30	84.26	5	12	2
3	100.00	83.96	84.11	22	20	8
4	100.64	83.23	83.49	39	35	13
5	101.00	82.81	83.20	51	44	18
6	102.00	81.51	83.80	97	48	33
7	103.00	80.92	83.56	120	63	41
8	104.00	80.53	83.02	130	78	45
9	105.00	80.11	82.44	140	93	48
10	105.96	79.75	81.83	147	107	50
11	106.00	79.74	81.80	147	108	51
12	107.00	79.52	80.94	139	118	48
13	108.00	79.38	79.84	122	118	42
14	108.83	79.31	78.96	104	106	36
15	109.00	79.29	78.78	100	104	34
16	110.00	79.21	78.73	79	82	27
17	111.00	79.22	79.01	55	56	19
18	112.00	79.22	79.27	35	35	12
19	113.00	79.24	79.34	19	19	6
20	114.00	79.21	79.27	9	9	3
21	115.00	79.10	79.02	4	4	1
22	116.00	78.90	78.76	2	2	0
23	116.50	78.90	78.63	1	1	-0

Slice No.	Cohesion (avge) kN/m2	Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		
					--- normal --- P	--- shear --- P' S	
					kN/m	kN/m	kN/m
1	0.00	0.3839	0.00	6	7	7	2
2	0.07	0.3852	0.10	19	20	20	7
3	1.00	0.4040	2.08	37	34	32	12
4	1.00	0.4040	3.26	25	23	21	8
5	1.00	0.4220	13.18	79	75	54	22
6	1.00	0.4245	24.18	89	81	53	21
7	1.00	0.4245	25.19	89	84	57	23
8	1.00	0.4245	23.67	88	82	57	23
9	1.00	0.4245	21.59	84	79	56	22
10	1.00	0.4245	20.28	3	3	2	1
11	1.00	0.4245	17.04	83	82	65	26
12	1.00	0.4245	9.18	77	80	70	28

Analysis using Piezometric Grid : Day 194.

13	1.00	0.4245	1.28	58	63	62	24
14	1.00	0.4245	0.00	11	12	12	5
15	1.00	0.4245	0.00	61	67	67	26
16	1.00	0.4245	0.00	52	61	61	24
17	1.00	0.4245	0.06	43	49	49	20
18	1.00	0.4245	0.76	33	38	38	15
19	1.00	0.4245	0.81	23	26	25	11
20	1.00	0.4245	0.15	15	16	15	7
21	1.00	0.4245	0.00	8	8	8	4
22	1.00	0.4245	0.00	1	2	2	1

Analysis using Piezometric Grid : Day 194.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Stratum	Y-Coordinates						
1 (GL)	86.65	86.65	84.05	82.65	78.45	78.30	78.30
2	84.05	84.05	84.05	82.65	78.45	78.30	78.30
3	82.65	82.65	82.65	82.65	78.45	78.30	78.30
4	78.45	78.45	78.45	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			Datum for C
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	0.00	13.00		
2	UPPER WEATHERED	20.00	20.00	0.00	13.00		
3	LOWER WEATHERED	20.00	20.00	0.00	14.00		
4	UNWEATHERED	20.00	20.00	0.00	15.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7
X-Coord	98.00	100.64	105.96	108.83	117.43	117.74	120.00

Ground water level							
	86.65	86.65	83.65	80.65	78.38	78.30	78.30

Piezometric levels at piezometric grid points

X-Coord	97.64	100.64	103.12	106.20	109.12	112.30	115.50
Y-Coord							
84.03	84.63	84.03	84.03	84.03	84.03	84.03	84.03
82.53	84.13	83.03	82.93	82.53	82.53	82.53	82.53
81.03	85.13	85.13	83.43	81.43	81.03	81.03	81.03
79.58	85.88	86.58	83.98	81.68	79.28	79.58	79.58
77.98	85.38	85.58	82.78	79.48	75.88	78.58	77.98

Analysis using Piezometric Grid : Day 194. (Residual)

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Piezometric Grid : Day 194. (Residual)

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 0.620

Slipped mass = 985 kN/m

Out of balance vertical force = -0 kN/m

Delta = 19.2deg.

Out of balance horizontal force = 1 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6439 kN.m/m Restoring moment= 3993 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	84.36	0	0	0
2	99.50	85.30	84.26	5	12	2
3	100.00	83.96	84.11	21	19	7
4	100.64	83.23	83.49	39	34	14
5	101.00	82.81	83.20	51	44	18
6	102.00	81.51	83.80	97	48	34
7	103.00	80.92	83.56	120	63	42
8	104.00	80.53	83.02	130	78	45
9	105.00	80.11	82.44	140	94	49
10	105.96	79.75	81.83	146	107	51
11	106.00	79.74	81.80	147	107	51
12	107.00	79.52	80.94	139	117	48
13	108.00	79.38	79.84	122	117	42
14	108.83	79.31	78.96	103	105	36
15	109.00	79.29	78.78	99	102	34
16	110.00	79.21	78.73	77	80	27
17	111.00	79.22	79.01	52	53	18
18	112.00	79.22	79.27	32	32	11
19	113.00	79.24	79.34	16	16	6
20	114.00	79.21	79.27	7	7	2
21	115.00	79.10	79.02	3	3	1
22	116.00	78.90	78.76	1	1	0
23	116.50	78.90	78.63	1	1	-0

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal --- P kN/m	P' kN/m	shear S kN/m
1	0.00	0.2309	0.00	6	7	7	2
2	0.00	0.2309	0.10	19	20	20	7
3	0.00	0.2309	2.08	37	34	32	12
4	0.00	0.2309	3.26	25	23	21	8
5	0.00	0.2471	13.18	79	75	54	21
6	0.00	0.2493	24.18	89	81	53	21
7	0.00	0.2493	25.19	89	84	56	23
8	0.00	0.2493	23.67	88	82	57	23
9	0.00	0.2493	21.59	84	79	56	23
10	0.00	0.2493	20.28	3	3	2	1
11	0.00	0.2493	17.04	83	82	65	26
12	0.00	0.2493	9.18	77	80	70	28

Analysis using Piezometric Grid : Day 194. (Residual)

13	0.00	0.2493	1.28	58	63	62	25
14	0.00	0.2493	0.00	11	12	12	5
15	0.00	0.2493	0.00	61	67	67	27
16	0.00	0.2493	0.00	52	61	61	25
17	0.00	0.2493	0.06	43	50	49	20
18	0.00	0.2493	0.76	33	38	38	15
19	0.00	0.2493	0.81	23	26	25	10
20	0.00	0.2493	0.15	15	16	15	6
21	0.00	0.2493	0.00	8	8	8	3
22	0.00	0.2493	0.00	1	1	1	1

Analysis using Piezometric Grid : Day 194. (Residual)

SLOPE ANALYSIS : PHREATIC SURFACE

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum Y-Coordinates

1(GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum Y-Coordinates

1(GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level

84.22	84.22	83.94	81.07	81.06	81.00	73.79	76.33
-------	-------	-------	-------	-------	-------	-------	-------

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level

79.32	78.45	78.30	78.30
-------	-------	-------	-------

Analysis using Phreatic Surface : Day -118.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Phreatic Surface : Day -118.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_N118
Job No.
Made by : DIG
Date: 13-Jun-93
Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.203
Slipped mass = 985 kN/m Out of balance vertical force = -0 kN/m
Delta = 19.8deg. Out of balance horizontal force = 0 kN/m
Moments taken about: X = 114.46 , Y = 97.93
Overturning moment = 6452 kN.m/m Restoring moment = 7761 kN.m/m

Slip surface coordinates			Piezometric	----- Interslice forces -----		
-----			elevation	----- horizontal -----		vertical
No.	X	Y	Y(w)	E(total)	E'(effective)	Q
				kN/m	kN/m	kN/m
1	99.00	86.65	84.22	0	0	0
2	99.50	85.30	84.22	4	4	2
3	100.00	83.96	84.22	20	20	7
4	100.64	83.23	84.22	39	34	14
5	101.00	82.81	84.16	53	44	19
6	102.00	81.51	83.99	103	73	37
7	102.27	81.35	83.94	110	77	40
8	103.00	80.92	81.48	125	124	45
9	103.12	80.87	81.07	126	125	45
10	104.00	80.53	81.07	129	127	46
11	105.00	80.11	81.06	135	131	49
12	105.96	79.75	81.06	139	131	50
13	106.00	79.74	81.05	140	131	50
14	106.20	79.70	81.00	138	130	50
15	107.00	79.52	78.81	130	130	47
16	108.00	79.38	76.07	112	112	40
17	108.83	79.31	73.79	95	95	34
18	109.00	79.29	75.27	92	92	33
19	109.12	79.28	76.33	90	90	32
20	110.00	79.21	77.16	73	73	26
21	111.00	79.22	78.10	50	50	18
22	112.00	79.22	79.04	32	32	11
23	112.30	79.22	79.32	27	27	10
24	113.00	79.24	79.20	17	17	6
25	114.00	79.21	79.03	8	8	3
26	115.00	79.10	78.86	3	3	1
27	116.00	78.90	78.69	1	1	0
28	116.50	78.90	78.61	0	0	-0

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		
	(avge)	(avge)	(avge)	W	--- normal ---	---	shear
	kN/m2		kN/m2	kN/m	P	P'	S
					kN/m	kN/m	kN/m
1	1.00	0.3839	0.00	6	6	6	3
2	1.00	0.3852	0.25	19	19	19	7
3	1.00	0.4040	6.16	37	34	28	10
4	1.00	0.4040	11.51	25	23	17	6
5	1.00	0.4220	18.76	79	77	46	18
6	1.00	0.4245	24.83	24	22	14	5
7	1.00	0.4245	15.45	65	59	46	17

Analysis using Phreatic Surface : Day -118.

8	1.00	0.4245	3.73	11	10	10	3
9	1.00	0.4245	3.64	79	73	70	25
10	1.00	0.4245	7.31	88	82	74	27
11	1.00	0.4245	11.05	84	78	67	25
12	1.00	0.4245	12.81	3	3	2	1
13	1.00	0.4245	12.79	17	17	14	5
14	1.00	0.4245	4.11	66	66	62	23
15	1.00	0.4245	0.00	77	80	80	29
16	1.00	0.4245	0.00	58	63	63	23
17	1.00	0.4245	0.00	11	12	12	4
18	1.00	0.4245	0.00	8	8	8	3
19	1.00	0.4245	0.00	54	58	58	21
20	1.00	0.4245	0.00	52	61	61	22
21	1.00	0.4245	0.00	43	49	49	18
22	1.00	0.4245	0.16	11	13	13	5
23	1.00	0.4245	0.34	22	26	25	10
24	1.00	0.4245	0.00	23	26	26	10
25	1.00	0.4245	0.00	15	16	16	6
26	1.00	0.4245	0.00	8	8	8	4
27	1.00	0.4245	0.00	1	2	2	1

Analysis using Phreatic Surface : Day -118.

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 SELBORNE SLOPE STUDY
 JANBU ANALYSIS

Sheet No.
 Run No. PHR_N061
 Job No.
 Made by : DIG
 Date: 13-Jun-93
 Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1 (GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1 (GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	Datum for C
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.62	83.62	83.80	80.87	80.84	80.70	76.00	75.48

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	79.62	78.45	78.30	78.30

Analysis using Phreatic Surface : Day -61.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Phreatic Surface : Day -61.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.224

Slipped mass = 985 kN/m

Out of balance vertical force = -0 kN/m

Delta = 19.9deg.

Out of balance horizontal force = 0 kN/m

Moments taken about: X = 114.46, Y = 97.93

Overturning moment = 6450 kN.m/m

Restoring moment = 7897 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	83.62	0	0	0
2	99.50	85.30	83.62	4	4	2
3	100.00	83.96	83.62	20	20	7
4	100.64	83.23	83.62	38	37	14
5	101.00	82.81	83.66	51	47	18
6	102.00	81.51	83.77	99	74	36
7	102.27	81.35	83.80	106	76	38
8	103.00	80.92	81.29	121	121	44
9	103.12	80.87	80.87	122	122	44
10	104.00	80.53	80.86	125	124	45
11	105.00	80.11	80.85	131	128	47
12	105.96	79.75	80.84	135	129	49
13	106.00	79.74	80.82	135	129	49
14	106.20	79.70	80.70	133	129	48
15	107.00	79.52	79.27	125	125	45
16	108.00	79.38	77.48	108	108	39
17	108.83	79.31	76.00	92	92	33
18	109.00	79.29	75.70	89	89	32
19	109.12	79.28	75.48	86	86	31
20	110.00	79.21	76.63	70	70	25
21	111.00	79.22	77.93	48	48	17
22	112.00	79.22	79.23	30	30	11
23	112.30	79.22	79.62	25	25	9
24	113.00	79.24	79.46	16	16	6
25	114.00	79.21	79.23	8	8	3
26	115.00	79.10	79.00	3	3	1
27	116.00	78.90	78.78	1	1	0
28	116.50	78.90	78.66	0	0	-0

Slice No.	Cohesion (avge) kN/m2	Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		shear S kN/m
					--- normal --- P kN/m	P' kN/m	
1	1.00	0.3839	0.00	6	6	6	3
2	1.00	0.3852	0.00	19	19	19	7
3	1.00	0.4040	1.06	37	34	33	12
4	1.00	0.4040	6.16	25	23	20	7
5	1.00	0.4220	15.30	79	76	51	19
6	1.00	0.4245	23.14	24	22	15	5
7	1.00	0.4245	13.85	65	59	47	17

Analysis using Phreatic Surface : Day -61.

8	1.00	0.4245	1.81	11	10	10	4
9	1.00	0.4245	1.65	79	73	72	26
10	1.00	0.4245	5.25	88	82	76	27
11	1.00	0.4245	8.91	84	78	69	25
12	1.00	0.4245	10.59	3	3	2	1
13	1.00	0.4245	10.17	17	17	15	5
14	1.00	0.4245	3.90	66	66	63	22
15	1.00	0.4245	0.00	77	80	80	29
16	1.00	0.4245	0.00	58	63	63	22
17	1.00	0.4245	0.00	11	12	12	4
18	1.00	0.4245	0.00	8	8	8	3
19	1.00	0.4245	0.00	54	58	58	21
20	1.00	0.4245	0.00	52	61	61	22
21	1.00	0.4245	0.00	43	49	49	18
22	1.00	0.4245	1.99	11	13	12	4
23	1.00	0.4245	3.03	22	25	23	9
24	1.00	0.4245	1.21	23	26	25	9
25	1.00	0.4245	0.02	15	16	16	6
26	1.00	0.4245	0.00	8	8	8	4
27	1.00	0.4245	0.00	1	2	2	1

Analysis using Phreatic Surface : Day -61.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1(GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1(GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.22	83.22	83.94	80.77	80.69	80.40	75.97	75.48

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	79.12	78.45	78.30	78.30

Analysis using Phreatic Surface : Day -30.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Phreatic Surface : Day -30.

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 SELBORNE SLOPE STUDY
 JANBU ANALYSIS

Sheet No.
 Run No. PHR_N030
 Job No.
 Made by : DIG
 Date: 13-Jun-93
 Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.241
 Slipped mass = 985 kN/m
 Delta = 19.8deg.
 Moments taken about: X = 114.45 , Y = 97.93
 Overturning moment = 6450 kN.m/m
 Out of balance vertical force = -0 kN/m
 Out of balance horizontal force = 0 kN/m
 Restoring moment = 8007 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	83.22	0	0	0
2	99.50	85.30	83.22	4	4	2
3	100.00	83.96	83.22	20	20	7
4	100.64	83.23	83.22	38	38	14
5	101.00	82.81	83.38	50	49	18
6	102.00	81.51	83.82	99	73	36
7	102.27	81.35	83.94	105	73	38
8	103.00	80.92	81.22	121	121	44
9	103.12	80.87	80.77	121	121	44
10	104.00	80.53	80.75	124	124	45
11	105.00	80.11	80.72	130	129	47
12	105.96	79.75	80.69	134	130	48
13	106.00	79.74	80.65	135	131	48
14	106.20	79.70	80.40	133	130	48
15	107.00	79.52	79.05	125	125	45
16	108.00	79.38	77.37	108	108	39
17	108.83	79.31	75.97	92	92	33
18	109.00	79.29	75.68	89	89	32
19	109.12	79.28	75.48	86	86	31
20	110.00	79.21	76.49	71	71	25
21	111.00	79.22	77.63	49	49	17
22	112.00	79.22	78.78	31	31	11
23	112.30	79.22	79.12	26	26	9
24	113.00	79.24	79.03	17	17	6
25	114.00	79.21	78.90	8	8	3
26	115.00	79.10	78.77	3	3	1
27	116.00	78.90	78.64	1	1	0
28	116.50	78.90	78.57	0	0	-0

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		slice shear
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal --- P kN/m	P' kN/m	
1	1.00	0.3839	0.00	6	6	6	3
2	1.00	0.3852	0.00	19	19	19	7
3	1.00	0.4040	0.00	37	34	34	12
4	1.00	0.4040	2.82	25	23	21	7
5	1.00	0.4220	14.13	79	76	53	19
6	1.00	0.4245	23.99	24	22	14	5
7	1.00	0.4245	14.17	65	59	47	17

Analysis using Phreatic Surface : Day -30.

8	1.00	0.4245	1.12	11	10	10	3
9	1.00	0.4245	0.76	79	73	72	26
10	1.00	0.4245	4.07	88	82	77	27
11	1.00	0.4245	7.60	84	78	71	25
12	1.00	0.4245	9.09	3	3	2	1
13	1.00	0.4245	7.90	17	17	15	5
14	1.00	0.4245	2.04	66	66	64	23
15	1.00	0.4245	0.00	77	80	80	28
16	1.00	0.4245	0.00	58	62	62	22
17	1.00	0.4245	0.00	11	12	12	4
18	1.00	0.4245	0.00	8	8	8	3
19	1.00	0.4245	0.00	54	58	58	21
20	1.00	0.4245	0.00	52	60	60	21
21	1.00	0.4245	0.00	43	49	49	18
22	1.00	0.4245	0.00	11	13	13	5
23	1.00	0.4245	0.00	22	25	25	9
24	1.00	0.4245	0.00	23	26	26	10
25	1.00	0.4245	0.00	15	16	16	6
26	1.00	0.4245	0.00	8	8	8	4
27	1.00	0.4245	0.00	1	2	2	1

Analysis using Phreatic Surface : Day -30.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.212
 Slipped mass = 985 kN/m Out of balance vertical force = 0 kN/m
 Delta = 19.9deg. Out of balance horizontal force = 0 kN/m
 Moments taken about: X = 114.46 , Y = 97.93
 Overturning moment = 6448 kN.m/m Restoring moment = 7812 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		vertical Q kN/m
No.	X	Y		----- horizontal ----- E(total) E'(effective) kN/m kN/m		
1	99.00	86.65	83.26	0	0	0
2	99.50	85.30	83.28	4	4	2
3	100.00	83.96	83.30	20	20	7
4	100.64	83.23	83.32	37	37	13
5	101.00	82.81	83.53	50	47	18
6	102.00	81.51	84.11	99	66	36
7	102.27	81.35	84.27	106	64	38
8	103.00	80.92	81.36	122	121	44
9	103.12	80.87	80.87	122	122	44
10	104.00	80.53	80.88	125	124	45
11	105.00	80.11	80.89	131	128	47
12	105.96	79.75	80.90	135	128	49
13	106.00	79.74	80.91	135	128	49
14	106.20	79.70	81.00	133	125	48
15	107.00	79.52	79.38	126	126	45
16	108.00	79.38	77.35	108	108	39
17	108.83	79.31	75.67	91	91	33
18	109.00	79.29	75.32	88	88	32
19	109.12	79.28	75.08	86	86	31
20	110.00	79.21	76.39	69	69	25
21	111.00	79.22	77.88	47	47	17
22	112.00	79.22	79.37	29	29	10
23	112.30	79.22	79.82	24	23	9
24	113.00	79.24	79.63	16	15	6
25	114.00	79.21	79.37	8	8	3
26	115.00	79.10	79.10	3	3	1
27	116.00	78.90	78.83	1	1	0
28	116.50	78.90	78.70	0	0	0

Slice No.	Cohesion		Pore pressure (avge) kN/m ²	Weight of slice W kN/m	Forces on base of slice		shear S kN/m
	(avge) kN/m ²	Tan(phi) (avge)			--- normal --- P kN/m	P' kN/m	
1	1.00	0.3839	0.00	6	6	6	3
2	1.00	0.3852	0.00	19	19	19	7
3	1.00	0.4040	0.06	37	33	33	12
4	1.00	0.4040	4.05	25	23	20	7
5	1.00	0.4220	16.31	79	76	50	19
6	1.00	0.4245	27.06	24	22	14	5
7	1.00	0.4245	16.45	65	59	45	16

Analysis using Phreatic Surface : Day 2.

8	1.00	0.4245	2.14	11	10	10	4
9	1.00	0.4245	1.74	79	73	72	26
10	1.00	0.4245	5.54	88	82	76	27
11	1.00	0.4245	9.42	84	78	69	25
12	1.00	0.4245	11.37	3	3	2	1
13	1.00	0.4245	12.12	17	17	14	5
14	1.00	0.4245	5.72	66	66	61	22
15	1.00	0.4245	0.00	77	80	80	29
16	1.00	0.4245	0.00	58	63	63	23
17	1.00	0.4245	0.00	11	12	12	4
18	1.00	0.4245	0.00	8	8	8	3
19	1.00	0.4245	0.00	54	58	58	21
20	1.00	0.4245	0.00	52	61	61	22
21	1.00	0.4245	0.08	43	49	49	18
22	1.00	0.4245	3.67	11	13	11	4
23	1.00	0.4245	4.86	22	25	22	8
24	1.00	0.4245	2.71	23	26	23	9
25	1.00	0.4245	0.78	15	16	15	6
26	1.00	0.4245	0.00	8	8	8	4
27	1.00	0.4245	0.00	1	2	2	1

Analysis using Phreatic Surface : Day 2.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_002
Job No.
Made by : DIG
Date: 13-Jun-93
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1(GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1(GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.22	83.32	84.27	80.87	80.90	81.00	75.67	75.08

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	79.82	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 2.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 2.

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12
Stratum	Y-Coordinates							
1(GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00
Stratum	Y-Coordinates			
1(GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY	Datum for C
		kN/m3	kN/m3	kN/m2		kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3								
Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12
Ground water level								
	83.32	83.32	84.27	80.77	80.87	81.20	75.64	75.03

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00
Ground water level				
	80.02	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 31.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 31.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.206
 Slipped mass = 985 kN/m
 Delta = 20.0deg.
 Moments taken about: X = 114.46 , Y = 97.93
 Overturning moment = 6446 kN.m/m Restoring moment = 7773 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	Interslice forces		
No.	X	Y		horizontal E(total) kN/m	vertical E'(effective) kN/m	Q kN/m
1	99.00	86.65	83.32	0	0	0
2	99.50	85.30	83.32	4	4	2
3	100.00	83.96	83.32	20	20	7
4	100.64	83.23	83.32	37	37	14
5	101.00	82.81	83.53	50	47	18
6	102.00	81.51	84.11	98	65	36
7	102.27	81.35	84.27	105	64	38
8	103.00	80.92	81.27	121	120	44
9	103.12	80.87	80.77	121	121	44
10	104.00	80.53	80.80	124	123	45
11	105.00	80.11	80.84	129	127	47
12	105.96	79.75	80.87	133	127	48
13	106.00	79.74	80.92	133	126	48
14	106.20	79.70	81.20	132	121	48
15	107.00	79.52	79.51	124	124	45
16	108.00	79.38	77.40	107	107	39
17	108.83	79.31	75.64	90	90	33
18	109.00	79.29	75.28	87	87	31
19	109.12	79.28	75.03	84	84	31
20	110.00	79.21	76.41	68	68	25
21	111.00	79.22	77.98	45	45	16
22	112.00	79.22	79.55	27	27	10
23	112.30	79.22	80.02	23	20	8
24	113.00	79.24	79.81	15	13	5
25	114.00	79.21	79.50	7	7	2
26	115.00	79.10	79.19	3	3	1
27	116.00	78.90	78.89	1	1	0
28	116.50	78.90	78.74	0	0	-0

Slice No.	Cohesion		Tan(phi) (avge)	Pore pressure (avge) kN/m2	Weight of slice W kN/m	Forces on base of slice		shear S kN/m
	(avge) kN/m2	(avge)				normal P kN/m	--- P' kN/m	
1	1.00	0.3839		0.00	6	6	6	3
2	1.00	0.3852		0.00	19	19	19	7
3	1.00	0.4040		0.06	37	33	33	12
4	1.00	0.4040		4.05	25	23	20	7
5	1.00	0.4220		16.32	79	76	50	19
6	1.00	0.4245		27.08	24	22	13	5
7	1.00	0.4245		16.04	65	59	45	17

Analysis using Phreatic Surface : Day 31.

8	1.00	0.4245	1.33	11	10	10	4
9	1.00	0.4245	1.00	79	73	72	26
10	1.00	0.4245	4.90	88	82	76	28
11	1.00	0.4245	9.01	84	78	69	25
12	1.00	0.4245	11.24	3	3	2	1
13	1.00	0.4245	13.13	17	17	14	5
14	1.00	0.4245	7.28	66	66	60	22
15	1.00	0.4245	0.00	77	80	80	29
16	1.00	0.4245	0.00	58	63	63	23
17	1.00	0.4245	0.00	11	12	12	4
18	1.00	0.4245	0.00	8	8	8	3
19	1.00	0.4245	0.00	54	58	58	21
20	1.00	0.4245	0.00	52	61	61	22
21	1.00	0.4245	0.34	43	49	49	18
22	1.00	0.4245	5.52	11	12	11	4
23	1.00	0.4245	6.69	22	25	20	8
24	1.00	0.4245	4.22	23	25	21	8
25	1.00	0.4245	1.90	15	15	14	6
26	1.00	0.4245	0.42	8	8	8	4
27	1.00	0.4245	0.00	1	2	2	1

Analysis using Phreatic Surface : Day 31.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_059
Job No.
Made by : DIG
Date: 13-Jun-93
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1(GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1(GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below GWL	above GWL	C	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12
Ground water level								
	83.22	83.22	84.00	80.47	80.58	81.00	75.67	75.03

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00
Ground water level				
	79.62	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 59.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength
 Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 59.

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.237

Slipped mass = 985 kN/m

Delta = 19.9deg.

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6450 kN.m/m

Out of balance vertical force = -0 kN/m

Out of balance horizontal force = 0 kN/m

Restoring moment = 7980 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	83.22	0	0	0
2	99.50	85.30	83.22	4	4	2
3	100.00	83.96	83.22	20	20	7
4	100.64	83.23	83.22	38	38	14
5	101.00	82.81	83.40	50	48	18
6	102.00	81.51	83.87	98	71	36
7	102.27	81.35	84.00	105	71	38
8	103.00	80.92	80.97	121	121	44
9	103.12	80.87	80.47	121	121	44
10	104.00	80.53	80.51	124	124	45
11	105.00	80.11	80.54	129	128	47
12	105.96	79.75	80.58	132	129	48
13	106.00	79.74	80.64	133	129	48
14	106.20	79.70	81.00	131	123	47
15	107.00	79.52	79.38	124	124	45
16	108.00	79.38	77.35	107	107	39
17	108.83	79.31	75.67	91	91	33
18	109.00	79.29	75.32	88	88	32
19	109.12	79.28	75.08	85	85	31
20	110.00	79.21	76.34	69	69	25
21	111.00	79.22	77.76	47	47	17
22	112.00	79.22	79.19	30	30	11
23	112.30	79.22	79.62	25	24	9
24	113.00	79.24	79.46	16	16	6
25	114.00	79.21	79.23	8	8	3
26	115.00	79.10	79.00	3	3	1
27	116.00	78.90	78.78	1	1	0
28	116.50	78.90	78.66	0	0	-0

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		shear S
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal --- P kN/m	P' kN/m	
1	1.00	0.3839	0.00	6	6	6	3
2	1.00	0.3852	0.00	19	19	19	7
3	1.00	0.4040	0.00	37	34	34	12
4	1.00	0.4040	2.89	25	23	21	7
5	1.00	0.4220	14.47	79	76	52	19
6	1.00	0.4245	24.59	24	22	14	5
7	1.00	0.4245	13.28	65	59	47	17

Analysis using Phreatic Surface : Day 59.

8	1.00	0.4245	0.03	11	10	10	4
9	1.00	0.4245	0.00	79	73	73	26
10	1.00	0.4245	2.02	88	82	80	28
11	1.00	0.4245	6.17	84	78	72	26
12	1.00	0.4245	8.49	3	3	2	1
13	1.00	0.4245	10.80	17	17	15	5
14	1.00	0.4245	5.72	66	66	61	22
15	1.00	0.4245	0.00	77	80	80	28
16	1.00	0.4245	0.00	58	62	62	22
17	1.00	0.4245	0.00	11	12	12	4
18	1.00	0.4245	0.00	8	8	8	3
19	1.00	0.4245	0.00	54	58	58	21
20	1.00	0.4245	0.00	52	61	61	22
21	1.00	0.4245	0.00	43	49	49	18
22	1.00	0.4245	1.81	11	13	12	4
23	1.00	0.4245	3.03	22	25	23	8
24	1.00	0.4245	1.21	23	26	24	9
25	1.00	0.4245	0.02	15	16	16	6
26	1.00	0.4245	0.00	8	8	8	4
27	1.00	0.4245	0.00	1	2	2	1

Analysis using Phreatic Surface : Day 59.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_089
Job No.
Made by : DIG
Date: 13-Jun-93
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1(GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1(GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.52	83.52	87.36	80.77	80.86	81.20	75.64	75.03

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	80.02	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 89.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces

Factors of safety calculated on Soil Strength

Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 89.

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 SELBORNE SLOPE STUDY
 JANBU ANALYSIS

Sheet No.
 Run No. PHR_089
 Job No.
 Made by : DIG
 Date: 13-Jun-93
 Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
 Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.143
 Slipped mass = 985 kN/m Out of balance vertical force = -0 kN/m
 Delta = 19.1deg. Out of balance horizontal force = 1 kN/m
 Moments taken about: X = 114.46 , Y = 97.93
 Overturning moment = 6497 kN.m/m Restoring moment = 7427 kN.m/m

Slip surface coordinates			Piezometric	----- Interslice forces -----		
-----			elevation	----- horizontal -----		
No.	X	Y	Y(w)	E(total)	E'(effective)	Q
				kN/m	kN/m	kN/m
1	99.00	86.65	83.52	0	0	0
2	99.50	85.30	83.52	4	4	1
3	100.00	83.96	83.52	19	19	7
4	100.64	83.23	83.52	37	36	13
5	101.00	82.81	84.38	50	38	17
6	102.00	81.51	86.71	107	-23	37
7	102.27	81.35	87.36	116	-50	40
8	103.00	80.92	81.71	135	132	47
9	103.12	80.87	80.77	136	136	47
10	104.00	80.53	80.80	137	136	47
11	105.00	80.11	80.83	141	138	49
12	105.96	79.75	80.86	143	137	50
13	106.00	79.74	80.91	143	137	50
14	106.20	79.70	81.20	142	131	49
15	107.00	79.52	79.51	133	133	46
16	108.00	79.38	77.40	114	114	39
17	108.83	79.31	75.64	96	96	33
18	109.00	79.29	75.28	92	92	32
19	109.12	79.28	75.03	90	90	31
20	110.00	79.21	76.41	72	72	25
21	111.00	79.22	77.98	48	48	16
22	112.00	79.22	79.55	29	29	10
23	112.30	79.22	80.02	25	22	8
24	113.00	79.24	79.81	16	15	5
25	114.00	79.21	79.50	8	8	3
26	115.00	79.10	79.19	4	4	1
27	116.00	78.90	78.89	2	2	0
28	116.50	78.90	78.74	1	1	-0

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		shear S
	(avge)	(avge)	(avge)	W	--- normal --- P	P'	
	kN/m2		kN/m2	kN/m	kN/m	kN/m	kN/m
1	1.00	0.3839	0.00	6	6	6	3
2	1.00	0.3852	0.00	19	19	19	8
3	1.00	0.4040	0.60	37	33	33	12
4	1.00	0.4040	9.16	25	23	18	7
5	1.00	0.4220	33.21	79	83	29	12
6	1.00	0.4245	54.98	24	26	8	3
7	1.00	0.4245	33.33	65	61	33	13

Analysis using Phreatic Surface : Day 89.

Analysis using Phreatic Surface : Day 89.

*Instrumentation systems for
and failure mechanisms of an induced
slope failure project.*

L79

*D I Grant
PhD 1996*

8	1.00	0.4245	3.43	11	10	10	4
9	1.00	0.4245	0.99	79	73	72	28
10	1.00	0.4245	4.86	88	82	77	29
11	1.00	0.4245	8.95	84	79	69	27
12	1.00	0.4245	11.18	3	3	2	1
13	1.00	0.4245	13.10	17	17	14	5
14	1.00	0.4245	7.28	66	66	60	23
15	1.00	0.4245	0.00	77	80	80	31
16	1.00	0.4245	0.00	58	63	63	24
17	1.00	0.4245	0.00	11	12	12	5
18	1.00	0.4245	0.00	8	8	8	3
19	1.00	0.4245	0.00	54	58	58	22
20	1.00	0.4245	0.00	52	61	61	23
21	1.00	0.4245	0.34	43	49	49	19
22	1.00	0.4245	5.52	11	12	11	4
23	1.00	0.4245	6.69	22	25	20	8
24	1.00	0.4245	4.22	23	25	21	9
25	1.00	0.4245	1.90	15	15	14	6
26	1.00	0.4245	0.42	8	8	8	4
27	1.00	0.4245	0.00	1	2	2	1

Slice No.	--- Surface loads ---		Water load on	
	vertical load kN/m run	horizontal load kN/m run	submerged vertical kN/m run	ground horizontal kN/m run
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	1	0
6	0	0	3	1
7	0	0	2	1
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0

Analysis using Phreatic Surface : Day 121.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_121
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1 (GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1 (GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

Bulk unit wt.		Strength parameters			
below		above		C	
No.		Description		Phi	
		GWL		(deg)	
		kN/m3		kN/m2	
1	SOLIFLUCTION	19.00	19.00	1.00	21.00
2	UPPER WEATHERED	20.00	20.00	1.00	22.00
3	LOWER WEATHERED	20.00	20.00	1.00	23.00
4	UNWEATHERED	20.00	20.00	1.00	24.00

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level

83.62	83.62	92.50	81.17	81.22	81.40	75.66	75.03
-------	-------	-------	-------	-------	-------	-------	-------

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level

80.22	78.45	78.30	78.30
-------	-------	-------	-------

Analysis using Phreatic Surface : Day 121.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces

Factors of safety calculated on Soil Strength

Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 121.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_121
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.017

Slipped mass = 985 kN/m Out of balance vertical force = -0 kN/m

Delta = 15.6deg. Out of balance horizontal force = 1 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6928 kN.m/m Restoring moment= 7046 kN.m/m

Slip surface coordinates			Piezometric	Interslice forces		
			elevation	horizontal		vertical
No.	X	Y	Y(w)	E(total)	E'(effective)	Q
				kN/m	kN/m	kN/m
1	99.00	86.65	83.62	0	0	0
2	99.50	85.30	83.62	4	4	1
3	100.00	83.96	83.62	19	19	5
4	100.64	83.23	83.62	36	35	10
5	101.00	82.81	85.60	49	11	14
6	102.00	81.51	91.01	126	-193	35
7	102.27	81.35	92.50	136	-257	38
8	103.00	80.92	82.78	158	141	44
9	103.12	80.87	81.17	159	158	44
10	104.00	80.53	81.19	158	156	44
11	105.00	80.11	81.20	160	154	45
12	105.96	79.75	81.22	161	150	45
13	106.00	79.74	81.25	161	150	45
14	106.20	79.70	81.40	159	145	44
15	107.00	79.52	79.65	148	148	41
16	108.00	79.38	77.47	125	125	35
17	108.83	79.31	75.66	105	105	29
18	109.00	79.29	75.29	101	101	28
19	109.12	79.28	75.03	98	98	27
20	110.00	79.21	76.47	77	77	21
21	111.00	79.22	78.10	51	51	14
22	112.00	79.22	79.73	30	29	8
23	112.30	79.22	80.22	25	21	7
24	113.00	79.24	79.98	17	14	4
25	114.00	79.21	79.63	8	7	2
26	115.00	79.10	79.29	4	4	1
27	116.00	78.90	78.94	2	2	0
28	116.50	78.90	78.77	1	1	-0

Analysis using Phreatic Surface : Day 151.

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal P kN/m	--- P' kN/m	shear S kN/m
1	1.00	0.3838	0.00	6	6	6	4
2	1.00	0.3851	0.00	19	19	19	9
3	1.00	0.4039	1.06	37	34	33	14
4	1.00	0.4039	15.64	25	24	16	7
5	1.00	0.4219	60.27	79	117	18	9
6	1.00	0.4244	101.29	24	41	9	4
7	1.00	0.4244	63.83	65	80	26	12
8	1.00	0.4244	10.60	11	10	9	4
9	1.00	0.4244	4.72	79	73	69	30
10	1.00	0.4244	8.59	88	82	73	31
11	1.00	0.4244	12.53	84	79	66	28
12	1.00	0.4244	14.57	3	3	2	1
13	1.00	0.4244	15.72	17	17	14	6
14	1.00	0.4244	8.97	66	65	58	25
15	1.00	0.4244	0.04	77	79	79	34
16	1.00	0.4244	0.00	58	62	62	27
17	1.00	0.4244	0.00	11	12	12	5
18	1.00	0.4244	0.00	8	8	8	4
19	1.00	0.4244	0.00	54	57	57	25
20	1.00	0.4244	0.00	52	60	60	26
21	1.00	0.4244	0.79	43	48	48	21
22	1.00	0.4244	7.39	11	12	10	4
23	1.00	0.4244	8.51	22	24	18	8
24	1.00	0.4244	5.72	23	25	19	9
25	1.00	0.4244	3.03	15	15	12	6
26	1.00	0.4244	1.16	8	8	7	4
27	1.00	0.4244	0.06	1	2	2	1

Analysis using Phreatic Surface : Day 151.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_151
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1 (GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1 (GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

Bulk unit wt.		Strength parameters			
below		above		C	
No.		GWL		Phi	
Description		kN/m3		(deg)	
				dC/dY	
				kN/m2/m	
1	SOLIFLUCTION	19.00	19.00	1.00	21.00
2	UPPER WEATHERED	20.00	20.00	1.00	22.00
3	LOWER WEATHERED	20.00	20.00	1.00	23.00
4	UNWEATHERED	20.00	20.00	1.00	24.00

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.72	83.72	90.48	82.17	82.05	81.60	75.86	75.23

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	80.22	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 151.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces

Factors of safety calculated on Soil Strength

Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 151.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_151
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 1.012

Slipped mass = 985 kN/m Out of balance vertical force = -0 kN/m

Delta = 16.8deg. Out of balance horizontal force = 0 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 6735 kN.m/m Restoring moment = 6816 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	Interslice forces		
No.	X	Y		horizontal E(total) kN/m	vertical E'(effective) kN/m	Q kN/m
1	99.00	86.65	83.72	0	0	0
2	99.50	85.30	83.72	4	4	1
3	100.00	83.96	83.72	19	19	6
4	100.64	83.23	83.72	35	34	11
5	101.00	82.81	85.22	49	20	15
6	102.00	81.51	89.34	117	-128	35
7	102.27	81.35	90.48	127	-177	38
8	103.00	80.92	83.35	149	120	45
9	103.12	80.87	82.17	149	141	45
10	104.00	80.53	82.14	152	139	46
11	105.00	80.11	82.09	158	139	48
12	105.96	79.75	82.05	162	136	49
13	106.00	79.74	81.99	162	137	49
14	106.20	79.70	81.60	160	143	48
15	107.00	79.52	79.85	150	150	45
16	108.00	79.38	77.67	127	127	38
17	108.83	79.31	75.86	106	106	32
18	109.00	79.29	75.49	102	102	31
19	109.12	79.28	75.23	99	99	30
20	110.00	79.21	76.61	79	79	24
21	111.00	79.22	78.18	52	52	15
22	112.00	79.22	79.75	30	29	9
23	112.30	79.22	80.22	26	21	8
24	113.00	79.24	79.98	17	14	5
25	114.00	79.21	79.63	8	7	2
26	115.00	79.10	79.29	4	4	1
27	116.00	78.90	78.94	2	2	0
28	116.50	78.90	78.77	0	0	-0

Analysis using Phreatic Surface : Day 180.

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal --- P kN/m	P' kN/m	shear S kN/m
1	1.00	0.3838	0.00	6	5	5	4
2	1.00	0.3851	0.00	19	19	19	9
3	1.00	0.4039	1.66	37	34	32	14
4	1.00	0.4039	14.30	25	24	16	7
5	1.00	0.4219	50.26	79	102	20	10
6	1.00	0.4244	83.17	24	35	8	4
7	1.00	0.4244	56.69	65	74	26	12
8	1.00	0.4244	18.31	11	10	8	3
9	1.00	0.4244	14.28	79	73	60	26
10	1.00	0.4244	17.61	88	82	63	28
11	1.00	0.4244	21.00	84	79	57	25
12	1.00	0.4244	22.30	3	3	2	1
13	1.00	0.4244	20.33	17	17	13	6
14	1.00	0.4244	10.93	66	65	56	24
15	1.00	0.4244	0.26	77	80	80	34
16	1.00	0.4244	0.00	58	63	63	27
17	1.00	0.4244	0.00	11	12	12	5
18	1.00	0.4244	0.00	8	8	8	4
19	1.00	0.4244	0.00	54	58	58	25
20	1.00	0.4244	0.00	52	61	61	26
21	1.00	0.4244	0.88	43	49	48	21
22	1.00	0.4244	7.48	11	12	10	5
23	1.00	0.4244	8.51	22	25	19	9
24	1.00	0.4244	5.72	23	25	19	9
25	1.00	0.4244	3.03	15	15	12	6
26	1.00	0.4244	1.16	8	8	7	4
27	1.00	0.4244	0.06	1	2	2	1

Analysis using Phreatic Surface : Day 180.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_180
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1 (GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1 (GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below	above	C	Phi	dC/dY	Datum
		GWL	GWL				
		kN/m3	kN/m3	kN/m2	(deg)	kN/m2/m	for C
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.42	83.42	95.22	85.07	84.48	82.20	76.15	75.48

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	80.22	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 180.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength
Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 180.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_180
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 0.830

Slipped mass = 985 kN/m Out of balance vertical force = -0 kN/m

Delta = 11.6deg. Out of balance horizontal force = 1 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 7224 kN.m/m Restoring moment = 5996 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	83.42	0	0	0
2	99.50	85.30	83.42	3	3	1
3	100.00	83.96	83.42	17	17	4
4	100.64	83.23	83.42	31	31	6
5	101.00	82.81	86.04	44	-7	9
6	102.00	81.51	93.24	131	-285	27
7	102.27	81.35	95.22	141	-372	29
8	103.00	80.92	86.51	165	16	34
9	103.12	80.87	85.07	166	80	34
10	104.00	80.53	84.89	176	82	36
11	105.00	80.11	84.68	189	87	39
12	105.96	79.75	84.48	198	90	41
13	106.00	79.74	84.14	199	104	41
14	106.20	79.70	82.20	197	166	41
15	107.00	79.52	80.36	184	181	38
16	108.00	79.38	78.06	155	155	32
17	108.83	79.31	76.15	128	128	26
18	109.00	79.29	75.76	123	123	25
19	109.12	79.28	75.48	120	120	24
20	110.00	79.21	76.79	94	94	19
21	111.00	79.22	78.28	62	62	13
22	112.00	79.22	79.77	37	36	7
23	112.30	79.22	80.22	32	27	6
24	113.00	79.24	79.98	21	18	4
25	114.00	79.21	79.63	11	10	2
26	115.00	79.10	79.29	5	5	1
27	116.00	78.90	78.94	2	2	0
28	116.50	78.90	78.77	1	1	-0

Analysis using Phreatic Surface : Day 194.

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal --- P kN/m	--- P' kN/m	shear S kN/m
1	1.00	0.3838	0.00	6	5	5	4
2	1.00	0.3851	0.00	19	19	19	10
3	1.00	0.4039	0.26	37	33	33	17
4	1.00	0.4039	16.86	25	25	15	8
5	1.00	0.4219	73.42	79	140	20	12
6	1.00	0.4244	125.58	24	49	9	5
7	1.00	0.4244	95.48	65	104	24	13
8	1.00	0.4244	48.04	11	11	5	3
9	1.00	0.4244	42.00	79	75	35	19
10	1.00	0.4244	43.80	88	85	37	20
11	1.00	0.4244	45.57	84	83	36	20
12	1.00	0.4244	44.75	3	3	1	1
13	1.00	0.4244	33.83	17	17	10	5
14	1.00	0.4244	16.35	66	64	51	27
15	1.00	0.4244	1.58	77	78	77	40
16	1.00	0.4244	0.00	58	61	61	32
17	1.00	0.4244	0.00	11	12	12	6
18	1.00	0.4244	0.00	8	8	8	4
19	1.00	0.4244	0.00	54	57	57	30
20	1.00	0.4244	0.00	52	59	59	31
21	1.00	0.4244	1.01	43	48	47	25
22	1.00	0.4244	7.60	11	12	10	5
23	1.00	0.4244	8.51	22	24	18	10
24	1.00	0.4244	5.72	23	25	19	11
25	1.00	0.4244	3.03	15	15	12	7
26	1.00	0.4244	1.16	8	8	7	5
27	1.00	0.4244	0.06	1	2	1	1

Analysis using Phreatic Surface : Day 194.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_194
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1 (GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1 (GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m ---		Bulk unit wt.		-----Strength parameters-----			
No.	Description	below	above	C	Phi	dc/dY	Datum
		GWL	GWL				
		kN/m3	kN/m3	kN/m2	(deg)	kN/m2/m	for C
1	SOLIFLUCTION	19.00	19.00	1.00	21.00		
2	UPPER WEATHERED	20.00	20.00	1.00	22.00		
3	LOWER WEATHERED	20.00	20.00	1.00	23.00		
4	UNWEATHERED	20.00	20.00	1.00	24.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.42	83.42	93.63	83.97	83.52	81.80	76.02	75.38

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	79.72	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 194.

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength
Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 194.

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_194
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 0.911

Slipped mass = 985 kN/m

Out of balance vertical force = -0 kN/m

Delta = 14.0deg.

Out of balance horizontal force = -0 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 7041 kN.m/m

Restoring moment= 6417 kN.m/m

Slip surface coordinates			Piezometric elevation Y(w)	----- Interslice forces -----		
No.	X	Y		----- horizontal -----		vertical
				E(total) kN/m	E'(effective) kN/m	Q kN/m
1	99.00	86.65	83.42	0	0	0
2	99.50	85.30	83.42	4	4	1
3	100.00	83.96	83.42	18	18	5
4	100.64	83.23	83.42	33	33	8
5	101.00	82.81	85.69	46	5	11
6	102.00	81.51	91.92	126	-232	31
7	102.27	81.35	93.63	136	-307	34
8	103.00	80.92	85.34	160	64	40
9	103.12	80.87	83.97	161	114	40
10	104.00	80.53	83.83	168	114	42
11	105.00	80.11	83.68	179	116	44
12	105.96	79.75	83.52	187	117	46
13	106.00	79.74	83.27	187	126	47
14	106.20	79.70	81.80	185	164	46
15	107.00	79.52	80.04	174	172	43
16	108.00	79.38	77.84	147	147	37
17	108.83	79.31	76.02	123	123	31
18	109.00	79.29	75.65	119	119	30
19	109.12	79.28	75.38	116	116	29
20	110.00	79.21	76.58	93	93	23
21	111.00	79.22	77.95	63	63	16
22	112.00	79.22	79.31	39	39	10
23	112.30	79.22	79.72	33	32	8
24	113.00	79.24	79.55	22	21	5
25	114.00	79.21	79.30	11	11	3
26	115.00	79.10	79.05	4	4	1
27	116.00	78.90	78.80	1	1	0
28	116.50	78.90	78.68	-0	-0	-0

Analysis using Phreatic Surface : Day 194. (Residual)

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal --- P kN/m	--- P' kN/m	shear S kN/m
1	1.00	0.3838	0.00	6	5	5	4
2	1.00	0.3851	0.00	19	19	19	10
3	1.00	0.4039	0.26	37	33	33	16
4	1.00	0.4039	15.12	25	24	16	8
5	1.00	0.4219	65.19	79	125	19	10
6	1.00	0.4244	111.28	24	44	9	4
7	1.00	0.4244	81.94	65	93	24	12
8	1.00	0.4244	36.91	11	10	5	3
9	1.00	0.4244	31.43	79	74	44	22
10	1.00	0.4244	33.69	88	83	47	23
11	1.00	0.4244	35.96	84	79	42	21
12	1.00	0.4244	35.79	3	3	2	1
13	1.00	0.4244	27.59	17	17	11	5
14	1.00	0.4244	12.82	66	65	54	26
15	1.00	0.4244	0.63	77	79	78	38
16	1.00	0.4244	0.00	58	62	62	30
17	1.00	0.4244	0.00	11	12	12	6
18	1.00	0.4244	0.00	8	8	8	4
19	1.00	0.4244	0.00	54	57	57	28
20	1.00	0.4244	0.00	52	60	60	29
21	1.00	0.4244	0.03	43	48	48	24
22	1.00	0.4244	2.88	11	12	12	6
23	1.00	0.4244	3.94	22	25	22	11
24	1.00	0.4244	1.96	23	25	23	12
25	1.00	0.4244	0.30	15	15	15	8
26	1.00	0.4244	0.00	8	8	8	5
27	1.00	0.4244	0.00	1	2	2	1

Analysis using Phreatic Surface : Day 194. (Residual)

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_R194
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

INPUT DATA

PROFILE DATA

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Stratum	Y-Coordinates							
1 (GL)	86.65	86.65	85.85	85.44	84.05	83.93	82.65	82.51
2	84.05	84.05	84.05	84.05	84.05	83.93	82.65	82.51
3	82.65	82.65	82.65	82.65	82.65	82.65	82.65	82.51
4	78.45	78.45	78.45	78.45	78.45	78.45	78.45	78.45

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Stratum	Y-Coordinates			
1 (GL)	80.95	78.45	78.30	78.30
2	80.95	78.45	78.30	78.30
3	80.95	78.45	78.30	78.30
4	78.45	78.45	78.30	78.30

SOIL PROPERTIES

--- S t r a t u m --- No.	Description	Bulk unit wt.		-----Strength parameters-----			
		below GWL kN/m3	above GWL kN/m3	C kN/m2	Phi (deg)	dC/dY kN/m2/m	Datum for C
1	SOLIFLUCTION	19.00	19.00	0.00	13.00		
2	UPPER WEATHERED	20.00	20.00	0.00	13.00		
3	LOWER WEATHERED	20.00	20.00	0.00	14.00		
4	UNWEATHERED	20.00	20.00	0.00	15.00		

GROUND WATER CONDITIONS

Unit wt. of water = 9.81 kN/m3

Grid line	1	2	3	4	5	6	7	8
X-Coord	98.00	100.64	102.27	103.12	105.96	106.20	108.83	109.12

Ground water level								
	83.42	83.42	93.63	83.97	83.52	81.80	76.02	75.38

Grid line	9	10	11	12
X-Coord	112.30	117.43	117.74	120.00

Ground water level				
	79.72	78.45	78.30	78.30

Analysis using Phreatic Surface : Day 194. (Residual)

NON-CIRCULAR SLIP SURFACE DATA

Point no.	X Coord	Y Coord
1	99.00	86.65
2	100.00	83.96
3	101.00	82.81
4	102.00	81.51
5	103.00	80.92
6	104.00	80.53
7	105.00	80.11
8	106.00	79.74
9	107.00	79.52
10	108.00	79.38
11	109.00	79.29
12	110.00	79.21
13	111.00	79.22
14	112.00	79.22
15	113.00	79.24
16	114.00	79.21
17	115.00	79.10
18	116.00	78.90
19	116.50	78.90

ANALYSIS OPTIONS

Method of analysis: JANBU - Parallel inclined interslice forces

Factors of safety calculated on Soil Strength

Minimum number of slices = 10

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Analysis using Phreatic Surface : Day 194. (Residual)

GIFFORD AND PARTNERS, Southampton

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SELBORNE SLOPE STUDY
JANBU ANALYSIS

Sheet No.
Run No. PHR_R194
Job No.
Made by : DIG
Date: 9-Mar-96
Checked :

Units: kN,m

Method of analysis: JANBU - Parallel inclined interslice forces
Factors of safety calculated on Soil Strength

DETAILED RESULTS FOR NON-CIRCULAR SLIP SURFACE

Factor of safety = 0.503

Slipped mass = 985 kN/m Out of balance vertical force = -0 kN/m

Delta = 14.4deg. Out of balance horizontal force = -0 kN/m

Moments taken about: X = 114.46 , Y = 97.93

Overturning moment = 7044 kN.m/m Restoring moment = 3545 kN.m/m

Slip surface coordinates			Piezometric	----- Interslice forces -----		
-----			elevation	----- horizontal -----		vertical
No.	X	Y	Y(w)	E(total)	E'(effective)	Q
				kN/m	kN/m	kN/m
1	99.00	86.65	83.42	0	0	0
2	99.50	85.30	83.42	5	5	1
3	100.00	83.96	83.42	20	20	5
4	100.64	83.23	83.42	36	35	9
5	101.00	82.81	85.69	49	8	13
6	102.00	81.51	91.92	130	-228	34
7	102.27	81.35	93.63	140	-303	36
8	103.00	80.92	85.34	164	68	42
9	103.12	80.87	83.97	165	118	43
10	104.00	80.53	83.83	172	118	44
11	105.00	80.11	83.68	182	120	47
12	105.96	79.75	83.52	190	121	49
13	106.00	79.74	83.27	191	130	49
14	106.20	79.70	81.80	189	167	49
15	107.00	79.52	80.04	176	175	45
16	108.00	79.38	77.84	148	148	38
17	108.83	79.31	76.02	124	124	32
18	109.00	79.29	75.65	119	119	31
19	109.12	79.28	75.38	115	115	30
20	110.00	79.21	76.58	91	91	24
21	111.00	79.22	77.95	61	61	16
22	112.00	79.22	79.31	37	37	9
23	112.30	79.22	79.72	31	30	8
24	113.00	79.24	79.55	19	19	5
25	114.00	79.21	79.30	9	9	2
26	115.00	79.10	79.05	3	3	1
27	116.00	78.90	78.80	1	1	0
28	116.50	78.90	78.68	-0	-0	-0

Analysis using Phreatic Surface : Day 194. (Residual)

Instrumentation systems for
and failure mechanisms of an induced
slope failure project.

L100

D I Grant
PhD 1996

Slice No.	Cohesion	Tan(phi)	Pore pressure	Weight of slice	Forces on base of slice		
	(avge) kN/m2	(avge)	(avge) kN/m2	W kN/m	--- normal --- P kN/m	--- P' kN/m	shear S kN/m
1	0.00	0.2308	0.00	6	7	7	3
2	0.00	0.2308	0.00	19	20	20	9
3	0.00	0.2308	0.26	37	33	33	15
4	0.00	0.2308	15.12	25	24	16	7
5	0.00	0.2470	65.19	79	125	19	9
6	0.00	0.2493	111.28	24	44	9	4
7	0.00	0.2493	81.94	65	93	24	12
8	0.00	0.2493	36.91	11	10	5	3
9	0.00	0.2493	31.43	79	74	44	22
10	0.00	0.2493	33.69	88	83	47	23
11	0.00	0.2493	35.96	84	79	42	21
12	0.00	0.2493	35.79	3	3	2	1
13	0.00	0.2493	27.59	17	17	11	5
14	0.00	0.2493	12.82	66	65	55	27
15	0.00	0.2493	0.63	77	79	79	39
16	0.00	0.2493	0.00	58	62	62	31
17	0.00	0.2493	0.00	11	12	12	6
18	0.00	0.2493	0.00	8	8	8	4
19	0.00	0.2493	0.00	54	58	58	29
20	0.00	0.2493	0.00	52	60	60	30
21	0.00	0.2493	0.03	43	49	49	24
22	0.00	0.2493	2.88	11	12	12	6
23	0.00	0.2493	3.94	22	25	22	11
24	0.00	0.2493	1.96	23	25	23	12
25	0.00	0.2493	0.30	15	15	15	7
26	0.00	0.2493	0.00	8	8	8	4
27	0.00	0.2493	0.00	1	1	1	1

Analysis using Phreatic Surface : Day 194. (Residual)

APPENDIX M

NOTES REGARDING LABORATORY SHEAR STRENGTH DETERMINATIONS

LABORATORY SHEAR STRENGTH DETERMINATIONS

Shear box, ring shear and triaxial testing was carried out at stresses up to a maximum of 400 kN/m².

However, in view of the anticipated depth of the failure surface, testing was concentrated to the range up to 100 kN/m², with approximately 80-85% of the total numbers of tests in this range.

FURTHER INFORMATION REGARDING LABORATORY TESTING

Laboratory testing for the project was carried out at Warwick University under the supervision of Dr D J Petley. The work was funded by the Science and Engineering Research Council (S.E.R.C.).

Further information regarding details of the laboratory testing is available from :

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References

PETLEY, D J. (1990). Laboratory testing programme for slope failure at Selborne, Hampshire. S.E.R.C. Final Report GR/E/34094, University of Warwick.